CONCEPTUAL UNDERPINNINGS OF POLICY ANALYSIS FOR RURAL DEVELOPMENT

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The breadth of rural development analysis and policy continues to yield challenges and frustrations. The exciting challenge is the mandate to integrate and synthesize a broad array of information in a manner that advances the state of knowledge and improves the well-being of people. The frustration grows out of a lack of focus that retards productive scientific interchange and diffuses policy inputs (Nelson 1984). The purpose of this paper is to provide a concise overview of the challenges associated with the breadth of the field and to suggest areas of analysis and analytic devices that would facilitate greater focus in the future.

The next section presents a brief overview of the scale and character of our task. Following the overview, three critical issues related to capital flows are addressed. The determinants of capital formation are central concerns for development. We emphasize capital formation because of the relevance of these issues to policy decisions and because of their fundamental importance to filling gaps in knowledge.

The paper concludes with a suggestion of two analytic devices, representative communities and counterfactuals with a future orientation, that would facilitate scholarly progress and informed policy.

OVERVIEW OF RURAL DEVELOPMENT ANALYSIS AND POLICY

We propose the following definition of rural development: The allocation of physical, social, and human capital in a spatial pattern that provides the possibilities for: (1) adequate income for all families; (2) education for leadership, entrepreneurship, workers, and citizenship; (3) access to health services; (4) regional and community economic development that is nationally generative of new economic opportunity; (5) leadership and organizational structure appropriate to ensure economic and social health; and (6) a healthy and inviting natural and built environment.

The definition implies a broad approach to the conceptual underpinnings. In this section, we describe the implications for analysts of defining rural development broadly and of seriously attempting to influence policy. These implications are presented here as reminders of the overall scale and character of the exciting and challenging task that confronts researchers of rural development. Most of these issues are dealt with elsewhere in the literature and will not be described in detail here.

The conceptual framework for rural development must encompass multiple subject areas, for example, employment, wages, nonwage income, education, health, and environmental issues. The framework should recognize the interaction of these issues, as well as provide for the treatment of each issue as an individual topical area. There is a great need for syntheses across areas. The task of synthesis is enormous relative to the capacity of individual research programs. An institutional response is needed, such as the current work of ERS, and a broader coalition including university-based researchers dedicated to this challenge.

An understanding of the development process requires an understanding of multiple units of analysis. The units of analysis are typically hierarchial. For example, labor markets often contain many communities; communities contain many households and firms, and households and firms contain individuals. Understanding the behavior of one level of units of analysis should have relevance to understanding other levels of units. Different disciplines give different weights to different units of analysis. Multidisciplinary teams are virtually essential because of the enormity of the task facing a person well versed in one discipline who seeks to gain even a working command of several other disciplines as well.

The development process is complex in its time dimensions. Many of the benefits and costs of particular actions, private and public, occur with considerable lag, in a different location, and with respect to a different unit of analysis than was the focus of the original action. For example, a decision to decrease intergovernmental support to communities

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may lead considerably later to more poorly educated and less productive individuals who have moved from the communities most adversely affected by the reduced level of assistance. Theoretical frameworks and empirical interpretations must capture the eventual private and social costs and benefits of current patterns of resource allocation.

As emphasized by Nelson (1984), policy analysis implies the ability to provide decision makers with information on the consequences of making changes in those components of policy which are partly or wholly within their control. Ideally, the consequences are measured in terms that directly translate into measures of well-being of rural people. In many cases, the structure linking policy parameters and measures of well-being includes many intervening variables. Many current analyses of rural development policy issues are not sufficiently linked to an "if this, then that" framework to be useful to policy makers and their staffs.

The tools of policy analysis are very useful in designing effective implementation strategies, for example, informing rule-making and enforcement, as well as in problem definition and in designing overall policy approaches as embodied in legislation. Implementation strategies are often underemphasized by researchers relative to inquiries designed to inform visible legislative choices.

Finally, the impacts of policy changes should be measured from a base, that is, a counterfactual. This point is much less appreciated than the others raised above. Rather than summarize it briefly at this point, we return to it later in the paper for more detailed treatment.

CRITICAL ISSUES RELATED TO CAPITAL FLOWS

The determinants of capital formation, that is, investment, are central concerns of the political economy of development. Economists are interested in the scale of investment; the nature of the investment, for example, public infrastructure or privately held facilities; the location of the investment; who makes investment decisions, for example, the division between governmental and private decision makers; and the determination and consequences of the rules that allocate the returns from investments among people.

In this paper we emphasize three critical issues related to capital flows: (1) the need for supply side analyses, (2) the interaction between capital mobility and tax policy, and (3) the influence of globalization on rural capital formation. Our discussion identifies gaps in scholarly knowledge that warrant further research. We also argue that these issues are central to important policy decisions with respect to rural development. Greater understanding of these issues will potentially have a significant bearing on those decisions.

