

Demographic changes, consumption patterns, and the Midwest economy

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During the last twenty years a variety of factors including oil shocks, technological change, and increased foreign competition have reshaped industries and prompted widespread reorganization. Within the auto, steel, and other durable goods industries that form the core of Midwest manufacturing, many firms have downsized, relocated facilities, reduced wages and profits, and suffered general economic malaise.¹ As these industries have been transformed, the Midwest has undergone a substantial economic adjustment.²

The adjustment of the Midwest economy is far from over and in some regards has been accelerating in recent years in response to domestic and international pressures. Moreover, this adjustment is being complicated by substantial changes in the domestic market. Specifically, a number of social and economic developments of the last few decades may be permanently altering traditional domestic consumption patterns, with a particular impact on the market for durable goods. These developments include an aging population and growing disparities in income distribution. This article analyzes these trends and their impact on consumption patterns and on the Midwest economy.

A wide variety of economic and social factors affect the consumption of durable goods. Among the most prevalent are family or household formation rates, income growth, appreciation of financial and nonfinancial assets, prices of durable and nondurable goods,

and factors associated with the goods themselves such as product quality and potential product life.³ Significant price increases for some products relative to income gains—autos or housing, for instance—may negatively affect consumption of these items by making them unaffordable. On the other hand, stronger economic activity and income gains, different income distribution patterns, and/or demographic age shifts may prompt mini-booms for many industries. Product quality improvements lengthen the life of products and therefore may prompt delays in replacement purchases. Conversely, extended product life expectancy can be offset by design enhancements or technological breakthroughs.

From the standpoint of future consumption patterns, the most significant changes in the U.S. macroeconomic environment are demographic shifts. Of principal concern is the rapid proliferation of nontraditional household units during the last two decades, coinciding with a growing disparity in income distribution. The potential impact of these trends on future income growth and distribution and on consumption patterns is overwhelming; indeed, they could either swamp or intensify other economic, social, and product developmental changes. Clearly, the effect may not be positive. Economic activity, and specifically consumption growth, may be substantially

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depressed. The question for policymakers and industry alike is whether this scenario is only a potential risk or a likely outcome.⁴

Demographic shifts

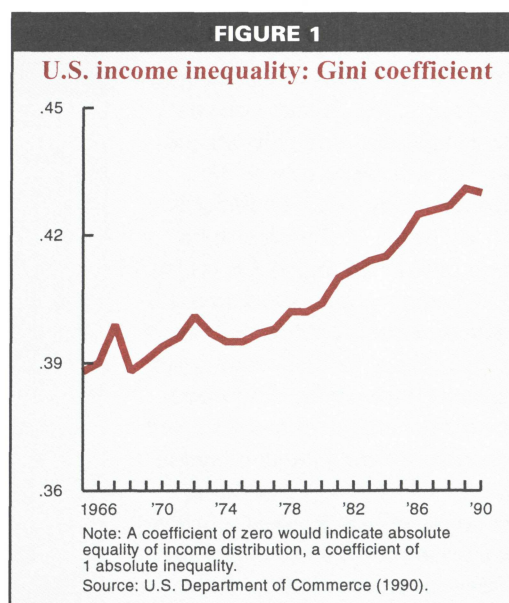
The number of two-wage-earner families has increased by 65 percent over the last twenty years. This has increased the proportion of so-called wealthy households in the population. But much more significant has been the greatly increasing proportion of single-parent families and single-person households. In 1970, 77 percent of all households were two-parent families; by 1990 the figure had fallen to 55 percent.⁵ Over the same period, the total number of families increased by 23 percent, but single-parent families increased by more than 100 percent—from 6.7 million families to more than 14 million. As a result, by 1990, single-parent families had become 21 percent of all families and 15 percent of all households in the country. The increase in single-parent families was even greater among African-Americans; by 1990, over half of all African-American families were headed by a single parent, usually a woman. Female-headed single-parent families constitute 18 percent of all families and over 43 percent of all African-American families.

