Statement by Michael J. Balhoff, CFA

Before the

United States House of Representatives
House Committee on Energy and Commerce
Subcommittee on Telecommunications and the Internet

In the Matter of
"The State Of Competition In
The Communications Industry"

February 4, 2004

All relevant disclosures and certifications appear on page 12 of this report.

The State of Competition in the Communications Industry

Michael J. Balhoff, CFA, of Legg Mason Wood Walker, Inc.

Chairman Upton, Ranking Member Markey, members of the subcommittee, good afternoon and thank you for the opportunity to address you concerning the state of telecommunications competition and the growth in intermodal communications services. Let me state at the outset that my testimony today represents my opinion and does not necessarily reflect the views of Legg Mason or the other telecommunications analysts at our firm.

Curriculum vitae

I am Michael J. Balhoff of 1213 Shady Creek Road, Marriottsville, Maryland 21104. I head the Telecommunications Equity Research Group at Legg Mason, a Baltimore-based full-service investment firm. I cover equities in the incumbent local exchange carrier industry, including the regional Bell companies and rural telephone carriers. My specific practice is most widely recognized for a focused coverage of rural telephone companies. We consult regularly with corporate managements and policymakers, and we provide investment advice to a wide range of institutional investors across North America and Europe, as well as private equity investors in the United States.

Focus of Testimony on State of Competition in Domestic Telecommunications

I am honored to present to the Subcommittee on Telecommunications and the Internet about the developments related to competition in the communications industry. My understanding is that you wish to better discern how much the voice and data markets in the United States have evolved over the last several years and how much they are likely to continue to change in the foreseeable future.

I believe that the insight you have previously articulated in your invitation to me is correct — that advances in technology have spurred significant intermodal competition and that the intensity of competition is likely more widespread than many observers realize. I will state in my testimony that . . .

- I believe competitive activity is significant in the business community;
- Investors believe, in my opinion, that the current deep discounting in the residential market has created competitive statistics that are higher than most investors are willing to

believe, and fund managers are generally unwilling to commit long-term capital to a system that they perceive as often based on regulatory arbitrage;

- I believe that competition, however, is occurring in intermodal form in the residential market through wireless, high-speed data services, and cable telephony;
- My conviction is that investors expect that the voice services provided by cable operators based on Internet Protocol will have a transforming effect on the telecommunications market within a few brief years; and
- The current risk is that we eventually could be returning to a monopoly system owned by the cable operators if the local exchange carriers (LECs) are unable or unwilling to invest in the longer-term network because: (1) the expense of the investment in high-speed network is too high to generate a satisfactory return, (2) there is too much uncertainty or fear about rules requiring them to share their investment with competitors, or (3) the time required in the investment will be too extended.

In support of my views, I will briefly summarize publicly available data on: (1) ILEC (incumbent local exchange carrier) and CLEC (competitive local exchange carrier) voice marketshare for business and residential, (2) wireless service as a substitute for the local exchange service, (3) broadband market growth and the unique factors affecting the competitive landscape of cable-modem services and digital subscriber line services, and (4) cable companies' progress in capturing voice telephony market share based on circuit-switched and voice over Internet Protocol (VoIP) technologies.

Local Exchange Carrier Market Share

One of the key goals of the Telecom Act of 1996 was the introduction of competition in the urban local exchange market. Most of the statistics from the FCC and the investment community verify that this goal has, in part, been achieved and that a significant number of customers are served by alternative local exchange service providers over the traditional telephony network, notably in the business marketplace. The FCC, the state regulators, and the courts have accomplished much of this task by setting myriad rules and clarifications for leasing the incumbent's network elements, incenting significant new investment by competitors, sifting through controversies related to arcane subjects such as collocations, hot-cuts, cost models and the long-distance Section 271 process. We have far more insight today into the legalities and technologies of communications than those policymakers had in the mid-to-late 1990s, but the end result is that they made possible real competitive growth. Illustrating the general trend toward competition, the most recent FCC data suggest that total CLEC market share has increased to 15% in June 2003 from 4% in December 1999. **Table 1** summarizes the data, with the statistics representing that the incumbent carriers' share of the total lines has slipped in the same three-and-a-half-year period to 85% from 96%.

