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COPING WITH CHANGE

Building a Shared Vision of the Future City Region

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SUMMARY

This paper starts with the premise that the city region provides the infrastructure and essential environment for the new engines of regional economic growth. Its public and private facililities and services are increasingly important determinants of successful business enterprise. Yet, existing public policies destroy the fiscal capacity of the central cities and first ring suburbs to fulfill their critical roles in the emerging information economy.

Central cities that form the core areas of the city region have the diversity of industry, producer services, and business entrepreneurship to innovate and improvise in the development of new products and processes that replace existing imports and expand exports. They are an integral link in the global transportation and communication network. The gross domestic product ultimately depends on the success of the central cities in expanding their trade with other cities and labor market areas of the city region.

The central city faces continuing internal challenges as it becomes the change-agent of the new global economy. Its downtown district transforms into the "nerve center" of the city region. Air transportation and telecommunications systems, along with a full range of strategic management and other producer services, must connect the downtown businesses with domestic and international clients and customers on virtually a real time basis.

Yet, one-on-one relationships among information providers and users are even more important in the downtown district than ever before because of the uniqueness of information--its principal product--and its inherently differentiated content. The downtown district transforms the high cost of access to these one-on-one relationships into a locally connected global information center through its strategic management functions and supporting infrastructure and services.

For residents of both the central city and the city region, however, the drag of low productivity and the heavy burden of government regulation is too much. Many businesses face bankruptcy and closure leaving behind a former workforce without replacement jobs. Widespread economic dislocation becomes commonplace from the central city to its region's periphery.

The cure for the economic dislocation is neither benign neglect nor massive federal spending on infrastructure. For starters, we don't have the money. If we did have the money and the budget was in surplus, spending more on infrastructure would probably do more harm than good. We have fundamental problems with the spatial-economic organization of city regions.

One problem is forecasting the city region. The end in view is building a shared vision of the future city region and its role in global competition that we still lack.

Another problem is the institutionalization of certain property rights that more infrastructure spending only makes worse. As a first approach, the performance of existing transportation and other delivery systems bears careful scrutiny. Productivity improvements offer immediate savings for use in spending on the highest-priority infrastructure replacement and expansion.

Global competition offers few choices. Each future alternative has its unique and special trade-offs.

One alternative is "decline"--early gain for later pain. For Minnesota, this alternative extends as far as the human eye can see the downward tracking trend line of a declining share of U.S. income and wealth.

The "breakthrough" alternative starts with more investment and less consumption--early pain for later gain. It means a sharp break with lagging productivity and the heavy burden of government regulation. It builds on a shared vision of the future. It also builds on a shared strategy of global competition for the city region and its resident governments and businesses.

Comeback industries in the 1990s include non electrical machinery manufacturing and banking and credit agencies. In the "breakthrough" scenario, industries added to this list include hotels and other lodging, amusement and recreation services, and retail trade. Manufacturing and producer services become the premier job machines of the 1990s.

The most likely scenario is one of moderation, neither above nor below the U.S. rates of economic growth. Of course, Minnesota 2005 and 2010 will differ much from Minnesota 1990. Metro Minnesota does slightly better than the U.S. This is the "control" forecast.

The "control" scenario tracks the U.S. Department of Labor "moderate" projection series in industry employment, labor earnings and personal income to 2005. The U.S. Department of Commerce extends the projections to 2010 (and later years) for individual states.

The U.S. "moderate" projection series assume some changes in U.S. fiscal and trade conditions. They assume gradual reductions in the federal fiscal deficit, the foreign trade deficit, personal consumption expenditures, and military spending. These reductions balance, in part, the increases in federal and state taxes, business investment, state and local government spending and foreign imports. They also assume a slowing down of the growth in labor force, industry employment, labor productivity and gross domestic product.

The Minnesota economy looks to a new era of job growth. It has a job base of more than two and three-fourths million. However, it still suffers from the decline of its largest sectors--farming, mining, construction, computer and office machinery manufacturing, retail trade, banking and credit agencies, and hotels and other lodging places. It also lacks a shared vision among its business and community leaders of the future economic environment. State and local governments vie with one another for a larger tax base as if "robbing Peter to pay Paul" is every person's economic growth.

For the surviving city region global competition triggers many forms of cooperation among its state and local governments. It even forces the building of shared visions of the future and the exploring of policy alternatives for successful business enterprise.