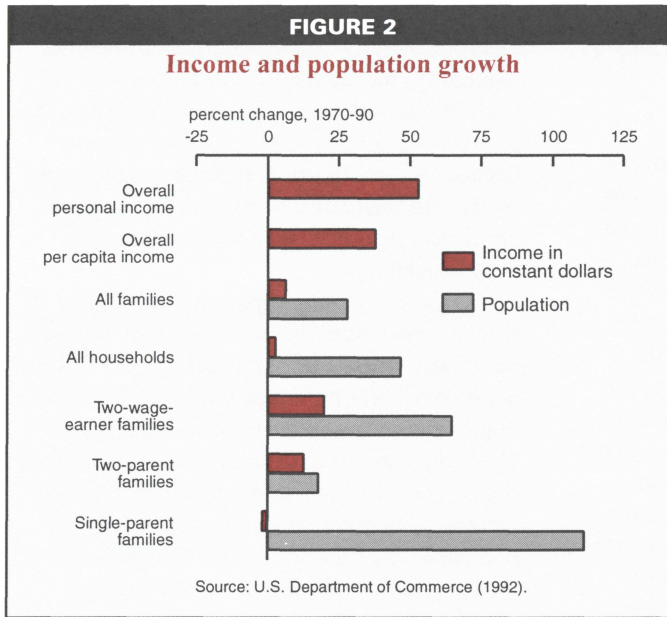
These changes in household composition have a striking impact on income distribution. Between 1970 and 1990, the median income of all households increased less than 7 percent. Two-parent families have been the recipients of most of this income gain, and this trend will likely continue in the decades ahead. Overall, the median income of two-parent families grew 13 percent from 1970 to 1990, with almost all of the gain occurring after 1980. By 1990, the median income of two-parent families was 135 percent of the median income of all households. This was up appreciably from 1970, when that statistic was approximately 120 percent. Over the same period, the median income of two-wage-earner families—which constitute two-thirds of all two-parent families—increased almost 20 percent, again with most of the gain occurring after 1980.⁶ This rise parallels the rise in both personal and per capita income in two-wage-earner families.

The popular media have asserted that the “richer are getting richer, and the poor are getting poorer.” This view is substantiated by several measures of income gains and

distribution (see figure 1). The Gini coefficient for the U.S. (a measurement of income inequality) has increased substantially since the mid-1960s, and especially since the 1970s; this trend is likely to accelerate during the next decade. Yet, as figure 2 indicates, much of the increasing inequality of income distribution appears to be due to structural changes in U.S. households.

On average, single-parent families and single-person households are socially and economically worse off than other households and are increasingly burdened with disadvantages that hamper improvement in well-being. In 1990, the median income of single-parent families was only about 42 percent of the median income of two-parent families, and only 36 percent of the median income of two-wage-earner families. Furthermore, the relative social and economic status of single-parent families has slipped appreciably in the last two decades.⁷ In 1970, their median income was 42 percent of that of two-wage-earner families.⁸ Single-parent families on average experienced little or no income growth during the twenty-year period; in fact, their median income declined, with most of the decline occurring in the 1980s. This trend was a principal factor behind the anemic rise in the median income of the overall population. As so-called nontraditional households increase in number, the median and mean incomes of the overall population are depressed, with the median falling





more than the mean. Although the gap between the median and mean does reflect changes in income distribution, it is not due so much to the rich getting richer and the poor getting poorer, but rather, to the growth in nontraditional households.

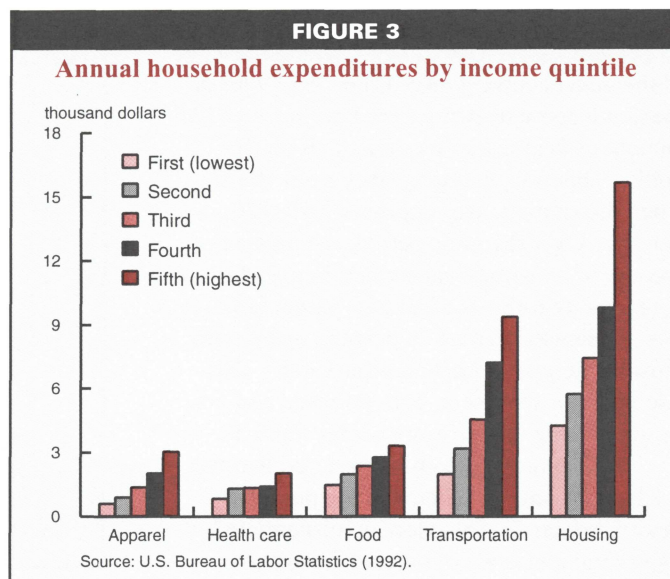
While single-parent families as a whole tend to be less well-off than other households, female-headed families are even worse off, with almost half reporting annual incomes below \$15,000 a year. By 1990, the median income of female-headed families was only about 47 percent of the median income of all households and 42 percent of the median income of two-parent families.⁹ These figures reflect an erosion from 1970. In that year, the median income of female-headed families was 59 percent of the median income of all households.

