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# Economy-wide reform and agricultural recovery: Observations of economic Darwinism among transition economies<sup>1</sup>

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## Abstract

The fitness of an economy and its prospects for continued prosperity will be measured and determined by its robustness and its ability to adapt to changing circumstances. Some countries in transition are adapting much more easily than others to rapid changes in the orientation of their economy, the common objective of which is to achieve economic growth through the adoption of a range of characteristics generally associated with a market economy.

Economic growth does not have to be very fast, but it must be efficient and sustainable. Policy adjustments must address political economy concerns, while seeking to achieve macroeconomic equilibrium and price stabilization, competitiveness, efficiency and flexibility, and the protection of the living standards of the most vulnerable population. The process of agricultural sector reform will be determined both by economy-wide policies and sector-specific policies.

This paper first outlines a taxonomy of the objectives of agricultural sector reform, and then discusses the way in which indirect price interventions (specifically exchange rate and interest rate policies, expansive fiscal policies and industrial protection policies), influence agricultural growth. Lessons of experience drawn from the UNDP/World Bank Trade Expansion Program structural and sectoral adjustment operations in Poland, and the cases of New Zealand and Chile are employed to illustrate not only the constraints that countries face in this regard, but also in identifying targets for further action.

The third section presents what is called the 'architecture of incentives for agriculture'. In defining a strategy of agricultural sector reform, experience has shown that a structure of incentives can be developed that creates an environment ripe for agricultural growth—incentives relating, for example, to taxation, prices, foreign investment, privatization and demonopolization, decentralization and institutional reform. Special considerations that will require additional attention by policy-makers outside of this structure include the maintenance of GATT-legal principles in trade policies, issues relating to tariffification (including concerns about price risk management, food supply, and the role of food aid), input and credit subsidies as a means to correct for market failures, and the role of regional trading blocks in world trade.

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## 1. Introduction

Over his lifetime, Charles Darwin developed the theory that natural selection acts, among other things, to weed out those individuals within a species whose

particular characteristics ill suited them for survival over more than a few generations (Darwin, 1859). It may be similarly argued that, among the varieties of economic function, there will be certain characteristics of some economic systems that will doom them to languish, or to an inability to compete in a global system. Thus, while the generations of human experience are much longer than those of a fish or a grasshopper, nevertheless the 'fitness' of an econ-

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omy and its prospect for continued prosperity will be measured and determined by its robustness and its ability to adapt to changing circumstances.

Economies that are making the transition from centrally planned to market and open economy orientation are faced with rapid changes, to which we see some countries adapting more readily and rapidly than others, but with common struggle for similar objectives. It will be, indeed as in the animal kingdom, survival of the fittest that shall determine the relative successes and failures of states and their policies in meeting those objectives. Think again on what Darwin propounded with regard to the universality of competition, the interrelationships of each part of an organism to the other parts, the effects of external conditions on the survival of the organism. Then consider the prospects for economic survival and prosperity among the many economic systems that exist today. What is outlined in the pages to follow is a description of the characteristics of a 'fit' economy to which so many economies, not only those 'in transition', aspire.

## 2. Elements of reform

The primary objective of economy-wide reform in transition economies is to achieve economic growth through the adoption of the principles of a market economy. This growth does not have to be very fast, but it must be efficient and sustainable. These economies have the special challenge of achieving growth under circumstances unique in history. Still,

literature about, and experience in, other regions are replete with successes and failures from which we may extract common themes or variables on which growth is dependent. These are the elements of reform, presented in greater detail in the following section.

Generally, to achieve economic growth, countries in transition must reorient their system of incentives and restructure their institutions towards the demands of a market system. Policy adjustments are required that will address the political economy concerns that arise from these fundamental changes, as the redistribution of costs and benefits of the new system can cause some social and economic disruptions and upheavals. Finally, policy-makers must face the reality that, to a great extent, they are having to design programs that will address their unique circumstances. Thus consistency, perseverance and flexibility must be the *modus operandi* of reform.

As expected from a general equilibrium perspective, the extent to which agricultural growth is influenced by economy-wide policies is the most interesting result of recent empirical studies on the subject. Sector growth implies intersectoral resource flows, and thus relative prices throughout the economy, not only those of agricultural inputs or output, help to determine agricultural growth. Agricultural growth will depend as well on the credibility of reforms. Credibility, while difficult to define, might be thought of as sustainability of reforms over time, and is essential for private investors in a market economy.

The elements of reform in the initial phase of transition can be summarized as follows:

- macroeconomic equilibrium and price stabilization;
- competitiveness, efficiency, flexibility; and
- protection of the living standards of the most vulnerable population.

Each sector in an economy is affected by both economy-wide policies and sectoral policies. Economy-wide policies are those that operate throughout the entire economy, and affect all sectors, though not necessarily equally. There are two groups of economy-wide policies. Stabilization policies are those policies designed to correct severe macroeconomic imbalances in the economy. Such policies are designed to deal with problems such as monetary overhang, bankruptcies and other problems in the finan-

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cial system, and measures that serve to harden budget constraints and reduce fiscal deficits (Fischer and Gelb, 1991).