These are not the only critical issues that could legitimately be discussed under the broad topic of "Conceptual Underpinnings of Policy Analysis." The constraints of a short presentation and paper forced us to choose from among a wide array of legitimate candidates.

SUPPLY SIDE ANALYSES[1]

Background

In the late 1960s and 1970s, many analysts of regional and local economies, including those studying rural development, emphasized "demand side" factors. In formal models these factors consist, for example, of private sector demands originating outside the local economy and of income injections through public sector purchases (especially defense-related procurement) and transfers (such as social security). The indirect as well as direct effects of changes in these factors are estimated by use of multiplier relationships between basic and nonbasic sectors. Glickman's "Methods of Regional Economic Analysis" published in 1977 prominently reflects this approach (Glickman, Ch. II). This emphasis grew in large part from the popularity of Keynesian models among macroeconomists studying national economies. In applied analyses, the emphasis on demand led to much attention to the attraction of firms that would contribute to the "export base" of the local community, to the attraction of people and businesses who would in turn attract public funds, and to the size of the multiplier that related service sector to basic sector spending (Fernstrom, for example).

In the 1980s and continuing into the 1990s, we observe the growing popularity of "supply side" constructs. Supply side factors include, for example, investments in people to make them more productive, reductions in marginal tax rates to increase the incentive to work, and investments in applied research and technology to make resources as well as people more productive. This shift was originally at least partly due to the ascendancy of supply side people in positions of national political leadership in Washington. The shift in leadership of regional and rural development from Washington to the states was

[1] This section builds on Nelson (1989).

also partly responsible. The federal government can do much to manage demand at the local level. State governments, on the other hand, have provided leadership in education and in applied research to improve the productivity of state resources.

Economic development theory is dependent upon capital formation theories of an inherently supply-side character to interpret the development of nation states. Our general sense is that less attention is given to captial theory in sub-national jurisdictions.

Yet enhancing capacity for long-term sustained economic (and social) development directs our attention toward capital formation strategies to support entrepreneurship, local initiative, technological innovation, and other initiatives. Such strategies provide avenues that enable communities to take charge of their own destiny and, for example, be proactive in securing new market outlets for local enterprises. It appears to us that a compelling case can be made for giving more emphasis to supply-side issues.

Currently, much of the national concern with the supply side is rooted in the slow growth of labor productivity and earnings since the late 1970s in the United States relative to prior periods in the U.S. and also relative to many other nations. Many economists and leaders are concerned that the future for U.S. citizens will be marked by very slow rates of increase in well-being unless we change our policies, for example, reduce the federal budget deficit, increase investment in public infrastructure, and increase incentives for private sector investments.

While we want to emphasize the above substantive reasons for greater attention to supply side issues, national concerns are likely to have a continued impact on thinking at the local and state levels for at least three other reasons as well. First, local and state policies are most likely to be accepted and sustainable if they can be shown to be consistent with national as well as local and state interests. Our definition of rural development reflects this view with its explicit recognition that it should be "nationally generative of new economic opportunity." Second, funding sources for researchers will reflect the high priority given to issues related to productivity and competitiveness. Third, economists are subject to fads. The interest in productivity among macroeconomists is likely to create a similar interest among agricultural, urban, and regional economists merely because of the ferment and visibility of the work within macroeconomics.

High Priority Research

Researchers should give greater emphasis to understanding the supply side of local economies. However, we should continue studies of rural demographic variables, including the relationship of migration to economic variables in the sending and receiving areas. A model of the composition of the rural population that is integrated with economic variables is clearly an important component of a supply side model.

The areas where we know the least and most need new creative efforts are those dealing with the decisions of rural people to work outside the home, the wages they accept, their productivity, and the scale and productivity of nonhuman resources in rural areas engaged in production. The determinants include social and political factors as well as traditional economic variables. The research must deal with a paucity of data; one outcome will undoubtedly be an improved discussion of the value of new data collection efforts. We do not claim sufficient insight on these issues to be able to suggest a precise plan of research. We do, however, have suggestions of elements we believe should be seriously examined as we pursue progress in this area.

Eisner's work on improved national accounts is a good start for a framework that gives insights as to the capital stock, investment, product, and income of an economy. Eisner's work shows, for example, that investments in education, that is, human capital, far exceed total gross private domestic investment as recorded in official U.S. national accounts. Perhaps a case study of a particular area could help reveal the value of a broad perspective on investment and capital in understanding local development and in making decisions about what policies to pursue in the future.

The literature on amenities, agglomeration, and spatial location has expanded rapidly in recent years. We suspect that significant contributions to our knowledge base can be gleaned from the diverse research in this area. Relatively low cost labor and management in small towns and rural areas continue to persist in spite of significant wage differentials as compared to larger metro areas. Hochs' analysis reveals that a good part of this difference is due to the need for higher wages in larger urban centers simply to compensate for the differences in cost of living and for non-pecuniary social and psychic costs.

