

# *Silicon Valley Roundtable*

## *National Association of Business Economists*

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### **WHY DOESN'T THE WASHINGTON CONSENSUS MODEL WORK IN LATIN AMERICA?**

William Grindley, Pacific Strategies

In the early 1990s, there was considerable enthusiasm in much of Latin America for less government, more privately delivered utilities and services, open domestic markets and international trade—US-style capitalism, often referred to as The Washington Consensus. Partly as a reaction against years of stagnation in the prior “Lost Decade,” political opinion favored a new economic model. Wealth was created. Markets were opened. Deregulation opened new opportunities for local and foreign entrepreneurs, and the region’s leaders were feted at Washington, Davos, and other financial centers. Short of revolution, many of these reforms cannot be reversed easily; but despite governments embracing them, greater wealth—the objective of any economic policy—has not been achieved. Why did it fail? And why, in reaction, have Latin American voters in recent years turned to seemingly leftist governments to help them achieve some modicum of economic stability? Five reasons seem to explain why the region appears trapped in a downward economic spiral and why the “pure” policies of The Washington Consensus are unlikely to attract new followers in regional decision-making positions.

### **Wealth Creation Lags**

In 2002, more than 214 million people, almost 44 percent of the Latin American population, still lived in poverty. Of these, 92.8 million (18.6 percent) were indigents, who lived on less than US \$2.00 per day. The living conditions of many Latin Americans have worsened in the past three years. Estimates of poverty have risen by seven million in the last year alone, while unemployment rose from 8.4

percent to 9.1 percent at present. Real wages declined 1.5 percent in 2002. In the period 1999-2002, per capita GDP in Argentina fell 12 percent in Argentina and 20 percent in Uruguay.

In Mercosur (Argentina, Brazil, Paraguay and Uruguay) only Brazil posted marginal growth (0.2 percent) in 2002. In the Andean Community, Peru, Ecuador, Bolivia, and Colombia showed marginal economic growth (but smaller than the increase in population), while Venezuela saw its per capita GDP fall by 9 percent. Even Chile, a perennial economic star, performed less strongly than in the past. For Mexico and the Central American Common Market, the weaker performance of the US economy limited growth. Only Costa Rica, El Salvador, and the Dominican Republic posted positive GDP growth.

Significant inflation—Latin America’s tax on the poor—reappeared after an eight-year decline, averaging 12 percent for the entire region compared to 6 percent in 2001. Ominously, higher inflation is not the result of wage pressures exceeding productivity but rather wholesale and retail price increases.

### **The Persistence of Poverty**

Latin America made a dramatic shift in the past two generations from a largely agrarian to a largely urban and industrial economy. All economies are now measured in terms of their monetary wealth, but the wealth seems no better distributed than it was 50 years ago. In the early 1990s Ecuador, followed closely by Brazil, had great inequities in the distribution of wealth. For example, in Denmark, Japan, and Sweden, the richest 10 percent of the population was seven to nine times that of the poorest 10 percent. In the United States, the ratio between the highest and lowest tiers was

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15 times as great. In Brazil the differential was 38 times and in Ecuador 45 times.

In the decade when jobs and wealth were created under the rubric privatization and free trade, these differences only increased. State-owned and over-staffed industries and utilities closed or were privatized. As private telecom, rail, airline, electricity or water duopolies or monopolies grew, local investment partners profited from their value to foreign investors and operators. Often these rewards proved devaluation proof as tariffs were mandated in US dollars. However, the “rice bowls” of hundreds of thousands of workers in industries and utilities got broken as increased capitalization and modern management techniques enabled privatized industries to lay off workers. As a rule of thumb, only one in every three state-owned industry or utility workers still holds a job. Not surprisingly, the benefits of The Washington Consensus are not obvious to the long-term unemployed.

