

**Figure 7: Matrix of Scenarios**

		<b>Cost-Based Benchmarking</b>	
		<i>No</i>	<i>Yes</i>
<b>Speed of Competition</b>	<i>Accelerated</i>	Scenario One: Accelerated Competition without Cost-Based Benchmarking	Scenario Two: Accelerated Competition with Cost-Based Benchmarking
	<i>Gradual</i>	Scenario Three: Gradual Competition without Cost-Based Benchmarking	Scenario Four: Gradual Competition with Cost-based Benchmarking

The models suggest that the United States will continue to face an expanding and ominous burden – imposed by foreign monopolies – if existing benchmarks are not replaced with benchmarks based on long-run incremental costs. Without benchmarking, the United States' outpayments will increase from \$5 billion today to between \$6.15 and \$15.78 billion by the year 2005. Total outpayments over the next ten years will range from \$76.64 billion (if competition for U.S. inbound calls is intense) and \$104.97 billion (if competition for U.S. inbound calls develops more gradually).

### **Measuring Competition**

The assumptions about accelerated and gradual competition are derived from three sources: ITU trends forecasts, current offers at the WTO, and domestic regulatory efforts, particularly in international services.<sup>48</sup> In the case of the accelerated competition model, price declines discussed are assumed to be double. In the gradual competition model, the ITU price declines are directly imputed into demand for U.S. inbound minutes. The models also consider country-specific regulatory changes in international simple resale, the introduction of global mobile personal communications services, global alliances and IVAN growth, and the proliferation of call-back services.

<sup>48</sup> International Telecommunications Union & Telegeography, Inc. *Direction of Traffic, 1996: Trends in International Telephone Tariffs*. (International Telecommunications Union: Geneva, November 1996), p. 54-63.

The International Telecommunications Union makes short-, medium-, and long-term predictions about prices for international telecommunications services and categorizes firms in three groups: noncompetitive markets, noncompetitive and competitive markets that have begun rebalancing tariffs, and highly competitive markets. In the short term (3-5 years), prices are expected to decrease “significantly” in noncompetitive markets (where call-back services are allowed to proliferate), 2-5 percent in countries rebalancing tariffs, and, again, “significantly” in highly competitive markets. In the medium term, the ITU indicates that the price of international telecom services could be significantly changed by a number of “system shocks” – including the Internet, satellite-based networks, the slow and gradual erosion of the accounting rate system, market entry and liberalization of international services, and a decrease in the price of international leased lines.

The ESI model incorporates these assumptions by creating an annual weighted growth rate for U.S. inbound minutes. For the sixteen routes with the most inbound and outbound minutes, countries are categorized into the three groups. In the gradual competition scenario, a price reduction rate of 5 percent is assigned to countries in the process of rebalancing tariffs (Germany, France, Italy, Mexico, Japan, Taiwan, Hong Kong, and Canada), an 8 percent annual price reduction rate is assigned to highly competitive markets (the United Kingdom), and a 2 percent price decline is applied to the remaining countries (Dominican Republic, India, Brazil, China, Colombia, the Philippines, and South Korea).<sup>49</sup> In the accelerated model, it is assumed that all E.U. member states become highly competitive in the year 2000 and all other markets begin the process of rebalancing tariffs and hence experience four percent growth per annum.<sup>50</sup>

### ***Determining Cost-Based LRIC***

A crucial component of forecasting future above-cost outpayments is, of course, defining cost. When performing a close examination of a firm’s long-run incremental costs, accountants consider every expense and investment made. There are two types of cost analyses that can be performed: top down and bottom up. A top down analysis examines existing costs within a firm and assign those costs directly to the services provided. A bottom-up analysis attempts to reconstruct the network elements and assign direct costs associated with the investment, maintenance, and operation of those facilities. The bottom-up analysis is by far the more preferred option because it allows for the exclusion of any extraneous costs that may show up in top-down analyses.

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<sup>49</sup> The ESI models assume lower price declines than the ITU necessarily would due to questions of regulatory certainty as well as lack of far-reaching WTO proposals.

<sup>50</sup> It is also assumed that settlement rates for E.U. member states fall to \$0.09 in 1998.

ESI's bottom up analysis divides the network into three components: the international link, local loop and local exchanges, and the international gateway. Each of these elements is analyzed below.

### ***The International Link***

The International Telecommunications Union comes to a radically different conclusion in its examination of both satellite and cable construction costs. "Looking at the construction costs for international cable and satellite systems, the per-minute cost is less than one hundredth of a U.S. cent over the lifetime of the infrastructure."<sup>51</sup> When operating expenses are included, "the result is a per-minute cost of less than US\$0.01."<sup>52</sup> In fact, the ITU suggests that the incremental costs of the international link could almost be dismissed as "...having no bearing on the cost of an international call."<sup>53</sup> These calculations were made with the assumption of twenty-five percent utilization. The FCC estimates the investment cost-per-minute of the TAT-12 and -13 transatlantic cable systems to be 4.9 cents per minute.<sup>54</sup> The large disparity between these two estimates stems from different usage assumptions. The FCC estimate assumes 8.5 percent utilization. However, recent AT&T data suggests that usage rates are more than double the FCC's assumptions and, hence, much closer to the ITU's estimate.

### ***The Local Exchange and Local Loop***

Creating a country-specific LRIC for the local exchange and local loop is impossible without detailed public data. While the LRIC remains a mystery in most countries, a small group of countries have performed LRIC estimates that can be combined to formulate a global-average LRIC for this component. Ovum Ltd., a U.K. consultancy, has conducted extensive comparisons of LRIC-based interconnection and tariffed interconnection prices in both developed and developing countries.<sup>55</sup> These comparisons show LRIC-based interconnection rates between 1.7 cents (United Kingdom) and 3.5 cents (Mexico). The unweighted average of all countries surveyed, utilizing one form of LRIC pricing or another, is approximately 2 cents. Average tariffed interconnection rates are closer to four cents, but they include contributions to common costs as well as universal service obligations.

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<sup>51</sup> International Telecommunications Union & Telegeography, Inc. *Direction of Traffic, 1996: Trends in International Telephone Tariffs*. (International Telecommunications Union: Geneva, November 1996), p. 4-5.

<sup>52</sup> Ibid.

<sup>53</sup> Ibid.

<sup>54</sup> Federal Communications Commission. *Trends in the International Telecommunications Industry*. (Washington, DC: FCC, August 1996), p. 31.

<sup>55</sup> These international comparison studies of LRICs around the world are conducted for private clients and therefore are not publicly available. These figures printed with permission.

### ***International Gateways***

International gateways and switches are the final component of the cost of international call termination. While the Economic Strategy Institute has no data on the LRIC of this component in the local exchange, it is conservative to estimate these costs at no greater than the LRIC of the local exchange and local loop.

### ***Conclusions: Proxy Estimate of the LRIC***

The data presented above suggest that the range for the global-average LRIC is between 5 cents and 7.5 cents, depending on the cost of the international link. The research on LRICs for local exchange and local loop services suggests that an appropriate ceiling for a LRIC-based benchmark is 9 cents (considering the country with the highest LRIC in the comparison, Mexico).

### ***Different Imputed Assumptions of Scenarios***

#### **Scenario One: Accelerated Competition without Cost-Based Benchmarking**

In Scenario One, we estimate that competition develops rapidly in foreign countries (beginning in the year 1998) and U.S. accounting rate policies remain unchanged. Implicit in the model is the belief that this growth will be uneven, occurring vigorously in some areas (Europe and Asia-Pacific) and less so in Latin America, the Caribbean, and Central Asia. This belief is in line with current offers at the World Trade Organization, as well as with national deregulatory and liberalization plans and laws.

