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Telecom in the
Downturn
*What Will
Happen and
Who Will Benefit*



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EXECUTIVE SUMMARY

At a time when other industries are reeling, telecom operators have been holding up relatively well. Because telecom is an essential service, it is resilient during economic downturns. However, the credit conditions that triggered the worldwide financial crisis have persisted and are making it difficult for operators to access new funding. As a result, operators have to be more selective about investments, more rigorous in their evaluations, and more careful about how they weigh acquisitions, capital and operational expenditures, and strategic investments in new ventures. This less-than-optimal situation is reflected in operators' share prices, which have declined markedly since the crisis unfolded in early September 2008.

None of this may seem like a good basis for aggressive new initiatives, but, in fact, the global uncertainty may provide opportunities for some operators to create long-term advantages in their home markets and beyond. In particular, operators that have strong cash reserves and cash flows, sound balance sheets, and efficient operations can create competitive advantages by continuing to invest in new technologies, taking new value positions, and leading the inevitable consolidation. These

fundamentally healthy operators may also be able to capitalize on enterprise customers' willingness to use telecom services to reduce business expenses. Operators in weaker financial positions, by contrast, are likely to focus internally on costs and pull back on investments in a bid to survive the crisis. It is a situation that favors cash-rich players, large incumbents and challengers with low debt levels, and those with exposure to high-growth markets.

INDUSTRY RESILIENCE— IN MOST MARKETS

Recent history provides clear evidence that telecom service revenue is unlikely to be permanently hurt by an economic contraction. Especially in their core markets, well-run operators often emerge from economic downturns stronger, having survived circumstances that caused weaker competitors to fail.

The resilience of communications revenue is a function, in part, of the relative youth of the industry. But it is also derived from the fact that telecom is an essential service in mature economies. When times are tough, consumers take longer to replace handsets, purchase fewer high-end items (like the iPhone), and make less use of nonessential services like new media and digital content. But most people still turn to their existing devices to talk on the phone, watch television, and use the Internet. They tend to cut new expenditures that require daily spending, as opposed to the services they already have in their homes (*see Exhibit 1*).

This doesn't mean there will be no impact on operators' revenues. In a recession, some consumers are likely

THE BACKDROP: A FINANCIAL CRISIS AND ITS LIKELY AFTERSHOCKS

The current economic turbulence is marked by two distinct but related events: the credit crunch, which has been here for months and has broadened into a global financial crisis, and the resulting economic slowdown, which is dragging the world toward recession. One dynamic that operators are going to have to address in this challenging time is the tension the financial crisis has created between telecom executives and the banks on which they typically rely: The banks are reluctant to syndicate large transactions, and operators fear that any transaction they undertake could be undone by newly troubled banking partners. This is affecting how telecom CEOs and CFOs view what's ahead, the investment opportunities they see, and their relationship to the financial sector. A second dynamic is the impact that the global slowdown is likely to have on consumer spending, including overall telecom revenue.

to revise their calling plans, creating pricing pressure for operators and hurting their revenues. The extent of the pullback will vary by region and will depend on the competitive environment and the extent of the economic downturn. Still, the characteristic consumer behaviors shown in Exhibit 1 should provide a measure of protection for operators' revenues in all types of households. Mobile-only households are likely to maintain or increase their usage levels despite any downturn. There might be substitution effects in households with both mobile and fixed lines as consumers become increasingly sensitive to small differences in pricing, but overall revenue will likely be sustained. And even if fixed-line voice revenue continues to decline, as it has in recent years, the opposite will happen with broadband, which