The attachment of rural people to family, social, and cultural ties in their home areas exerts a strong pull on potential migrants. Two separate studies revealed that interpersonal relationships between migrants and urban residents (Deaton et al. 1982) and regional/cultural differences (Morgan and Deaton) were significantly related to the income differential required to induce migration from rural to urban areas.

More recent work by Mueser and Graves supports earlier findings by Stevens that amenities play an important role in migration decisions. Amenities provided by local cultures, particularly ethnic groups, will likely become increasingly strong factors in shaping future flows of both labor and capital.

The implications for capital formation are subtle but, we hypothesize, quite powerful. The availability of the same quality of labor at a lower wage rate results in a higher efficiency wage. The higher efficiency wage is a powerful attractant for mobile capital, because of the possibly higher profit potential. Deaton and Weber hypothesized that this was one of the important influences leading to the rural turnaround of the 1970s.

Kaldor (1970) posited efficiency wages as a principal driving force leading to agglomerative tendencies in a cumulative fashion. Recent analysis by Sternberg provides important insight into the complexities of agglomeration economies. His studies of the economic policies of Rochester and Buffalo, New York, reveal the power of using case studies to enrich and embellish our understanding of important development issues.

Perhaps the greatest challenge is to integrate work on social capital into the development paradigm. We gave equal priority to physical, human, and social capital in our initial definition of rural development. By "social capital" we are referring to the relationships among people as described by Coleman. These relationships are not lodged within people or in physical capital. Social capital may consist of either formal or informal relationships in both private and public sector institutions. Social capital is an important resource available to people as they seek to attain their goals, including for example, the acquisition of financial and physical forms of capital. It is not equally available to all. Herein, we are challenged to give attention to hard questions such as discrimination against women and minorities, the division of income between capital and labor, and the differential access to government programs due to differences in social networks. (See, for example, Mueller and O'Brien and also O'Brien et al.)

Hypotheses

We have several hypotheses related to the understanding and formulation of rural development policy that flow from our consideration of supply and demand factors.

Shocks from the demand side are usually more important than supply side changes in explaining **short term** shifts in output and employment. For example, macroeconomic policies that impose a heavy burden of adjustment on trading sectors will impose major cyclical effects on rural economies (Schuh 1976). We later address the importance of the international context in some detail.

The short term problems of regional economies often warrant a response for economic or political reasons. Policies focused on supply side factors cannot dampen to any large degree the abrupt shocks originating from the demand side. Rapid injections of purchasing power through government transfers are appropriate measures for achieving short term results. These measures should be regarded, however, as holding actions that merely give additional time before the regional economy must adjust to a new environment that is in part created by the deliberate policies of government and in part created by the multitude of private actions influenced little or not at all by governments.

While short term shifts in output and employment are usually dominated by changes in the demand side, the long term prospects for a regional economy depend on its productivity relative to other regions, that is, on supply side factors. The time lags between investments, such as education and research, that lead to greater productivity, and the payoffs from these investments are often substantial. Making these investments in response to short term "crises" in the local or national economy is likely to have little or no impact on short term economic fluctuations and will lead to an inefficient use of the resources devoted to these investments.

CAPITAL MOBILITY AND TAX POLICY

Local governments find themselves squeezed by a combination of growing local financial needs, past declines in federal aid, and the prospects of further cuts, tight state budgets, and slow growth in the property tax base relative to other tax bases (Swartz and Peck). While local government officials press for more state funds or at least more flexibility to raise needed revenues, those in state government find themselves pressured to stabilize or even lower local property tax burdens in an atmosphere hostile to increases in state sales and income taxes. These tensions were becoming strong in a period of steady economic growth. The recession is exacerbating them.

Incidence of Local Taxes

The solution to the above problem in the view of many is to give local governments the option of levying local sales or income taxes. Their argument is that this option provides the needed flexibility to local governments without increasing property taxes and without increasing state taxes. They point out that it allows local governments to tap tax bases growing more rapidly than the property tax base. They also argue that it spreads the costs of local public services more broadly among the population being served because citizens vary in their taxable property, income, and consumption. An Advisory Commission on Intergovernmental Relations publication focused on rural communities states:

> The lesson is clear; an efficient and equitable local revenue system should rely on a well-balanced and diversified set of taxes. In addition to avoiding the problems created by excessive reliance on any single tax, a balanced and diversified revenue system may create a more favorable business climate, lessen taxpayer discontent, and provide for stability of revenue throughout the business cycle (p. iv).

Similarly, Fisher identifies changes in purchase patterns caused by a sales tax; a similar comment applies to his treatment of income taxes (pp. 179-213). In neither case does he address the burden on fixed factors, to which we now turn.