U.S. outbound growth is predicted to continue at a slightly slower pace than in the early 1990s. Growth is assumed to continue in the double digits for the next ten years but to decrease slightly after the turn of the century. Implicit is the belief that price competition for U.S. inbound minutes will begin to shift the distortions created by the vast disparities in prices between the United States and foreign points.<sup>56</sup> Foreign growth is estimated to expand significantly from the present 9.5 percent rate, increasing to 20 percent per annum by the year 2003.<sup>57</sup> Figure 8 depicts the predicted growth of both U.S. outbound and inbound minutes.

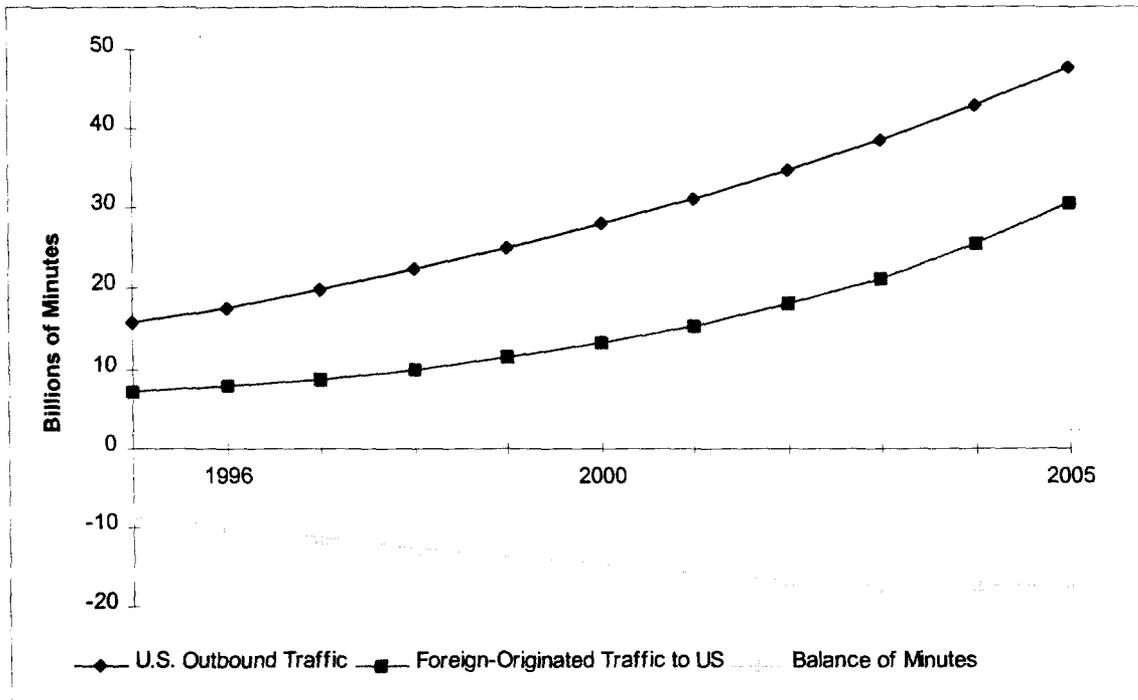
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<sup>56</sup> This distortion includes not only call back services but also “call me backs”, where a call from a foreign point lasts one minute and is immediately followed by a call from the United States to take advantage of more competitive U.S. prices.

<sup>57</sup> The U.S. inbound growth rate was calculated by assuming a price elasticity for U.S. inbound calls of 3.4. This elasticity is on the high end of most econometric studies and also reflects significant price competition in foreign markets (approximately a seven percent compounded reduction annually). The fact that both these assumptions are considerably more optimistic than current evidence suggests indicated that the model will understate the depth of the price squeeze problem and the above-cost outpayments.

**Figure 8: Forecast US Outbound and Inbound Minutes and Traffic Imbalance**

Source: Economic Strategy Institute



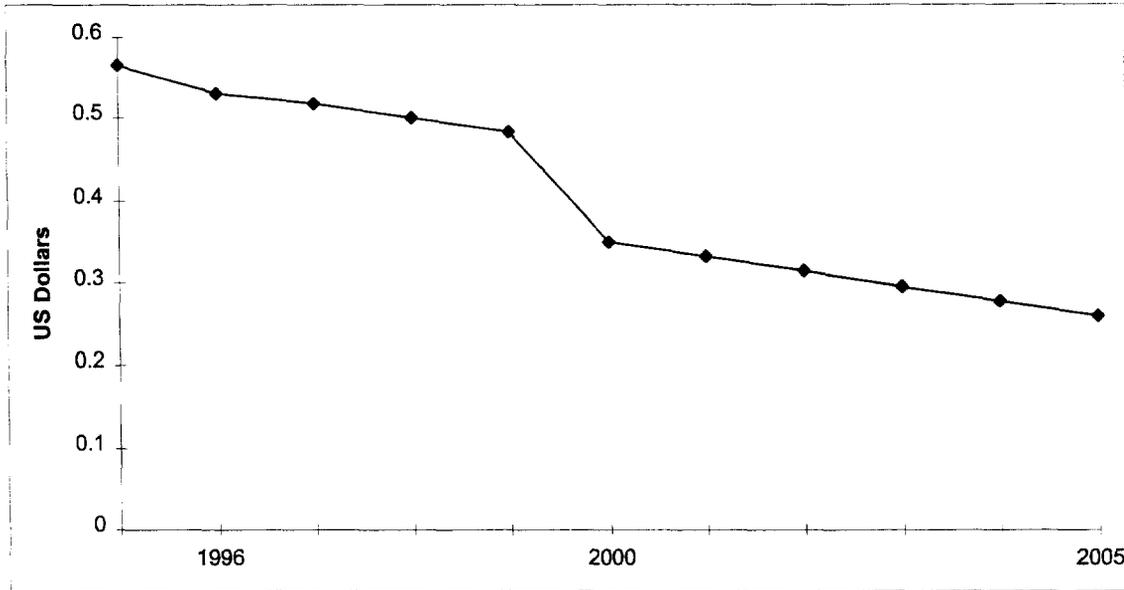
These figures suggest that, despite the opening of markets, traffic imbalances will be increasing significantly between the United States and foreign countries. In the year 2005, the United States will generate approximately 47.65 billion minutes of calls, compared with almost 16 billion today. This represents an annual compound growth rate of 11.6 percent. Foreign minutes to the United States are estimated to increase to 30.5 billion minutes, from just over 7 billion minutes in 1995 – a 15.7 percent annual growth rate. The balance of minutes begins to shrink in 2005 as foreign minutes to the United States outpace U.S. outbound minutes. Over the course of the decade, U.S. inbound minutes increase more than fivefold, while U.S. outbound minutes increase threefold.

Active price competition by the year 1998 in most foreign countries, as well as an assumption of some degree of facilities-based competition, will erode accounting rates. We assume that accounting rate decline is linear, for simplicity, after 1998.<sup>58</sup> Figure 9 depicts the estimated decline in accounting rates.

<sup>58</sup> The four percent annual decline is a compounded growth rate derived from a country by country analysis of the development of competition. European countries are assumed to decline to 12 cents by the year 2001, Latin American and Asia countries decline by either 66 percent or 50 percent by the year 2005 depending on the relative state of competition today and future liberalization plans.