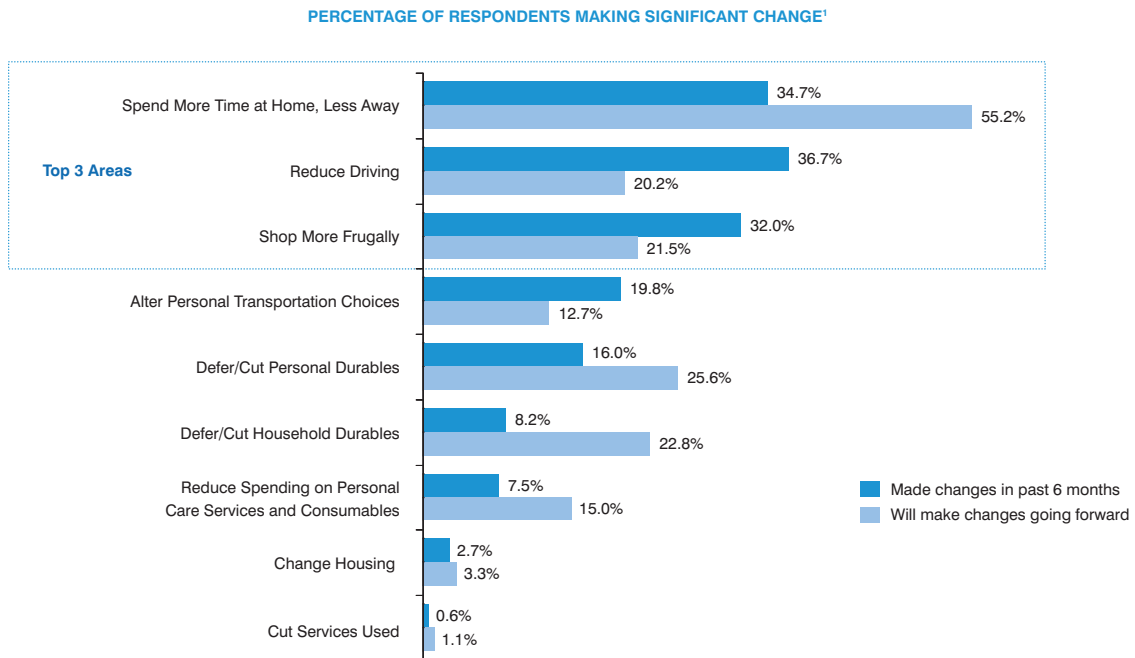
is considered a high-value, affordable service. Some technologically advanced operators may eventually find consumers willing to pay for their new mobile services, like remotely activated smart services that reduce home-energy use or increase home-energy efficiency.

The outlook is somewhat different at the low end of the market, with prepaid subscribers, and in developing nations, where communications services are more nascent and still in growth mode. In extremely fast-growing regions like the so-called BRIC countries (Brazil, Russia, India, and China) or the Middle East, the revenue impact may not be noticeable at all unless the crisis persists for an unusually long time. Then operators in these countries could see a drop in subscriptions or reductions in average

revenue per user. Indeed, there could be stark regional or even country-by-country differences. Just as telecom operators serving the Middle East enjoyed a spike in business when oil prices surged to historic highs, those operators may suffer if Middle Eastern economic growth abates, hurting the area's publicly funded economic development projects and, consequently, the region's workers.

In short, it is difficult to imagine any telecom operator, no matter how well positioned, completely escaping the impact of a prolonged global downturn. The near term will probably be easiest for geographically diversified players that have a presence in high-growth developing markets where the problems are not as severe as they are elsewhere.

Exhibit 1
Consumers Are Not Cutting Existing Services



¹ Percent responding 5 or above on a 7-point scale in more than a third of surveyed actions in each area
Source: Booz & Company Consumer Spending Behavior Survey, 2008

A RENEWED FOCUS ON COSTS AND CAPITAL SPENDING

In any economic downturn, it is prudent to do a rigorous evaluation of expenditures. Indeed, before the crisis hit, many operators were already taking steps to streamline their business models; they are now likely to accelerate those initiatives. We would also expect operators to consider outsourcing more processes as a way to control operating expenses.

On the capital spending side, operators that want to conserve cash are pulling back on their infrastructure investments in developed markets and rethinking the pace at which they will roll out next-generation technologies. They are also giving more serious consideration to network-sharing models, which have been a topic of discussion for a long time. Network sharing is already a common practice in many developing markets, including India, where regulators insist on it.

One other cash-generating idea that may figure into more discussions revolves around separating network companies (netcos) from service companies (servcos). Operators could

selectively sell static assets such as passive networks, data centers, call centers, and masts to new investors, and use the proceeds to make alternate investments. That might lead to wider discussions about partnerships at different points along the value chain, a situation that would probably favor those companies that seize the initiative and drive the partnership discussions in the first place.