COPING WITH CHANGE

Building a Shared Vision of the Future City Region[1]

Wilbur Maki

INTRODUCTION

The Mall of America opened in August 1992 in Bloomington, Minnesota as the latest and the largest U.S. shopping mall. It lays 10 miles from the first covered shopping mall in the U.S., which opened in 1956.[2] The first mall and every other mall affected by its opening is coping with change--initially, the immediate loss of market share and, later, growth of the overall metropolitan market.

Change also permeates the Minneapolis-Saint Paul metropolitan area in its expanding role as a regional city and integral part of the global transportation network. The uncertainty of change is compounded, however, by the increasing importance of state and local spending on infrastructure and education. These expenditures critically affect the regional environment for business enterprise.

At the time of the Mall of America opening, public infrastructure costs approached $200 million.[3] Private development costs totaled to $625 million.[4]

Both malls epitomize the urban crisis--the continuing shift to exurbia of the well-to-do who transfer their purchasing power from neighborhood shopping areas to mega malls and competing suburban shopping centers.

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[1] Prepared for the Labor-Management Relations Conference, State of Minnesota, and the Graduate Seminar in the Department of Mechnical Engineering, University of Minnesota, November 23 and 25, 1992, respectively. I gratefully acknowledge the helpful comments and suggestions from Shelley Baxter and, also, Greg Alward, Richard Lichty, Paul Reynolds and Knut Westeren on an earlier version of this paper.

[2]The chronology of events leading to the opening of the Mall of America starts with the decision of the Metropolitan Sports Facilities Commission in 1978 to construct the Hubert H. Humphrey Metropolitan Stadium in downtown Minneapolis (Kalstrom, 1992). In 1981 the City of Bloomington acquired special powers for development of the vacated sports site. In 1985 it purchased the Mall of America land for approximately $35 million.

[3]The Bloomington Port Authority spent $122.3 million for parking facilities. It issued $51.5 million in tax increment revenue bonds, $45.2 million in tax increment developer bonds, and $25.6 million in government obligation bonds for land acquisition. The City of Bloomington issued $80 million in general obligation bonds for highway improvements, of which the city's share is $30 million, the state's share is $50 million (Kalstrom, 1992).

[4]This expenditure supported a payroll of $100 million and four thousand construction jobs. A projected payroll of $327 million supports ten thousand permanent jobs. Property taxes are $15 million to $17 million in the first phase (with 40 percent allocated to the fiscal disparities pool). Projected sales and income taxes total $40 million annually.

Urban Crisis

When out-migration was the common escape from limited job opportunities in remote rural regions, we talked of "people left behind" and a "rural crisis." Out-migration from the central city leaves behind a continuing legacy of racial tensions, crime, poverty, high taxes, a declining tax base, and low educational attainment--an "urban crisis."

Many of those left behind in the central city and first ring suburbs face declining incomes with no letup in local taxes.

The central city is the focal area of the metropolitan labor market. It houses the new engines of economic growth.5 Its downtown district is the nerve center of trade and commerce. However, its neighborhoods are hurting desperately. They vie with the downtown district for more dollars from a shrinking city budget.

Without remedial efforts that successfully address the underlying problems, the urban crisis spills to the downtown district and the economic base of the central city and the city region.6 The oldest suburbs bordering the central city soon follow in economic decline. Eventually the surrounding labor market areas lack access to aproduct markets and producer services. The urban crisis consumes the city region and along with it the promise of shared economic growth upon which a metropolitan region's mega malls build.

While the public costs of education, health care, housing and infrastructures generally are higher in the central city than exurbia, those who enjoy the central city's greatest benefits--the exurban commuter with the highest paying jobs--escape the burden of central city taxes. In addition, fragmented governance of the central city and its surrounding area assures a worsening of the already inequitable sharing of the benefits and costs of city region growth. Public subsidies, tax expenditures, and exclusionary land use controls provide the favorable local economic environment for the mega malls. They also sustain in the expanding crisis of the central city.

Mobilizing local resources to cope with the adverse effects of global competition is increasingly a cooperative effort between the central city and its region. Businesses in the metropolitan area already collaborate with input suppliers in the surrounding areas through contractual arrangements that improve just-in-time product delivery and reduce production costs. State and local governments also cooperate in financing and maintaining urban and rural infrastructure--roads, highways, airports and other transportation terminals, water and waste disposal systems, educational institutions and hospitals.