### **Systemic Government Corruption**

With the exception of Chile, ranked by Transparency International as nearly as incorrupt as the United States (18th of 91 countries surveyed), every other Latin American country ranks in the corrupt top half of countries surveyed. Ecuador leads in 79th place, and Venezuela is 72nd; the ratings for Argentina, Colombia, and Brazil are 57th, 50th, and 46th respectively. The past decade saw efforts to reduce payoffs and cronyism through clearer commercial codes and independent monitoring agencies. However cronies of politicians are still influential. Contracts, licenses, and operating permits are all too often not won through merit.

A less savory aspect of the movement toward openness in the 1990s was the privatization systems themselves. A convergence of interest between the political leadership in countries like Argentina, Peru, and Venezuela and foreign state-owned companies led to

monopolies or duopolies created under cloudy bidding rules. State-owned telecom operators of France, Italy, and Spain now control nearly every Latin American system. Spanish state electrical and gas companies dominate Latin American utilities, and the French state water distribution company has made a surprising number of acquisitions. At times bid prices were astronomical with Telefonica de Espana paying five times the asking price and three times the nearest bidding price for Peru’s telecom company. Reportedly large bribes were paid to disqualify market driven operators. Foreign state-owned bidders, on the other hand, demanded (and got) retail pricing to be paid in US dollars. Understandably, the French, Italian, and Spanish governments are making a major push for the International Monetary Fund to “roll over” Argentina’s debt.

How can this corruption still exist when fewer industries and utilities are in government hands? The answer lies in well-intentioned laws designed protect national leaders from unfounded charges by political opponents. Virtually throughout Latin America, government officials are immune from prosecution for a crime while holding elected office. Even though politicians are held in lower esteem than in the United States, they know that winning an election means gaining effective control city, state, or national treasuries for themselves or their parties.

The longer political leaders stay in power, the more power they accumulate in determining who wins government contracts. Favors carry a price for winners, but little risk for politicians, who often hold office for life by assuming other offices once term limits reduce their influence. Only recently has new legislation increased the liability of politicians in Mexico and Brazil. In the latter, two powerful former senators are now in prison. Cheap Education, Expensive Labor Laws Every Latin American country must compete for investment and jobs in a global economy,

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but nearly all have failed to grasp the social investment and change that will be required to participate in that economy. While countries proclaim the importance of education for the future, few make even the minimal investments high-value industries. An estimated two million primary-age children and 20 million secondary-age do not attend primary or secondary school. While nearly all Argentine children reach the fifth grade, only half do in Nicaragua.

Not only is the region under-served in its primary and secondary education, but also university education is focused on the social sciences. Political science, sociology, and psychology dominate the undergraduate majors, while science and technology faculties languish. Only two universities in Latin America are considered of sufficiently high caliber for multinational corporations to actively recruit from them for international positions. Consequently, instead of building the intellectual capital base to support high-value industry, Latin America seems unable to provide the skill levels needed to compete in a global economy.

The region also has a legacy of expensive labor laws. In the mid-20th century, Juan Peron built a political base for his Justilcista Party on the premise that Argentine workers had the same rights to guaranteed employment and social benefits that European workers supposedly enjoyed. That model—including a 13th month of pay, 20 paid holidays, and a minimum of three weeks vacation per year, plus 30 percent of wages going to pension and social security contributions—was largely followed by other Latin American nations. The result today is that fully benefited labor costs are generally double that of the worker's salary. International investors avoid using this base, while local employers either avoid the labor laws such as by firing employees within 90 days of their employment to avoid their qualifying for benefits.

Is it any wonder then that Latin American governments devalue so often? Or that Latin American workers are cynical about The Washington Consensus model? Devaluation is government's tool to keep relative labor costs in line with comparative international levels. But without education for the future labor force, productivity will not increase fast enough to offset relatively rising wages. Meanwhile continual devaluations aggravate capital servicing costs and encourage regional governments to offer investors low wages as a sole incentive. Latin American workers, who have seen Asian goods flooding their markets while their own wealth is static or declining, have little reason to support globalization or free markets.