Does it make sense to cut capital spending and explore other ways to free up cash? To some extent it does, but rationality in making these decisions is key. Certainly there are some strategic investments that will directly affect operators' ability to meet demand and remain competitive in the future. The development of mobile broadband infrastructure is one potentially strategic investment; next-generation networks are a second; fiber rollouts (including fiber-to-the-home, with which Verizon has had success in the U.S.) are a third. Anti-cyclical investing could be a huge advantage for those operators that have the ability to do it, mean-

ing those with low levels of capital spending relative to their revenue (*see Exhibit 2*). We learned about this upside in 2001, when the companies that stuck with their 3G investments amid a wider telecom crisis emerged with unassailable positions in an important area of mobility. The timing may be right to continue with long-term strategic investments, since

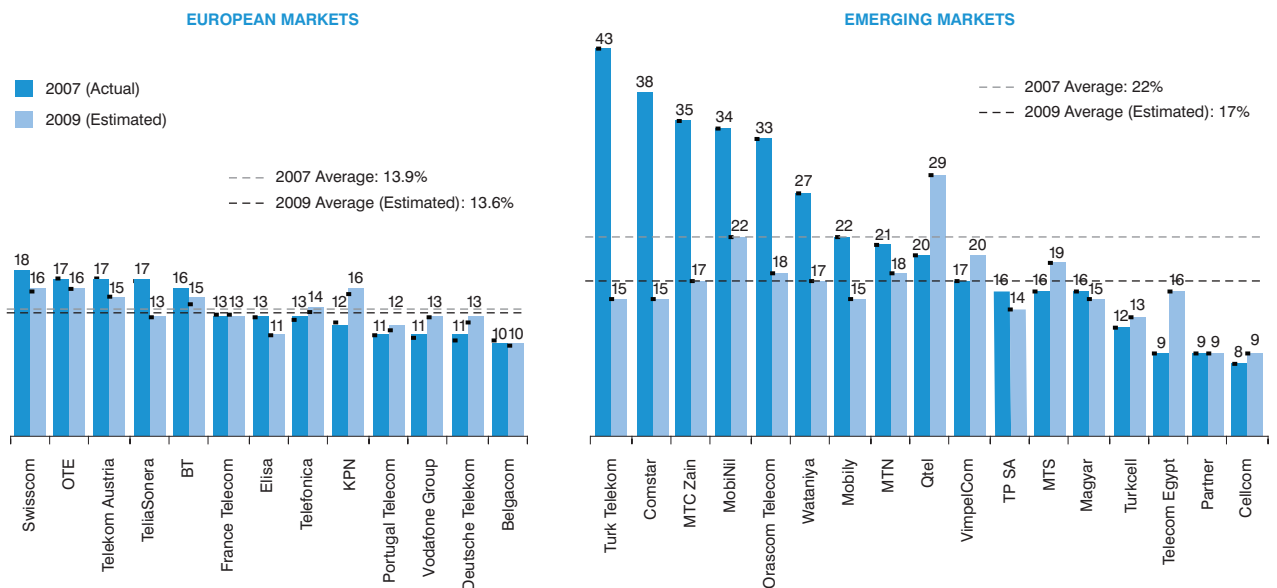
further negative effects on stock-market value may be marginal.

For the strongest companies, the economic turmoil may even offer a chance to extend into some new areas by, for instance, buying retail stores in distress and turning them into operator-branded outlets. While some operators already do this (Verizon

and AT&T in the U.S., Virgin Mobile in the U.K., T-Mobile in Germany), it is less common in developing markets.

Telecom operators that survive recessions intact usually do so through some combination of service-price hikes, operating-cost cuts, and a temporary reduction in capital spending. One or more of these tactics helped Telefónica

Exhibit 2
Capital Expenditures as a Percentage of Revenue



Sources: Bloomberg, Merrill Lynch estimates, Booz & Company analysis

Telefónica de Argentina, Turkcell, and NTT DoCoMo Respond to Economic Crises

Argentina: Telefónica de Argentina

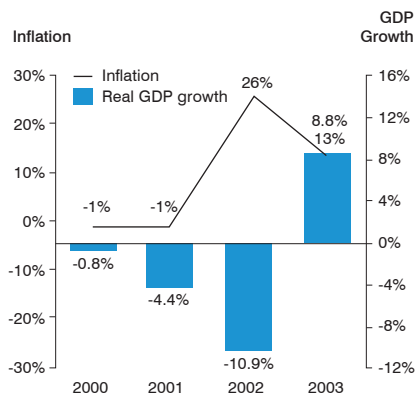
In 2001, Argentina entered a recession that reached its peak in 2002, with GDP falling by 10.8 percent, unemployment reaching 23 percent, and inflation at 26 percent (see *Exhibit A*). As a result, Telefónica de Argentina's revenue fell 19 percent during 2001–02; however, since the Argentinean peso broke its peg to the U.S. dollar in 2002 and depreciated against the dollar by 76 percent, the company's real losses were substantially steeper.