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[5]The notion that the metropolitan core area is a key to national economic growth has many contributors, including Royce Hanson in **Rethinking Urban Policy** (1983) and Jane Jacobs in **Cities and the Wealth of Nations** (1984).

[6]Measures short of erasing all legislation supporting exclusionary local land use controls for containing the urban crisis include an open housing law that allows low income households to acquire needed housing in the suburbs. Mills discovers from some preliminary findings that such legislation, if implemented, would have a positive impact on job growth in the central city (Mills, 1985).

Much of the intergovernmental cooperation, commendable as it is, still lacks a framework for a shared vision of the future city-region. From a macroeconomics perspective, for example, one city-region is much like another. What is a gain for one in federal grants, for example, is a loss for another. Local subsidies to attract new business enterprises are nothing more than a "windfall" profit for a business with far more important reasons than small public bribes for its site selection. Regional development is a zero-sum game. From a city region perspective, however, the name of the "game" is "place" competition, much like competition among individual businesses in the same industry, but the "place" is no longer the single municipality or county, but the extended city region.

Local business success in global competition builds on the unique resources of the core area. These resources provide the means for rapidly changing the productivity and product mix of the region's export-producing and import-replacing industries. They include the strategic management functions of corporate enterprise. The many small businesses in the downtown district provide most of these services. Their lack spells the difference between growing and declining regions.[7]

Three Scenarios

Three scenarios of Minnesota's future alternatives help sort out the risks and opportunities facing this state and its economy, as well as the new mega mall, in the 1990s and beyond. I call these the "B-C-D" scenarios.

"Breakthrough" is the first scenario. It is the most optimistic. It keys to the U.S. Department of Labor's "high" projection series for 2005 (Kutscher, 1991). It envisions a turnaround in Minnesota's economic fortunes.

Mall of America builds on the promise of U.S. economic growth. I call this the "breakthrough" vision of tomorrow. It is growth shared in larger and larger measure by the residents of this region.

Moderation, neither above nor below the U.S. rates of economic growth, means keeping the same share of the U.S. population, employment and income to the end of our forecast horizon. Of course, Minnesota 2005 and 2010 will differ much from Minnesota 1990. Metro Minnesota does slightly better than the U.S. I call this the "control" forecast.

The "control" forecast keys to the U.S. Department of Labor "moderate" projection series. It envisions for the U.S. and Minnesota slightly lower rates of economic growth than in the 1975-1990 period.

"Decline" is the third scenario. It is the most pessimistic. It keys to the "low" projection series from the U.S. Department of Labor. It tracks the long-term trends in Minnesota's share of U.S. population and employment.

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[7]The 1991 Minneapolis Downtown Business Survey accounted for more than three thousand firms, mostly employing less than 20 persons with more than 80 percent engaged in various strategic management funcitions (Baxter, 1992).

Once Minnesota shared nearly three times as much of the Nation's wealth as it does today. It dropped from more than four percent of U.S. population, employment and income in the agriculturally "golden age" of its history to less than two percent today. Metro Minnesota, which accounts for more one-half of almost any measure of Minnesota's economic growth, would fall to less than one percent of U.S. economic growth by 2010. I call this a vision of decline for both Minnesota and Metro Minnesota.

Most of this presentation focuses on the "control" scenario of continuing loss of population, employment and income share for the central city and first-ring suburbs. The second and third ring suburbs and the rapidly urbanizing countryside outside the seven-county Metropolitan Council Region thus gain population

U.S. population and employment projections incorporate alternative assumptions about inmigration, birth rates, labor force participation rates and household formation.[8] These assumptions apply in constructing a comparable series of state and substate high, low and moderate projections of population and employment. The largest source of difference in the most recent U.S. projection over earlier ones is due to the increase in the number of immigrants.[9]

U.S. projections for the period from 1990 to 2005 show a dramatic change in the composition of labor force. Of the 30.4 million increase in the U.S. labor force projected for the 1990-2005 period, 20 million are Black, Asian or Hispanic. Assimilation of this number of minorities into the work force requires a major change in the education and the training of and hiring practices for, the new work force.