### **No New Capital, No Growth**

Latin America is a chronic borrower because there is so little capital formation and the prevalence of capital flight allowed by free market philosophy. In the early 1980s, net capital flows to the region began to surge, but the Asia crisis of 1997, default by Russia, and the Brazil crisis of 1999 led to retrenchment. By 2002, net capital flows fell to \$30 billion from \$70 billion in 1999—only a third of that at the mid decade.

Local capital markets are feeble throughout the region. Local capital forces joined with foreign investors in the early 1990s to win privatization contracts. The capital outlook began to unravel with the economic slowdown of 1999. With lower or negative growth over the past three years and even more forecasted, debt servicing has once again reached the crisis level, Argentina defaulted on its foreign privately held debt a year ago, and more recently effectively defaulted on its sovereign debt. Although the International Monetary Fund voted a \$6 billion transition package, the motivation appears to have enabled the French and Spanish governments to recover some of their investments in the telecom sector. Argentines feel cheated. Argentina more than

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other nation embraced The Washington Consensus model and ran an open economy for a decade.

### **The Washington Consensus and Democracy**

Although anti-globalization forces are strong in the region, Latin America will probably not return to protectionism. Most leaders realize that closing their economies would return ownership of industry and commerce to the state or venal local owners and usher in again an era of shoddy products sold at high prices. It would mean less retail price competition and more inflation.

But given the other major regional change in the past decade—the return of democracy—Latin Americans will continue to vote for a better life. And why should they support macroeconomic and trade policies that don't seem to have worked? A decade of building new institutions may not seem long to Americans or Europeans who have benefited from the principles of the Washington Consensus for over a century. But for those in Latin America who are poor every day, there is not much to attract them to the principles warmly embraced a decade ago.

And the poor—two out of every five Latin Americans—vote too. Consequently, President Hugo Chavez of Venezuela can outlast middle and upper income oil industry strikers, and Ecuadorians can elect an ex-military populist president. Rural Bolivians have successfully prevented a water distribution project from being awarded to a French company, and Peruvians have forced their president back down on privatizing more of the economy.

Brazilians recently elected a leftist leader, who—to the surprise of capital markets and the International Monetary Fund—has set in place orthodox economic and budgetary policies and moderated his social goals.

If Ignacio de Silva (Lula) can walk the fine line between ever-rising expectations and fiscal discipline, he will have performed a minor miracle—particularly in the context of a global economic slowdown. The thinkers who devised The Washington Consensus should hope this happens in the region's largest and most sophisticated economy. The regional alternative may be stagnation, poverty, violence, and chaos that characterized Latin America before the 1990s.

Half The Washington Consensus is better than none at all.

### **THE CALIFORNIA DEFICIT**

by Kenneth Jacobson

Half of America's governors were newly elected in November 2002, and some may wish they had lost. A survey of the National Governors Association (NGA) and state budget offices in late 2002 confirmed that two-thirds of the states had to cut spending plans by \$12.8 billion in the last fiscal year (which, in most cases, ended on June 30th). That happened even though these plans already aimed at reducing spending growth from 8.3 percent to only 1.3 percent in 2001.

But this was only the beginning. State revenues fell by 6 percent last year, the first absolute fall since 1945. The National Conference of State Legislatures estimates that the states will be \$17.5 billion in the red, or 3.6 of public spending. Tax revenues are lower than expected in 35 states and spending is higher in 29. The projected combined state deficit for 2003 is a huge \$68.5 billion, and affects education, highways, Medicare, and other human services programs. The states have petitioned the White House and Congress for emergency revenue sharing—a direct cash transfer from the Treasury to state coffers. But with the federal budget in the red and the economy performing poorly, aid from Washington seems highly unlikely.

The fiscal problems of such states as California and Oregon have already made headlines, but the crisis in American cities is equally acute. New York is the worst off by far. Mayor Michael Bloomberg's January 2003 budget combines pleas for commuter taxes and direct aid with threats to collect more money from parking tickets.

Revenue sources for cities are drying up. State aid is down because state governments face mounting deficits. Lower consumer spending means lower revenues from sales and entertainment taxes without approval of state legislatures. Some cities face the additional problem of additional homeland security costs.