Table 1: FCC Market Share Data

	ILEC Market Share			CLEC Market Share		
	Total Res/Sm. Bus.	Total Business	Total LEC	Total Res/Sm. Bus.	Total Business	Total LEC
December-99	97.6%	89.6%	95.7%	2.4%	10.4%	4.3%
June-00	96.8%	84.9%	94.0%	3.2%	15.1%	6.0%
December-00	95.4%	82.5%	92.3%	4.6%	17.5%	7.7%
June-01	94.5%	80.9%	91.0%	5.5%	19.1%	9.0%
December-01	93.4%	79.2%	89.7%	6.6%	20.8%	10.3%
June-02	92.2%	77.5%	88.6%	7.8%	22.5%	11.4%
December-02	89.7%	77.7%	86.8%	10.3%	22.3%	13.2%
June-03	88.0%	76.8%	85.3%	12.0%	23.2%	14.7%

Source: FCC data; Legg Mason Wood Walker, Inc.

I believe that the competitive data are clear that the business market share shift has been dramatic. The FCC surveys state that CLECs penetrated, on average, 23% of the reported U.S. business lines by mid-2003. In certain denser business centers, the penetration of business lines appears to be above 40%. In short, my view is that, in the wake of the Act, competitors have entered a financially attractive market to target those customers that could generate reasonable profits in high-density regions. The result is that businesses now have a variety of asset-based competitors from which to choose.

My view of the residential market is different, and I believe that the FCC data lead to more suspect conclusions. The residential market share shift occurred later than did the business shift, apparently for several reasons. First, residential rates have been maintained at relatively low levels and were even subsidized in some regions as part of public policy since the early part of the last century. Second, the costs associated with providing residential services are high, meaning that the profit spread is likely modest at best, which is why we have seen little investment on the part of copper-based competitors. Third, the usage volumes and mix of services are generally unattractive for residential competitors, especially compared with services provided to businesses. And, fourth, the investment necessary to provide ancillary services — video, high-speed data, etc. — is prohibitive unless the communications provider can offer, and have a high probability of retaining, a much fuller array of services. *More simply stated, the residential market is not naturally as attractive for a telephony-only competitor, and the market may not, in fact, be able to sustain multiple asset-based telephony-only competitors.*

Predictably, some federal and state regulators have been unwilling to accept the tenet that competition is not as well-suited to the residences of the American public. Recognizing that the task they faced was complex and the goals worthy, regulators therefore chose to intervene, using a model that was similar to the one employed in the successful breakup of the long-distance monopoly market in the 1980s. Based on that model, state and federal regulators have required the incumbent to lease its network at deep discounts, which were far more complex in their formulation than the long-distance intervention in the 1980s. Sometimes the rates were set at very low levels and at other times they were fixed somewhat higher to incent competitive investment. In general, the TELRIC (total element long-run incremental cost) pricing model —

using marginal costs analyses — assumed that, when the competitors were able to gain enough scale, they would build a newer, more modern stand-alone network. The goal was, like that of the simpler long-distance industry in the 1980s, the nurturing of real businesses, characterized by real assets and profit margins in the form of a sustainable business model.