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[8]The 1988 and 1990 BLS moderate projections accept the U.S. Census Bureau high inmigration and high fertility assumptions. A new law enacted in the fall of 1990 raised the number of immigrants allowed into the US each year. BLS used a net inmigration of 800 thousand in the moderate scenario in the 1990 projections. Population growth is slowing, however, from a projected one-percent rate for the 1990-95 period and a 0.9 percent rate over each of the next
two five-year periods. Projected employment growth is 1.2 percent annually over the 1990-2005 period compared with 2.3 percent annual growth in the 1975-90 period. The civilian unemployment rate was 8.5 percent in 1975 and 5.5 percent in 1990. A 5.5 percent unemployment rate is also projected for 2005.

[9]The 1988 BLS projections show a 0.7 percent increase in total population over the 1988-2000 period rather than the 0.9 percent rate projected in 1990 for the 1990-2005 period. The lower rate is due to a lower projected net inmigration (of 500 thousand rather than 800 thousand). The labor force participation rate--the percentage of the population of a given age class in the labor force--increased from 61.2 percent in 1975 to 66.4 percent in 1990. The BLS moderate projection increases to 69 percent by 2005--a 0.4 percent per annum increase. The slowdown in the rate of increase results form the aging of the population and lower rate of increase in the participation of women in the labor force than in the pervious 5-year period. Thus, the 1.9 percent per annum increase in the labor force over 1975-90 period falls to a 1.3 percent per annum increase over the 1990-2000 period.

Gross domestic product benefits from the larger population and labor force. It depends also on the productivity of the employed labor force measured by output per worker.[10] The remedial measures focus on private and public investment in education and training and, also, targeted research and development. They account, in part, for the increased output per worker.

In the remaining time, I confine my remarks to two main topics: Forecasting the city region and exploring some policy implications that stem from the three scenarios.

FORECASTING THE CITY REGION

I turn next to the research findings on city region restructuring from two studies completed or in process over the last three years (Reynolds and Maki, 1989; 1991). The first study, covering all the 50 states, addressed the role of business volatility in economic growth. We found business volatility (measured by births and deaths of firms and expansion and contraction of jobs) closely associated with measures of regional growth.[11] The second study focused on U.S. regional characteristics, including business volatility, that promote regional growth. Both studies used the Duns Marketing Indicator county files from the Small Business Administration. They cover the six two-year periods from 1976-78 to 1986-88.

We also participated in the Transportation and Economy Study Program sponsored by the Center for Transportation Studies and the Hubert H. Humphrey Institute of Public Affairs. The transportation and economy study address the implications of the changing economy of the 12-state Northern Transportation Corridor, stretching from Michigan to Oregon and Washington.[12]

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[10]Real gross product increased 2.9 percent per annum over the 1975-90 period. This compares with a projected 2.3 percent increase annually in real GDP over the 1990-2005 period. Thus, the annual growth in output per worker increases from 0.8 percent in the 1975-90 period to one percent in the 1990 to 2005 period. The increase in productivity per worker is attributed to increases in investment per worker and restructuring of many industries engaged in intense global competition. The correspondiong increases for the "high" projection series are 2.9 percent and 1.2 percent, respectively. The corresponding increases for the "low" projection series are 1.5 percent and 0.9 percent, respectively..

[11]Changes in the number of establishments and related jobs due to their establishment births and deaths, expansions and contractions define business volatility. This includes four variables--autonomous births and deaths and branch births and deaths--that represent firm volatility. Also, eight variables--the factorial combination of autonomous and branch, births and deaths, and expansions and contractions--represent job volatility. Business volatility is the composite of job volatility and firm volatility.

[12]The Transportation and Economy Project addresses a series of topical issues affecting the future development of the transportation infrastructure in the Upper Midwest Region. The findings show the importance of intra-area as well as inter-area trade and the role of transportation and related energy infrastrucuture in facilitating this trade. In Minnesota, for example, $47 billion of the $55 billion of out-of-state shipments in 1990 were to other states. Total imports from out-of-state sources were slightly larger than total exports. Shipments within Minnesota between the seven-county Metropolitan Council Region and the remaining 80 Minnnesota counties exceeded the states's total foreign exports and imports.

Labor Market Areas

For each of the studies, we used the labor market areas delineated by Tolbert and Killian. These are the commuting areas of individual county residents as reported in the 1980 U.S. Census of Population and Housing. The several types of labor market areas fall into three distinct groups--the metropolitan core area, a transitional area and the periphery.