Many analysts argue that local fixed factors bear the burden of local taxes, regardless of what economic entity bears the nominal burden of the tax. For example, Stiglitz writes, "... all local taxes are borne by the same, immobile factors ..." (p. 568). He goes on to state that different types of distortions are caused by different taxes, so their consequences are not identical. For an extreme example of distortions, a tax on all cats in the jurisdiction will lead to a different adjustment pattern than a tax on local wages, and thus the losses incurred as the burden is shifted towards the fixed factors in the jurisdiction are unlikely to be equal even if the initial yields of the two taxes were identical.

We are persuaded by the arguments of Stiglitz and others that in the intermediate and long run, local taxes are borne by those local factors that are least mobile. This is true even if the tax is nominally placed on bases other than local capital, for example, if placed on local sales or wages rather than on local property. We now briefly summarize the argument for the important cases of local sales and wage taxes.

The introduction of a local sales tax increases the cost of selling taxed goods in the region. The introduction of a local wage tax reduces the incentive to work in the region at the given wage rate. These changes in costs and/or incentives set in motion a series of adjustments motivated by firms' maximization of profit and households' maximization of utility that bring the region's economy back into equilibrium with the larger surrounding economic system. The scale of these adjustments varies with the nature of the region's economy and with the nature of the surrounding economy. A specific mix of local taxes will have different impacts in different regions.

In the case of the local sales tax, part of the adjustment will occur because firms are less profitable as a result of the tax but are unable to pass all of the tax on to the region's consumers because of competition from the surrounding regions. The consumers who are most vulnerable to higher prices are those that are least mobile, for example, elderly or poor people without the physical ability and transportation options to shop elsewhere. In many cases the competition will force the firms to absorb much of the tax into their cost structure. The firms will be less profitable in the region than they would be without the tax, and some will seek to scale back expansion plans, to reduce their operations, or even to leave the region. These exits will reduce the supply and enhance prices. In addition, the demand for land in the region will be lower than it would be without the tax because the region is a more costly place to do business. In slightly more technical terms, although the tax is levied on consumer purchases of goods and services, the series of adjustments leads to a reduction in the demand for capital and land from the levels that would have prevailed in the absence of the tax. The combination of adjustments in mobile capital and land values will continue until the profits to firms in the region are equivalent to those elsewhere despite the local sales tax.

In the case of the local wage tax, part of the adjustment will occur because firms are less profitable as a result of the tax due to higher labor costs—but unable to pass all of the increased labor costs on to the firm's consumers because of competition from firms in other regions. To the degree that the firms' labor force is immobile (for example, older workers, spouses of workers, workers with strong local kin and friendship networks), the firm may avoid having the costs of the tax passed on to it. In many cases competition in labor markets and in product markets will force the firms to absorb much of the increased labor cost into their cost structures. Under these conditions, the local response will be essentially the same as for the sales tax. That is, some firms may leave, product prices may increase, demand for land and capital may decline, and firm profits will equilibrate with other regions.

Many analysts and policy makers underestimate the degree to which local taxes are borne by local immobile factors relative to the factor that bears the nominal burden of the tax. As a direct consequence, many analysts and policy makers fail to appreciate adequately the conceptual foundation for much local opposition to proposals for new initiatives that entail local financing.

Local Capital Markets, With Emphasis on Distressed Regions

The capital stock at the regional level is determined by the equilibrium of supply and demand in the capital market. The demand for capital is a derived demand and will be a function of the price of capital (the interest rate), the price of the output, and the prices of inputs. The supply of capital is a function of the price of capital, the prices of factor inputs used in the production of the capital stock, and the prices of the other goods produced by the capital goods producer.

The supply of capital is typically assumed to be perfectly elastic at the regional level because the regional market is small relative to the total market for capital. The increasing importance of international flows of capital makes this assumption increasingly plausible for larger jurisdictions. In this case, the larger total market determines the interest rate. And the equilibrium level of the regional capital stock is determined from the demand for capital, given the exogenously determined interest rate.

In practice, the supply curve of capital at the regional level will only be perfectly elastic at the interest rate prevailing in the larger market for levels of capital stock greater than the current stock. Although capital is somewhat mobile, its owners often incur substantial transactions costs in moving physical capital to other uses or to other locations. Thus, the supply of capital is discontinuous at the current level of the capital stock. That is, if the demand for capital in a community or region falls by a significant amount, the result is a decline in the price of capital to the "salvage price" and only a moderate movement of physical capital (structures, equipment, etc.). This can be represented by a supply curve which is horizontal for expansions of capital but downward sloping for significant decreases of capital.[2]

This discontinuity is revealed in the opportunity in many depressed areas to purchase capital goods such as houses, restaurants, stores, and so on at prices below the cost of constructing them less depreciation related to their service flow.

