



CELLULAR CORP. (DOMESTIC)

Linda Donath
Alex Keever
Bill McNeill
Bob Miklos
Tarak Modi
Craig Norman

MBA 8403

Fall 1998

Dr. Jon Mansfield

TABLE OF CONTENTS

	<u>Page</u>
Executive Summary	3
I. General Macroeconomic Analysis	
A. Introduction	4
B. The Present State of the Economy	5
C. General Spending	5
1. Domestic	
a. Consumer Spending	7
b. Investment Spending	7
c. Government Spending	8
2. International	
a. Exports	9
b. Imports	9
c. The Asian Crisis and the Russian Collapse	12
d. International Highlights and the U.S. Economy	13
D. Production Capabilities	14
1. Employment Costs	14
2. Productivity Growth	16
E. Spending and Production Interaction: The Current State of the Economy	17
F. Macroeconomic Forecast	18
II. The Telecommunications Industry	
A. Market Structure	21
B. Competition	22
C. Strategies	23
III. BellSouth Cellular Corp. (Domestic)	
A. Background	27
B. Cost Structure	
1. Macroeconomic Factors	28
2. Economies of Scale	29
C. Strategies	31
D. Forecast	33
Figure 1: Real GDP Growth	6
Figure 2: Components of Real GDP – 1992-1998.3	11
Figure 3: Employment Cost Index	15
Figure 4: Productivity Growth	16

EXECUTIVE SUMMARY

This paper will analyze and forecast the microeconomic factors affecting BellSouth in particular and the telecommunications industry in general, and the macroeconomic environment in which BellSouth Cellular operates.

In general, the U.S economic market is considered to be in a very favorable position. The international economic environment, particular in Asia and Russia, is experiencing a deep recession. This has not significantly impacted the American economy to date.

The telecommunications industry in general and the wireless telecommunications industry in particular are experiencing a great deal of change and growth. The industry is in a state of flux with a number of new players, and mergers, acquisitions and bankruptcies facing existing players.

BellSouth occupies a particularly favorable position among its peers. Its domestic wireless customer base increased 15% in 1997 and cellular net income was up 8.4%. Penetration was pushed to 10.2%. BellSouth has nearly completed converting all of its technology to digital technology.

This report will outline the above in detail, identify the problems, opportunities and decisions facing BellSouth, and attempt to forecast future economic variables.

I. GENERAL MACROECONOMIC ANALYSIS

A. INTRODUCTION

Regardless of the industry or firm, the national economy within which that firm or industry operates impacts the demand for goods and services for all consumers. For this reason, the economic analysis of a firm should begin with an analysis of the macroeconomic factors in the national economy. In this section, we present our analysis of the U.S. economy in order to lay the groundwork for our analysis of the domestic wireless telecommunications industry in general and BellSouth Domestic Wireless in particular.

We will describe the current state of the national economy, assess the factors that impact supply and demand, and provide a means to forecast future trends that will influence business decisions. The state of the economy is described using the most popular measure favored by economists -- the Gross Domestic Product (GDP). By reviewing the values for the GDP over a period of time, we can gauge the performance of the economy. By reviewing each of the major components of GDP more closely, driving forces and major factors can be identified. These elements can then be studied to forecast the direction of the economy and consequences such as inflation, interest rates, and employment trends.

B. THE PRESENT STATE OF THE ECONOMY

To quantify the economic picture, we use the measure of the GDP. We gauge the health of the national economy by assessing the increase or decrease in the value of GDP over time.

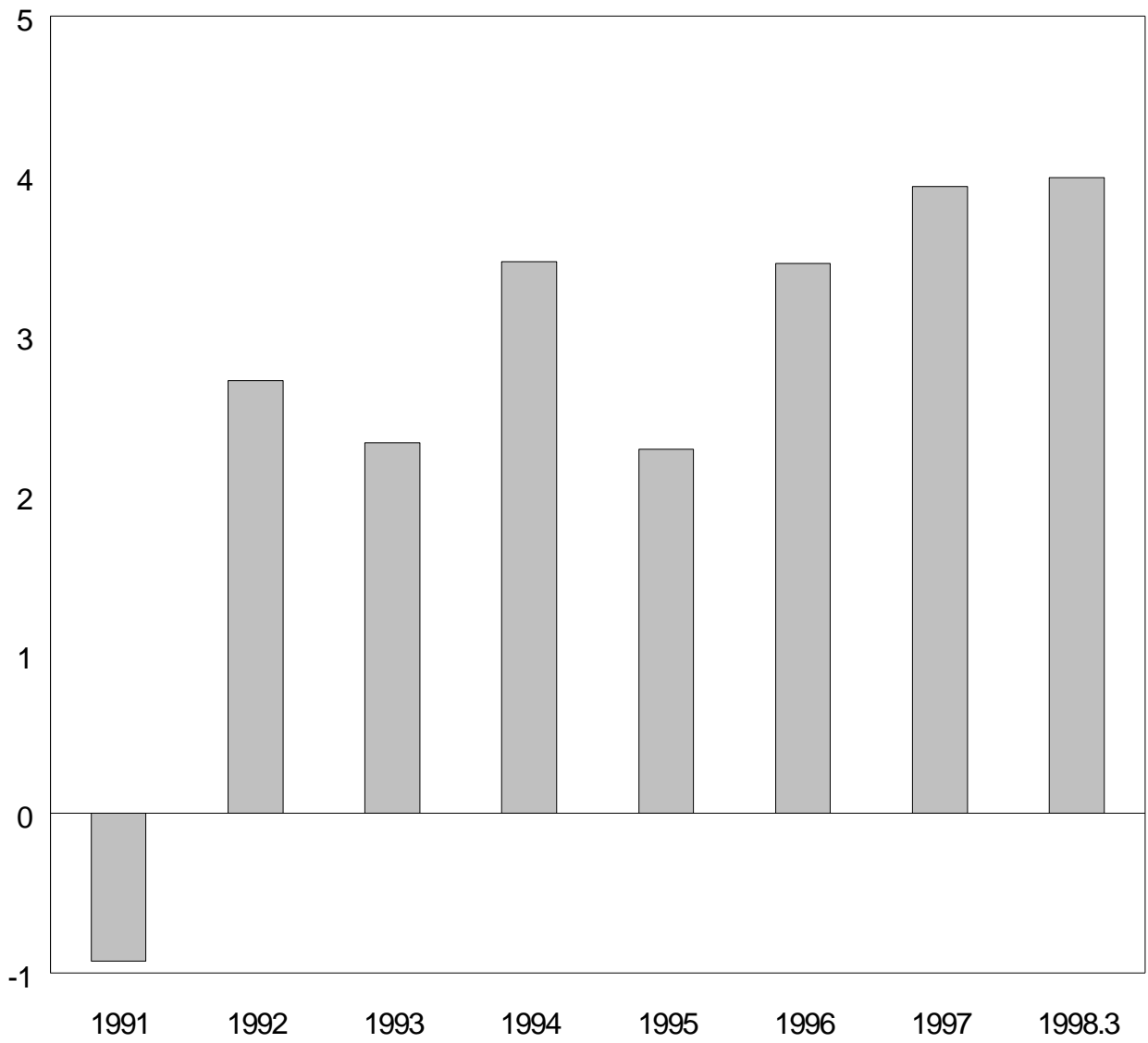
GDP has risen from \$6.8 trillion in 1995 to \$7.6 trillion in 1998 to date. This is an average annual increase of 3.8%. This increase indicates a growing economy during this time frame (see Figure 1). This growth has been fueled by an increase in certain components of the GDP resulting in an increase in aggregate demand since 1995. Aggregate demand has risen because the specific forces that drive demand have risen also. Reviewing each of these components provides insight into the national economy and identifies the trends that shape the current economy and allow us to forecast future behavior.