### Big Spending, Big Deficits

The reasons for state and city budget crises are well known. During the boom years of the 1990s, states cut taxes and raised spending, making temporary windfalls from a variety of sources for a permanent increase in revenues. The bubble burst, however, and states suddenly faced growing demands on major programs, especially Medicaid. Costs of this jointly sponsored federal-state program rose with increases in private health care plans and prescription drugs.

The NGA meeting of February 2003 issued a resolution calling for federal assistance to the states as "the most immediate stimulus" for the nation's ailing economy. While it is true that virtually all the states are feeling the pinch of a sluggish economy, it is also true, as a recent Cato Institute study argues, that the states suffering most acutely today are the ones that spent the last decade living beyond their means. The study demonstrates that if the states had limited spending increases to inflation plus population growth, they would now be enjoying a surplus of almost \$100 billion rather than facing a combined deficit for \$68.5 billion for 2003.

**Table 1**

### STATE SPENDING GROWTH AND DEFICITS

	Spending Growth 1990-2002	Projected Budget Deficit (\$Billions)
California	44%	\$34.8
New York	24	\$12.5
Texas	65	\$9.9
New Jersey	32	\$5.3
Minnesota	44	\$4.6
Ohio	70	\$4.0
Massachusetts	44	\$3.0
Connecticut	35	\$2.7
Wisconsin	43	\$2.6
Illinois	61	\$2.3

Source: Cato Institute

While Governor Gray Davis of California has emerged as a classic "tax and spend" Democrat, big spending has been bipartisan. Davis is joined by Bob Holden of Missouri among Democrats, while John Rowland in Connecticut and Bob Taft in Ohio stand out as free spending Republican governors. Governors of both parties have criticized President George W. Bush's tax cut proposal, pushed for an Internet tax, and called for federal handouts.

### The California Deficit

A chief problem in dealing with the California budget is to estimate how big the deficit is. Governor Davis claims the deficit over the next 18 months is \$34.6 billion. Legislative analyst Elizabeth Hill, the chief budget writer for the legislature, estimates the deficit at \$26 billion. The difference of \$8.6 billion results from different methods, definitions, and economic assumptions. Davis assumes that the state will spend more by honoring its commitment to the University of California (UC) and California State University (CSU). He is also more pessimistic than Hill about the

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economic outlook, state revenue projections, and deferred reimbursements to local governments. Hill's lower deficit estimate, based partly on a rosier economic recovery scenario, appeals to Republicans, who oppose Davis's proposed tax increase of \$8.3 billion in an FY 2004 budget of \$96.4 billion.

In Gray Davis' first term, tax revenues flowed into Sacramento faster than any one could have predicted. Davis and the legislature quickly spent the money on a cluster of programs including public education, highways, and health care for the poor, prisons, and support for the elderly. Between 1997-98 and 2000-01, a surplus of \$23.9 was spent in the boom years. Spending increases skyrocketed for favored programs: K-12 Education \$7.8 billion (+3.6 percent); health \$5.2 billion (+61 percent); UC/CSU \$2.3 billion (+50 percent); social service \$2 billion (+33 percent); corrections \$1.6 billion (+36 percent); community colleges \$700 million (+35 percent); and others \$4.3 billion (44 percent).

While many states increased spending in the boom years, California had the additional burden of new legislative mandates. Proposition 98, a ballot initiative approved by voters in 1988, set minimum state funding levels for public schools and community colleges. "Strike Three, You're Out" legislation in 1990 assured longer terms for the state's aging prison population. Finally, California chose to provide generous Medi-Cal benefits including acupuncture, hearing aids, and dental service. Davis now proposes cutting these benefits as well as hospice care for the terminally ill. He also proposes creation of a reserve fund to be used for one-time emergencies.

Davis' plans for mid-year budget cuts have been largely gutted in the legislature, and Wall Street is skeptical about California's fiscal health. Financial analysts say that without immediate spending cuts, the state will be

short on cash when it comes time to pay \$12 billion in loans that will come due in June. Standard & Poor has downgraded the state's credit rating from A+ to A-, the lowest it has been since 1996.