Several important implications follow. When the demand for capital shifts when an economy is operating on the salvage value of capital rather than the acquisition price, the adjustment of the capital stock is much less than would be expected when an economy is operating in the regime of the acquisition price. The rigidity in the capital stock introduces rigidities and lags in the adjustment of output in the sector or region. That is, a marked decline in the demand for the output of a sector or region may be followed by a long, gradual downward trend in output consistent with the gradual depreciation of fixed investments rather than by a quick marked decline in output. In addition, a shift from the acquisition price to the salvage value of capital introduces large downward revaluations in the local capital stock. A shift from the salvage value to the acquisition price has the opposite dramatic effect.

Shifts in the demand for capital may originate, for example, in shifts in output prices, input prices, or tax policy. Tax policy is the case we emphasized in the previous section. We should also recognize the latitude of local financial institutions in altering the supply of capital via lending policies and interest rate adjustments for local borrowers (Markley). Local banks, for example, may choose to lower interest rates as a means of slowing the downward adjustment in capital value for homeowners and business firms. For short run periods, the local price of capital may diverge from the prevailing rate in the larger economy.

Implications, with Emphasis on Development

The shift to greater taxing responsibility at the local level because of national and state policies is changing who bears the tax burden. This is true even if a local jurisdiction replaces the nominal burden in exactly the same manner as the nominal burden was placed by the state or national government. For example, if a cut in the income tax on the "middle class" were enacted by the national government and exactly offset by an increased tax on the middle class by some city or community, the tax burden in the community would shift towards factors that are less mobile and away from income. This shift is not widely appreciated among analysts or policy makers.

The less mobile factors that are bearing a larger share of the tax burden relative to consumers and income recipients tend to be land, long-lived structures, and people with strong commitments to remain in their community for reasons such as few employment options elsewhere or strong family ties.

The use of local sales and income taxes to provide property tax relief is likely to be a failure in many, if not most, cases. Large portions of the local sales and income taxes are likely to find their final incidence

[2] The difference between, and the importance of, acquisition and salvage value have been widely recognized in agriculture for quite some time. For example, see the extensive discussion in Hathaway's (pp. 110-129) popular text published in 1963 that relies on studies published in the 1950s.

with the very capital and land items now bearing the brunt of the property tax. In addition, the local sales and income taxes create losses of efficiency in the goods and labor markets and so further reduce the probability of their adoption which would lead to net gains for the region.

Current federal and state policies may be at the root of current and potential fiscal disasters affecting the future of a significant number of cities and towns. Our concern grows out of the following argument. The financial stress at the federal and state levels will, in all likelihood, continue. This implies that there will be no restoration of state or national support for local government and is consistent with further cutbacks. Local jurisdictions will continue to find themselves supporting desired services more from their own resources and less from federal and state sources.

The incidence of local taxes of all types falls much more heavily on the immobile factors in the locality—such as land, capital investments, and immobile people—than did the state and federal taxes that are being replaced. This reduces the demand for capital. In many, probably most, localities, the reduction in the demand for capital causes difficulties; but these difficulties can be handled without disaster—in part because the phenomenon of an increased burden on capital is so widespread within the U.S. that potential competitive regions will also be having difficulties. The general shift of the tax burden to capital within the U.S. does cause an increased tendency for capital to be invested in other countries.

In a significant number of localities in the U.S., however, the decreased demand for capital pushes them into the range of salvage value in the capital market. This further exacerbates the problems of financing public services because of the precipitous decline in property values. A downward spiral sets in for the jurisdiction, which is enormously difficult to counteract. That is, the declining quality of public services and/or the increasing tax rates needed to maintain the current quality of public services lead to further devaluations in local property values. The precipitous decline in property values will occur with some lag after the policy actions that caused it to happen—making it even harder to correct and to fix responsibility.

The varying fortunes of different localities further increase the incentive for wealthier people to gather together in enclaves that restrict access to the poor, that is, the movement to local financing increases the incentive of the wealthy to balkanize the country along economic class lines.

In conclusion, we should be identifying the types of places, rural and urban, where this fiscal disaster is occurring now or where it is most likely to occur in the future. We should then estimate the enormous return—in terms of maintaining public services and reducing other costs of adjustment—of providing sufficient intergovernmental aid to keep places from falling into the salvage value trap. The motivation is not to prevent all decline, but to limit the rate of adjustment so that we better exploit existing physical, human, and social capital in our rural communities and urban centers.

Globalization and Rural Capital Formation

Bullock recently defined globalization as "the process of individuals, business firms, and governments responding to the removal or modification of barriers that determine what and how goods are produced, and how a society chooses to organize itself."

He identified "seven barriers that are of importance to the process of globalization.

- Communication
- Distance
- Biological
- Technological
- Ideological/Cultural
- Institutional
- Human resistance to change and desire to return to the less complex and preferred 'good old days'.