C. GENERAL SPENDING

The total demand for goods and services in the economy is comprised of several components which, when combined, make up the general spending quantity of the economy. For our analysis, the relevant components of general spending, also known as Aggregate Demand (AD), are consumer spending, investments, government spending, exports, and imports.

FIGURE 1

Real GDP Growth
Annual Percent Change - 1992 Chained \$



1. Domestic Components

a. Consumer Spending

Since 1995, consumer spending has increased from \$4.6 trillion to \$5.2 trillion in third quarter 1998. This is an average annual increase of 4% (Figure 2). This is due to an rise in consumer confidence, which is evidenced by a 29-year high in the Consumer Confidence Index. The Consumer Price Index (CPI) has remained moderate, allowing consumers to buy more goods with their increased income. Primary contributors to this sector are manufacturing purchases of durable goods, computers, and housing construction. If inflation remains low, consumer spending should continue at a healthy rate.

Another noteworthy general trend is that American households are saving less which means they are comfortable spending more of their disposable income. As long as consumers remain confident that their investments are gaining value, the household savings rate should continue to be below 1%.

A counterpoint to the confidence in investments is layoffs in large global companies. As some companies have begin layoffs due to the Asian crisis, consumer confidence could start to waver. The magnitude of any decrease in consumer confidence will depend on the depth and frequency of future cutbacks.

b. Investment Spending

Investment spending has also gained over the same 1995-1998 time period, with annual increase averaging 10% (Figure 2). Residential investments have soared as evidenced by the enormous rise in home sales.

Also, individual investors have pushed the stock market to record levels throughout the past three years. On the corporate side, businesses have increased their investments in plants and equipment to expand their production capacities as well as increasing spending in technology such as local networks and Internet commerce opportunities.

c. Government Spending

Government spending has increased only slightly during the period from annual increase was a meager 1.2% over the period (Figure 2). The popularity of the 1995 to 1998, from \$1.25 trillion to \$1.30 trillion respectively. The average balanced federal budget initiative has kept government spending from increasing significantly.

2. International Components

a. Exports

Exports increased in 1998 to \$965 billion, an average annual increase of 10.7% (Figure 2). Although the year-to-year comparison fell 0.5% from 1997 to 1998, there is some cushion from the previous years' increases. Exports increased from 1995 to 1997 as the Asian countries, Russia, and Latin America saw the demand for American goods skyrocket. When the economic crisis in the Asian countries hit, net exports plummeted from 1997 to 1998. As economic troubles followed in Russia and Latin America, those consumers were faced with huge price increases for American goods which caused demand to tumble.

The stronger dollar also contributed to increasing the demand for exports during the period from 1995 to 1997. A strong dollar can benefit companies in the short run, but may prove costly in the long term. Companies can hedge current risk in the short run, shielding costs and revenues from sudden movements in the dollar. Over time however, a strengthening dollar increases the cost of U.S. goods in the local currency of the foreign consumers, or decreases the value of the profits the U.S. companies bring home.

b. Imports

Imports increased from \$889 billion in 1995 to \$1.2 trillion in 1998 to date, an average annual increase of 11.4% (Figure 2). Americans purchased more domestic products to offset the imports. The volume of cheaper