Adjustment policies can be economy-wide or sectoral policies, designed to eliminate distortions in the incentives for production and marketing across all sectors. Such policies include the elimination of price controls on goods and services, reforms in land, water and labor markets, including privatization of land and state-owned enterprises, and deregulation through the elimination of multiple or rigidly set exchange rates, interest rate ceilings and price and credit controls. In addition, trade liberalization policies affect adjustment through the elimination of state trading, of export subsidies, and of quantitative restrictions, all measures that will directly enhance the efficient operation of market forces.

Sectoral policies are specific to a particular sector, and are often influenced strongly by the political and economic interest groups that wield the most power in the political process. Sectoral policies guide or determine specific characteristics of a sector, for example, as regards trade, prices, subsidies and the market for natural resources (land rights and titling, rental and subdivision, and the organization of water rights). As part of a broader, economy-wide model, they could be policies established to increase or diminish the public-sector role (for example, as regards policies toward state enterprises or monopolies), policies that establish or eliminate sectoral lines of credit, or policies that establish the level of privatization in the delivery of services.

### *2.1. The taxonomy of agricultural sector reform*

The process of agricultural sector reform, therefore, will be determined both by economy-wide policies and sector-specific policies. Reform in transitional economies is being directed at the support and enabling of competitiveness, through the development of market efficiencies, and by creating an environment conducive to the development of competitive services on which the sector depends, i.e. quality control, market information, marketing, processing, and distribution. This will require a deliberate move to more rational prices, for example through

exchange rate convertibility and opening the economy to foreign competition.

At the same time, social objectives, such as protecting the poor, ideally should not be used to justify selective price interventions in the agricultural sector (or any sector). The social safety net, designed to protect the most vulnerable segments of both the urban and the rural population, is unquestionably a legitimate objective for the government. It should not, however, be a burden on agriculture via price controls and forced procurement. Furthermore, evidence from the 18 less-developed countries studied by Schiff and Valdes (1992) shows that the benefits, to the poor, of agricultural price interventions are negligible in the short run, and impossible to anticipate in the long run. Agricultural growth, and therefore incomes, will suffer. As far as the advantages of stable commodity prices for producers are concerned, the risk is that they, too, will quickly become subverted by strong agricultural interests that use price stabilization programs to raise prices of importables, and by governments that use them to raise revenues by taxing exports.

Given the broad objectives put forward in the previous section, and the stipulations referred to above, the following is a useful taxonomy of the objectives of agricultural sector reform:

- In trade and price policies: minimize direct government intervention operating in agricultural input and product markets, and make the trade regime more transparent; create a legal and regulatory framework for the operation of competitive and functioning private agricultural markets; reduce domestic and international transactions costs; and enable foreign and domestic trade to be conducted by private agents.
- Establish an effective and non-discriminatory system of taxation (sales tax or value-added tax, income and land taxes, etc.).
- Privatize and demonopolize food distribution, agro-processing and input supply, by facilitating the emergence of new and restructured private firms in processing, input supply and services.
- Ensure privatization of land and security of property rights, that private farming is the main component of the farming system, and that land markets are efficient and that they facilitate exit from, and entry into, farming.

- Support and enable the development of viable financial institutions that serve the agricultural sector.
- Create an efficient and effective public sector administration that provides services according to the needs of the private sector.

## 2.2. *Indirect price interventions*

Let us now focus on one aspect of price and trade reform that is of particular interest, i.e. indirect price interventions. As we have already noted, agricultural growth is at least partly determined by intersectoral resource allocations. Intersectoral resource allocations are, in turn, mainly determined by the relative price structure throughout the economy. This price structure is determined by market forces and by government intervention, both direct and indirect. Price and market reform, both domestic and for external trade, are important in determining future investment decisions, since incorrect price signals make profits and losses virtually meaningless. Thus, agricultural incentives are derived as much from macroeconomic and trade policies as from sectoral-specific policies and interventions.

There are basically two types of policies that indirectly influence agricultural growth: including macroeconomic policies (specifically exchange rate and interest rate policies) and industrial protection policies. Schiff and Valdes (1992) found, in a comparative study of agricultural economic interventions in 18 less-developed countries, that these indirect policies were imposing by far the heaviest burden of taxation on the agricultural sector. The empirical findings of this study revealed that the indirect tax on agriculture from industrial protection and macroeconomic policies amounted to an income transfer from agriculture to the rest of the economy equal to an average of 22% of agricultural GDP, as compared to the 8% tax resulting from direct agricultural pricing policies. Such interventions affect the relative prices of agricultural tradables relative to non-tradables (through their impact on the real exchange rate) or to other tradables (through policies that protect importables in the economy).

The exchange rate may be the most important price in an open economy, because it integrates domestic markets with external markets, by deter-

mining the relationship between domestic and border prices, as well as that between tradable and non-tradable domestic products. Thus the real exchange rate provides a long-term signal for the allocation of resources among various sectors. Exchange rate misalignment results in considerable losses that accrue not only to the government, but also to producers (or potential producers) of tradables, and to other types of commercial, private-sector services relating to trade. The most successful trade reforms in other regions of the world are those that keep inflation low, and can be associated with significant real depreciation of exchange rates early on in the trade liberalization process (Papageorgiou et al., 1990; Valdes, 1995a).