Evidence of “losing ground” during the 1970s and 1980s is also reflected in the number of nontraditional households below the poverty line. Since 1970 the number of married couples with children below the poverty level has remained constant, but the number of single parents with children below the poverty level has doubled. Single-parent families represent over 60 percent of all households with children below the poverty level.

Almost two-thirds of all children in single-parent families are in a household with an income below the poverty level. Firm data tracking these children as they move into adulthood are only now being collected. However, it is expected that the data will show them substantially lagging their peers educationally, and not making up the lost ground between themselves and children in traditional family structures. With their educational achievements depressed, their future economic performance is also likely to be depressed. Given the large number of affected children, this will be a significant erosion in human capital. Thus, whether through diminished consumption expenditures

or through negative repercussions on human capital, these structural changes have negative impacts on the macroeconomic environment.

Noting that the structural changes in households account for a large portion of the increasing income inequality and poverty does not remove the concern over the likely impact on future consumption patterns. In fact, if anything, recognizing the causal role of these structural changes intensifies this concern because it makes clear that the only way to neutralize the likely effect on consumption

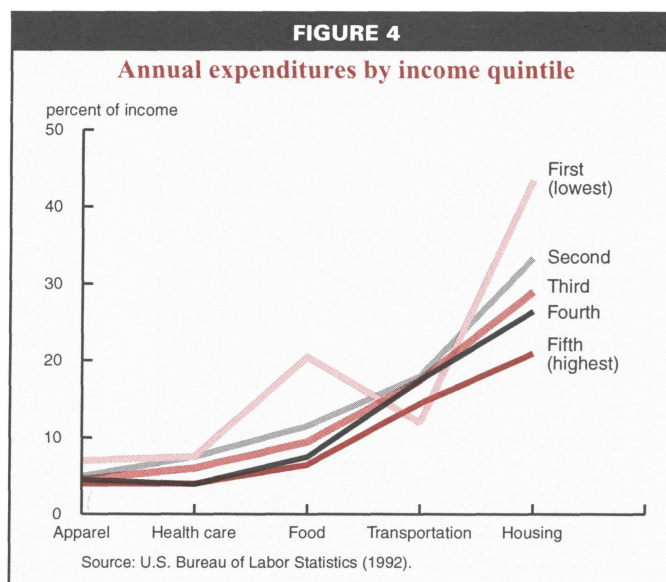


patterns would be to break the cycle of poverty—a very tall order. If a steadily growing portion of the population is less able to spend because its standard of living is stagnating or declining, the implications will be enormous for certain sectors, especially durable goods. Because economic hardship is reinforced by social, cultural, and environmental factors, resolution of these problems does not appear probable in the near future.

Changing consumption patterns

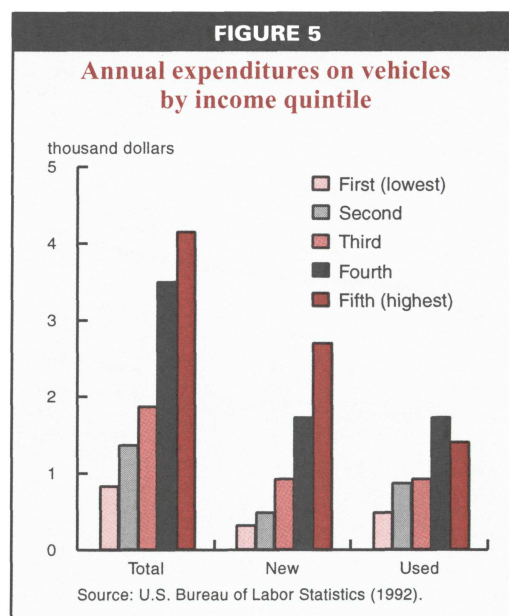
Consumption patterns vary significantly by income and household composition (see figure 3). Not surprisingly, households with higher incomes spend more on luxury items relative to necessities. Lower income units spend significant percentages of their income on food, clothing, and housing, with very little left over for other purchases (see figure 4). By 1990, households in the lowest income quintile spent almost two-thirds of their total income on food and housing. In contrast, households in the highest quintile spent less than 30 percent of their income on food and housing, a level that would be even lower if it were not for a large investment in high-quality housing and the amount spent on food prepared outside the home.