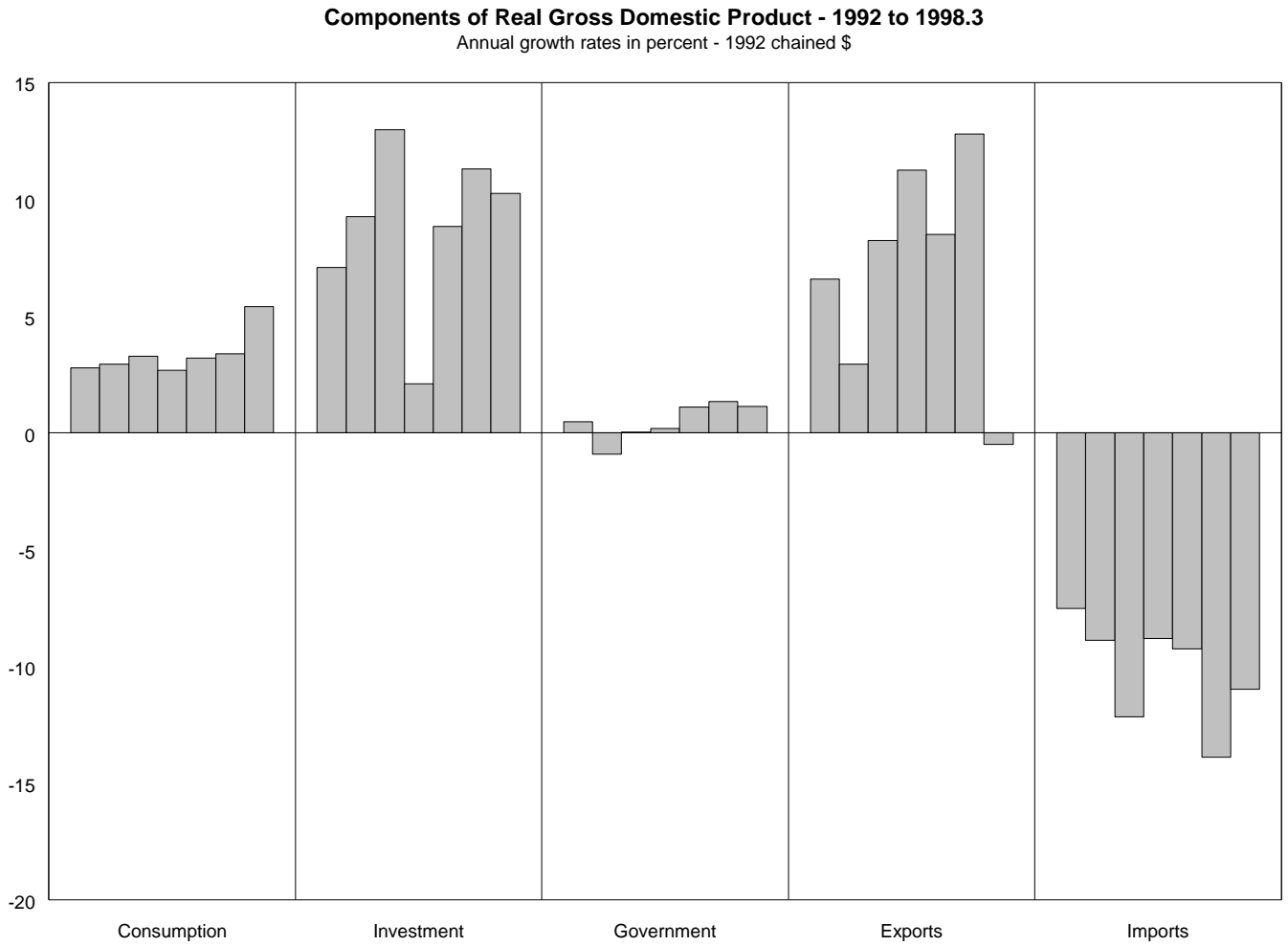
imports increased as a result of the Asian crisis, but the high costs of production in the exporting countries has reduced supply and prevented a flood of imports.

The Asian Crisis has caused exports to drop approximately \$600 million since 1997. It is expected that the 1998 deficit will exceed last year's resulting in a value of more than \$113 billion. The impact of this trade deficit warrants a further analysis since it has a negative effect on the GDP.

The prospect of more open U.S. markets stirs worries of job losses and lost prosperity. Exports are usually considered to be beneficial because they provide additional jobs and create expanded markets for U.S. products. In contrast, imports are often considered to be negative because they provide substitutes for domestically produced goods and services. Imports do, however, provide several benefits that are often overlooked.

First, imports provide consumers and businesses with access to a greater variety and quality of goods and services. Second, they provide competition for domestic producers, thereby helping to restrain price increases, and thus hold down inflation. Third, activities involving the distribution and sale of imports create additional employment. Many of the goods and services imported are those with which the United States does not have a competitive advantage, so they can be produced more cheaply abroad. With U.S. unemployment currently at a 28-year low of 4.3%, imports are helping to relieve the strain on the U.S. labor market.

Figure 2



c. The Asian Crisis and the Russian Collapse

Given the impact of imports and exports on the general spending in the economy, it is necessary to review the situation in Asia and Russia.

The Asian crisis includes many countries in the Far East facing economic turmoil. Because so much of this region has fueled our demand for exports in the 1990's and was viewed as a haven for new business opportunities, its impact on the U.S. economy requires review.

Most of the Asian countries are suffering from a recession, which is affecting the market for US exports. The high household savings rate and shaky real estate investments are two primary factors in Japan's economic downturn. Korea, Indonesia, and Thailand are also in recession. These countries are victims of the devaluation of their currency and ailing banks. The result for the U.S. is a drying up of a once healthy market block for exports. If the barriers in China become more relaxed, the export market and foreign investment could find room to grow in Asia while the other countries go about the business of recovery.

Russia's collapsing economy has also had an influence on the U.S. economic picture by beating down what was once a hopeful export market. The biggest contributors to extremely low consumer confidence and devaluation of the currency are lack of experience in capitalist markets, the rise of Mafia and black market operations, and runaway inflation. This, in turn, has caused foreign investment to dwindle and a potentially sizable export market to become out of reach.

d. International Highlights and the U.S. Economy

Despite the financial shakeout in Asia, the trade sector of the U.S. economy continues to grow faster than the economy as a whole. This suggests that the United States is becoming a more open economy and discovering additional markets around the world. The beneficial effects to the U.S. economy include the creation of jobs, greater consumer choice, and a restraint on price increases.