In response, Telefónica de Argentina reduced capital expenditures by 65 percent, operating expenditures by 9 percent, and head count by 7 percent (see *Exhibit B*). These aggressive measures were crucial to the company's survival and allowed it to maintain an EBITDA margin above 50 percent throughout the crisis.

de Argentina, Turkey's Turkcell, and Japan's NTT DoCoMo Inc. through difficult times in their countries (see "Telefónica de Argentina, Turkcell, and NTT DoCoMo Respond to Economic Crises"). Operators must have a strategy for reducing costs should economic circumstances suddenly require it.

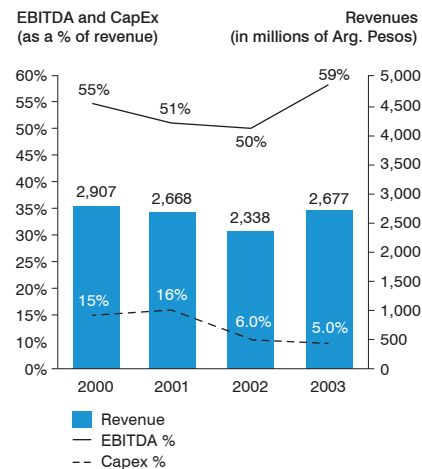
Telecom vendors will also have to make adjustments and will benefit from solid cash management. Inevitably, telecom equipment revenue will suffer in an environment where only a few elite operators are pushing forward with their full capital investment programs. Network equipment vendors will be hurt not just by lower volumes and pricing pressure but by their inability, for the most part, to extend credit on favorable terms to operators. These financial pressures will drive consolidation as scale becomes increasingly important, providing an advantage to those with large cash reserves and stable balance sheets. A company like Cisco Systems Inc., for instance, which had cash and short-term investments of US\$26 billion as of July 2008, is well positioned to wait out a downturn in carriers' capital spending and to take the lead as a consolidator in a tough credit market.

Exhibit A
Argentinean Economic Crisis, 2002



Sources: Bloomberg, Booz & Company

Exhibit B
Telefónica de Argentina's Performance



Sources: Annual reports, Bloomberg

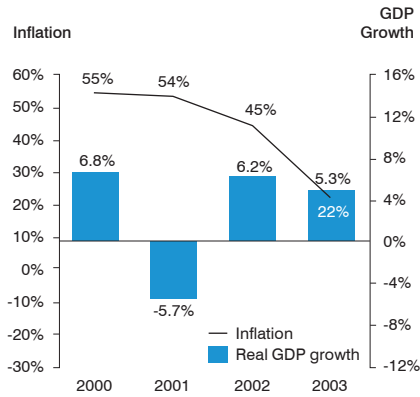
Turkey: Turkcell

The Turkish economy experienced a recession around the same time, with very high inflation, a 7.4 percent drop in GDP, a 58 percent currency devaluation against the U.S. dollar, and 10 percent unemployment (see *Exhibit C*). The economy suffered from a strong aversion to risk and a lack of short-term debt; consumer demand dropped significantly, with sales of white goods falling 40 percent and automotive sales declining by an overwhelming 70 percent.

The telecom sector actually offered significant growth potential during this period: In 2000, Turkey's mobile penetration was only 30 percent. Turkcell took advantage of the opportunity and grew its subscriber base. However, minutes of use fell and thus pressured margins. Because of the currency depreciation, revenue in terms of U.S. dollars decreased 16 percent year over year from 2000 to 2003. Turkcell responded by drastically reducing its capital expenditures from almost \$1 billion to \$200 million, as well as cutting sales and marketing costs

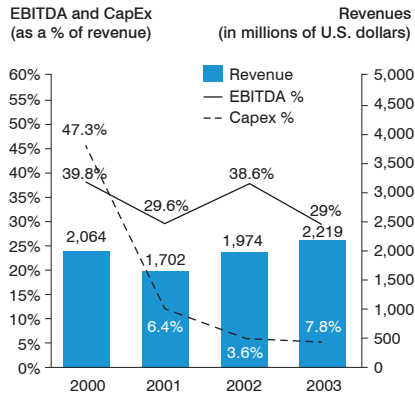
(see Exhibit D). These actions bolstered the company's cash flow and allowed it to emerge from the pressure of the downturn in a stronger position than before.