The *metropolitan core area* includes the downtown district of the central city, the neighborhoods of the extended central city, and "ex-suburbia" beyond the second-ring suburbs. Its innovative products and production processes, together with a diversity of economic activity and resources, account for its sustained growth and development (Noyelle and Stanback, 1984). The metropolitan labor market area is Jane Jacobs' city region. Its influence extends, however, beyond the local labor market to remote rural areas in its periphery.

Our study findings show that core labor market areas have a similarity of economic functions and roles in the emerging global information economy.[13] They are the world class transportation, telecommunications and distribution centers. They have a rich diversity of industries--the export-producing and import-replacing sectors of manufacturing, transportation, finance, insurance, banking, business and other producer services, and consumer services like entertainment, recreation and health care.

Most important are the strategic management functions in the core area downtown district. These functions require one-on-one relationships between information providers and information users. They include the highly differentiated information services for achieving and maintaining the competitive edge of local businesses in regional and world markets (Porter, 1990).

Central cities that form the core areas of the city region have the diversity of industry, producer services, and business entrepreneurship to innovate and improvise in the development of new products and processes that replace existing imports and expand exports. They are an integral link in the global transportation and communication network (Irwin and Kasarda, 1991). The gross domestic product ultimately depends on the success of the central cities in expanding their trade with other cities and labor market areas of the city region.

The central city faces continuing internal challenges as it becomes the change-agent of the new global economy. Its downtown district transforms into the "nerve center" of the city region (Daly, 1991; Moss and Brion, 1991). Air transportation and telecommunications systems, along with a full range of strategic management and other producer services, must connect the downtown businesses with domestic and international clients and customers on virtually a real time basis (Beyers, 1991).

Yet, one-on-one relationships among information providers and users are even more important in the downtown district than ever before because of the uniqueness of information--its

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[13]The Minneapolis Downtown Business Survey findings parallel the findings reported for Vancouver, British Columbia (Hutton and Ley,1987; Ley and Hutton, 1987).

principal product--and its inherently differentiated content (Hutton and Ley, 1987; Ley and Hutton, 1987). The downtown district transforms the high cost of access to these one-on-one relationships into a locally connected global information center through its strategic management functions and supporting infrastructure and services (Daly, 1991).

For the core areas, imported goods and services are essential inputs in production and consumption. The more diverse the area, the more likely that intermediate rather than final markets account for the larger share of total imports. The export-producing activities make these purchases possible. As exports expand, imports also increase.

At some point opportunities for import replacement attract new locally produced products for local consumption. These opportunities occur because of the innovations and improvisations, mostly from small businesses, that result in import-replacing products entering local markets.

Between the core Labor Market Area (LMA) and its periphery are the *transitional areas*.[14] The transitional LMAs closest to the core area experience rapid population and job growth. They have an expanding manufacturing base as a result of low site costs--rent, labor, and environmental, coupled with excellent access to metropolitan area markets (Scott, 1986). For many counties in the transitional areas, the percentage rates of growth exceed those in the metropolitan core area.

The *periphery* of the city-region exports standardized products. These products compete on a price basis. Low unit cost of production translates into a competitive market price, which, in turn, depend on high labor productivity or low wages. The periphery lacks cities that trade with other cities and gradually acquire skills and resources to replace imports with their own production.

The periphery includes labor market areas in varying stages of development and decline. The LMAs are sources of supply of primary products--farm, forest and mine. These are the supply areas for the secondary production centers. A few of the LMAs are transplants--the resident locations of branch plants from the core areas. Still others are rapidly declining economies experiencing the effects of labor-reducing technological advances in local production. Ever-increasing production levels require fewer and fewer workers. Finally, the LMAs workers have abandoned are the relics of an earlier period of economic activity.

I refer now to innovative and versatile production--a phrase borrowed directly from Jane Jacobs. It is the unique contribution of the metropolitan core area to local renewal and revitalization. It relates also to the economic base of the city-region and its vulnerability to changes in global and regional markets and government policies.