But despite being the world's largest merchandise exporter, the U.S. still consistently imports more than it exports.

The services component of U.S. trade is growing rapidly, producing a record \$85 billion surplus in 1997. As the United States becomes even more of a service economy, growth of service exports will accelerate and increase in importance relative to merchandise exports.

Robust U.S. economic growth in 1998, weaker Asian demand for U.S. products, and a strengthening dollar will contribute to an increase in the overall U.S. trade deficit this year.

The Asian financial crisis will have a negative impact on the U.S. trade sector, but capital outflows from the region have helped to hold down U.S. interest rates. This is moderating the impact of the crisis on the U.S. economy as a whole.

Both the Asian crisis and the Russian economic collapse are examples of the kinds of situations that have become global in scale. Other hot export markets could cool and the overall effect will be to cut back on the contribution

exports make to our own economy. Imports could be affected as well if the cost of production in other countries rises and makes their products too expensive to compete.

D. PRODUCTION CAPABILITIES

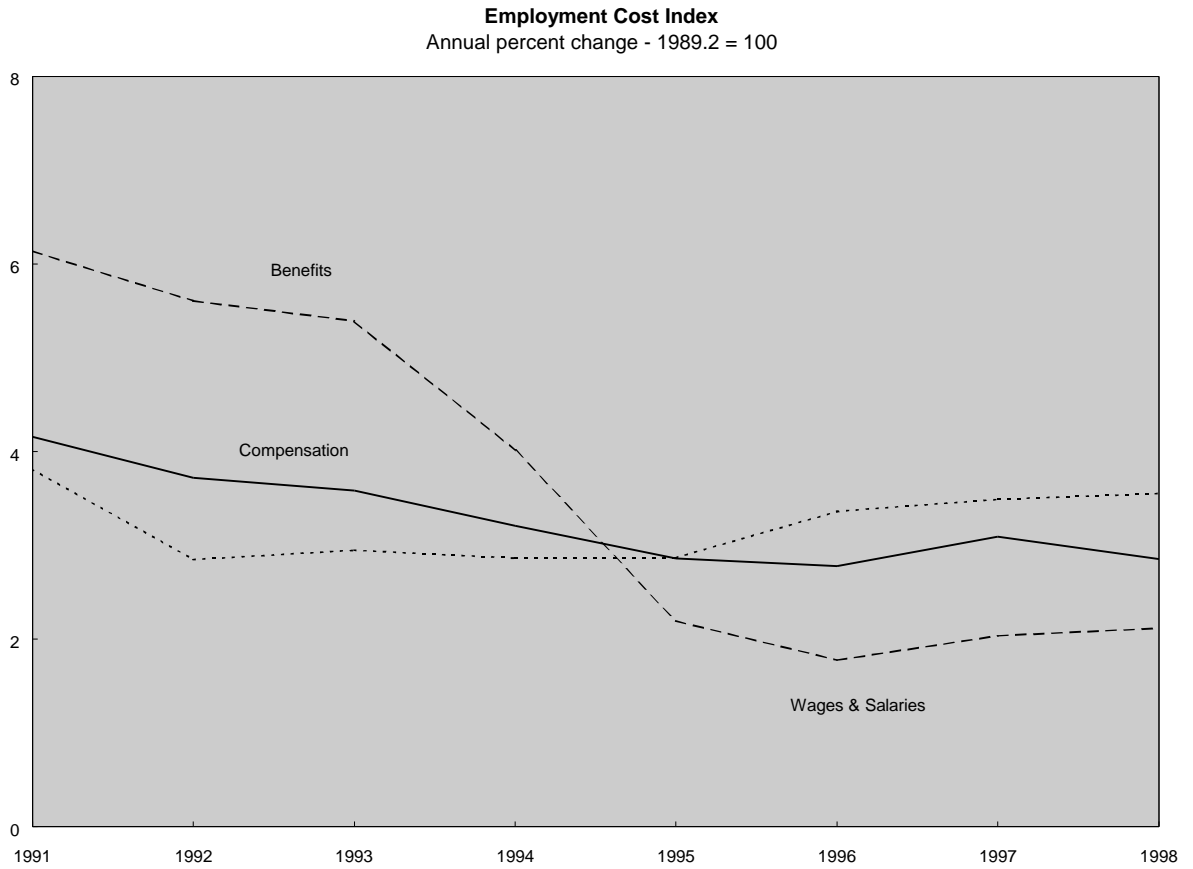
Interacting with general spending are production capabilities. The costs of supplying goods and services have grown at a much more moderate rate than the increases in the general spending components. Because the basic principle of supply and demand dictates that the economy will operate where supply equals demand, the components that comprise production capabilities, or aggregate supply, must be reviewed to better understand the total economic picture.

1. Employment Costs

After a steady decline in the early 1990's, since 1995 the annual average increase in salaries has held relatively steady (compared to inflation) at 3.5%. Compensation has also remained stable, rising an average of 3% since 1995 (Figure 3). Employee benefits, which have increased in value since the early 1990's, are increasing at a slower rate, averaging only 2% annually during the period from 1995 to 1998.

The strong dollar over the last few years has caused concern that U.S. labor costs would begin to rise given the record low level of unemployment which is causing labor to become a scarce resource. This has the potential to drive up wages to attract labor and start the spiral of inflation.