Exhibit C
Turkish Economic Crisis, 2001



Sources: Bloomberg, Booz & Company

Exhibit D
Turkcell's Performance



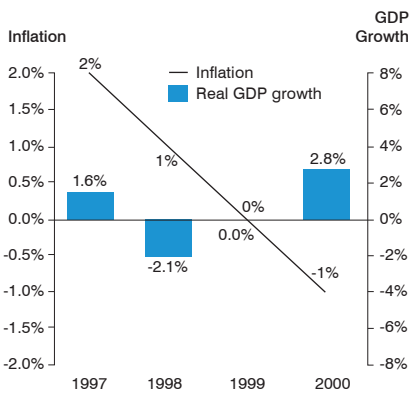
Source: Annual reports, Bloomberg

Japan: NTT DoCoMo

Like Argentina and Turkey, Japan saw strong devaluations of its currency in 1997–98, as well as devalued stock markets and a substantial increase in private debt. The real GDP growth rate slowed dramatically in 1997, from 5 percent to 1.6 percent, and the country sank into a recession in 1998, with GDP declining by 2.1 percent (see Exhibit E).

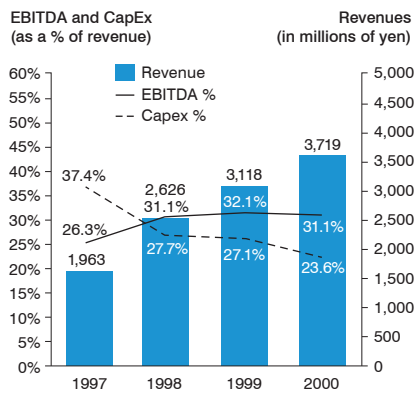
But NTT DoCoMo was not hindered by economic conditions. In October 1998, it was listed on the Tokyo Stock Exchange and became the biggest corporation in the world by market cap. In February 1999, it introduced a mobile Internet service, i-mode, as well as e-mail technology, gaining 1 million subscribers in less than six months. To maintain its position, it expanded its technology through several international investments and selectively reduced capital expenditures as a percentage of sales (see Exhibit F).