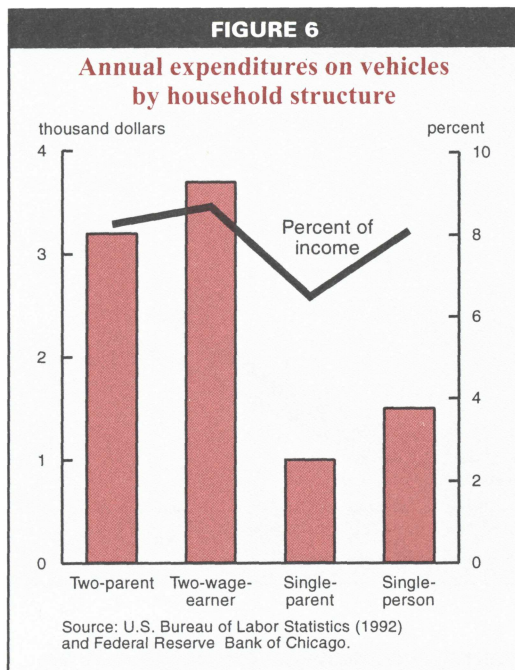
If present trends continue, these spending patterns may spell trouble for the durable goods industry. For instance, as figure 5 indicates, spending both as a percentage of income and in annual dollar amounts for one of the principle big ticket items, autos, is positively correlated to income level and two-parent families. Two-wage-earner families spend over \$3,000 a year on vehicles, two-parent families slightly below \$3,000, and single-parent families less than \$1,000 (see figure 6). With little or no income growth in the last few decades, the affordability of items such as vehicles is becoming a major concern for non-traditional households. As figure 7 shows, between 1970 and 1990, vehicle affordability remained relatively unchanged for two-parent families. But vehicles became substantially less affordable for single parents, a trend that has accelerated over the last decade.¹⁰ Conse-



quently, nontraditional households have become less inclined to purchase vehicles in the last few decades, and the proportion of their income spent on durable goods as a whole is declining. In 1960, for instance, single-parent families spent 7.5 percent of their income on vehicles annually; by 1990, this figure had fallen below 6 percent.

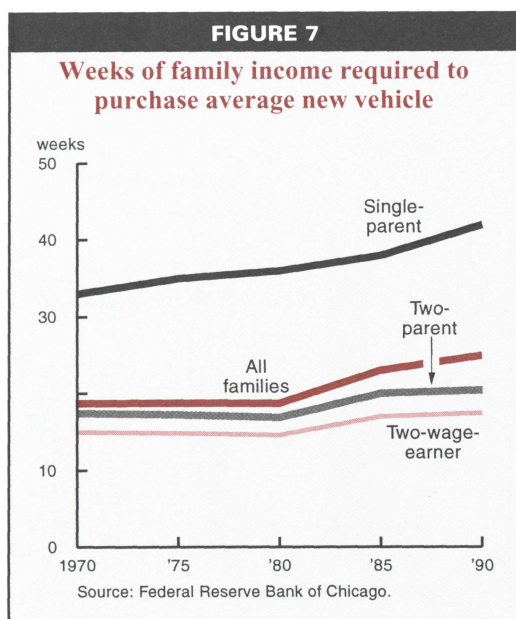
While the growth in nontraditional households has led to a decline in the consumption of durable goods, two-parent families have been increasing their consumption of both durable and nondurable goods. These house-





holds have traditionally spent a greater proportion of their total expenditures on durable goods, and that proportion has been rising, albeit gradually, in recent years. Although two-parent families are likely to maintain relatively high levels of consumption of durable goods in the future, certain factors may affect these income and consumption trends.