Unfortunately, there appears to be virtually no such investment occurring on the part of copper-based competitors in the residential market because the premise was flawed. The miscalculation arose because investment costs and risk are very high in the residential local exchange business, especially compared with the relatively less expensive assets required to serve the 1980s' long-distance market, and the profit margins on LEC businesses are thinner and are probably not sufficient to sustain the higher levels of investment. Accordingly, today we have more "competitors" offering residential local exchange services based on regulatory approaches that, however well-intentioned, have not spurred viable long-term enterprises. In fairness, there were some competitors that tried to invest, but some have admitted that they were disadvantaged by a system in which TELRIC competitors had a more attractive short-term business proposition with virtually no capital costs and lesser competitive risk. In sum, we committed to a system in which there is disintermediation of the investment of the LEC shareholders into at least the some of the competitors *without achieving the concomitant public policy goal of longer-term competitive activity.* Worse, we may have a system that is draining cash flows from viable competitors — the LECs — precisely at the moment when they need to invest in order to withstand the next stages of formidable intermodal competitive activity from attractive wireless and cable-based services.

My view, then, is that we have been through a period of illusory business propositions that have burst badly, and we may have new illusions, including the less-than-convincing policy that the telephony-only POTS-like model can be competitive for residential customers. *More directly stated, in the residential market, I believe that the only major facilities-based competitors in the U.S. are the wireless carriers and the cable operators, whose plant already exists or is in need of some relatively modest upgrade.* Thus, the statistics tabulated about residential competition are, in the minds of investors, not representative of the underlying reality.

I believe that competition is, in fact, occurring, but it is through a fundamental intermodal shift, transpiring with the advent of new technologies and marketing.

Wireless as a Substitute for Wireline Service

Clearly, wireless is an important source of competition. In fact, investors and analysts ask about wireless substitution on virtually every investor communications-related conference call. As analysts, we track the falling numbers of LEC access lines that can be fully explained only by reality of competitive choice, including wireless. We analyze the innovative types of services that appear increasingly attractive because they offer new features, including mobility, text messaging, image generation, etc. My observation is that policymakers, understandably, work within legacy constructs — including statutes and case law — that define wireless and other intermodal services as different from traditional telephony, and some policymakers have been slow to embrace intermodal services as competitors. At the same time, I believe firmly that those newer carriers, based on proven alternative technologies, are formidable competitors *precisely because their products are different from copper-wired services.*

Let us take a brief look at some statistics related to wireless. I note that, while it is clear that there is substitution whereby wireless-only customers may be 8% of the total consumer market today, it is admittedly difficult to calculate precise figures. To provide some insight into the data, however, we can examine recent reports of the Bell companies. Each of the carriers supplies information in formats different from the others, and the data are often different from the information supplied by that very carrier in the previous quarter, making analysis a bit tricky. In the most recent quarter reported last week, for example, SBC supplied interesting statistics to illustrate the company's improving performance in terms of line loss in certain of its service regions. In **Table 2**, the data are totaled and analyzed in a way different from SBC's presentation to investors, highlighting that the company was not doing quite as well as the initial investor slides depicted. While the company was posting lesser line losses in sequential quarters in terms of primary lines and second (also called "additional") lines, further analysis revealed that the net losses are actually growing in a way that cannot be explained solely by regulatory-imposed discounting rules. Using the company's data on residential lines — primary and additional — and subtracting them from the gains in wholesale lines, which are unbundled connections leased to competitors, the summation suggests that the total of retail and wholesale residential lines is contracting more rapidly in the last two quarters of 2003. I note that the wholesale data used in this analysis includes *both residential and business lines*, but I believe that the residential wholesale lines are growing at least as fast as the business lines, and that the conclusion is still the same. In the case of BellSouth, the company reports simply that it lost 7.3% of its retail lines year-over-year and that the net loss of retail lines, offset by wholesale gains, was 3.1%. BellSouth's absolute losses in residential lines — combined retail less wholesale — in the fourth quarter were 134,000, slightly worse than the 130,000 lost in the third quarter. Verizon does not supply the data necessary to perform a similar calculation. *What is the explanation flowing from these statistics? Substitution continues unabated.*