Figure 3

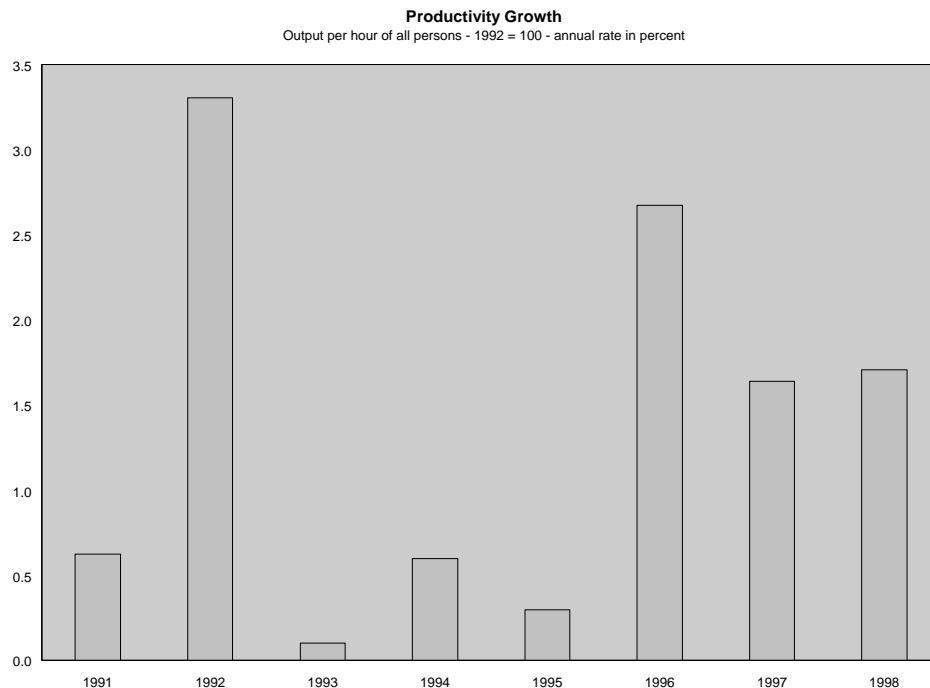


2. Productivity Growth

Although employment costs have risen moderately, actual productivity growth has increased as well since 1995. Through 1998, productivity has gained six points in scale, averaging annual gains of 2% (Figure 4). The result is that productivity has kept pace with production costs.

Most analysts agree that the boom of the 1990's is a reflection of the productivity increase over the same time period. As mentioned earlier, increased investment spending in equipment and technology in the commercial sector has resulted in more productive use of resources. Many of these investments should still net productivity gains for years to come.

Figure 4



E. SPENDING AND PRODUCTION INTERACTION:

THE CURRENT STATE OF THE ECONOMY

Having identified general spending components and the production capabilities, we can better describe the current state of the economy. As the principles of supply and demand state, the interaction of spending and production identify the state of the economy.

Because spending has increased significantly more than the costs of production during the years 1995 to 1998, the economy has grown and GDP has expanded. The current state of the U.S. economy thus can be viewed as healthy and still growing. However, to complete the picture of the current economy, signs of increased or slowed growth must be examined.

The term “bubble economy” has been used to describe the current economic picture. This same term was used to describe the economy just prior to the Great Depression. The warning signs that are noted are the record-setting stock market, which some feel is overvalued, and the wave of mergers in the corporate world. However, many others feel the market will continue to correct itself and the current wave of mergers is merely a step in the business cycle. Also, the Federal Reserve and its policy makers know far more now about the mechanics of economic policy than did their predecessors in the Depression era.

There is also a concern that the currently healthy economy could fall victim to the same recession virus spreading around the globe. Though many of the Asian countries remain mired in recession, as mentioned earlier, their

economies pale in comparison to the U.S. economy. Also, double-digit unemployment is haunting many European countries even though their economies are still growing. With a large-scale economy still producing at a healthy rate and low levels of unemployment, the U.S. should, with proper management, be able to shield itself from the global crisis.

The Federal Reserve has made it clear that management of the economy will be tight. This is evidenced by Chairman Greenspan's close watch on unemployment and spending to prevent inflation. His recent changes in the interest rate have kept the economy in its healthy position.

In general, corporate profits have been gaining strength since 1995. While some recent data suggest the global crisis may now be affecting corporate profits, any slides should be small when compared to the gains in recent years.

While there may be some impact from the global crisis, the economy should continue to grow, although at a slower rate.

F. MACROECONOMIC FORECAST

Despite the bleak situation around the world, an acceptable rate of growth for the U.S economy can be predicted. Factors in our favor are:

- The budget is near balance
- Inflation is calm
- Productivity is up

We expect the GDP to continue to grow, albeit at a slower rate. Although economic troubles around the world could impact our economy, we expect the

GDP to continue to grow between 2% and 3% in 1998 and 1999. The fact that imports and exports may be affected could work in our favor if domestic demand grows for products too expensive to import and for companies losing overseas export markets.

Employment is expected to remain strong, with the unemployment rate forecasted to remain under 5% for the remainder of 1998. This figure should carry into 1999 as well despite layoffs at some companies responding to fading exports. Real disposable personal income should rise about 3% for the year and continue into 1999. With these strong consumer fundamentals and low mortgage interest rates, housing will continue to be strong and average over one million units.

The industrial side of the economy is expected to experience moderate growth, despite the continued weakness in Southeast Asia. Industrial production should increase approximately 3% in 1998 and continue growing in 1999. Nonresidential fixed investment, which includes capital spending, is expected to continue its healthy growth rate rising to about 12% in 1998 and remaining healthy in 1999.

Inflation, as measured by the Consumer Price Index (CPI), is expected to average 1.6% in 1998. With the Fed's careful watch on this issue, we expect inflation to stay in check near its present level through 1998 and rise only moderately in 1999 to approximately 2%. On the negative side, with the strong dollar, continued weakness in the economies of some of our key trading partners, and a demand for imports in the U.S., the trade deficit is expected to

remain a problem. The trade deficit will most likely exceed \$250 million at year end 1998 and top \$300 million in 1999.