Removal of the first four barriers relates to changes made possible by developments in science and technology. Modification of the last three barriers requires changes in values that determine perceptions of 'what ought to be' and changes in the way people make decisions about creation, operation, and modification of social, political, and economic institutions" (Bullock, p. 1).

This perspective recognizes important institutional and behavioral changes and holds promise of potentially fundamental changes in basic values.

Clearly, a broad policy framework must be used which encompasses the decisions made by international institutions such as GATT, or in "instruments of integration" such as capital markets, exchange rate regimes, interest rates, and international labor flows (Schuh 1991, p. 7).

The factors cited by Bullock bring into serious question whether standard economic approaches provide a sufficient basis for formulating even the economic component of a multi-faceted policy framework. Potential changes in technology, ideology and cultural change point to the need for interdisciplinary work.

Central Question

An important question facing our profession is whether "globalization" is simply an expanded view of the interconnections with which we are already familiar, or whether, alternatively, it represents a marked departure from the past view of the economy, social relationships, and policy strategies. In more detail:

(1) Does globalization present anything new as a conceptual construct for rural policy analysis? It is conceivable that policy analysis could proceed pretty much along the old lines irrespective of the alternative theoretical models presented above. The frame of reference would simply be expanded to accommodate a world with fewer barriers to capital, labor, and knowledge mobility.

(2) Does globalization illuminate social and economic factors that fundamentally alter our view of the world economy such that an alternative theoretical perspective appears to be a richer, more robust stance for policy analysis? Economic contributions to policy analysis will change in character if this latter question is answered affirmatively.

The former, evolutionary viewpoint is deeply embedded in the way we do business as economists and is consistent with a neo-Walrasian theoretical view of potential economic changes. Since globalization implies a world-wide free market and increased international capital flows, then the appropriateness of our assumptions of perfect competition, linear production functions and continuously market-clearing mechanisms are reinforced. Only "stochastic misperceptions" (Kaldor, p. 61) confound the models we use, and our profession is busy at work developing techniques to deal with that issue.

The evolutionary viewpoint receives support from research examining whether foreign investors have impacts on communities that differ systematically from those of domestic investors. The bulk of the evidence suggests few, if any, discernible differences between the two (see Glasmeier and Glickman, for example). One would suspect that new management philosophies, labor relations, and intercultural experiences may be the most fundamental impacts of such direct investments. These influences do not always lend themselves to direct observation, but may have far-reaching power in reshaping the world economy. Such direct links between the international market and small town industrial recruiters are likely to establish another important set of social and economic relationships and bring the concept of a "small world" into a new perspective. Global-local relationships are being established in many parts of the world, creating new avenues for addressing policy objectives.

One is left somewhat uneasy about this evolutionary position because of the pervasiveness of global economic change, the power of decisions which lie outside a common political framework, and the imbalance in knowledge of technologies and alternative investment sites around the world. Most small towns and rural areas are unable to deal effectively in this environment, and we suspect that most state governments are also at a serious disadvantage in such bargaining relationships.

The support for the position that globalization fundamentally alters our world view comes from a variety of perspectives. Observers of international and rural development processes seriously question the usefulness of traditional general equilibrium models in understanding global dynamics, especially as they explain economic adjustments of lagging rural regions (Myrdal; Kaldor; Schuh 1991).

Kaldor has long argued that we need

> a different kind of abstract mode, one that recognizes from the beginning that time is a continuing and irreversible process; that it is impossible to assume the constancy of anything *over* time, such as the supply of labor or capital, the psychological preferences for commodities, the nature and number of commodities, or technical knowledge. All these things are in a continuous process of change but the forces that make for change are endogenous not exogenous to the system. The only truly exogenous factor is *whatever exists at a given moment of time,* as a heritage of the past (Kaldor, p. 61).

Globalization processes help highlight two critical factors that mark a significant departure from the general equilibrium view of the economy and the steady state growth models wherein everything grows in exact proportion. These two factors are: (1) "continuous change in knowledge and (2) the existence of nonlinearities in productive activities, in other words, increasing returns" (Kaldor, p. 63).

Deaton and Weber made similar arguments about rural economic growth in the 1970s being driven by cumulative economic forces which were the products of economies of size, amenity values, and endogenous government spending. Schuh (1991) argues that we may be headed toward a serious bifurcation of the U.S. economy. He sees significant elements of economic policy being shaped at the international level while another major set of policies is determined at the state and local level.

Stimulated in part by Schuh's view, we observe that the formation of a unified European Community appears to be driven in part by sub-national units of the European countries whose objectives are expected to be realized by common problems or issues of sub-groups across the nations of Europe. By making common cause with similar interest groups in other nations, environmental objectives, for example, may be more readily achieved. Accordingly, the equivalent of a federal-local strategy is being pursued in Europe, not unlike the earlier U.S. experience with the Tennessee Valley Authority, the Appalachian Regional Commission, and the other Title V Regional Commissions.