In the experience of Latin American countries during the early years of post-reform, financial markets nearly always resulted in real interest rates that were higher than the pre-reform, controlled interest rates (for those who could capture the available credit), and higher than interest rates in more-developed countries. The relatively low degree of monetization in underdeveloped capital markets (typical of less-developed countries and of transition economies), the high cost of financial intermediation, the monetary policy under stabilization programs, and the country's overall risk factor, all contribute to relatively higher domestic real lending rates. In addition, long-term credit in these countries is unavailable. This phenomenon exerts considerable stress on the profitability of farming, in part because farming is a relatively capital-intensive pursuit, and because higher interest rates place domestic producers at a price disadvantage vis-à-vis importers of the same or complementary food commodities.

At the same time, protection of domestic industries (usually in the form of protecting importables at the border with high levels of tariffs and/or quantitative restrictions) raises the domestic price of importables (including agricultural inputs) above world prices, thereby increasing their prices compared with the prices of exportables, home goods, and other importables. The wages, and thus eventually the prices of home goods, are driven up, thereby reducing the purchasing power of farm households, and causing an appreciation of the real exchange rate. Empirical studies of the economies of Colombia, Uruguay, Argentina, Chile, Brazil and Peru confirm

that exporters in all of these countries, and producers of import-competing foodstuffs in some of them, have paid at least half the cost of industrialization programs (from work pioneered by Sjaastad (1980), expanded on by studies carried out at the International Food Policy Research Institute and the World Bank). Other forms of taxation of the agricultural sector are associated with lower agricultural GDP, and lower overall economic growth. The GDP growth rate for the mild taxers among the 18 countries studied was 6.5% over the period 1960–1985, compared to 3.3% for the extreme taxers (Schiff and Valdes, 1992).

Expansive fiscal policies (i.e. public expenditures) lead to a deterioration in the trade balance and put additional pressure on non-tradables, which will also lead to an appreciation of the real exchange rate. High fiscal deficits give rise to high real interest rates which in turn lead to reduced credit to, and investment in, the agricultural sector. In addition, high levels of public expenditure are often due to high levels of government subsidies. While these subsidies are directed at agricultural inputs and outputs, they are nevertheless unable to compensate agriculture for the deleterious effects, on the sector, of adverse price policies elsewhere in the economy. In most less-developed countries, agricultural sector-specific price interventions are simply not powerful enough to contend with the forces of economy-wide price and foreign exchange policies. More recent evidence shows that input subsidies and non-price transfers have not compensated for the enormous taxation of the sector. This taxation has resulted in a tax equivalent of 12–23% of agricultural GDP in some Latin American countries between 1985 and 1990 (Valdes, 1995b), and similar analyses of other countries show a consistent pattern of net income transfers out of agriculture.

To further clarify this notion of indirect effects and their relationship to agriculture, as well as the sequencing and interplay of microeconomic and macroeconomic reforms, we present below two illustrations that each tell what we believe is an interesting story, the story of macroeconomic policies that are fundamentally inconsistent with trade reform. The first is an empirical evaluation of reform in ten countries, and the second, an analysis of economy-wide reform in Chile and New Zealand.

### *2.2.1. Lessons of experience: the Trade Expansion Program (TEP) of the UNDP and World Bank*

The purpose of the TEP was to evaluate the trade reform programs of ten less-developed countries at the early stages of reform, with the intention of making recommendations for adjustments that would help to keep trade policies on track. Although the study itself was not intended to focus on agriculture, agricultural exports represent a high share of overall exports in all of the countries except Romania, thus the study offers information from which we can get a sense of the anti-export bias on agricultural products. Most of these countries tried to reduce quantitative restrictions, lower tariffs, and reduce export taxes, some with decidedly more determination than others. The two transition economies studied, Romania and Vietnam, both made considerable progress in trade liberalization, but, in order to benefit fully from the reforms, still needed to institute major reforms in foreign exchange markets, property rights legislation and domestic price deregulation.

In examining the evolution of macroeconomic policies of these countries during the period of reform, of the ten countries examined, three had macroeconomic policies inconsistent with trade reform, and a few of the remaining seven had elements of policies that might lead to future inconsistencies. The inconsistencies appear to have most to do with failure to reduce or contain fiscal deficits. The three countries, Kenya, Romania and Uganda, employed money-financed fiscal deficits that led to rapid inflation, appreciation of the exchange rate and unsustainable current account deficits. In the countries where trade reforms have been sustained over a period of at least 4 years, the results of reform on both real annual growth of GDP and on agriculture appear to be positive, an average of 5.2% growth annually in GDP, and 5.7% in agriculture.

As for the breadth of reforms, in those countries where trade reforms were not very advanced, the most important bottleneck appears to be the financial sector, which in those countries is still dominated by state banks, institutional credit, and government-fixed interest rates. Those countries where trade reforms are more advanced seem to benefit by substantial flexibility in the land and labor markets. Overall, middle-income countries performed better under reform than did low-income economies, in that tariffi-

cation occurred more slowly and with higher tariffs in the latter than in the former, explicit export taxes remained relatively higher, and low-income countries tended to continue money financing of the fiscal deficit, among other things.