It is not clear whether traditional households will be able to compensate for the spend-



ing shortfall from nontraditional households in order to maintain spending on durable goods in the future. First, existing debt levels may dampen consumption if they lead to a permanent restructuring of the household balance sheet. Of course, these debt levels may be partially offset by leasing, new financing mechanisms, refinancing, longer contract terms, and other financial innovations. Furthermore, although two-parent families received most of the income gains of the last two decades, those gains were only modest. Moreover, their distribution was increasingly skewed toward college graduates. For instance, the Bureau of Labor Statistics estimates that the number of two-parent families with one spouse earning an income below the poverty line increased from 12 percent to 18 percent of all two-parent families during the last twenty years. During this period the average wage of high school graduates with less than five years' experience fell by almost 30 percent. The differential between annual wages for college graduates versus high school graduates currently exceeds 155 percent. Recent census data also indicate that two-parent families are on average older than other households. Consequently, if the life-cycle theory holds, these units may be moving away from their peak consumption years toward the saving period of their lives.¹¹ Finally, two-parent families are an increasingly smaller proportion of total households.

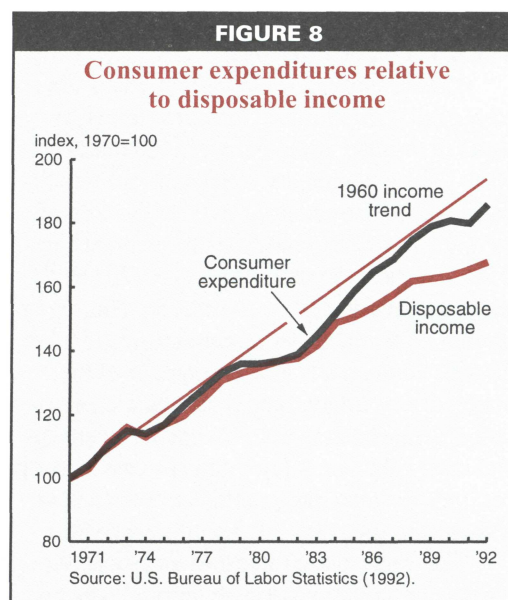
The "consumption gap"

A complimentary concern to distributional questions involves current and future income growth patterns. Income trends over the last twenty years do not bode well for domestic consumption in the 1990s. Per capita disposable income growth over the last twenty years slipped below an annualized rate of 1.5 percent, a modest level below the trend of the postwar era. These aggregate data mask the fact that for a large segment of the population, income is growing very slowly or actually declining. For instance, the real incomes and wages of many segments of the manufacturing sector have declined significantly during the last twenty years. Wages for high school graduates, according to some estimates, have declined more than 15 percent on average over the same period.¹²

Although disposable income growth lagged relative to the historical norm, consumption expenditures continued to increase at rates comparable to their pre-1970s level, with the relationship to historical patterns somewhat stronger in the more robust 1980s than in the 1970s (see figure 8). This level of consumer expenditure with lower income growth resulted in a stronger propensity to consume during the last two decades compared to the 1950s and 1960s. This led to a proliferation of consumer debt and reduced savings during the 1980s. In fact, consumer debt rose both as a percentage of GDP and as a ratio of debt service payments to income. By the end of the decade, the debt burden had risen significantly and payment levels were constraining for some segments. The total household leverage ratio exceeded 90 percent of income by 1990, up from approximately 70 percent in 1980.

Overall, the continued growth of consumer spending in the face of slower income growth produces what can be labeled a “consumption gap”—the differential between annual growth in disposable personal income and annual growth in consumption expenditures.¹³ To some extent, this phenomenon may be simply a consequence of rapid household formation rates and the aging of households. The life-cycle hypothesis suggests that debt growth in the 1970s and 1980s may be due to “baby boomer” households’ moving into peak consumption years. If this reasoning is true, it implies that in future decades there will be an eventual readjustment as those households pay off their accumulated debt and move into the saving stage of life to prepare for retirement.

No matter what the cause, the increasing levels of debt may constrain future consumption.¹⁴ Households may restructure their balance sheets permanently or make ongoing efforts to lower their debt servicing burdens. The recent atypical recession and recovery are at least partly due to consumers’ making these adjustments already. Debt, or at least debt servicing costs, have been reduced, consumption expenditure growth has been modest, and the pace of recovery has been constrained as a result.¹⁵ Of course, recent economic behavior has also been affected by pessimism due to cyclical factors and other economic problems such as abnormal weakness in labor markets.¹⁶ To the extent that this is the case, the constraint



on economic recovery may be merely transitory, due in large measure to the restructuring of consumer debt in the last few years and the delay in purchasing many big-ticket items.