**Figure 9: Decline of the Weighted Accounting Rate, Scenario One**

Source: Economic Strategy Institute

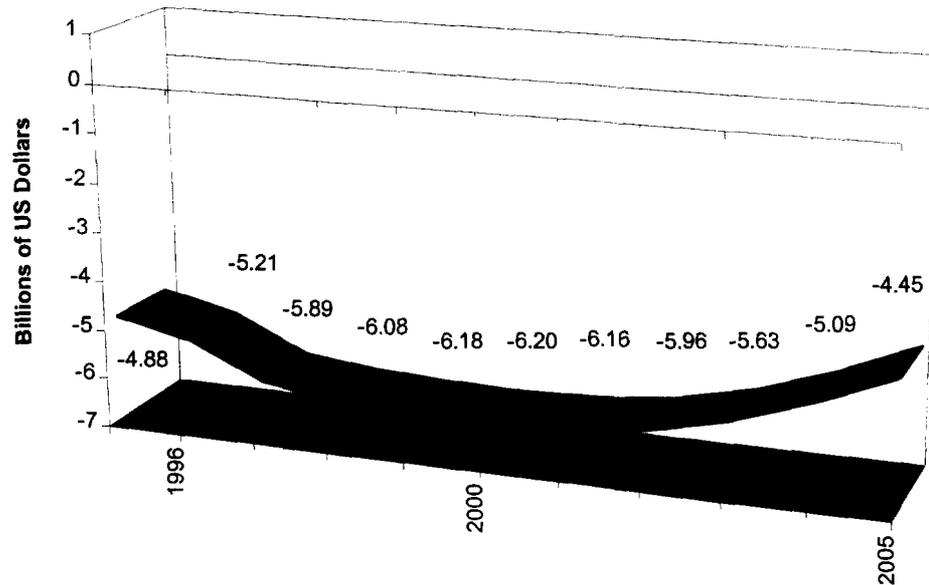


This decline in accounting rates will offset some of the increase in traffic differentials. However, the trade deficit and the above-cost component of the charge will continue to be high and pose an anticompetitive threat to the United States market.

These predictions allow us to forecast the total U.S. net settlement payments from 1995-2005. Overall, the United States will pay \$61.72 billion in net settlement payments over that time period. These payments are predicted to peak in the year 2000 at \$6.2 billion and then fall by almost \$2 billion, to \$4.45 billion, in the year 2005. Figure 10 depicts the rise and eventual fall of the U.S. net settlement payment in Scenario One.

**Figure 10: US Net Settlement Payment Deficit, Scenario One**

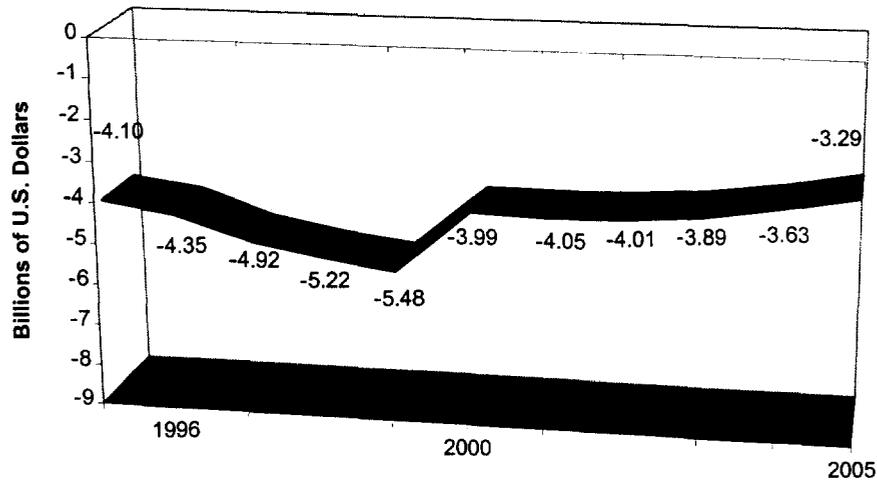
Source: Economic Strategy Institute



As mentioned previously, the LRIC of terminating international traffic is conservatively assumed to be 9.05 cents and decreasing at a 2.9 percent annual rate that reflects increased traffic flows over network components. As Figure 11 shows, the above-cost component of the accounting rate is expected to increase from \$4.1 billion in 1995 to \$5.48 billion in 1999 and then decline to slightly more than \$3 billion in 2005. In the aggregate, the United States will make more than \$46.9 billion in non-cost-justified outpayments to foreign firms, in Scenario One.

**Figure 11: Non-Cost-Based Outpayments, Scenario One**

Source: Economic Strategy Institute



**Summary: Scenario One**

Scenario One posits that competition occurs very rapidly in foreign markets and that the United States does not change its accounting rate benchmark policy. As a result, U.S. firms and consumers continue to be subject to non-cost-based accounting rates and monopoly pricing at the hands of foreign firms, even as competition develops overseas. The main statistics of the model are shown below.

**Figure 12: Summary of Scenario One**

Source: Economic Strategy Institute

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US Outbound Minutes (2005)	47.65 billion
US Incoming Minutes (2005)	30.52 billion
Minutes Deficit (2005)	17.14 billion
Accounting Rate (2005)	\$0.26
Settlement Outpayments (1995-2005)	\$ 61.72 billion
Non-Cost Outpayments (1995-2005)	\$ 49.80 billion
Peak Non-Cost Outpayments (year, amount)	1999, \$ 5.09 billion

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## Scenario Two: Accelerated Competition with Cost-Based Benchmarking

In Scenario Two, we again assume that competition develops rapidly in foreign countries (beginning in the year 1998), but we also assume that the United States adopts a cost-based benchmark accounting rate. The cost-based benchmarking is imputed into the model on January 1, 1998, at the same time accelerated competition is imputed. The results of this model differ significantly from Scenario One in a number of respects, due to changes in traffic flows, price decreases in the United States and, of course, reductions in accounting rates.

U.S. outbound growth is estimated to be higher than in Scenario One, based on U.S. price decreases spurred by the reduction in accounting rates. We believe it is conservative to assume that 25 percent of accounting rate reduction will be passed onto consumers from 1998 to 2001, and 33 percent will be passed through from 2002 to 2005. U.S. outbound growth also benefits from a continued shifting of minutes to the United States through call-back services, at least until the year 2001, when foreign price competition for U.S. inbound minutes begins to impede the ability of call-back services to attract minutes.

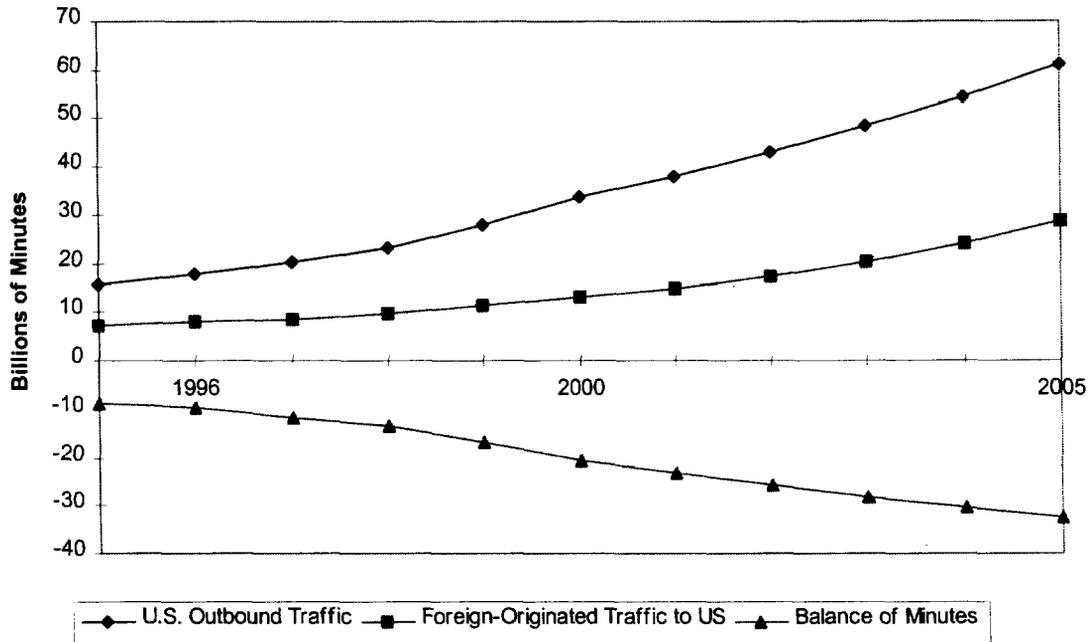
With these estimates, U.S. outbound minutes grow much faster and U.S. inbound minutes slightly slower than in Scenario One. Foreign growth is estimated to expand significantly from the present 9.5 percent rate, increasing to 19.4 percent per annum by the year 2004.<sup>59</sup> U.S. outbound growth, spurred by lower prices and greater arbitrage opportunities, speed ahead at a compounded annual rate of 14 percent. Figure 10 depicts the predicted growth of both U.S. outbound and inbound minutes.