Criteria for assessing the vulnerability of an area's economic base--risk, costs, productivity, and flexibility--vary by location of an area in the city-region settlement system where the core area

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[14]Transitional rural areas adjoin the metropolitan core area and extend to the outer commuting limits of the core area work places and even slightly beyond (Reynolds and Maki, 1991). Within the 60-mile or so radius of the core area, farm subdivision is a common practice because of the high demand for part-time, hobby and garden-type residential farms. Off-farm employment of one or more family members supplements farming as an income source. The employment opportunities occur in manufacturing plants locating or expanding in the transitional rural areas and in trade and service establishments of growing rural service centers.

is the principal transportation and communications center (Table 1). It is also the principal center for producing, distributing and using decision information for the private and public sectors of the region. Thus, the activities concentrating in the metropolitan core area are information intensive. They can afford to pay the high site costs of the metropolitan downtown district because of its market access advantages over other locations.[15] They experience relatively little risk because of location and capacity for achieving high levels of productivity and flexibility in resource use.

Table 1. Criteria for Assessing a Region's Vulnerability to Changing Market Conditions and Government Policies

Criterion	Core Area	Transitional Area	Periphery
Risk	Low	Moderate	High
Cost			
Site	High	Moderate	Low
Transfer	High for commodities; low for information	Moderate	Low for commodities; high for information
Productivity	High	High in branch plants; moderate in small businesses generally	High in branch plants; low in small businesses generally
Flexibility	High	Moderate	Low

The four criteria for transitional rural areas are in their mid-range between the core area and peripheral area values. Productivity of resource use, however, is high because of access to capital financing and high value of investment per worker. Peripheral areas are furthest from the spillover effects of metropolitan development. Agriculture, forestry or mining in many peripheral areas overshadows manufacturing as the dominant economic base. Businesses face high risks because of specialization in cyclically sensitive or government policy sensitive industries. Productivity per work is generally low, except in businesses with high investment per worker and superior market access

Alternative Futures

In the last two years, including the first part of the 1990-91 recession, Minnesota manufacturing industries gained on U.S. manufacturing. It was not enough, however, to cover the net losses due to below-average growth of manufacturing in the U.S. On the other hand, the lagging growth in the private services sector bottomed by 1990.

The Minnesota economy poised for a new era of job growth in 1990. It had a job base of more than two and three-fourths million. However, it still suffered from the economic decline of its largest sectors--farming, mining, construction, computer and office machinery manufacturing, retail trade, banking and credit agencies, and hotels and other lodging places. It also lacked a shared vision among its business and community leaders of the future economic environment. State and local governments, for example, vied with one another for a larger tax base as if "robbing Peter to pay Paul" is every person's economic growth.

[15]Site costs include labor costs as well as land and building costs, rent, taxes, pollution abatement costs, and other regulatory costs. Transfer costs include transportation charges and other marketing and transaction costs. Transfer costs differ most between standardized commodities, like No. 2 corn, that competes worldwide on a unit cost basis and highly differentiated products, like market or medical information, that compete on a quality as well as a cost basis. Transfer costs for certain information, for example, are lower in the metropolitan core area than in rural areas because of the necessity of one-on-one relationships in producing, distribution and using this information. These costs may be prohibitively high in rural areas and, therefore, unavailable.

Comeback industries in the 1990s include non electrical machinery manufacturing and banking and credit agencies. In the breakthrough scenario, industries added to this list include hotels and other lodging, amusement and recreation services, and retail trade.

Manufacturing and business and related producer services in the breakthrough become the premier job machines of the 1990s. They exceed the already above-average growth in the control scenario.

The control scenario tracks the U.S. Department of Labor "moderate" projection series in industry employment, labor earnings and personal income to 2005. The U.S. Department of Commerce extends the projections to 2010 (and later years) for individual states. Thus, the Minnesota control scenario is a direct descendent of the numbers prepared for Minnesota by two of the federal agencies responsible for employment, population and income statistics for the U.S. and for individual states.

The U.S. "moderate" projection series assume some changes in U.S. fiscal and trade conditions. They assume gradual reductions in the federal fiscal deficit, the foreign trade deficit, personal consumption expenditures, and military spending. These reductions balance, in part, the increases in federal and state taxes, business investment, state and local government spending and foreign imports. They also assume a slowing down of the growth in labor force, industry employment, labor productivity and gross domestic product.