### 2.2.2. *Lessons of experience: Chile and New Zealand*

The economies of Chile and New Zealand provide an instructive look at the effects of economy-wide and sectoral reforms on conditions of growth, as both countries were early reformers, and both executed bold and comprehensive programs of reform. In particular they both illustrate well the strong influence of trade and macroeconomic reforms over sectoral interventions in determining domestic and international competitiveness in the agricultural sector, in particular, sound fiscal policy and exchange rate management. Prior to reform, both economies experienced several decades of strong government intervention in economic policy, in particular active policies protecting import-substitutable industrial development. Reforms in both countries included reduction of the public sector size, liberalization of trade, reform of the financial sector, freeing up of interest rates, a reduction of regulations on economic activity, and the reduction of the role of public enterprises to only those activities of a 'public good' nature.

However, the sequence and magnitude of these reforms had a good deal to do with the outcome of these reforms. In Chile, a bold trade liberalization program early in the process led to initial real exchange rate depreciation, and lent credibility to the government's other reforms. More than 50% of the agricultural land was previously in the hands of large cooperatives and collective farms. Privatization of land and state enterprises, again early in the reform process, resulted in a relatively quick transition to a competitive and dynamic agricultural sector and accelerated private investment. Most reforms were implemented in the period 1970–1983, though some sector-specific reforms were postponed to later in this period. Delays in implementing some sectoral reforms, such as labor reform (removing wage indexation) and financial sector reform (implementing a more modern regulatory framework), have been blamed for causing some discontinuity in the process of overall reform.

However, between 1979 and 1982, a macroeco-

nomically-related inconsistency nearly derailed the reforms in Chile. The government fixed the nominal exchange rate in 1979, in order to control inflation. During this same time, it was politically impossible for the government to eliminate wage indexation. This policy inconsistency resulted in the dramatic appreciation of the exchange rate, nearly destroying the agricultural and other tradable sectors. Starting in 1983, wage indexation was removed, and the government adopted a 'crawling peg' type of nominal exchange rate policy. The period of 1983–1990 was a period of 7% annual growth overall, and the fastest growth of agricultural GDP since the turn of the century.

In New Zealand, while credibility of the reforms was established by early and successful reform of the financial sector, the outcome of these reforms was still ambiguous for agriculture for about 5 years after the initiation of the reforms. On the one hand, agricultural output did not increase significantly, and yet the agricultural trade balance in the post-reform years increased (Gardner, 1995). The decline in output may have been due to a sharp rise in domestic and farm debt, in addition to a decline in real prices for farm products (attributed mainly to exchange rate appreciation) that compromised the potential outcome of the reforms. The farm debt story is the interesting part of this illustration. Prior to reforms, credit to farmers was so heavily subsidized that they incurred massive debts. When financial reforms deregulated the interest rates, the interest rates rose quickly, and farmers found themselves with huge debt overhangs, which led to a loss of income, declines in the asset values of land and other capital, and many farmers going bankrupt and losing their farms.

### 2.2.3. *Sequencing and interplay of micro- and macroeconomic reforms*

As the TEP, Chile and New Zealand examples illustrate, while the taxonomy of reforms indicates the importance of a range of simultaneous policy and institutional reforms, it does not answer the question of whether economy-wide policy reforms should precede, follow, or run concurrently with sectoral trade and price reforms. Sequencing is the term used to refer to the order, or sequence, in which policies (in this context policy adjustments) are made. The se-

quencing (and mix) of policy adjustments is important for three reasons: (1) to avoid, or at least compensate for, bottlenecks, or structural rigidities, in the system, (2) to ensure synchronicity of economy-wide policies with sectoral and intersectoral policies, and (3) to adjust within the bounds of the social, political and economic tolerance of the population.

Bottlenecks and structural 'rigidities' can be expected to occur in various places throughout the system. Sluggishness in modernizing and adapting transport and communications infrastructure, or excessive regulations, could each inhibit output response. Bottlenecks might occur in the export market if enterprises are unable to increase production for lack of raw materials, imported inputs, or due to a deteriorating capital stock. Market inefficiencies can occur due to innumerable regulatory bottlenecks.

Given this important interplay of microeconomic with macroeconomic reforms, the synchronization of economy-wide with sectoral policies means finding the correct combination of simultaneous and incremental reforms, some of which are in a sense preconditions for other reforms. For instance, price reform cannot be successful in the absence of a committed path of macroeconomic stabilization. There is a tendency to attend to economy-wide reforms, and postpone sector-specific reforms, and certainly one of the dilemmas facing policy-makers is that not everything can be done effectively at the same time. However, such an incremental, rather than a simultaneous, approach leads to uncertainty and delayed or distorted responses by the targeted enterprises or farmers.

Nevertheless, macroeconomic disequilibrium will probably be dealt with first. This would begin with the more basic reforms, such as privatization, tax reform, and land market reform. Certain fundamental microeconomic reforms, selected according to the sector, can be implemented, but most of the fine-tuning of sectoral reforms will likely occur in the second 'round' of reforms.

Asynchronous economic events can occur in spite of the best efforts of policy-makers. This phenomenon may be observed in the case of the reforming countries of Latin America. Well after the reforms themselves were instituted, several of these countries are experiencing declines in their (real)

exchange rate that do not necessarily imply a disequilibrium or misalignment in the real exchange rate, but have more to do with foreign capital inflows and other factors. The governments cannot directly manage the real exchange rate, but can influence its direction. Thus we can see how truly complex the operation of indirect effects on adjustment in agriculture can be.