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<sup>59</sup> The U.S. inbound growth rate was calculated by assuming a price elasticity for U.S. inbound calls of 3.4. This elasticity is on the high end of most econometric studies and also reflects significant price competition in foreign markets (approximately a seven percent compounded reduction annually). The fact that both these assumptions are considerably more optimistic than current evidence suggests indicated that the model will understate the depth of the price squeeze problem and the above-cost outpayments.

**Figure 13: Forecast U.S. Outbound and Inbound Minutes and Traffic Imbalance, Scenario Two**

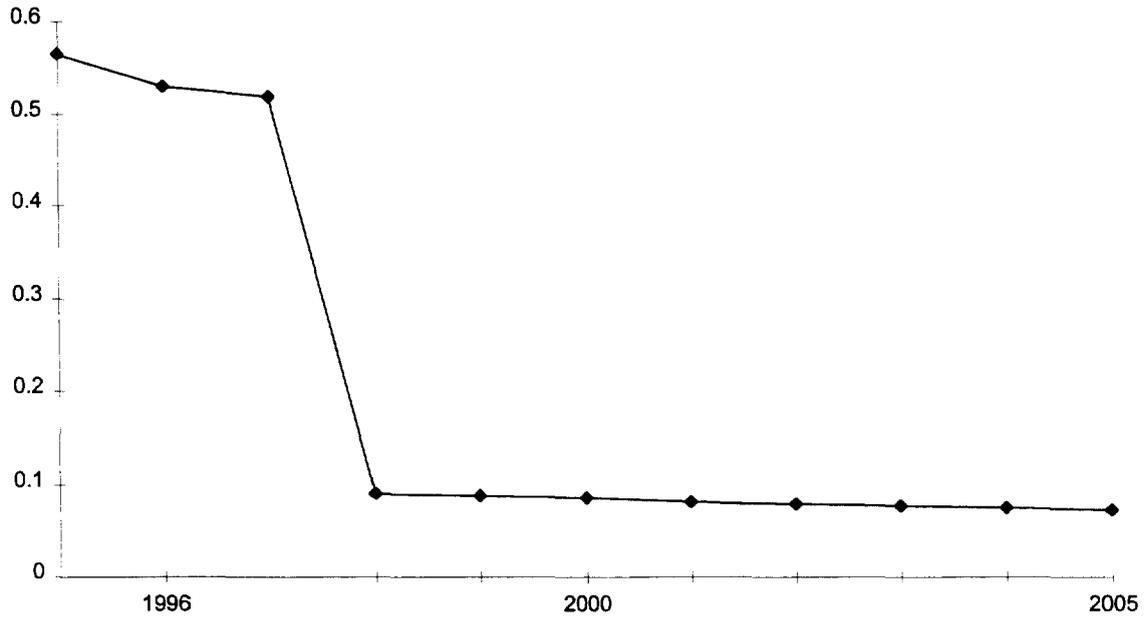
Source: Economic Strategy Institute



These figures suggest that cost-based interconnection rates would actually increase the disparity between U.S. outgoing and incoming minutes, even in a competitive market. In the year 2005, the United States will generate approximately 61.2 billion minutes of calls, compared with 28.9 billion foreign minutes to the United States. Over the course of the decade, U.S. inbound minutes will increase more than fourfold, while U.S. outbound minutes will increase slightly less. However, this graph may be deceiving and should not be interpreted linearly to suggest a perpetual increase in the minutes deficit.

**Figure 14: Decline of the Weighted Accounting Rate, Scenario Two**

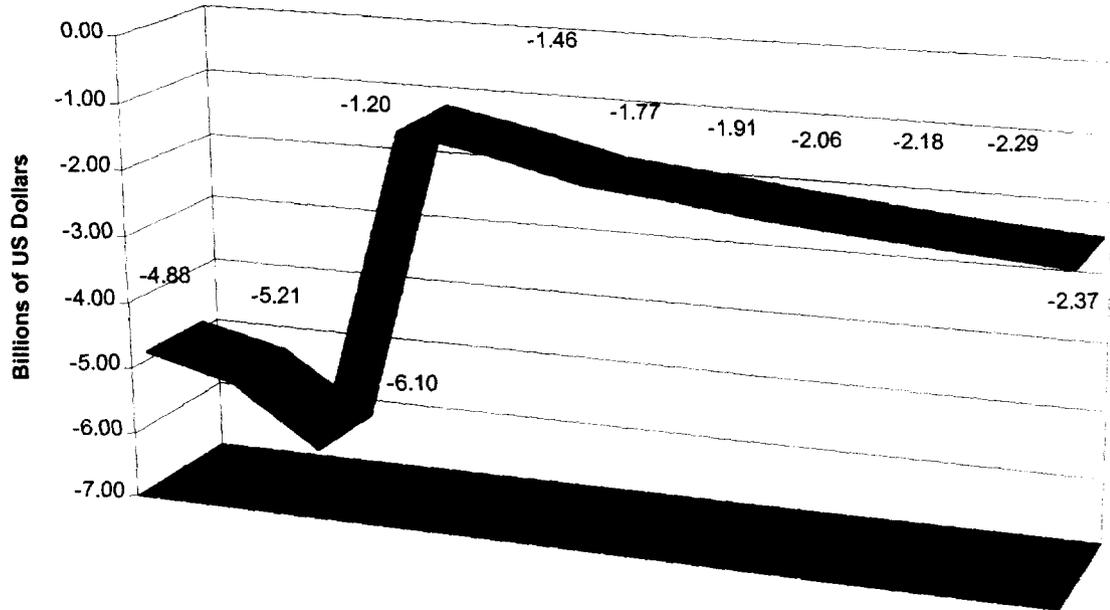
Source: Economic Strategy Institute



In Scenario Two, we introduce cost-based accounting rate benchmarks and assume that these rates are imposed January 1, 1998. These accounting rates more than augment the impact of the increase in the negative balance of minutes caused by price reductions in the United States. Total U.S. net settlement payments from 1995-2005, \$31.42 billion, are more than \$30 billion less than the predictions in Scenario One. Overall, the United States will pay \$31.42 billion in net settlement payments over that time period. These payments are predicted to peak in 2001 at \$7.66 billion and then fall by almost \$1.5 billion, to \$6.15 billion, in the year 2005. Figure 15 depicts the rise and eventual fall of the U.S. net settlement payment in Scenario Two.