Looking carefully at the analysis, however, reveals something more about wireless. First, the total residential loss can be explained, in part, by the shifting to cable modems or DSL, but data substitution is generally a second-line phenomenon, and the second-line loss is slowing and is well below the total loss. It does not seem that the loss is due to a more severe economic downturn, as the economy appears to be improving, nor does the loss appear to be due to the shift to cable telephony, as those forces are still relatively nascent. *It appears to me that the higher losses are due to an acceleration in the movement toward wireless services and away from wireline telephony.*

Table 2: SBC Quarterly Residential Line Loss

(in thousands)	1Q03	2Q03	3Q03	4Q03
Residential primary lines	(504)	(479)	(378)	(228)
Residential second lines	(236)	(229)	(229)	(170)
Residential total losses	(740)	(708)	(607)	(398)
Wholesale net adds (business + residential)	684	665	375	116
Net line loss (residential total + wholesale)	(56)	(43)	(232)	(282)

Source: SBC data; Legg Mason Wood Walker, Inc.

Legg Mason has published in the past that we estimate that roughly one half the residential line loss is the result of consumers' cutting off slow circuit-switched second lines to migrate to high-speed data substitutes, and that approximately 25% of the share shift was due to consumers' substituting into wireless services. The data now suggest that the trend toward wireless is accelerating, as cellular price plans and convenience have occasioned the growth of wireless to approximately 157 million subscribers at the end of the fourth quarter compared with approximately 185 million wired telephone lines, by Legg Mason estimates.

Table 3 provides wireless customer additions by carrier for each quarter since the beginning of 2002. The key messages are that the last three quarters have been marked by solid sequential growth in additions, that the strong wireless carriers have tended to gain share, and all this is occurring at a time when the RBOCs are reporting sharp year-over-year retail residential declines. The comparisons are startling — SBC reported 8.0% retail residential losses in the final quarter of 2003 compared with 2002, while BellSouth disclosed 7.3% contraction (cited earlier), and Verizon announced only the combined wholesale and retail slippage of 3.7%, meaning that the retail loss was likely more severe. With the introduction of wireless local number portability in late November 2003 — permitting a wireline customer to port its number to a wireless carrier — it seems that the regulators have moved closer to stating that they view wireless as a substitute for wireline access that was once judged to be an imposing bottleneck.

Table 3: Quarterly wireless subscriber additions

(In thousands)	1Q02A	2Q02A	3Q02A	4Q02A	1Q03A	2Q03A	3Q03A	4Q03E
Verizon Wireless	186	723	803	964	755	1,214	1,407	1,496
Cingular Wireless	234	353	-107	-121	189	540	745	642
AT&T Wireless	650	417	201	705	283	446	229	128
Sprint PCS	725	308	-78	250	199	360	184	390
Nextel	502	471	480	503	480	591	646	549
T-Mobile	509	453	869	1,017	921	606	670	1,015
	2,806	2,725	2,168	3,318	2,827	3,757	3,881	4,220

Source: Company data; Legg Mason Wood Walker, Inc.
Figures from Verizon, AT&T Wireless and T-Mobile for 4Q03 are actual.

Broadband Market Growth

The growth in broadband services — primarily based on cable modems and DSL — continues to accelerate for residential and business customers. **Table 4** details DSL data from the three-largest telephone companies, highlighting the quarterly increases in total lines served by the

carriers and the increases in net additions each period. The increases have been gradual, but they are increases nonetheless, again over and against the RBOC line losses. In terms of the numbers of customers subscribing to DSL each quarter, the three-largest Bells report 706,000 new lines added in the fourth quarter of 2003 — announced in the last week — following 661,000 in the preceding period and 508,000 in the three months before that.