In general, we expect the conclusion of 1998 will signal a still growing economy although at a slower rate when compared to the last several years. The growth will continue into 1999 with only small increases in inflation and production costs. The inflationary factor of a tight labor market could actually become lessened as some companies layoff workers to compensate for the drop in overseas markets. The global crisis itself should not significantly slow our economy.

II. THE TELECOMMUNICATIONS INDUSTRY

A, MARKET STRUCTURE

Prior to 1995, the wireless communications industry was a duopoly because, in any service area, the FCC had mandated a maximum of two cellular providers. As a result, one of two letters, A or B, appeared on each cell phone. The A company would be a cellular division of the regional bell operating company (RBOC) and the B company would be a competitor to the RBOC. The term, wireline, was applied to the RBOC cellular service since an actual wire circuit connected each tower to its switching offices. “Wireless” was the term applied to company B because it utilized microwave links to connect its own switching offices to its towers.

The cellular businesses of the RBOC were not regulated and the RBOCs were free to price their services at any level, thus price levels remained high and service offerings few. In 1995, the FCC initiated a series of auctions in order to sell spectrum to the private sector. The rules for bidding in these auctions were quite strict, required substantial capital, certain service level promises and serious penalties for failing to comply. The FCC’s strategic goal was to create more choices in the market place for consumers of cellular service.

The effect of the auctions was to yield \$7 billion for the federal government and introduce as many as four new service providers in some regions, bringing the total number of providers to six. These new entrants purchased spectrum

with an added twist. At a higher frequency, the spectrum would be used for digital cellular service, now called PCS, while service providers utilizing the lower frequency spectrum would continue operations using analog equipment and would carry the name cellular.

An oligopoly emerged with six new suppliers vying for customers. The demand curve faced by the suppliers is downward sloping, and any firm can and has lowered its prices without gaining the entire market. The rules established at auction by the FCC made entry and exit from the industry difficult by establishing stringent capital hurdles for entry and severe penalties for withdrawal.

Firms in the wireless industry are now engaged in a fierce battle. The industry has changed from a duopoly with two suppliers to an oligopoly with eight. With the supply curve shifted right with new suppliers in the market, suppliers are faced with certain choices regarding price, capacity, and technology. The degree to which the demand curve slopes reflects the market power of the individual firms.

B. COMPETITION

There are over 50 million wireless phone users in the US, representing a market penetration of about 17%. Competition is hot in this sector.

Heavyweights such as AT&T (already a major cellular player), Sprint PCS (a consortium of cable operators led by Sprint), and PrimeCo Personal

Communications (a joint venture of BellSouth, AirTouch, and Bell Atlantic), as well as medium-sized companies became PCS players.

The smaller entrepreneurial PCS operators, such as NextWave Telecom and General Wireless, are still heavily burdened by debt from cost of purchasing the licenses. Though the FCC has provided some relief with easier and delayed payment plans, many PCS operators are facing bankruptcy and the necessity of returning their radio spectrum.

At the same time, cellular operators are converting their networks to digital technology and stepping up marketing and distribution. Operations (PCS, Personal Communications Services, is the FCC term for digital, wireless phone networks).

C. STRATEGIES

In the wireless industry, some firms are trying to achieve maximum profitability by lowering prices and expanding output. Price battles are the most popular strategy among new entrants because they must not only attract first-time users, but they must win customers from incumbents. With a large amount of excess capacity, these new entrants have the ability to lower price and expand output. At the same time, incumbents are scrambling to maintain their price levels because they do not have the capacity to expand with lower-price customers since their cellular networks are analog.

The problem faced by firms in the industry is that, in order to maximize profits, they must know the demand curve they are dealing with when they

change prices (in order to determine marginal revenue). The characteristic of an oligopoly is that the demand curve facing a firm is difficult to determine because it is dependent on the responses of its competitors.

After the auctions and the building of networks by new service providers, a huge shift in supply occurred without an immediate and simultaneous shift in demand. The excess capacity of the industry caused prices to fall to an as-yet-undetermined equilibrium level. In the absence of a reliable demand curve in response to price changes, it is difficult for firms to determine the ultimate decrease in prices until equilibrium is achieved. Facing such a problem, firms are scrambling to stimulate demand and lower operational costs.

Competitors in the wireless industry are responding to competition by changing capacity, by changing price or by doing nothing. Firms are still attempting to maximize profits by pricing services at the point where marginal revenue exceeds marginal cost. They increase output, by lowering price, until marginal revenue equals marginal cost. Though marginal costs are relatively simple to forecast, marginal revenue is more difficult since it is derived from demand, an uncertain function of competitor response to price changes.

Firms recognize that the high barrier to entry in the business is the fixed cost of spectrum and capital for network infrastructure. Once these costs are incurred, the marginal cost of selling additional minutes of service is quite small. Improvements in the short run can be best gained by increasing operational efficiencies to lower marginal costs. Extracting more revenue from each

available minute of capacity is essential. Firms are, therefore, charging higher prices for lower usage levels to increase marginal revenue.

In the long run (two to three years), capacity limits will be reached. At this point, network infrastructure must be upgraded to accommodate increased output or demand. Firms will operate at a loss if price levels are less than their average variable costs but greater than their fixed costs, because they are minimizing losses in the short term. In the long run, the strategy of every firm operating at a loss is to dispose of the business to a competitor who has lower average variable costs and can earn a profit.

In the short run, all firms are trying to minimize marginal costs. Firms in the industry are scrambling to maximize profit. Naturally, this is accomplished when their marginal revenue is equal to marginal costs. If marginal costs exceed marginal revenue, a firm in this market must lower its cost structure to compete.