**Figure 15: U.S. Net Settlement Payment Deficit, Scenario Two**

Source: Economic Strategy Institute

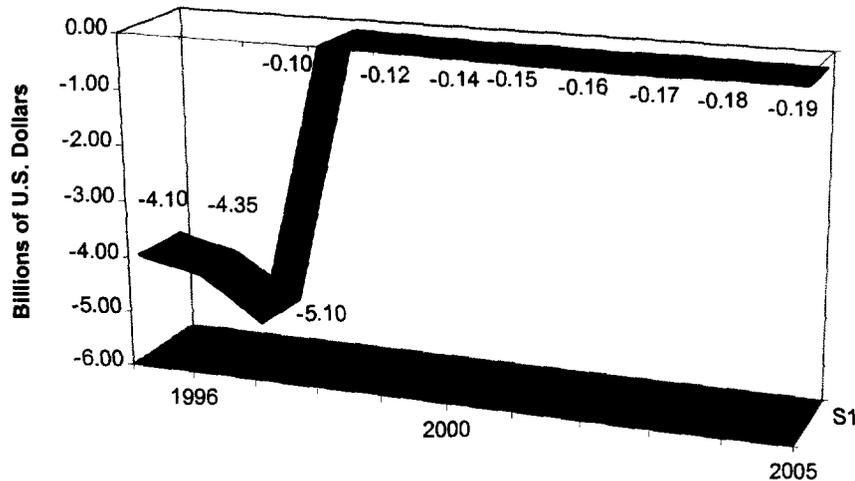


As mentioned previously, the LRIC of terminating international traffic is conservatively assumed to be 9.05 cents in 1995 and decreasing at a 2.9 percent annual rate that reflects increased traffic flows over network components. The accounting rate ceiling is pegged at 9 cents in 1998 and decreases at a 2.9 percent annual rate. As a result, the above-cost component of the accounting rate is expected to decrease from \$6.10 billion in 1997 to \$1.2 billion 1998. As minute differentials increase, the U.S. settlement payments increase to \$2.37 billion in the year 2005.

However, the monopoly rents collected from above-cost accounting rates fall dramatically after institution of the accounting rate ceiling. Above-cost payments are almost eliminated after 1998, falling from \$5.1 billion in 1997 to \$100 million in 1998. Over the course of the decade, \$14.76 billion in overpayments are made to foreign firms, but, of that total, only \$6.3 billion is accumulated from 1997 to 2005.

**Figure 16: Non-Cost-Based Outpayments, Scenario Two**

Source: Economic Strategy Institute



**Summary: Scenario Two**

Scenario Two posits that competition occurs very rapidly in foreign markets and that the United States adopts a cost-based benchmark ceiling. As a result, U.S. firms and consumers enjoy significant declines in the price of telephone service, as well as in net outpayments to foreign firms. Non-cost-based payments shrink to under \$200 million per year, once the benchmark ceiling is implemented. The main statistics of the model are shown in figure 17.

**Figure 17: Scenario Two Summary**

U.S. Outbound Minutes (2005)	61.21 billion
U.S. Inbound Minutes (2005)	28.86 billion
Minutes Deficit (2005)	32.35 billion
Accounting Rate (2005)	\$0.0732
Settlement Outpayments (1995-2005)	\$ 31.42 billion
Non-Cost Outpayments (1995-2005)	\$ 14.76 billion
Peak Non-Cost Outpayments (year, amount)	2000, \$ 194 million

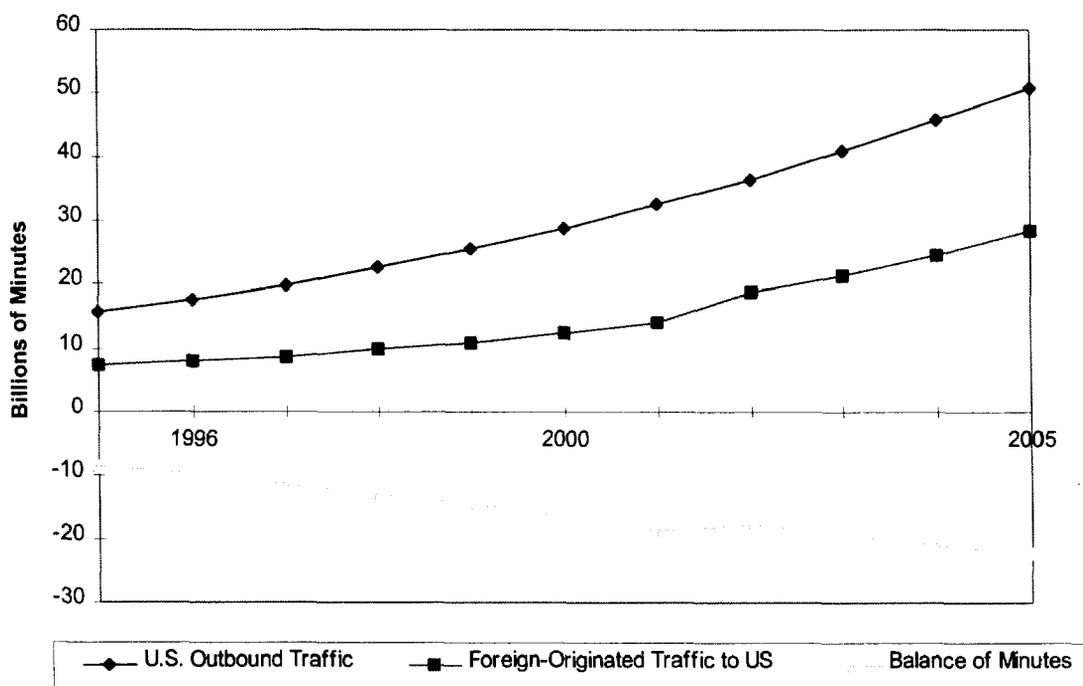
### Scenario Three: Gradual Competition Without Cost-Based Benchmarking

In Scenario Three, we estimate that competition develops at a more gradual pace in foreign countries and U.S. accounting rate policies remain unchanged. Implicit in the model is the belief that this growth will be uneven, occurring vigorously in some areas (Europe and Asia-Pacific) and less so in Latin America, the Caribbean, and Central Asia. Price competition is assumed, generally speaking, to be half the pace in Scenario One.

U.S. outbound growth is estimated to be slightly higher in Scenario Three than in Scenario One. This is a result of greater arbitrage opportunities arising from slower falling prices in foreign markets. Compounded average annual growth for U.S. outbound minutes is estimated to be 12.4 percent. U.S. inbound minutes are stimulated by increased price competition in foreign markets in the year 2000 and increase to 15 percent by the year 2005.

**Figure 18: Forecast U.S. Outbound and Inbound Minutes and Traffic Imbalance**

Source: Economic Strategy Institute



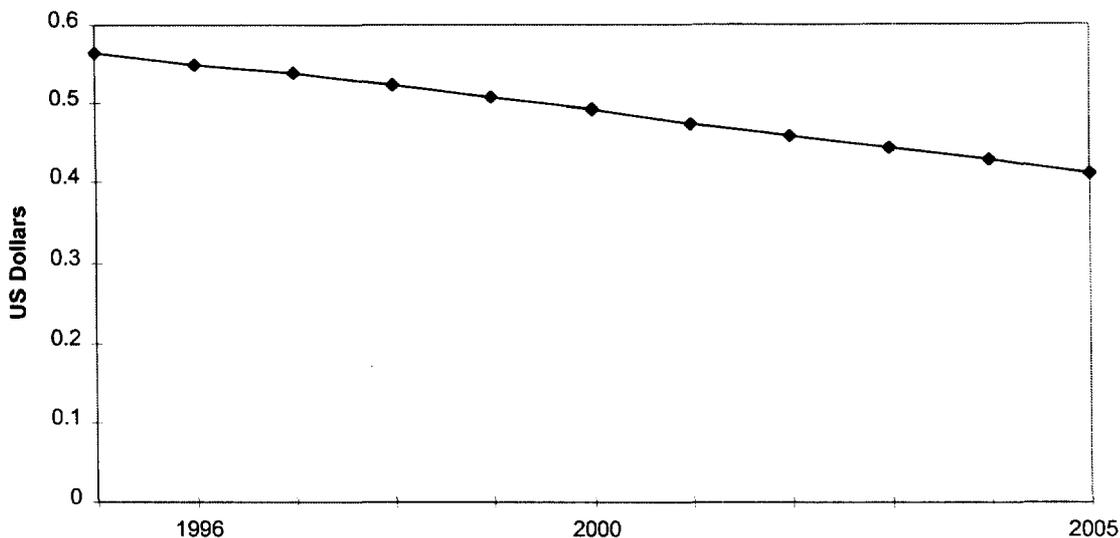
These figures suggest that, despite the opening of markets, traffic imbalances will be increasing significantly between the United States and foreign countries. In the year 2005, the United States will generate approximately 50.73 billion minutes, slightly more than the 47.65 billion forecast for Scenario One. Foreign minutes to the United States are estimated to increase to 23.86 billion minutes. The resulting forecast deficit in

minutes is 26.88 in the year 2005. Unlike Scenario One, the U.S. deficit in minutes, without accelerated competition, continues to expand each year with no foreseeable reduction in the gap.