A somewhat different issue, but one that needs to be highlighted, is the observation that the economic and social costs of adjustment (urban unemployment, and financial pressure for farmers) normally precede the benefits of liberalization and trade reform. This occurrence could undermine the reforms if the suffering goes on so long that the political will for reform weakens. The tolerance of the public for the disruptions that are sure to accompany structural reform will, to a great extent, determine the effectiveness and rapidity with which these reforms are carried out (Fischer and Gelb, 1991). Ideally, the government will seek, early in the reform process, to strengthen and extend as necessary the safety net for the most vulnerable population. Such programs would necessarily be very well-targeted, and most likely include emergency employment programs and targeted transfers for housing, food and health expenditures.

Adjustment operations are quite specifically aimed at addressing economy-wide reforms (stabilization, adjustment and liberalization) by creating an environment conducive to promoting economic growth. Sectoral adjustment loans carry this process some steps further, by enabling the development of a more appropriate incentive structure in the sector, through enhancing opportunities for investment, and by strengthening institutional elements to assist countries in developing flexibility and a capacity to respond to market demands (for an informative discussion of World Bank lending for adjustment as concerns the agricultural sector, see Knudsen and Lindert, 1994). In the next section, we will take a brief, summary glance at the experience, first of Poland, then of transitional economies generally. Poland is especially interesting because it has undergone structural adjustment relatively recently, followed by agricultural sector adjustment. The information is taken directly from published material, rather than from the authors' in-depth or direct knowledge of the current



situation. The experience with ongoing reforms in these countries provides evidence that the sequence of reforms matters.

### 3. Reform in transition economies

The most complete story that we can piece together, given an admittedly sketchy base of information, is that of Poland. Not only do we have a general account of the structural adjustment program implemented in Poland, along with some post-facto reviews of its successes and continued constraints, but the agricultural sector adjustment loan provides us with the targets of further action. This section must be qualified by the statement that our information is incomplete, as no formal assessment of the current situation in Poland is available.

#### 3.1. Case study: Poland

The World Bank provided a structural adjustment loan as partial support of Poland's program objectives in its own Economic Transformation Program (ETP). These objectives included reduction of subsidies and price controls, further action to demopolize economic activities within the food economy, and within transportation and trade, the establishment of an agency for restructuring enterprise ownership, and the adoption of guidelines for restructuring and privatization. Since agriculture had remained largely private under socialist rule, the sector adapted well to the liberalization of prices, and even helped buoy the general economy when industrial sector production dropped precipitously in the early years of transition. Rapid growth in traditional agriculture took place, particularly the establishment of small, independent cooperatives in dairy, fruit and vegetable processing.

During the ETP, tariffs for agricultural and food products were significantly lowered, but the government continued to introduce tariff changes (i.e. increases) on import-competing goods (30% each on sugar and dairy products in 1991, for example). Other restrictions on exports, and temporary import quotas, were periodically put in place, mainly to protect agro-industries. While guaranteed farmgate prices and input subsidies were eliminated, evidence

suggests that the transmission of international prices to the farm level did not take place because agricultural commodity markets were poorly integrated with border prices.

The potential for growth in the sector is not in question, as the development of high-value vegetable, fruit and horticultural production, pig production, and grain legumes is anticipated. Indeed, a rapid supply response is possible given improved efficiency in marketing and processing, a more active land market, and improved extension services made available to private farmers. To this end, Poland's agricultural sector adjustment loan was provided (in 1993). The main provisions regarding markets and trade were to ensure that all operations of the state-controlled marketing Agency for Agricultural Markets (ARR) were implemented through the private sector, and that tariffs were targeted to be lowered and unified, in anticipation of full commitment to the GATT. The intention of these reforms was to provide the correct investment signals for the adoption of new, high-yielding technologies, of modernized processing facilities, and for increased labor productivity.

In spite of the initially encouraging trends of a prosperous agricultural sector leading the rest of the economy, and the official elimination of price guarantees and subsidies, we understand that the large, monopolistic agricultural marketing and processing enterprises are still operating at high levels of intervention in pricing, distribution and procurement. In particular, the ARR is firmly in control of agricultural markets, in spite of the regulatory efforts of the Anti-Monopoly Office whose job it is to monitor, and assist in making obsolete the function of, the Agency. Market services and product quality are the main constraints of the sector, and in the meantime land and labor productivity is not increasing, and agro-processing is decelerating. Observers of the social context of Polish agriculture suggest that the small, highly fragmented farms owned by aging farmers inhibit the introduction of modern production technology and increased factor productivity (World Bank, 1990), but an interesting question is whether the phenomenon of declining production is related to output prices, rigidities in the land markets, or the efficacy of alternative uses of capital and labor.