Not only is Davis at odds with the legislature over budget cuts, but there are differences over his planned revenue raising schemes such as raising the sales tax by a percentage point, increasing the income tax on wealthiest Californians, and increasing community college fees. One big difference is over \$4 billion the state has been giving to local governments since the vehicle license fee was reduced in 1998. Assembly Democrats want to raise fees to pay for police and fire protection. Davis wants to eliminate the money and force governments to make cuts.

### **The Governor's Isolation**

The governor finds himself increasingly isolated by the budget crisis. In March 2002, his job approval rating sunk to 27 percent. Long-time political allies are putting distance between themselves and Davis. Tribal leaders resent the governor's plan to tap American Indian casinos for revenues. The prison guard union, a long-time campaign contributor that was rewarded by a lucrative contract, has refused to discuss a pay cut unless Davis backs off from closing a women's prison. Police chiefs and firefighters are also abandoning him because he seeks to cut aid to counties. Jerry Brown, the Mayor of Oakland, once Gray Davis' political mentor, has accused the governor of creating chaos on the streets of Oakland by holding back funds to that city's police force, confronted by rioting Oakland Raider football fans.

Davis' political vulnerability is growing. His victory margin in the 2002 gubernatorial election was only 47 to 42 percent over Bill Simon, a weak opponent, whom Davis outspent by a 2-1 margin. With Davis now proposing steep tax increases and substantial

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spending cuts, the Sacramento Bee says “he is considered more vulnerable” now than he was on Election Day. Conservatives charge that Davis deliberately covered up the size of the deficit to win re-election. Liberals oppose his cutbacks in social services and failure to raise taxes.

### **The Recall Effort**

Gray Davis faces a recall effort just four months after his re-election. While no statewide official has ever actually faced a recall vote, and even getting a vote on the ballot is a long shot, the governor is decidedly unpopular.

Recall supporters have five months to gather signatures equivalent to 12 percent of the popular vote, or some 898,000 voters. After signatures are certified, the state must call a recall election within 60 to 80 days. Two questions appear on the ballot: whether the officeholder should be removed; and if so, who should replace him. Any number of candidates can file, and whoever captures a plurality—no matter how small—fills out the term. There have been 32 recall drives against California governors, including every governor since Edmund (Pat) Brown in 1960. No effort has made it to a vote.

The political consensus in California is that Davis will withstand the challenge. He will argue that it would paralyze state government in the middle of a budget crisis and be wasteful to spend money on a special recall election. The recall effort is also unlikely to gather force if voters perceive it as a desperate move by the California Republican Party, which lost every statewide election in the fall. On the other hand, Howard Kaloogian’s Web site, [www.recallgraydavis.com](http://www.recallgraydavis.com), had 500,000 hits in its first 96 hours of operation.

Davis will probably survive the recall challenge, but his political career appears over. As recently as 2000, political pundits included

Davis at the top of the list of potential Democratic presidential candidates. His inclusion on such a list now is unimaginable.

### **THE OUTLOOK FOR THIRD GENERATION (3G) CELLULAR TECHNOLOGY**

By David E. Benson,  
SRIC Business Intelligence

The first question you might ask is what is 3G and why should I care? Well, some of the largest cellular operators in North America certainly hope you care and that is part of a major problem for their future profit and loss statement. A second question one might ask would be, so what kind of cellular technology do I have today and will it satisfy my needs for the foreseeable future? That is a question that cellular operators hope you do not ask. In this short article I will discuss some of the current technology and competition in North America, address some of the market inhibitors for both today’s non-voice services and for future 3G service, and estimate whether and when 3G will make it to the market in the United States. Many journalists and telecommunications companies have hyped third generation (3G) cellular service as just over the horizon. Wireless operators in Europe and Japan have been promising 3G deployments for about two years, but neither region has yet had actual service. Reports indicate that the United States and Canada will also have 3G cellular deployments.