The gradual development of price competition also means that reductions in accounting rates will not be as great as they would be in an accelerated competition environment. We assume that the reductions in accounting rates are approximately half of those obtained in a more competitive environment.<sup>60</sup> Figure 15 depicts the estimated decline in accounting rates from \$0.54 to \$0.411 in 2005. Again, a linear decline is assumed for the sake of simplicity.

**Figure 19: Decline of the Weighted Accounting Rate, Scenario Three**

Source: Economic Strategy Institute



The steady, gradual decline in accounting rates reflects the theory that facilities-based international competition would be slow to develop and that alternative mediums would have little impact on the

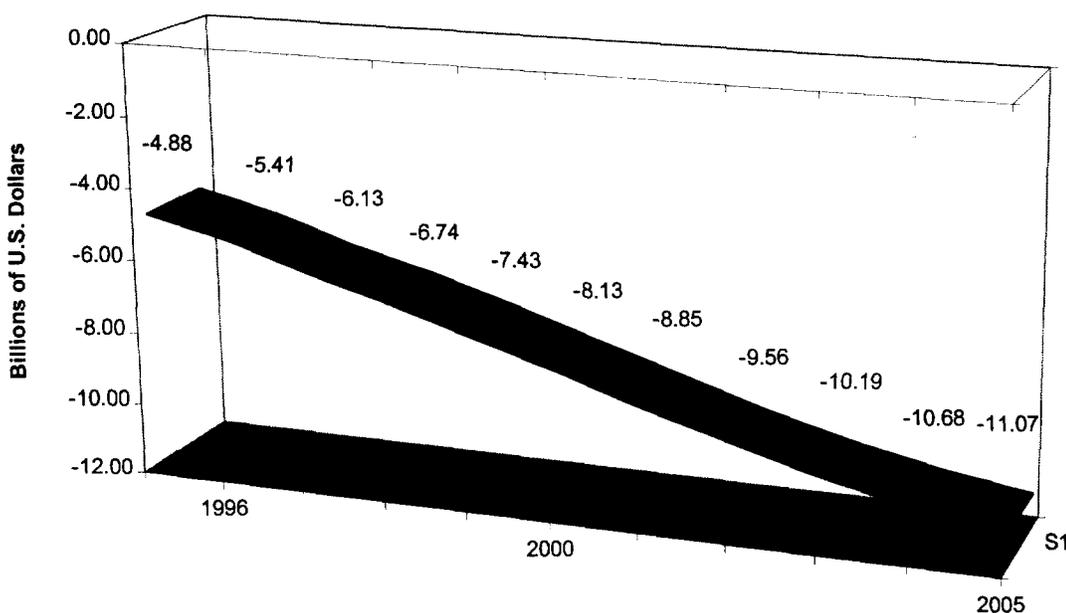
<sup>60</sup> A key to this assumption is that facilities-based competition in the international telecom market does not develop in key developing countries that make up about 50 percent of the weighted accounting average. This assumption is also consistent with forecasts concerning alternative international telecommunications mediums that bypass the accounting rate regime. See, International Telecommunications Union & Telegeography, Inc. *Direction of Traffic, 1996: Trends in International Telephone Tariffs*. (International Telecommunications Union: Geneva, November 1996), p. 17-20. Also See., Olbeter, Erik R. and Chimerine, Lawrence. *Crossed Wires: How Foreign Regulations and U.S. Policies Are Holding Back the U.S. Telecommunications Services Industry*. (Washington, DC: Economic Strategy Institute, December 1994).

accounting rate regime.<sup>61</sup> It also reflects uneven development of competition. Specifically, countries that neither have implemented nor are considering telecom liberalization are assumed not to have developed a robust international market by the year 2005.

The combination of gradual competitive growth and high accounting rates produces a high settlement payment. From 1995 to 2005, the United States is forecast to pay \$89.06 billion in net settlement payments. These payments are predicted to continue growing through the year 2005, at which time outpayments peak at \$11.07 billion. See figure 16.

**Figure 20: U.S. Net Settlement Payment Deficit, Scenario Three**

Source: Economic Strategy Institute

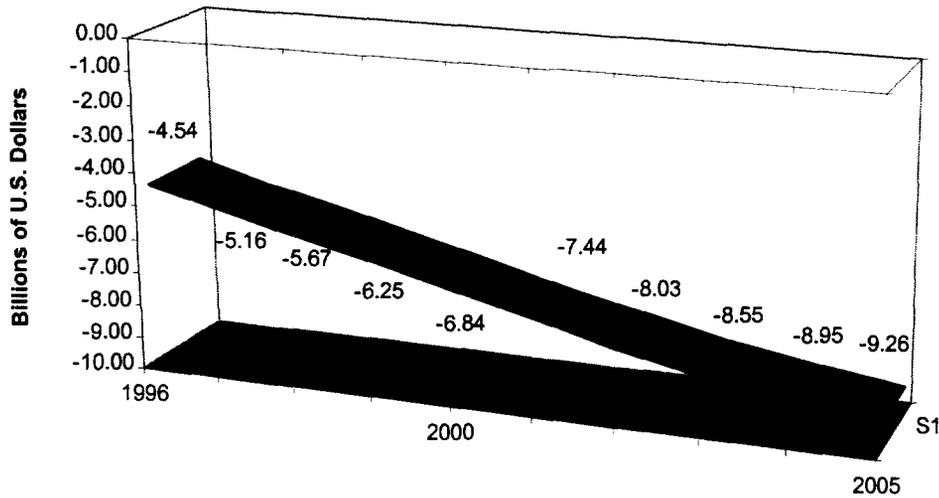


Assuming that the LRIC of international calls does not exceed 9.05 cents, and decreases annually, figure 21 forecasts the above-cost component of the accounting rate to be growing annually and reaching \$9.2 billion in the year 2005. Overall, the United States will make more than \$74.79 billion in non-cost-justified outpayments to foreign firms, in Scenario Three.

<sup>61</sup> The theory that the accounting rate regime was facing eminent collapse is rebuked by several studies. Recent backlash to call back services, more recently from the European Union, could also be a lead factor in the slow decline of both accounting rates and the relatively low growth of U.S. and foreign minutes. See, See., International Telecommunications Union & Telegeography, Inc. *Direction of Traffic, 1996: Trends in International Telephone Tariffs*. (International Telecommunications Union: Geneva, November 1996), p. 21.

**Figure 21: Non-Cost-Based Outpayments, Scenario Three**

Source: Economic Strategy Institute



**Summary: Scenario Three**

In Scenario Three, slower price competition overseas, as well as more tempered forecasts for alternatives to the PSTN, are introduced into the Scenario One model. Not surprisingly, this scenario predicts a much less sanguine future for American consumers and firms. The main statistics of the model are shown below.