A related issue is the question of product affordability. Especially because of income declines, many consumer items have become less affordable over the last twenty years, including housing, medical care, and education. Price increases for these items have exceeded the consumer price index by more than 40 percent since the mid-1980s. Given the consumption gap, the prospect of slower growth in net worth (especially housing values), and declines in affordability, permanent shifts in consumption patterns seem very likely.¹⁷

Declining consumption of durable goods

Because the number of nontraditional households is continuing to grow relative to other households, the impact of these spending patterns can be particularly great within specific industries. For instance, holding family composition constant as a share of total households allows one to project the potential level of annual expenditures relative to the actual level. The difference is in excess of \$22 billion, or \$22 billion less spent annually on vehicles because of shifts in family composition. Looked at differently, if all households spent the same percentage of their annual income on new vehicles and parts as did two-parent families, it would increase the spending on new

vehicles and parts by approximately \$10 billion annually, or 5 percent.¹⁸

These trends cause more than just a drag on overall consumption; they also motivate shifts in product composition in the marketplace. For example, by 1990 nontraditional households accounted for over 25 percent of the total annual expenditures for vehicles, up from less than 15 percent in 1970. This shift, and future market shifts, will likely continue to prompt adjustments by manufacturers to meet the special demands of this segment of the population. Among other changes are potentially increased demand for economy vehicles and used vehicles. Major adjustments in product lines are also likely in the next decade in response to the aging of the U.S. population.

For single-parent families and even two-parent non-college-graduate families, the extended economic outlook is not bright. Intense competition in the marketplace continues to depress wages, and state and local budget difficulties will take their toll on aid payments. Given these trends, the future could bring a period of sales stagnation for the country's producers of expensive durable goods.¹⁹

Implications for Midwest producers

Projecting trends and their impacts is risky activity, especially when those trends involve changes in individual behavior. Yet it seems clear that the demographic changes sketched above have set in motion a substantial alteration of the U.S. social and economic fabric. Sales of durable goods over the next few decades will be weak to modest at best.

Although diversification has been discussed extensively in the Midwest since the 1970s, durable goods still account for a significant proportion of the employment and income in the region. If the domestic sales environment slumps during the next few decades, the implications for the region will continue to be profound. Even with a best-case scenario of modest sales growth, the challenges for these industries and the Midwest are numerous:

1) Competitive pressures will continue to intensify. The U.S. marketplace has become significantly more competitive during the last few decades as domestic operations have streamlined and foreign firms have penetrated the market. As long as the domestic market was expanding, the impact

of these competitive pressures was partially muted. When demand is flat, it is much more difficult for producers to compete, as market share becomes the primary goal.

- 2) Given the demographic trends, nontraditional development approaches become important. Of necessity, Midwest producers have attempted to diversify during the last few decades. These efforts have been somewhat successful and have contributed to the region's above-average growth in the last few years. The region has also benefited from a more competitive, revitalized domestic manufacturing base. While this renewed competitiveness has lessened the pain of a weak market, it cannot fully offset that weakness; a revitalized manufacturing base will still struggle if the sales environment remains weak. Given a flat market, economic development agencies must work harder and more inventively to encourage growth and change in the region.
- 3) Exports may become an important element in this strategy. Exports made important contributions to the economic activity in the nation and the region in the late 1980s. In a domestic market not experiencing sales growth and facing substantial pressure to restructure and downsize, exports take on renewed importance as a source of regional growth.
- 4) Export growth requires alternative development strategies. In formulating a comprehensive export strategy, policymakers must address a variety of factors such as trade barriers or agreements, factor mobility, general locational concerns, and a highly competitive environment—relatively new developments that must be taken into account in the formulation of future government policies. Perhaps of greatest concern for policymakers, the same elements depressing domestic consumption may also be large hurdles to developing a successful export-oriented strategy.

The dynamics of sweeping structural changes have significantly altered past patterns of market activity and the Midwest's economy. Demographic shifts, the prevalence of structural dislocation, and the heightened importance of global competitiveness have transformed the

economic setting for all individuals and institutions. Public and private policy that fails to recognize these underlying shifts may yield

disappointing results. These changes are particularly important to the Midwest because of the major impact on the region's core industries.