The experience of Poland provides some interesting lessons regarding the mix and sequencing of macroeconomic, trade and sectoral reforms. The gradual mounting of opposition by farmers, among others, made it increasingly difficult for the government to maintain fiscal discipline and continue with the reform programs. In the face of this turmoil, the budget cuts that were anticipated from the elimination of subsidies did not materialize. Many of these enterprises failed to re-structure into a more market-oriented business. Instead, they continued to operate at a loss, and protect themselves from bankruptcy by increasing the margins on their output. This suggests that, rather than postpone public sector reform, it may be more effectively combined early with stabilization measures, since considerable lags will occur. And sector-specific operations may best be designed in concert with, or quickly following on the heels of, structural adjustment operations, to capitalize on the momentum achieved by the adjustment and stabilization programs.

### *3.2. Reform in other transition economies*

We have seen, from discussions about reform in general and indirect price interventions in particular, and from the brief presentation of Poland's experience, that the reform process is itself greatly influenced not only by the initial conditions in the economy, but also by the mix and sequencing of these reforms, by political will, and by the level of discipline pursued through the process to maintain momentum in the program. It may be of interest at this point, therefore, to examine some of the characteristics of reform in other transition economies.

In many of these economies, it appears that the transformation of agriculture is occurring more in line with short-term, political agenda rather than economic considerations. Imbalances in the macroeconomic situation of most countries still exist, and are characterized variously by large budget deficits, excessive external debt, high rates of inflation, and continuing domestic losses in the banking system. The inflation of the prices of non-tradables relative to tradables has had particularly adverse effects on the agricultural sector, and is made worse by the fact that bottlenecks in the services and home-goods sectors are effectively negating the benefits accrued by

slight improvements in productivity. In Central and Eastern Europe, output has declined to a greater extent than necessary due to the form of reprivatization that has taken place, in which a loss of fixed assets has occurred, land ownership has become fragmented, and persons not engaged in farming have acquired a substantial share of land ownership (Csaki, 1994). It seems as though the effort to create an efficient new production and market structure is being stymied by the resistance of local governments to relinquish the control that they have traditionally maintained.

In some countries the continued regulation and subsidization of 'strategic', or basic, foodstuffs (bread and milk, for example) or strategic stockpiling is a significant drain on public coffers, and most certainly distorts other related prices and markets. The conditions of the market are worsened by fuel shortages, the continued erosion of the capital stock, restricted movement of products between regions, and, in some countries, the lack of a convertible domestic currency. Transactions costs throughout most of these economies are high, and allow for corruption and opportunism to filter into many aspects of economic life. As a result, output has been curtailed, and many fledgling businesses, both those that had contracts with the state, and those that were depending on state distribution of inputs, have either gone bankrupt, or refused to fulfill their obligations to other enterprises.

While some inroads have been made in eliminating or greatly reducing quantitative restrictions on trade, imports are still restricted indirectly due to inefficient foreign exchange markets, and exports are still restricted by complex regimes of non-transferable licenses or other forms of taxation. One hears through anecdotal stories that government control is still being exerted, either at the national borders through regulations dictating which companies may trade and in what products, or at regional or provincial levels through border crossing delays, or provincial fee structures. Export licensing is being used both to favor established, previously state-owned monopolies, as well as indirectly to discriminate against smaller independent enterprises that are unable to achieve savings of scale in exports. The requirement, by some regimes, that exporters surrender a portion of any earnings designated in foreign

currencies at a rate much lower than that which applies to imports is yet another tax on exports.

There is a crucial link between the process of trade liberalization and the process of farm restructuring. The failure to ensure that world prices will be directly transmitted to domestic markets by, for example, ensuring that domestic markets and linkages are deregulated, will directly inhibit the emergence of incentives to privatize, and impede the development of a competitive domestic sector. The literature seems to indicate that independent, small agricultural producers and agro-processing enterprises are mostly at the mercy of huge, formerly state-owned monopolistic input and output distribution and procurement organizations that continue to exist in essentially the same form as before transition. In fact, in many countries the regional or district administrative structure, inherited from the centrally planned period, still transmits targets for production, delivery, distribution of raw materials, inputs, and allocations of machinery, and this relatively uncompetitive structure is effectively inhibiting the development of improved products. The irony is that, while the bureaucracy directs from above, it is virtually bankrupt and could likely do very little to force its will on anyone. Many, if not most, private enterprises are evading taxes, thereby worsening the country's fiscal crisis.

Where state-owned enterprises have been transformed into joint stock companies, they are often still run by the same people under familiar routines. There is little or no investment in capital, either because there simply isn't much money with which to invest, or because of the high degree of uncertainty faced by private investors, or because agriculture is not considered profitable. The failure to invest in domestic capacity has led, in many instances, to increased dependence on imports, something that the producers are quick to point to as justification for the resumption of protection at the borders.

The lack of security of property rights makes both non-farm investors and farmers extremely cautious in investing in their property. Foreign investors have expressed the desire to invest, but are refraining from significant incursions into the market because of the uncertainties that exist with regard to property rights, taxation and profit repatriation. Finally, physical infrastructure and related support 'services' (such as

education and research) throughout the economy, including in agriculture, has been more or less neglected by necessity in most transition economies. The nature of current modernization projects is long-term, and the benefits to be accrued from their development are far in the future. The research, extension and education systems in these countries are suffering from extreme shortages in available resources, and from significant 'brain drain' to foreign institutions or foreign firms. Most of these national agricultural institutions are threatened by budgetary pressures, by mixed signals concerning who are their clients, and by their isolation from one another.