**Figure 22: Scenario Three Summary**

U.S. Outbound Minutes (2005)	50.73 billion
U.S. Inbound Minutes (2005)	23.86 billion
Minutes Deficit (2005)	26.88 billion
Accounting Rate (2005)	\$0.4118
Settlement Outpayments (1995-2005)	\$ 89.064 billion
Non-Cost Outpayments (1995-2005)	\$ 74.79 billion
Peak Non-Cost Outpayments (year, amount)	2005, \$ 9.20 billion

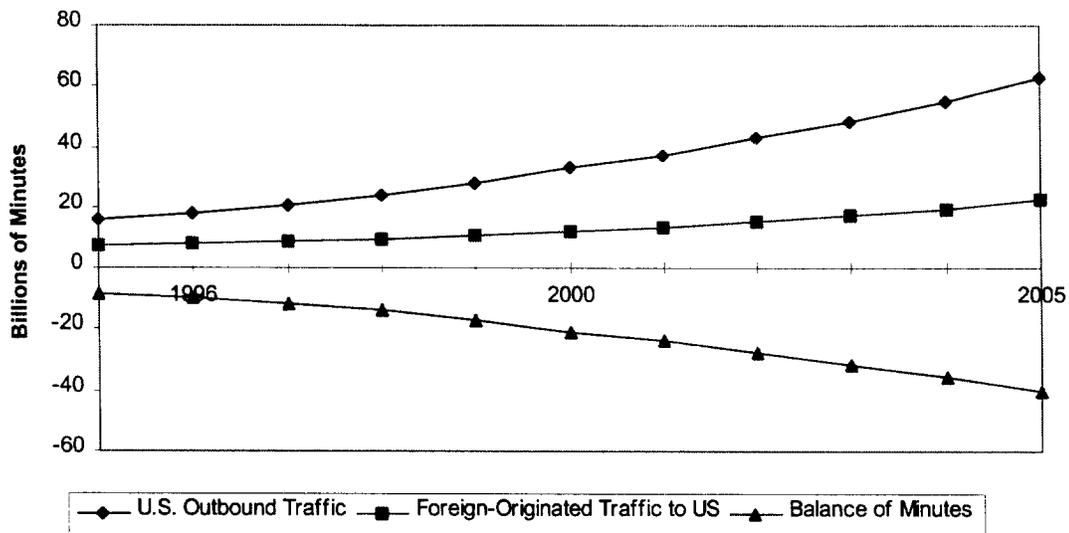
### Scenario Four: Gradual Competition with Cost-Based Benchmarking

In the final scenario, we introduce an accounting rate benchmark ceiling into the model. The accounting rate benchmark is implemented in the same manner as in Scenario Two, starting in 1998 and declining by 2.9 percent annually through the year 2005. Because this is a covariant model, the introduction of the ceiling impacts demand for both incoming and outgoing minutes, through price differentials (call-backs, private lines, etc.).<sup>62</sup>

With gradual development of competition overseas and lower prices on U.S. outbound minutes, the difference between inbound and outbound minutes is forecast to increase dramatically, surpassing 40 billion minutes by the year 2005. U.S. outbound minutes continue to outpace inbound minutes at approximately the same rate as they have over the last three years. U.S. inbound minutes reach 22.32 billion, primarily driven by higher demand realized from 2002 through 2005. Annual outbound traffic growth exceeds 14 percent and peaks at 62.54 billion minutes in the year 2005.

**Figure 23: Forecast U.S. Outbound and Inbound Minutes and Traffic Imbalance, Scenario Four**

Source: Economic Strategy Institute

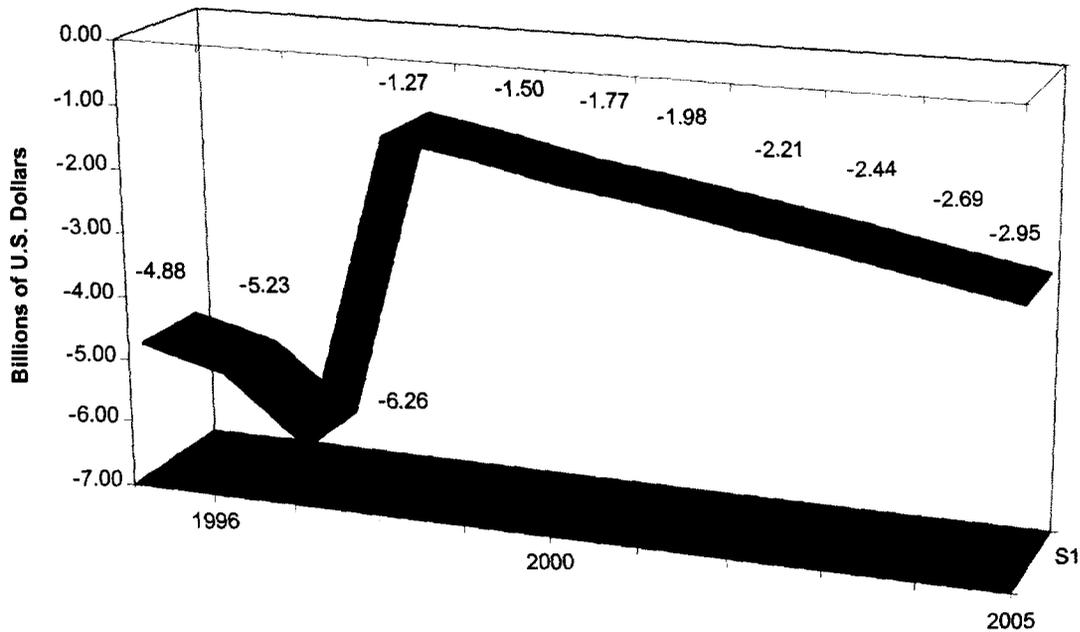


<sup>62</sup> While alternative mechanisms for bypassing the PSTN are assumed to be limited in this scenario, traffic flows are still affected by “call me back” services and an increased use of private lines as price differentials widen.

The large deficit in minutes is counteracted by the cost-based benchmarks introduced into the model. The combination of large minute deficits and low accounting rates produces a relatively low settlement payment. From 1995 through 2005, the United States is forecast to accumulate net outpayments of \$33.17 billion. See figure 24.

**Figure 24: U.S. Net Settlement Payment Deficit, Scenario Four**

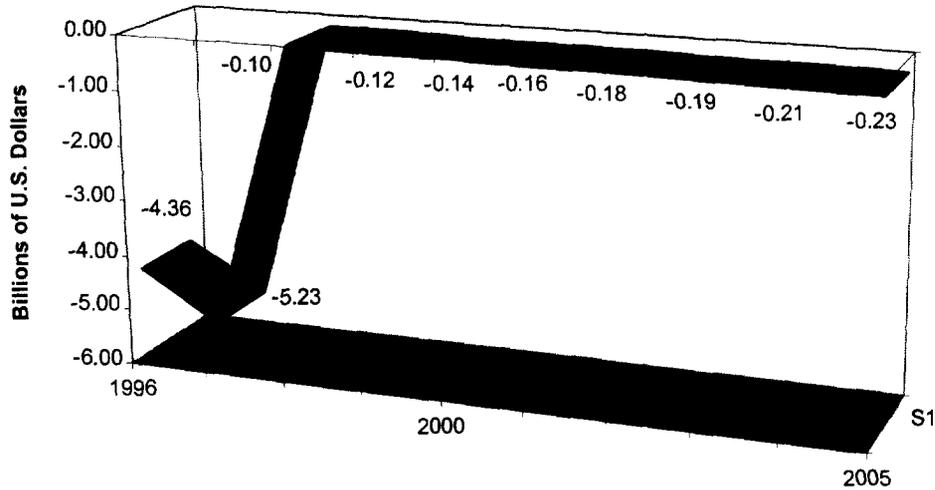
Source: Economic Strategy Institute



Because the benchmark policy is assumed to be adjusted downward each year, the non-cost-based outpayments are kept under \$230 million annually in Scenario Four. Overall, above-cost outpayments are limited to \$15.02 billion, almost all of which occurs before the LRIC-based benchmark is introduced. Figure 25 depicts this trend.