The Minnesota "control" scenario tracks the U.S. moderate projection series about the same as it tracked its 1988 to 1990 share of U.S. industry employment and labor earnings. Thus, Minnesota per capita personal income would remain slightly above the projected U.S. per capita income. However, the spending of this income would change to less for personal consumption and more for federal, state and local taxes. The control scenario also shows more of Minnesota's gross state product allocated to business investment and net exports than in the 1988-90 period.

The Minnesota "breakthrough" scenario tracks the U.S. high projection series to 2005 and extends the corresponding Minnesota scenario to 2010, based on U.S. Department of Commerce Minnesota area projection series (USDC, 1990). This scenario shows, among other variables, high rates of economic growth as a result of low long-term interest rates, high rates of business investment, high labor productivity, and high export levels. High exposure to exports--domestic and foreign--results in above-average overall growth for the Minnesota economy and an even more active manufacturing and producer services sector than in the control scenario.

The "decline" scenario tracks the U.S. "low" projection series with vengeance. Reduced levels of U.S. economic growth results in reduced levels of Minnesota exports and reduced levels of industry employment and labor earnings. Restructuring of Minnesota's export-producing industries continues in this scenario. Per capita income growth lags U.S. income growth.

EXPLORING POLICY IMPLICATIONS

This final section on policy implications draws from studies on industrial targeting and the role of the downtown district and neighborhoods in city development. Thanks to reduced federal funding for cities, we have the emergence of the "entrepreneurial" city. Minneapolis is one of them.

Institutional Factors

Institutional factors account for many of the current difficulties in optimizing public and private investment in city-region infrastructure, particularly transportation. The institutional factors include state and local subsidy of exurban infrastructure and federal tax expenditures (i.e., deduction of interest payments on home mortgages) for residential housing, exclusionary use of subdivision and zoning regulations, extraordinarily high transactions and related costs of "doing business" in the area, and blind acceptance, to use Jane Jacobs' words, "of the mercantilist tautology that nations are the salient entities for understanding the structure of economic life" (Jacobs, 1984; p.50). Thinking of economic development as a national, rather than a city, process ignores the importance of location and its matrix of unique attributes affecting the viability of business enterprise.

Among the most troubling institutional factors affecting city-region futures is the public subsidy of access roads and highways to the expanding urban periphery of metropolitan areas. The public subsidies invite "leap frog" residential development that results in costly urban sprawl. Separation of place of residence from place of work also added to costs of local transportation (Hoben, 1975). For example, the public highway subsidy for Mall of America already approaches $200 million. Without realization of the most optimistic growth scenario for the city region, much of impact of this subsidy is simply in the form of income transfers.

Another troubling feature of urban economic life is misuse of the power given states to establish any land use controls they want, subject to "due process." These powers included zoning regulations, subdivision controls, municipal growth management and land development fees that protect the exclusionary uses of large lot sizes and open space preserves.

Large lot size and open space requirements favor the construction of high-income housing in the open country. Central cities and the first ring of suburbs secure the low-income housing, but without the tax base to support the high cost of providing social and economic services for those left behind. Those who have the money to buy large lots and build expensive housing can move away from the problems of the central city and first ring suburbs and at the same time reduce their municipal taxes and mortgage interest payments.

Two serious consequences (apart from its outright unfairness) flow from the exclusionary land use controls: the inability of local governments to support area-wide concerns (Ellickson, 1971; Mills, 1984) and the proliferation of subsidized shopping centers that simply redistribute the total spending of the metropolitan region, but add to its total transportation costs. No municipality can bribe another, for example, to locate its land fill in the other municipality. Suburban municipalities readily turn down the location of a job-creating facility within its boundaries,

especially if it serves the entire metropolitan area. Thus, the exclusionary practices reduce the total jobs available to the central city and first-ring suburban residents.

Maintenance and re-enforcement of the separation of place of work and place of residence impose large private and social costs. The transportation infrastructure for serving new shopping centers absorbs a large amount of available financial resources of state and local governments. Not only is the total transportation bill higher, but the environmental costs also increase because of the readily available public financing of local transportation infrastructure. For example, one segment of Interstate Highway 394 connecting suburbs 12 miles west of downtown Minneapolis to the downtown has a fast lane for vehicles with two or more passengers. This feature cost $420 million. It serves largely the commuter worker in downtown Minneapolis who resides on or near the shores of Lake Minnetonka--the highest income residential area in Minnesota. The City of Minneapolis also provides parking space at a monthly rate of $10 for the fast lane user--much below rental fees for others.