Third generation cellular service promises to bring cellular subscribers new networks and handsets capable of downloading and sending multimedia wireless data applications at very high speed data rates ranging from 144 Kbytes per second to 2 Mbytes per second, depending whether you are moving or stationary. Although the promised data rates are far superior to currently available rates, they are rarely achieved outside laboratory conditions. Moreover, the cost of both the handsets and

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service of 3G is likely to be much higher than today's cellular devices and service packages. Because of the high cost of network infrastructure deployment, competing transmission standards, inadequate consumer demand for new services, and insufficient operating spectrum, I believe that 3G is years away from being deployed in the United States. Before plunging into 3G, wireless operators in North America will first deploy an interim, phased improvement of wireless data service—referred to as 2.5G—that will supposedly ultimately culminate in 3G service. Each of the cellular carriers has their own brand name for 2.5G services, for example PCS Vision by Sprint and mMode by AT&T Wireless.

### **Near Term 2.5G Competition**

Just about all North American wireless operators are in the process of major deployment and conversion of their cellular networks to 2.5G level of performance. These wireless operators compete head-to-head with each other offering slightly different versions of 2.5G based on variants of the world's two major transmission standards, GSM and CDMA. Operators that are backing the GSM version of 2.5G wireless data improvement, known as GPRS (General Packet Radio System), include AT&T Wireless, Cingular, and T-Mobile in the United States and Rogers, AT&T Wireless, and Microcell in Canada. Operators in the United States offering CDMA 2.5G, known as CDMA2000 1xRTT, include SprintPCS, Verizon, U.S. Cellular, Alltel, and Metro PCS, with Bell Mobility and Telus in Canada. The 2.5G wireless data services will offer the usual e-mail and short messaging services along with such applications as photos, screen savers, ring tones, games, and a variety of news, weather, traffic, sports, stocks, and entertainment updates. Wireless Web access is also possible, but because of the small handset screen size, the viewing will be difficult.

The two competing 2.5G wireless data transmission technologies, GPRS and CDMA2000 1xRTT, differ in their performance, price to users, and content offerings. I believe that a combination of the high price of service, the low speed of upstream data requests, and the even lower speed of downstream loading will deter customers from widely purchasing and using the new capabilities, especially for the GPRS 2.5G variant. Currently, GPRS 2.5G data transfer speeds at best average 20 to 30 Kbytes/s, which is not much better than existing pre-GPRS mobile data capability on the old networks. GPRS operators hope that, in a few years, when the GSM networks stabilize, data speeds of 40 Kbytes/s will be routine. I remain skeptical, as European networks in place for well over a year have not been able to demonstrate that level of performance. The main competitor in North America to GPRS, CDMA2000 1x 2.5G technology, on the other hand, has to date continuously demonstrated average data throughput speeds during peak operations of 60 to 80 Kbytes/s. Furthermore, GPRS wireless data service has a basic network usage problem in that the operators do not give wireless data calls any priority over voice in the use of the eight time slots available for use of either voice or data within GPRS transmissions. Most operators usually allocate just two of the total eight available slots for mobile data utilization, meaning you will often get a busy signal when trying to make data connections during busy cellular usage periods. Also, GPRS handsets are not compatible for operation with the legacy GSM or TDMA networks in use by the cellular operators, whereas CDMA1x handsets are compatible with both legacy and future CDMA networks.

It is still too soon to declare an overall long-term market winner in the competition between wireless operators of 2.5G wireless data services in North America, but CDMA2000 has established a performance, efficiency and cost edge. GPRS operators face

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strenuous competition when it competes directly with CDMA2000 1xRTT service, because CDMA appears to be cheaper to build out and to have more reasonably priced service packages. Consumer interest in purchase of service is needed for all competitors to achieve any market success, and that might take a while.