NOTES

¹Traditional analyses of durable goods sales assume that short-term sales are disproportionately affected by cyclical factors, including income, employment growth, and consumer sentiment. Long-term sales trends are linked to a variety of demographic factors such as long-term income growth and household formation rates, as well as technological factors.

²While often stressful, this transition has also had positive effects on these industries and on the region. In fact, the restructuring of the last twenty years may prove invaluable as the economy adjusts to potentially slow domestic growth and fast-paced external growth.

³Analysts increasingly use households rather than families as their unit of observation because of the proliferation of nontraditional family units. We do the same in this article.

⁴Immigration growth and an increase in birth rates have partially offset the limited population growth in the last few decades. However, the effects of these changes did not entirely offset the aging of the population, at least not initially.

⁵See U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*.

⁶ *Ibid.*

⁷ The principal causes of this anemic income growth are complex. On average, the heads of single-parent families have lower educational attainment and other barriers to well-paid external employment. Additionally, a disproportionate number of single-parent families receive government assistance. The level of assistance has been declining in relation both to income growth and to the officially defined poverty level. In Michigan, for instance, maximum AFDC payments fell throughout the 1980s to 75 percent of the federal poverty threshold, a trend also occurring in other states. Average monthly AFDC payments during this period went up by only 6 percent, while the CPI increased by almost 30 percent.

⁸Further complicating any analysis of household income trends is the fact that single-parent families have an income distribution diametrically opposite that of traditional households. Almost 30 percent of single-parent families have annual incomes below \$10,000 and almost 45 percent below \$15,000. Female-headed families are even worse off, with a median annual income of only \$17,000 and almost 40 percent of these families below the official poverty line. Two-parent families reflect the opposite concentration, with over 30 percent earning more than \$50,000 per year and over half earning more than \$35,000.

⁹From the perspective of net worth, distribution of wealth appears similar to that of income. Of two-parent families, almost 55 percent have a net worth in excess of \$50,000, over 33 percent in excess of \$100,000. Of single-parent families, almost half have a net worth of less than \$10,000 and over 40 percent have a net worth of less than \$5,000.

¹⁰Single-parent families are the only household classification in which annual consumer expenditures exceed the median income level. (On average, it is said that these units are currently "dissaving.") These families spend almost two-thirds of their income for food and shelter.

¹¹The effects of an aging population will be even more pronounced in the first two decades of the next century. For example, given current expenditure levels, by the year 2010 people over 45 years old will account for 53 percent of all vehicle expenditures, compared with the current level of approximately 44 percent. The impact on product mix as well as the overall market is likely to be significant.

¹²Office of Technological Assessment estimates (1992).

¹³Note that aggregate data for households is being used in an attempt to explain broader consumer behavior. Specific household segments diverged substantially during this period in terms of both spending activity and income growth. Given this divergence, the "consumption gap" is probably even greater than the aggregate data suggest, and the potential adjustment in consumption patterns is likely also to be that much greater.

¹⁴The economic recovery in 1991-92 was significantly affected by limited consumer spending growth because of financial restructuring, structural unemployment, and the weight of existing debt. Without the consumer leading the recovery, economic growth has been tepid.

¹⁵There has been much debate about how much debt restructuring has occurred. For instance, when one includes the switch toward home equity debt and leasing of autos, there seems to have been only minimal reduction of consumer debt. Unfortunately, current statistics in this area are sparse; see Eugeni (1993).

¹⁶The changes in the labor markets may be not only short-term but long-term as well. For instance, the amount of structural unemployment, the movement from high-paying industries (such as defense, aerospace, and autos), and other developments will have profound implications for the economy over the next few decades.

¹⁷One interesting recent area of analysis is an attempt to gauge how consumers and business respond to past periods of economic uncertainty and hardship. In today's

rapidly changing marketplace, the potential for uncertainty over employment, revenue, and other factors is great. Eventually individuals may accept this as normal, but such a conclusion may come slowly and only after some painful adjustment.

¹⁸Based on 1990 data.

¹⁹A related concern is the fact that on average, nontraditional families are younger than two-parent families and have more children. In addition, almost one-third of all children born in 1990 were born to single women. These characteristics will affect the macroenvironment significantly in the decades ahead.

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