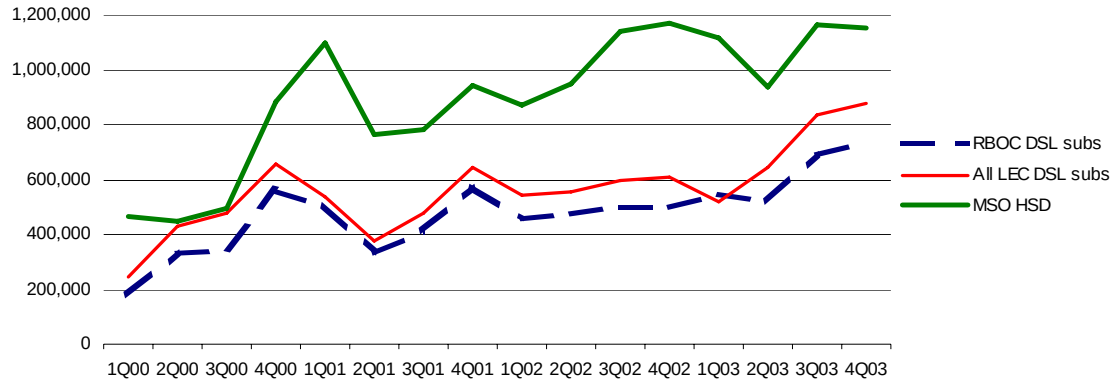
Table 4: RBOC Quarterly DSL Totals and Net Adds

(in thousands)	1Q02	2Q02	3Q02	4Q02	1Q03	2Q03	3Q03	4Q03
Verizon DSL lines	1,336	1,485	1,640	1,788	1,830	1,931	2,116	2,319
Net adds	148	149	155	148	160	101	185	203
SBC DSL lines	1,515	1,728	1,954	2,199	2,469	2,773	3,138	3,515
Net adds	183	213	226	245	270	304	365	377
BellSouth DSL lines	729	803	924	1,021	1,122	1,225	1,336	1,462
Net adds	109	74	121	97	101	103	111	126
Total DSL lines	3,580	4,016	4,518	5,008	5,421	5,929	6,590	7,296
Total DSL adds	440	436	502	490	531	508	661	706

Source: Company data; Legg Mason Wood Walker, Inc.

The cable operators have also reported high-speed data growth, with the absolute number of additions generally rising. **Figure 1** illustrates the subscriber quarterly additions, based on the companies that Legg Mason follows and our estimates of the other carriers. Notably, the cable operators continue to attract more subscribers in absolute terms each quarter compared with the DSL additions by the Bell companies and the additions by all LECs.

Figure 1: High-speed data subscribers quarterly additions

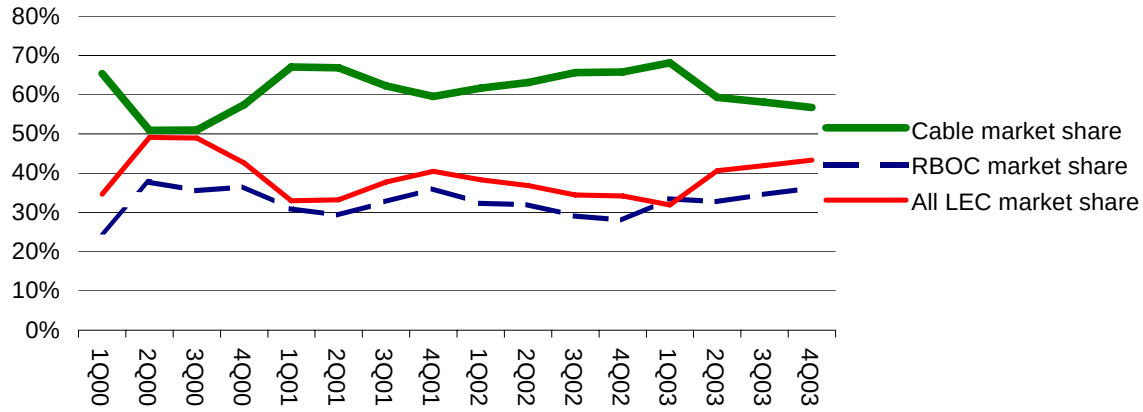


Source: Company data; Legg Mason Wood Walker, Inc.