### **Barriers to Deployment of 3G Networks and Service in North America**

Just making a straight comparison of technical performance and speed of the 2.5G wireless operators will not alone determine whether 3G services will ever reach North America. In reality there are several issues associated with 3G deployment that must be resolved, perhaps far too many. The road to 3G in North America is full of hurdles and barriers. Perhaps the most significant barriers to operator deployment are unknown levels of demand by both individual consumers and enterprise users for 3G services. Current cellular subscribers in North America predominantly use voice services, and the evolving 2.5G data services—screen savers, ring tones, and picture postcards—are not yet attracting large numbers of users, especially at the current monthly price packages offered by the carriers. The reality that faces cellular operators in North America today is that there is no real sense whether 3G advanced wireless data services and accompanying multimedia applications will ever achieve significant levels of subscription. Significant growth in subscriber levels is needed to justify and pay for costly 3G-infrastructure deployment along with yet to be established auction costs of licenses for new operating spectrum. Another major unsolved issue that will affect the decision as to whether and when the cellular operators will deploy 3G in North America is price of service. How will the cellular carriers price data services to attract large numbers of new users? Most are currently using a subscription package based on cost per megabyte of data transmitted. This

pricing model is simply not going to be attractive enough to fuel any surge in use by either existing or potential subscribers. Without reasonable and less expensive levels of data package pricing, it is hard to believe that substantial numbers of new subscribers would be interested in buying even 2.5G wireless data service packages, to say nothing of 3G.

The lack of compelling content for current 2.5G and planned 2.75 and 3G wireless data applications is yet another barrier. Wireless data applications will need to be both interesting and beneficial in order to attract additional new subscribers willing to pay for the service. As of today, available content for the 2.5G services is limited and has not attracted much interest from subscribers. Content application possibilities include video, games, pornography, gambling and audio, but the potential of these applications to cellular users is limited by the small screen size of most cellular phones and the awkward user interface maneuvering and button-pushing necessary to download or request data. The Bottom Line: Will We See Widespread 3G Deployments in the United States? Just as we have seen delay after delay in Europe and Japan with planned introduction of 3G networks and services, expect to see similar developments in the United States. Moreover, poor coverage continues to haunt wireless operators in North America, and deployment of 3G technologies does nothing to mitigate this situation.

To get good insight into the current status of the decision process for 3G in the United States, a look at AT&T Wireless quandary is useful. AT&T Wireless's recent announcement cutting back and delaying earlier plans to deploy 3G exemplifies the uncertain environment in the USA. AT&T Wireless in January downsized their previous deployment plans, scaling back earlier intentions to launch a nationwide 3G system once the current 2.5G GSM/GPRS build-out

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was complete. AT&T Wireless now plans roll out a version of 3G based on Japan's NTT DoCoMo's WCDMA 3G transmission technology in only four cities—San Francisco, Seattle, Dallas, and San Diego, instead of the 13 originally planned. It will also delay the deployment dates from 2003 to at least the end of 2004. A business deal made in 2000 with DoCoMo is motivating AT&T Wireless to follow through with even these scaled back plans, despite the issues previously mentioned. NTT DoCoMo paid \$9.8 billion for a 16% stake in AT&T Wireless in late 2000. AT&T Wireless must meet its commitment made at that time to roll out NTT DoCoMo's version of WCDMA 3G in at least those four markets or it might be forced to buy back its own stock from DoCoMo for the original purchase price plus interest. So AT&T Wireless may somewhat reluctantly take the plunge into a less than promising environment for 3G services in the USA.

To some degree, all cellular operators in the USA face various daunting hurdles and barriers before deciding to deploy 3G networks and service including spectrum shortage, unattained licenses, little market demand for data service, and high infrastructure deployment costs. In addition, operators must also deal with emerging competitive technologies to urban 3G wireless data networks such as extended connected deployments of 802.11 Wireless Local Area Networks. A need also exists for carriers and service providers to develop and deploy compelling and useful applications that users will want to use and purchase. Before 3G services can become useful for enterprise and business market segments, the applications need to be consistently and reliably delivered with high data transfer speeds at a more reasonable cost. The potential for a 3G service market to individual consumers in the United States is decreased by the possibility that current cellular subscribers may be satisfied indefinitely with the level of performance and capability for wireless data service now

offered by 2.5G and 2.75G, resulting in little or no market for faster, multimedia centric 3G services. Solutions to resolve those issues will be critical in determining whether and when 3G will ever be widely deployed in North America.