#### 4. The architecture of incentives

Let us imagine for a moment a relatively small economy, agriculturally based but with a small industrial sector as well. Having broken away from a large, centrally planned political and economic entity, it now finds itself confronted with rapid declines in production of food commodities and processed foodstuffs. In spite of having agro-climatic conditions similar to several more-developed countries in the region, production efficiency and yields of our small economy fall far below those of the other exporters outside the former Soviet Union, a condition made worse by a lack of inputs and general economic difficulties. Traditionally this small country has imported substantial quantities of food products, and exported both raw and processed agricultural goods as well. However, because its imports and exports were controlled through a system of state orders and limited to trade within the centrally planned economy, the trading system was not based on rational prices or competitive advantage vis-à-vis non-FSU economies.

The country is now in a position in which it is struggling with ongoing structural reforms throughout the economy. Moreover, the absence of a functioning domestic currency greatly limits market relationships for foreign trade. Inflation, weak fiscal status, corruption, and the absence of credit opportunities all exacerbate the problems with which the sector is struggling. Policy-makers are nevertheless

looking to the food and agricultural sector as the main engine of economic growth. Land reform had been instituted early on after independence, but due to the fact that it did not include registered land titling, and due to the dualistic nature of the structure of agriculture, with very small private farmers co-existing with state farms, reform was applied quickly in some areas, more slowly in others, and without a supportive legal and regulatory framework for the protection of ownership.

Based on the assumption that our imaginary policy-makers have arrived at some agreement on the objectives that we have outlined above, what might the characteristics be of an incentives framework that could define specific tasks in a strategy towards reform?

On matters of trade and prices:

- refrain from intervening directly in agricultural import and export markets (i.e. remove quantitative restrictions and reduce [to 5–15%] and unify tariffs), allowing for world prices to become the reference prices for domestic markets of tradable products, thereby reducing the anti-export bias and thus achieving a more neutral trade regime;
- acquire the capacity to employ safeguards, countervailing duties and anti-dumping actions under the circumstances of temporary and severe declines in border prices and/or export subsidies;
- ensure that any state procurements pay market prices on a competitive basis, working towards the elimination of state procurement altogether in the agricultural sector;
- abstain from direct price interventions, and eliminate formal and informal barriers in domestic trade;
- revise foreign exchange and other requirements so as to eliminate the implicit taxation of exports, in particular by eliminating legal constraints on the use of foreign currencies and the requirement of foreign exchange surrender at a distorted exchange rate;
- phase out producer subsidies and subsidies to related inputs; and
- acquire the capacity to rationally apply sanitary and phytosanitary controls.

Regarding taxation:

- ensure consistency of land tax with other forms of taxation;

- enforce taxation, including value-added or sales tax, and drawbacks on VAT;
- allow for few, if any, exceptions from the liability of rational taxes, and for drawbacks on VAT and on tariffs on intermediate inputs used in the production of exportables.

To encourage and enable foreign investment:

- adopt foreign investment laws and regulations that are transparent and applied equally to all, in particular protecting against expropriation and nationalization;
- devise mechanisms for rapid and fair dispute resolution; and
- guarantee the right to repatriation of profits and capital at market exchange rates.

To further the process of privatization and demonopolization:

- develop a commercial market approach for privatizing processing and input supply;
- ensure that the privatization process be transparent, competitive, consistent, comprehensive and be accessible by all;
- develop and enforce effective antitrust legislation;
- demonopolize all state corporations, and privatize them individually, by plant or functional unit;
- reduce licensing requirements, except where the health or welfare of the public may be jeopardized; and
- expand and modernize physical infrastructure, ensuring at least partial cost recovery through the development of a users' fee structure.

In addition to the above taxonomy, and related broadly to the structure of incentives, there are institutional and decentralization reforms that impinge upon the final outcome of policy reforms, such as:

- downsizing, restructuring and decentralizing public administration in the agriculture sector;
- decentralizing banking and financial services so that they may be better targeted, managed, monitored, and regulated;
- establishing effective customs and VAT administrations;
- rationalizing the education, research and extension system to make it more responsive to, and accessible by, producers and processors;
- encouraging the development of private farm advisory services and private self-regulating systems for establishing product quality standards;

and

- fostering the private-sector adoption of modern accounting and auditing procedures.

Noticeably absent from this framework are actions concerning land reform and farm and enterprise restructuring, which are beyond the scope of this paper. This is because of the extraordinary complexity of these reforms, the fact that they truly call for their own framework, with its own sequencing issues, and because a necessary condition for achieving reform and restructuring of land markets is the continuation and completion of overall sector reforms. We are also not attempting to expand on the many variations and exceptions of this taxonomy, but wish to highlight one very important issue. It appears that in some transition economies, the government is directly involved in marketing operations in grains, while at the same time continues to control input delivery at subsidized rates. Such intervention in essence prevents the small to medium-size farmers from turning to private marketing firms for inputs. The way to promote competition between state agencies and private firms in output marketing would be to disentangle input subsidies from input or output marketing functions.