An alternative view is based on Legg Mason's estimates of the high-speed market share as illustrated in **Figure 2**. The graphic conveys the commanding market leadership of cable operators in this expanding communications segment. At the same time, we estimate that cable share has slipped to approximately 57% in the final quarter of 2003 from about 68% in the first

quarter of 2003, with the major reason being the gradual pressure from RBOCs — much lower rates, better bundling, and more widespread availability — that appear to be focused on retaining high-speed share lest the Bells be disadvantaged when the cable operators begin offering VoIP services in 2004 and beyond. Additionally, the independent local exchange carriers have gained share, particularly in markets that are not as well served by cable operators.

Figure 2: High-speed market share: cable modems and DSL



Source: Company data; Legg Mason Wood Walker, Inc.

In our consultations with investors and regulators over recent months, I have suggested that the expanding battle over high-speed data is the thunder in the distance before the most formidable storm of intermodal competition is upon us. *My view is that the Bells recognize that the true residential competition is about to break out and competitive activity, ironically, has nothing to do with what the deep discounts or other temporary constructs that regulators have employed in attempting to change what has for so long been an intractable residential marketplace.*

Cable Operators' Voice Share

At present, competition from cable operators is relatively limited, as Cox and Comcast have some circuit-switched customers, but few other cable operators have invested in cable telephony. The most recent FCC competitive statistics, as of the end of June 2003, contend that there were approximately 3.0 million cable telephony lines in the United States, accounting for about 11% of CLEC lines and 2% of the total domestic switched access lines. I believe the statistics are interesting, but do not merit much study because the true intermodal cable product is already making its entrance in the form of voice over Internet Protocol.

My view that most telephony investors are profoundly concerned about VoIP competition is evidenced by the fixation on the competitive share shift generated by tiny providers such as Vonage, Net2Phone, Skype and Pulver.com. Investors follow every signal from the cable operators that are market-testing VoIP and those that have begun to roll out the Internet-based service. Among the cable operators, Cablevision and Time Warner Cable are being watched most carefully, as they are offering widespread service earlier than their peers.

The power and speed of the rapidly approaching weather system was driven home last week (January 28) when Time Warner reported on its test market in Portland, Maine. The service was begun in May 2003, a mere nine months ago, and management reports that it has captured more than 10,000 VoIP customers, which is about 23% penetration of the high-speed customer base, 9% of the company's video customers in the region, and, by Legg Mason's estimate, 5% of the homes passed in Portland. The company also reported it was beginning to offer VoIP in Kansas City, Kansas, and Raleigh, North Carolina, and expected, by the end of the first quarter, to have service in a total of six of the company's 31 systems across the country, and, by the end of 2004, to have service in virtually its entire cable footprint.

If we compare Time Warner's penetration rate to the FCC competition statistics cited at the outset, I suggest that Time Warner could be near 5% residential penetration within its first year of service, adjusting for the fact that the company's homes-passed are fewer than the residential telephony lines in the region. Notably, the FCC reports that residential *plus small business* penetration of CLECs is 12% as of June 2003, based significantly on the discounted rates the regulators set. It appears that, within two years, we could see the residential competitive statistics bypassed by VoIP services in a marketplace that is fundamentally driven by technology changes, a result accomplished far more effectively than might have been expected through regulatory incentives.

I believe that the introduction of VoIP services will move residential competition to a place that legislators and regulators could not have expected realistically under the copper-based telephony model. In this new intermodal competitive landscape, consumers will be able to choose from asset-based competitors whose services are differentiated from, and more convenient than, circuit-switched telephony. Further, the pricing for services will almost certainly, in my view, be more attractive than rates possible using legacy telephony, because of the underlying economics of Internet-based technologies.

Another sign that the intermodal forces are significant is apparent in reviewing the RBOC responses. The storm is so fearful that the RBOCs are vigorously preparing for its onset by slashing pricing for their DSL services, sharpening their marketing on bundled services, pressuring equipment vendors to develop high-speed electronics in volumes at dramatically lower prices (deployment has yet to occur except in tests), and at least generically announcing VoIP products for businesses and residential customers.