**Figure 25: Non-Cost-Based Outpayments, Scenario Four**

Source: Economic Strategy Institute



**Summary: Scenario Four**

The main statistics of the model are shown below.

**Figure 26: Scenario Four Summary**

U.S. Outbound Minutes (2005)	62.54 billion
U.S. Inbound Minutes (2005)	22.32 billion
Minutes Deficit (2005)	40.21 billion
Accounting Rate (2005)	\$0.0732
Settlement Outpayments (1995-2005)	\$ 33.17 billion
Non-Cost Outpayments (1995-2005)	\$ 15.02 billion
Peak Non-Cost Outpayments (year, amount)	2005, \$ 230 million

**Benefits of LRIC-Based Accounting Rates**

The scenarios presented above attempt to isolate the impacts of competition and a cost-based accounting rate policy upon U.S. net outpayments, and also to identify any potential for price squeezing. By comparing the

four scenarios, it is possible to create reliable, predicted ranges for each of the variables of interest. Specifically, by subtracting estimates in Scenario Two from those in Scenario One, and subtracting estimates in Scenario Four from those in Scenario Three, we can determine a predicted range for the impact of LRIC-based accounting rates. Figure 27, on the following page, isolates the benefits of implementing the regulations, assuming that competition is either accelerated or gradual.

*Figure 27: Forecasting the Benefits of a LRIC-Based Accounting Rate Benchmark*

	<b>No Change in Policy</b>	<b>LRIC-Based Benchmark</b>	<b><u>Benefits of LRIC- Based Accounting Rates</u></b>	
	<i>Scenario One</i>	<i>Scenario Two</i>		
<b>Accelerated Competition</b>	U.S. Outbound Minutes, 2005	47.65	61.21	-13.56
	U.S. Inbound Minutes, 2005	30.519	28.86	1.66
	Minutes Difference, 2005	-17.14	-32.35	15.21
	Total Settlements, 1997-2005	-\$51.63	-\$21.33	-\$30.3
	Above-Cost payments, 1997-2005	-\$38.49	-\$ 6.31	-\$32.18
	<i>Scenario Three</i>	<i>Scenario Four</i>		
<b>Gradual Competition</b>	U.S. Outbound Minutes, 2005	50.73	62.54	-11.81
	U.S. Inbound Minutes, 2005	23.86	22.32	1.54
	Minutes Difference, 2005	-26.88	-40.21	-13.33
	Total Settlements, 1997-2005	-\$78.78	-\$23.06	-\$55.72
	Above-Cost payments, 1997-2005	-\$66.14	-\$ 6.56	-\$59.58

**Figure 28: Benefits of a LRIC-Based Accounting Rate Benchmark**

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**Predictive Ranges for the Benefits of LRIC-Based  
Accounting Rate Benchmarks**

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Total Settlements, 1997-2005	<i>Decrease by \$30.30 - \$55.72 billion</i>
Above-Cost Payments, 1997-2005	<i>Decrease by \$32.18 - \$59.58 billion</i>

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The chart above summarizes the total predicted benefits of implementing a LRIC-based accounting rate ceiling of 9 cents. Total settlement payments from U.S. to foreign firms are predicted to decrease between \$30.30 and \$55.72 billion from 1997 to 2005. More importantly, as it relates to the potential for anticompetitive behavior, above-cost payments would decline significantly. U.S. consumers and firms would save between \$32.18 and \$59.58 billion over the same nine-year period.

### Lower Trade Deficits

While the United States runs a trade deficit with or without cost-based accounting rates, the deficit is \$30.30 and \$55.72 billion lower over the next nine years. Without cost-based accounting rates, the U.S. trade deficit in telecom services could eclipse \$11 billion in 2005 and \$78 billion from now until that time. Cost-based accounting rates could reduce the U.S. trade deficit by as much as \$6.19 billion per year.

### More Investment in the United States

Above-cost accounting rates drain resources vital for making significant investments, particularly in the local exchange. Given the large sums needed for investment, all prospective new entrants are struggling to find resources to make necessary investments in the United States. Some of these companies have reduced or curtailed international investment opportunities in order to refocus their resources in the core, U.S. market.<sup>63</sup>

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<sup>63</sup> This is evidenced by AT&T's reduced investment in its Mexican long distance joint venture.

The \$59.58 billion in above-cost accounting rates that could be saved over the next nine years is three times greater than the estimated cost of building local exchanges in the twenty largest metropolitan markets in the country. Currently, no foreign firm can be said to be using monopoly rents from above-cost accounting rates to invest in the U.S. local exchange.<sup>64</sup> Instead, this money is spent on developing telecommunications infrastructure in other countries.

### **Lower Prices in International Telecom**

Above-cost accounting rates are a primary cause of high international telephone prices. Although international prices have been steadily declining, they have not exhibited the decreases seen in the domestic long-distance market. Several reasons for this diversion can be cited. First, and foremost, foreign monopolies dictate prices through the international settlements regime. The increase in average international prices experienced in 1993 was solely due to settlement price increases in Mexico, the country U.S. residents call more than any other.<sup>65</sup> Second, competition for international customers is not as fierce as the battle for domestic long-distance customers. The Telecommunications Act of 1996 should significantly increase the number and size of competitors in the international long-distance market, but, unless the settlement system and accounting rate issues are addressed, prices will not fall as rapidly as internal competition will dictate.

The models predict that consumers could see significant reductions in their international telephone bills even if a fraction of the accounting rate reductions were passed along to consumers. ESI believes it is realistic to estimate that between 25 and 33 percent of all accounting rate reductions will be passed through to consumers. Given this belief, consumers would save between \$10.6 and \$17.28 billion, in the form of lower prices between now the year 2005, if cost-based accounting rates are implemented.

### **Lower Prices in All Telecom Services**

A long-term impact of anticompetitive behavior through price squeeze tactics could be higher prices in all telecom services. The \$78.78 billion that could be paid to foreign firms over the next nine years can substantially impact prices in the U.S. domestic market. While consumers may see a short-term windfall from the price squeeze, unabated price squeeze behavior will lead to accelerated consolidation in the telecom industry over the long run. Firms unable to match the prices of foreign subsidiaries operating in the United States will need to recoup losses in other areas of the market and, hence, consolidation will become a pressing necessity. If foreign subsidiaries are able to drive established and new players out of market niches, the result,

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<sup>64</sup> This may change if the BT purchase of MCI is approved.

in accordance with economic theory, will be either higher prices or reduced output. Benchmark settlement rates eliminate this possibility and thereby promote lower telecom prices.

### A More Competitive U.S. Economy

The combination of all the effects mentioned above will generate serious economic benefits for all U.S. manufacturing and service industries. The convergence of communications and computer industries is becoming *the* crucial input for every business in America. Lower prices, greater competition, and more investment in the industry will translate into faster adoption, utilization, and roll-out of computer and communications technologies and, hence, a more productive and competitive U.S. economy. Previous studies have estimated that increased usage of broadband technologies could add 0.4 percent to annual U.S. productivity growth over the next twelve years. These types of productivity gains will only be realized if the U.S. telecommunications market is subject to competitive behavior.

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<sup>65</sup> Federal Communications Commission, *Policy Statement on International Accounting Rate Reform*. FCC 96-37. January 31, 1996, p. 35.