Another important source of added costs of "doing business" in the metropolitan core area is government, particularly the federal government (Mills, 1986). Since 1990, American businesses incurred $130 billion more costs than in 1990 as a result largely of compliance with the Fair Labor Standards Act of 1989, the Americans With Disabilities Act of 1990, the Clean Air Act amendments of 1990, and the Civil Rights Act of 1991.[16] Small businesses (those with fewer than 500 employees) created two out of three net new jobs between 1982 and 1990. Since 1989, however, small business profits per worker dropped from $3,500 to $600 while the tax and regulatory burden increased from $900 to $4,300. The added costs place US and Minnesota businesses at an immediate disadvantage in competition with foreign companies that do not carry these costs.

A new study of mental health care in Norway finds that the overhead costs of general education services for mentally retarded clients in the Minneapolis-St. Paul area are twice the corresponding costs in the Oslo, Norway area.[17] The Minneapolis-St. Paul area has several times as many business lawyers and court cases as the Oslo area per 1000 population--an indication of high transaction costs. High transaction costs precipitated the breakdown of the Soviet Union. However, the nature of the costs and their close association with the vested interests of those engaged in legislative processes to contain these costs precludes an early resolution of the problem in the US.

Finally, the macroeconomics bias of economic development efforts in the U.S. leads to misallocation of public resources, for example, inducing factories to locate in peripheral areas without import-replacing capabilities. Central cities that form viable metropolitan core areas, on the other hand, have the diversity of industry, producer services, and business entrepreneurship to

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[16]Lowell Galloway and Gary Anderson, visiting scholars at the Congress' Joint Economic Committee, also note in their recently completed study, "Derailing the Small Business Express", that "an increase in costs amounting to 1% of sales for a gas station would necessitate, on average, a 1.4% decline in wages to avoid layoffs" (Galloway and Anderson, 1992).

[17]Private communication with Knut Westeren about the comparability of services and their related costs to the consumer.

innovate and improvise in the development of new products and processes that replace existing imports. The dollars released from the purchase of these imports become available for the purchase of other imports. These include intermediate inputs for local production.

Productivity Improvements

Closer scrutiny of all public infrastructure spending, together with increasing public pressures to reduce government spending in the future, puts a premium on *productivity improvements* in the construction and use of city region infrastructure. Improvements in the productivity of transportation resource use include measures for reducing travel to place of work and the use of material inputs in local production. They also include measures for increasing the efficiency of personal and business transportation and the targeting of government spending on transportation infrastructure.

Personal expenditures for transportation and public expenditures for highways account for two-thirds of the total transportation bill. Thus reducing the distances to work and shopping and improving the productivity of personal transportation account for a large share of potential cost savings.

Energy conservation measures affect the demand for transportation by reducing the tonnages transported by truck, rail and barge. A gasoline tax of 50 cents per gallon also adds $50 billion to the federal treasury and results in reduced energy use, given a price elastic transportation demand.

Alternative means of travel to work and shopping are feasible even with existing urban land use control. They become even more feasible with the revamping of these controls.

Freight consolidation and multi-modal transportation use by businesses engaged in commodity shipments, including increased use of rail, also reduce total transportation costs.

Included in the targeting of transportation spending is the adoption of "zero maintenance" strategies. Such strategies gradually bring public transportation spending, particularly in declining areas, in line with present and projected use of the transportation infrastructure.

A gradually increasing gasoline tax adds to private costs, but it reduces pollution abatement costs by billions of dollars.

The net savings are not necessarily converted to a reduced transportation bill. They may become available, instead, for new transportation facilities and services and an improved business environment and quality of life for local residents.

Increasing infrastructure expenditures is a popularly advanced proposal for creating jobs and reducing the "infrastructure gap." Much macroeconomics analysis supports this proposal (Ashauer, 1991). Region-specific and mode-specific studies of existing transportation systems that emphasize productivity-improving alternatives to achieve cost-savings are less common.

An alternative approach to infrastructure spending is targeting federal funding for the highest priority projects without the imposition of congressional district constraints. Some states and regions would be winners in the alternative approach and some state would be losers. Both parties are likely to pressure their congressional delegations into a more costly alternative--a likely possibility not included in the infrastructure spending scenarios.

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