Future-Oriented Policy Issues

As I summarized at the outset, I believe that the emerging intermodal forces raise serious policy questions. Regulators and legislators will increasingly have to consider whether the incentives and constraints that they are employing are dismantling the correct bottleneck monopoly in light of the rapidly changing technologies. In fact, I believe that many of the more thoughtful policymakers recognize that backward-looking schemes are seriously limiting RBOC investment and that the limitations could have unintended consequences in causing the LECs to slow their commitments to the forward-looking wireline markets in which fiber and optical electronics are key.

I do not propose that there are simple answers to these questions, but I have written and believe firmly that competition is unfolding in an intermodal world and that the RBOCs may not be able to reshape their services rapidly enough. It is clear to me that the RBOCs are conflicted about whether their investment expenditures are too high to justify widespread deployments. They are uncertain about whether alternative investments such as fiber-to-the-curb make more economic sense, but there is too great a risk in a world in which the rules promise that competitors will not dilute that investment if, and only if, the investment is all the way to the premise. And the RBOCs appear to me to be wrestling with the reality that the rebuild will be time-consuming, raising the possible evaluation of an alternative financial model in which the RBOCs admit that their securities are inevitably declining annuities, which is to say that the RBOCs cede the emerging services to better-prepared asset-based competitors as they more responsibly return cash to their shareholders. If that happens, then I believe that the new communications marketplace could be served by alternative services that may be monopoly-like because the investment required to compete is so great.

Conclusion

To summarize my testimony, I note that there are key points for this Subcommittee's reflection.

- My simple observation as an analyst is that competition has generally worked where there are fundamental financial realities to support businesses.
- In the enterprise and small business markets, competitive growth is significant, with competitive penetration over 30%.
- Over and against that, in the residential market, I see a short-term competitive model that is understandably policy-oriented, but I believe that "competition" in the wireline copper-based telephony market will dissipate when the artificialities are removed within the next several years.
- At the same time, it appears to me that the tenet in sponsoring this Subcommittee's discussion is correct — that competition is unfolding through intermodal services, including wireless, broadband communications such as email, and, most importantly, through the very obvious and formidable threat of VoIP.
- If investors have a concern, I believe it is that they are fearful that some policymakers misunderstand the nature of how competition unfolds, and that the natural competitors in the various marketplaces are constrained because cash flows and returns on capital commitments, in the case of the RBOCs, are uncertain precisely at a time when investment is necessary to cope with intermodal competitive threats.

Thank you for the opportunity to present my views.

Important Disclosures and Certifications

I, Michael J. Balhoff, CFA, certify that the views expressed in this research report accurately reflect my personal views about the subject securities or issuers; and I, Michael J. Balhoff, CFA, certify that no part of my compensation was, is, or will be directly or indirectly related to the specific recommendation or views contained in this research report.

The information contained herein has been prepared from sources believed reliable but is not guaranteed by us and is not a complete summary or statement of all available data, nor is it considered an offer to buy or sell any securities referred to herein. No investments or services mentioned are available in the European Economic Area to private customers or to anyone in Canada other than a Designated Institution.

Opinions expressed are subject to change without notice and do not take into account the particular investment objectives, financial situation or needs of individual investors. Employees of Legg Mason Wood Walker, Inc. or its affiliates may, at times, release written or oral commentary, technical analysis or trading strategies that differ from the opinions expressed within.

Legg Mason Wood Walker, Inc. is a multidisciplined financial services firm that regularly seeks investment banking assignments and compensation from issuers for services including, but not limited to, acting as an underwriter in an offering or financial advisor in a merger or acquisition, or serving as a placement agent for private transactions.

Additional information is available upon request

© Copyright 2004 Legg Mason Wood Walker, Inc.