Household Behavior in an Open, Global Economy

A household portfolio view offers important insights into the potential implications of a more global economy. Suggestions for policy analysis and ameliorative policy tools also emerge.

Households meet their economic objectives by maximizing lifetime consumption, which includes intergenerational wealth transfers. This requires assessing desired balances of consumption versus investment. On the investment side, their portfolios are split between private and public capital investments, with public investments representing the extent to which they tax themselves directly and indirectly. These decisions in turn shape the level and pattern of government spending for public goods such as roads, hospitals, education, communications systems, environmental quality, public safety, fire protection, and publicly provided business and industry incentives.

Business and industry incentives are designed to diversify the local economy, create a more secure tax base and source of job opportunities, and reduce the per capita cost of public services by spreading fixed costs across more people and businesses. As is widely recognized by analysts and citizens, incentives provided by local governments to the private sector should be explicitly assessed by households for their prospective rates of return as compared to other expenditures such as schools. These tradeoffs are difficult considerations for citizens, and the tradeoffs have not been well-researched by our profession.

What is perhaps not as widely recognized is that the use of public incentives to stimulate private businesses may enable more mobile capital to earn a premium on its investment at the expense of less mobile local capital. The increased range of alternative investments in an open, global economy may be increasing the importance of such shifts. If so, the impacts of greater global competition for investment and of greater local tax burdens are reinforcing the burden on, and devaluation of, more immobile local capital. McKenzie and Lee show the significance of the shifting as a result of incentives in their study of Federal Express and the incentives offered by Memphis, Tennessee.

Voters appear to be willing to make public sector investments in direct proportion to their expectations that the proposed use of funds will benefit local citizens. This has led in Missouri, for example, to a massive vote against a state revenue bill (Proposition B), ostensibly to support education and a little bit of everything else, whose ultimate aims were not clear to the public. At the same time, local governments across the state were successfully gaining more expensive (to the voter) support for a variety of local revenue needs. This apparent paradox can be explained by introducing the rather obvious notion of the discount factor for risk associated with each potential outcome. Why make an investment via a state revenue act when the expected returns are so low? More secure expectations are readily endorsed.

Stinson has identified an important caveat for this analysis by pointing to the need to account for life-cycle theories of household savings in order to interpret infrastructure investment decisions. For example, some of the current lag in infrastructure investments in rural areas may be due to net dissavings by rural elderly, possibly in combination with a net-borrowing cohort of postwar baby-boomers. In this scenario, renewed support for public infrastructure spending in many areas may simply have to wait until a dominant cohort enters the net investor stage (Stinson).

Policy Implications

Uncertainty about local economic affairs may reduce household incentives to invest in local infrastructure through local governmental financing mechanisms. This uncertainty appears to be greater for any given community in an open, global economy as important decisions are made by investors from the less-familiar international community with little knowledge of small communities relative to larger places. The implications of this greater uncertainty are played out in a complex series of simultaneous interactions with private investments in physical capital and with investments in human capital.

The rate of return on many private investments is in part dependent on the scale and quality of local public infrastructure. The interaction of public and private investment creates a danger of downward spirals as well as impacts of positive potential. If greater uncertainty about the viability of the local private sector arises because of greater global competition, the danger is that the uncertainty results in less public infrastructure investment, which then leads to less private investment—and so on in a downward spiral. Again, the global context and the shift in public finance policy may be reinforcing each other. As individuals observe the greater uncertainty of the economic fate of their home community and current employer, and as the relevant job market becomes ever more national, and even global rather than local, households and individuals can be expected to reevaluate the expected return of alternative investments. As noted above, households may be less willing to tax themselves for purely local infrastructure, particularly that which undergirds local business and industry investments. On the other hand, human capital investments would appear to ensure a more secure rate of return in an increasingly mobile labor force.

The degree of local support for local educational institutions is fraught with tensions that we cannot untangle in the necessary detail to suggest the direction of the final resolution. In a mobile labor force, people have a greater incentive to invest in their personal human capital and in the human capital of other people whose well-being is of concern. On the other hand, the greater mobility of people implies that investments in other people in the community, for example, in children other than one's own in the community, are very likely to have little or no effect on the economic success of the community because the people are likely to migrate away. In addition, investments in educational facilities are viewed as more risky as the viability of the community becomes less certain.

The global environment may create even stronger tendencies towards agglomeration and, if so, this tendency will accentuate the above problems. A fully integrated global economy provides for more rapid, continuous changes in knowledge and increasing returns to economic factors due to agglomeration economics.