Several factors are currently causing shifts in demand. First, the real dollar income of consumers has decreased over the last five years causing a decrease in demand for cellular service. Second, consumer tastes have changed as a result of advertising. Cellular phones are no longer viewed as luxuries of the rich but as essential equipment for family emergencies and daily business. The suppliers' advertising has resulted in changing consumer tastes and increased demand. The overriding effect on demand is consumers' expectations of future prices for cellular service and equipment. With price wars under way, consumers are confident that prices will be lower in the future, and this has the marked effect of decreasing demand as consumers wait.

The supply of wireless service has grown tremendously and largely resulted in a continuing decrease in prices. This is evidenced by the decline in average revenue per subscriber over the last ten years cited by a CTIA study.

The results of the market share survey conducted after the introduction of new competitors and the large supply shift that drove prices downward suggest that there are likely two markets for wireless service. The first is the business market which is characterized by high volume users who expect reliable, ubiquitous and error free service. The non-business market consists of soccer moms, students, and college professors who demand very low prices and tolerate lower quality service such as dropped connections, inability to get dial tone and noisy conversations.

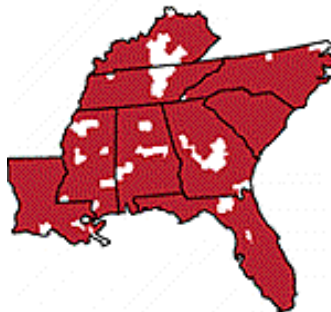
III. BELLSOUTH CELLULAR CORP. (DOMESTIC)

A. BACKGROUND

BellSouth Cellular Corp (BSCC), headquartered in Atlanta, was created in June, 1991 to manage BellSouth's domestic cellular operations. BSCC is one of the largest wireless communications service providers in the nation. Its subsidiaries, BellSouth Mobility (BMI) and American Cellular Communications Corporation (ACC), provide wireless communications services to over five million customers in 13 states.

BMI is the premier provider of wireless services in the Southeast. Incorporated in October 1983, it has been providing wireless service throughout its nine-state region since May 1984. ACC markets operate under a variety of names in California, Texas, Virginia and Hawaii and as Cellular One in Indiana. BMI and ACC handle marketing, sales, installation, customer service and overall operations responsibilities.

BellSouth's Wireless
Southern Footprint



B. COST STRUCTURE

1. Macroeconomic Factors

Recent macroeconomic trends and events have had a significant influence on the two primary components of BellSouth's cost structure, capital and labor. In general, the positive effects of the current macroeconomic environment have contributed to BellSouth's customer base and considerable growth in revenue (average monthly revenue per user of \$51 vs. U.S. industry average of \$44). This growth has enabled BellSouth to gain significant leverage in pricing and greater flexibility in devising the company's cost structure.

Low interest rates have reduced the cost of capital for BellSouth, specifically the cost for new cell towers and digital equipment. This situation has enabled BellSouth to rapidly expand its cellular "footprint" in the Southeastern U.S. and migrate from analog to digital service. In 1996, the company expanded PCS service in North Carolina, South Carolina and East Tennessee. Virtually all of BellSouth's markets have completed the conversion to digital technology. The lower cost of capital has also enabled the company to expand through key acquisitions and advantageous alliances.

While low interest rates have reduced BellSouth's cost structure, the tight labor market has increased the company's cost structure. BellSouth utilizes contractors and consultants for many technically oriented positions. These positions are not only critical to the ongoing daily operations of the company, they are also difficult to fill because of the shortage of skilled labor. This

shortage has forced the company to pay higher rates, which has increased its overall labor cost.

2. Economies of Scale

With the breakup of vertical integration and the advent of newer cost-effective technologies, the barrier to entry and exit are being lowered in the wireless industry. This factor has forced BellSouth to be creative in seeking ways to lower its cost structure. BellSouth has focused on two primary strategies in seeking to obtain economies of scale.

First, the company has gained economies of scale through its marketing strategies. For example, by focusing on captive sales channels (retail stores and BellSouth sales people), the company has lowered its marginal cost of adding new customers by significantly reducing sales commissions. Nearly 60% of new customers in 1997 were brought in by captive channels. Selling through captive channels also allows the opportunity to sell bundled services (i.e., wireline, Internet services), thereby lowering the overall cost structure for all BellSouth companies as a whole.

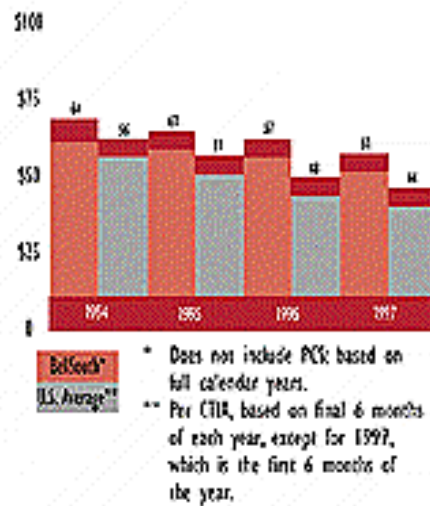
The company is aggressively offering the opportunity to all customers who have multiple BellSouth services (wireline, Internet, cable) to receive one monthly bill. Each invoice issued by BellSouth costs the company \$1.25 each. In response to requests by individuals with less than stellar credit, the company has introduced two programs that have increased sales and reduced costs. The Prepaid Wireless program has allowed the company to capture a substantial portion of the 40-60% of applicants previously rejected due to poor credit history.

Lower acquisition costs and the elimination of bad debt expense associated with the Prepaid program has enabled the company to lower its cost structure.

Simple Cellular is another plan designed to lower BellSouth's cost structure. In Louisiana, a plan is being tested to market cellular service to low-end users. It is a no-frills version cellular service that allows BellSouth to add and serve customers at a very low cost. The only way customers can subscribe is by dialing an 800 number. Therefore, activation is faster and cheaper; customer care is provided only during normal business hours (i.e., Monday-Friday, 8-5); and instead of sending monthly bills, monthly charges will appear on the customers' credit cards, which also saves in collection costs.