Exhibit E
Japanese Economic Crisis, 1998



Sources: Bloomberg, Booz & Company

Exhibit F
NTT DoCoMo's Performance



Sources: Annual reports, Bloomberg

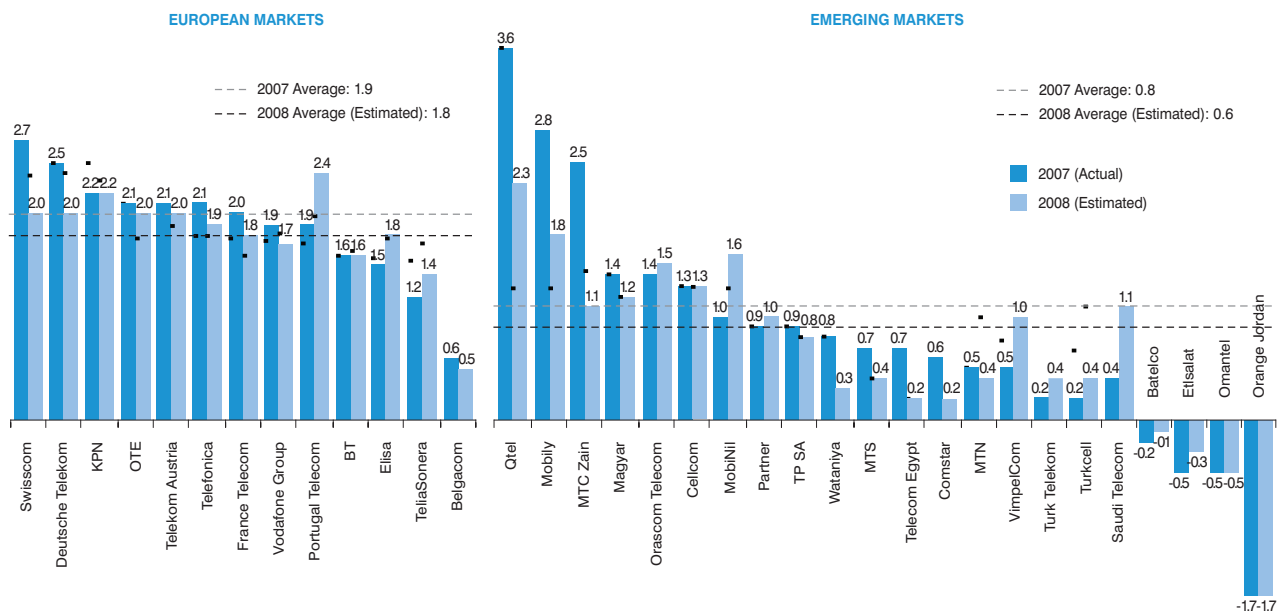
A BRIEF PAUSE FOR M&A

We have come a long way since 2005, when Telefónica SA of Spain rounded up \$32 billion in financing for its O2 deal in 48 hours. The easy money is gone, and very few boards of telecom companies would be interested in selling anyway, given the level at which their companies' shares are trading. But the current malaise in capital will not last forever, and when it ends, operators with strong balance sheets and cash positions may find themselves with some good opportunities.

For one thing, an economic downturn will prompt consolidation as industry players seek greater efficiency. The trend will favor cash-rich companies, which would be in a position to take advantage of shrinking M&A premiums and acquire marginal players in distress. In addition, the credit crisis has sidelined many private equity firms. The resulting shift in value-creation tactics—away from financial restructuring and toward operational improvements—clearly favors telecom companies, which know how to drive these synergies.

We also expect an increase in cross-border M&A, which could take many forms. For example, well-established companies in the U.S. and Europe might look to continue expanding into developing markets. But money could flow in the other direction as well. Some companies in developing markets like the Middle East and Asia may be in a position to become more opportunistic on the M&A front because of their strong cash flows and relatively low debt levels. The debt levels of operators in emerging markets are, on average, about half of those of European operators (*see Exhibit 3*). These companies will have the flexibility to take on more debt or could use their excess cash to finance acquisitions. A final wild card involves the sovereign wealth funds, which have already wielded their financial might in industries from banking (Kuwait's stake in Citigroup Inc.) to oil and gas (China's investment in BP) and might find some allure in beaten-down telecom companies.

Exhibit 3
Ratio of Net Debt to EBITDA



Note: 2008 Estimated figures based on consensus estimates.
Sources: Bloomberg, Merrill Lynch, Booz & Company analysis

SLOWING EFFORTS TOWARD DEREGULATION

The economic upheaval will probably discourage telecom-industry regulators from instituting any radical new initiatives. In developing markets, on the one hand, policymakers may be more proactive, slowing down the rate of deregulation and privatization in ways that could prove problematic for new investors. In mature markets, on the other hand, regulators will be inclined to stay the course, though they might formulate new policies in the future to ensure the industry's resilience.

Worldwide, in the wake of a global banking crisis that has left many consumers feeling vulnerable, there may also be a push on the part of telecom regulators toward more consumer protections, especially with regard to service delivery, coverage, pricing, and ownership changes. However, regulators will have to find a way to ensure that their desire to safeguard consumers doesn't lead to policies that make it impossible for struggling operators to survive.

OPPORTUNITIES IN ENTERPRISE SERVICES

There is nothing positive about customers going out of business—and that has already started to happen, particularly in the financial sector, as the credit crisis has taken out companies like Lehman Brothers and Bear Stearns. The vast majority of companies, however, will stay in business, making a big decline in enterprise use unlikely. Indeed, the increasing cost-consciousness of enterprise customers—including their desire to cut back on travel expenses—may spark demand for communications services that support videoconferencing, telecommuting, and teleconferencing. As customers look to get a better handle on their selling, general, and administrative costs, they may also increase their use of voice over IP, managed services, and automation.

CONCLUSION: A BRIGHT FUTURE

While there is a lot of uncertainty in the economic environment, there are also some reasons for optimism. To start with, telecom revenues have not been affected systematically, despite the problems the downturn is creating in much of the world. Overall service revenue should continue growing, albeit at a slower pace, as rising mobile use and increasing broadband penetration more than make up for any decline in fixed-line revenue.

Certainly, there are challenges for telecom operators. The credit crisis and economic downturn will crimp M&A, put pressure on costs, force some vulnerable telecommunications companies out of business, curtail growth in developed as well as developing markets, and prompt consumers to be more disciplined about how they use even core communications services. But the turmoil will also create opportunities for operators that have the financial strength to maintain their long-term investments and the foresight to plot a strategy for a post-crisis world. This is a time for operators to anticipate, and prepare for, different market scenarios. The race will go to those operators that capitalize on their financial strength, balancing investments in innovation with opportunistic acquisitions, thus creating long-term advantages. Those that can navigate the turbulence may indeed find an upside.

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