### **The 3G Outlook**

With all of these unresolved issues and problems, U.S. wireless operators are unlikely to proceed with 3G deployments of any significant scope or size. So when will we see even limited scope 3G in the USA? Certainly, in my opinion, we won't see it very soon. Counter to the optimism of many current telecommunication industry forecasters, I believe 3G technologies will not be widely available to cellular users in the United States in this decade. Perhaps operators, like in the AT&T Wireless case, will have limited deployments in a few cities. However, in general, 3G is too expensive, apparently not of much interest to the general public, and in the long run, probably not really needed if 2.5G service and performance can fulfill user needs. Wireless subscribers in the United States want better coverage first and foremost, regardless of the transmission technology or promise of multimedia applications. Customers simply do not care what network they use or what comparative performance levels might be between competing technologies, they just want their phones to work wherever they are. Consumers also want to be able to call their friends and family and connect to useful and reliable data services, whenever they need to, from wherever they are, without call drops or missing words. Cellular operators in the United States need to address these issues before they even think about taking the expensive plunge into 3G.

## SILICON VALLEY OUTLOOK

Claire Starry, TDS Economics

In November 2002, the SVRT membership was asked to provide a 2003 economic outlook for Silicon Valley and the nation. In contrast to the past two years, the membership expressed pessimism about the recovery, especially for the local economy. As shown in Figure 1, 70 percent of respondents expect Silicon Valley to grow less than 1 percent in 2003, and over half of those respondents saw continued negative real growth. Expectations about national recovery are stronger, with 60 percent forecasting real GDP to grow from 1 to 3 percent in 2003. Only 10 percent expect the nation's real growth to exceed 3 percent in 2003, in contrast with experts in other organizations, many of whom predict real GDP will increase from 3 to 5 percent in 2003.

The SVRT forecasters' prognosis is in line with the outlook recently given by the Association of Bay Area Governments,

ABAG, in its late January 2003 report. ABAG predicts only marginal employment increases for the greater San Francisco Bay Area through 2003, followed by stronger growth in 2004. The organizational also finds that taxable sales will continue to fall in 2003 before showing a rebound.

Over half of the SVRT members responding to the survey expect further declines in stock prices in 2003 (see Figure 2). When asked to identify the major challenges facing Silicon Valley, the SVRT membership finds the recession in the technology sector to be most problematical in the near term (see Figure 3). Housing shortages, labor force issues, and infrastructure problems, including transportation, are also among the problems listed. Although the current slump in the Valley's economy is attenuating infrastructure shortage difficulties, any significant recovery will again bring these issues to the forefront of Silicon Valley concerns.

Figure 1: 2003 Real GDP Growth Rate Forecasts

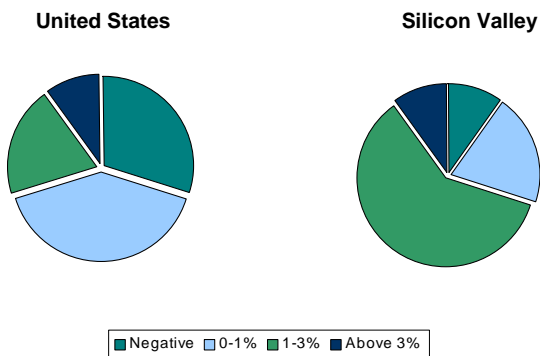


Figure 2: Will the Stock Market Decline or Recover in 2003?

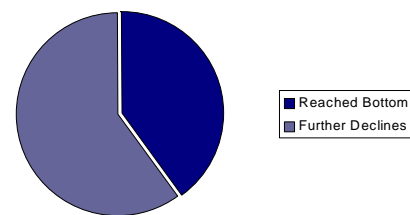


Figure 3: What Are the Major Issues Facing Silicon Valley?