Finally, the company has obtained economies of scale through technological advances in digital equipment. The conversion from analog to digital service has significantly increased the company's ability to handle more calls at a substantially reduced cost compared to the older analog equipment. The digital equipment not only lowers the average cost of handling calls, it also reduces maintenance costs, thereby lowering the company's overall cost structure.

Average Revenue Per User:
BellSouth vs. Industry Average



C. STRATEGIES

BellSouth is responding to price wars by emphasizing reliability, coverage, brand, and experience. BellSouth is trying to build brand awareness in order to increase the demand for the firm and stem the drop in prices brought on the current industry-wide excess supply.

Since demand for BellSouth services will decrease if the price of substitutes falls, BellSouth is challenged with the task of creating the impression that the lower price service offerings of its competitors and even of its own products are weak substitutes. The price reduction of a weak substitute has less effect on demand than the price reduction of a strong substitute. If consumers view BellSouth's competitors' offerings, digital PCS vs. analog cellular, as strong substitutes, demand for BellSouth services would diminish greatly.

BellSouth's strategy is two pronged in responses to these new entrants. First, by building brand awareness, BellSouth is attempting to persuade customers that competitor offerings are weak substitutes. They are emphasizing that BellSouth has better reliability, better coverage and more experience.

BellSouth wants to reach customers who have never used wireless services by offering different levels of service. Simple cellular and prepaid cellular are examples of product strategies that create weak substitutes for BellSouth's present offerings. Simple cellular is a product in which customer services are minimal, while prepaid cellular is designed to minimize collection costs for slow-paying customers. Both of these products are weak substitutes for high-usage business account services and will not cannibalize demand. This strategy increases demand (for new customers) without transferring old customers into lower revenue accounts.

Another strategy to reduce costs is to avoid losing customers. BellSouth needs to reduce churn of 20% of customers who generate 2/3 of its profits. Obtaining new customers is very expensive; thus BellSouth is making efforts to retain its customer base. BellSouth may also substantially reduce costs by attacking fraud and no-fee roaming.

Another strategy to increase demand is to find new customers for the excess capacity that is profitable. BellSouth acquired RAM Mobile data in order to acquire more cellular data customers. These customers require much more effort to establish and support but have a higher retention rate due to the limited number of existing substitutes. Barring the option of building its own network, as

FedEx has, a company has the option of choosing only between BellSouth's RAM Mobile Data or Motorola's Ardis Network (formerly IBM's).

D. FORECAST

BellSouth has two major areas of focus for the upcoming year. One is the effect competition has on consumer demand. As stated earlier in the report, demand for cellular service has been divided into the business market and the non-business market. The business market has very inelastic demand while the non-business market has high demand elasticity. The glut of competition entering the PCS industry will impact these markets very differently.

The second major focus for BellSouth is the consolidation of competitors. Providers will begin to examine the possibility of acquiring competitors. A high probability exists that not all competitors will be able to survive. BellSouth must direct strategic planning in these two areas in order to stay competitive.

The non-business market has approached a saturation point. This segment is moving towards a perfectly competitive market. Consumer demand has increased by one-third while supply has tripled over the last two years. If the demand curve remains constant and the supply curve increases, prices must drop to compensate for the surplus.

The trend has been apparent over the last few years. New subscribers are not incremental demand but are consumers who have switched services from one provider to another as a result of lower prices. In order to compensate for lower revenues, lower costs must be achieved.

BellSouth should focus its efforts on the more lucrative business market. The price inelasticity in this segment makes it more attractive for BellSouth. BellSouth can focus on brand equity, reliability and coverage areas. These benefits suit the business market but are much less important to the non-business segment. The upcoming need for the expansion of technology due to capacity limits will increase short- and long-run costs. By focusing on the more lucrative business segment, BellSouth can compete at a higher price point. This, in turn, will allow marginal revenue to remain in line with increased marginal costs. This does not advocate abandoning the non-business market but shifting focus and resources to business users.

Companies will begin to look for joint venture or full acquisition opportunities. Providers can increase revenue, expand service areas and streamline costs most effectively in this manner. Providers are limited to the specific footprint licensed by the FCC. In order to avoid the bidding process in auctions, companies will look to expansion targets and partner with or purchase an existing provider. The company can then begin offering service immediately without additional capital investment or additional labor force. Providers will likely reduce headcount in this situation in order to eliminate the overlapping responsibilities of employees and reduce the overall cost structure in the long run. These will be subject to review by the FCC which would prove the largest hurdle to overcome.

The second option would be to reach agreement with another company to share cellular area via a third party. BellSouth currently has a similar

arrangement with AT&T in Los Angeles, Houston and Galveston. The jointly operated systems are owned 55% by AT&T and 45% by BellSouth. One management team in each market runs the company. The benefit to the companies is reduced managerial costs, less capital cost and reduced expenses in FCC auctions. AT&T and BellSouth total costs are significantly reduced in this joint venture.

An additional way to increase coverage area involves partnering with out-of-area providers to gain roaming abilities. A company enters into an agreement in which roaming access is granted out of area for BellSouth. BellSouth, in turn, offers roaming coverage to that company in its area.

BellSouth should continue to research opportunities to increase coverage at the lowest cost. The most efficient method would be to acquire a smaller competitor and enter the market. This should provide the fewest barriers to entry and provide the quickest entry into the market.

BellSouth should pursue a two-fold strategy. First, focus attention on the business market where price will not be a central factor. This allows BellSouth to leverage its brand, reliability and coverage, which is not as equitable to non-business markets. Further, increasingly emphasize joint ventures or acquisitions. This will not only provide a fast, cost-effective entry to market, but it will also reduce supply to a saturated market.