Because of market forces, policy makers and analysts would be making a major error to assume that the emerging global economy will lessen, or even reverse, seeming past tendencies towards centralization. State governments and large cities are wisely working in coalitions with international public and private institutions to become more responsive to these new realities. Small towns and rural areas do not appear to have any obvious advantage as localities seek to capture the gains of increased global trade. Local leadership, community pride, the development of unique amenities, and other supply side initiatives will be at least as important in the future as in the past. Researchers would be making a major error if they devote too few resources to exploring the "economics of disequilibrium" or at least applied research that carefully examines dynamic economic change wherein many more factors are endogenous. The role of biological, technological, ideological, and institutional factors in understanding global economic change will provide a rich research and educational menu.

SUGGESTED APPROACHES FOR RURAL DEVELOPMENT POLICY ANALYSIS

Bromley has suggested that our inability as social scientists to make the case for rural development policy is due to the existence of "highly concentrated interest groups with identifiable benefits at stake" (p. 4). Clearly many interest groups are able to reallocate economic advantage to favor their interests. This has been an important force shaping farm and rural development policy, but it is too easy an answer to the lack of economic attention given to the economically diverse needs of rural America. Contrarily, we argue that our most serious shortcomings are the failure to:

(1) organize our research into a cohesive package of decision-relevant information.
(2) validate research findings across diverse political and geographic regions of the country based on different types of communities.
(3) synthesize existing knowledge and implement new research efforts on a multidisciplinary basis that will provide a more comprehensive and cohesive knowledge base for understanding important dimensions of rural development.

Almost any review of existing research on such important topics as health care, education, infrastructure, job creation, and other topics will reveal serious gaps in knowledge, incomplete theoretical specification, and an almost wholesale failure to validate findings in a comprehensive and cohesive fashion. Social scientists should be eternally vigilant regarding the need to critically appraise the research now in hand. Unfortunately, economists have drawn very narrowly on economic models and empirical approaches for their contributions to policy analysis. Economics is not adequate for capturing the most important dynamics shaping the future of rural and urban communities and interdependencies among such communities. Enrichment from other disciplines and synthesis across disciplines will be essential to capture the important relationships. Even the most clearly and accurately specified economic model may be impossible to verify empirically. The interrelationships of economic, social, and psychological variables result in a changing reality which prevents accurate validation even if it were attempted which, unfortunately, it rarely is. This would suggest that even the best economic models will probably not reveal the structural adjustments occurring in the economy.

We propose two conceptual tools for undertaking rural policy analysis which can capture the multi-faceted analysis envisioned in this paper: (1) counterfactuals, and (2) representative communities. Each of these is described below:

Counterfactuals With a Future Orientation

The impacts of policy changes should be measured from a base, that is, a counterfactual. The choice of counterfactual is obviously important. Policy makers recognize that the current state of affairs will not persist into the future even if current policies are extended with little or no change. Thus, policy makers and their staffs are critical of analyses that use the current situation as the counterfactual for analyses of some alternative. Such analyses confound the impacts of the change in policy with what would have occurred over time in the absence of any policy change.

We fear that academic training of social scientists is approached too simplistically on this issue. In too many instances it becomes chic for professors to dismiss important analytical considerations as being due to narrow political criteria (e.g. "that is just politics"). Such attitudes demean the serious approach taken by key government policy analysts at all levels and plant seeds of cynicism in young professionals. It would be worthwhile for academics to gain more experience in the policy arena and/or to bring policy analysts into the classroom and onto campus more frequently. This is an important way to help cultivate a working democracy in which individual, household, and community wants are reflected in political decisions.

Rural development analysts seriously concerned with affecting policy should devote the necessary time and energy to developing a counterfactual that reflects an extension into the future of current policies. If sufficient consensus exists across analysts with respect to how to define and implement "an extension of current policies," the "baseline" counterfactual should be a concept that can be used by many analysts once it is done sufficiently well by any one group.

In addition, a baseline adds insight to problem definition. The nature and severity of expected problems may differ substantially from current problems even with no change in policy. For example, the changing age-profile of the population and the increasing importance of international linkages may cause some current problems to lessen and others to worsen. Thus, a baseline is important to problem definition as well as to assessment of policy alternatives.

A Multidisciplinary Team to Focus on Representative Communities

Communities and neighborhoods are in ascendancy as important foci of analyses. The community and neighborhood are recognized as having important direct influences on peoples' well-being. The community and neighborhood also have important influences on investments in human capital that have marked influences on well-being later in life. Finally, it is in communities that federal and state programs authorized and funded along narrow topical lines are linked together in service of individuals, families, households, firms, and so on.

We believe that a strong case exists for multidisciplinary teams to focus on attaining a better understanding of what is happening in communities. These teams would focus on the experiences of actual communities and would give attention to a sample of the multiple units of analysis within communities as well as to community-wide characteristics. The teams would attempt to project the likely impacts of proposed policy changes as well as to look retroactively at the impacts of past events. The projections would be compared with actual changes in attempts to ascertain in what respects the frameworks incorporating causal links need to be modified.

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