The above framework is presented as a general outline of the structure of incentives that might be applied towards creating an environment ripe for agricultural growth and economic fitness. This structure is one on which, presumably, most economists would agree. But there are certain issues that may require further discussion among policy-makers. These issues include (1) the maintenance of GATT-legal principles in trade policies, (2) issues relating to tariffication, including price stabilization and price risk management and concerns about the food supply, including the role of food aid, and (3) input and credit subsidies as a means to correct for market failures. In one sense, these issues might be viewed as special considerations for deviation from the framework presented above.

#### *4.1. Pursuing a trade regime that is compatible with the Uruguay Round Agreement on Agriculture*

The Uruguay Round Agreement on Agriculture (URA) set certain rules of discipline, along with exceptions to those rules, for more-developed and

less-developed countries. The URA specifies that all border protection measures be converted to tariffs (the process referred to as tariffication) bound by upper limits. The new rules specify that the tariffs be made legally binding, that over time tariffs be subjected to targeted reductions, and that specific bounds be placed on other measures of trade-distorting domestic support (International Agricultural Trade Research Consortium, 1994).

At present, Hungary and Poland are the only two transition economy signatories to the URA, although it is hoped that other transition economies are actively considering becoming members. Analysts assume that transition countries will be held to the rules applied to less-developed countries. While all previous waivers granted to less-developed countries were removed, certain concessions have been given to these countries. The required reduction of tariff levels is one-third that for more-developed countries, and over a longer period of time. Less-developed countries need to reduce export subsidies by only two-thirds the amount of more-developed countries (although in fact most less-developed countries have few if any export subsidies), and over a longer period of time. Certain policy instruments are exempted from inclusion in the aggregate measure of support, including rural development programs, investment subsidies, input subsidies for poor farmers, and diversification subsidies. There are also safeguards that apply to both more-developed countries and less-developed countries, such as that additional duties can be levied if the volume of imports exceeds the average of the 3 preceding years, or if import prices drop below a trigger price.

There are some important shortcomings in the URA as regards expectations and exemptions of less-developed countries. Inflated tariff equivalents have been accepted in more-developed, and some less-developed, countries, as the base from which reductions must be made for a number of less-developed countries. Poland, for example, reported base tariffs to the World Trade Organization higher than their actual tariffs, precisely in order to gain some flexibility for providing a measure of protection. The application of simple non-weighted averaging of tariff reductions allows countries to continue to protect important products by instituting greater-than-average reductions in tariffs on relatively less important

ones. This practice, however, distorts markets and therefore has the potential for adversely affecting sectors that are relatively less represented in the decision-making process. Tariffs are also potentially regressive, especially when targeted to agricultural or food-related products, in countries where the share of food in household expenditures is quite high.

Additionally, in our view, it is unfortunate that compliance with the URA does not require the elimination of state trading monopolies. These monopolies are tacitly allowed to support domestic prices above or below those that include the tariff, thus making tariffification in such cases ineffectual.

Regardless of whether or not countries in transition are members of the World Trade Organization, the impact of liberalization under the URA on their economies will depend on whether or not they are food importers or exporters. If food exporters, then global price liberalization under the URA should result in modest improvements in market access and slightly higher world prices. Food importers, too, would face somewhat higher world prices, the impact of which will depend on the share of food imports in the total import bill. It will also most likely mean a reduction of supply surpluses from developed countries, which in turn suggests a reduction in the availability of food aid.

The move from quantity restrictions to unified tariffs should have a positive net effect on both the level and the distribution of government revenues. It is possible that countries in transition might opt for imposing export taxes to generate government revenues, given the real administrative difficulties of collecting taxes from other sources. Although this is an *n*th best solution, it has been done in Africa for many years, and it is compatible with URA rules.

## 4.2. *Emerging issues under tariffification*

### 4.2.1. *Price risk management and price stabilization policies*

Many governments have intervened in order to achieve some degree of domestic price stabilization and protection vis-à-vis unstable and 'distorted' border prices for import-competing products, especially for commodities that are notoriously unstable, such as sugar or, to a lesser extent, rice. Furthermore, their economies have not yet developed appropriate

market mechanisms for trading price risks among various agents in the market. These risks make governments more concerned about allowing market prices for 'sensitive' products to be totally free of interventions. But they also do so in the face of very real distortions of the global market, introduced by wildly fluctuating prices, and by more-developed countries that heavily subsidize exports of certain products such as powdered milk or wheat.

In addition to direct price stabilization measures, governments can exercise some amount of control and protection through trade-related institutions. The main one that is GATT-legal is the capacity to apply safeguards and countervailing duties. Safeguard measures and countervailing duties, along with minimum import reference prices, and price bands on importables, are some of the options already being discussed, for instance in Latin America (Valdes, 1994b), but are they desirable from the point of view of eliciting competitive market development?

### 4.2.2. *Concerns about the food supply*

The 'optimum' tariff argument is a technically acceptable policy response when the country faces an inelastic supply in foreign markets. But, the 'food security concern' arises more often because the bottlenecks in domestic economies could create an increasing cost function, so that the domestic price of imported goods increases temporarily when faced with an upsurge in import values. Should governments of transition economies be involved directly in food supply management, and impose higher tariffs on food imports so as to become more self-sufficient? While it is understandable that, with the present circumstances of foreign exchange shortages, fiscal crises and poor distribution internally, policymakers are occupied with this question, such concerns should lead to government interventions only as emergency, short-term measures to ensure a secure food supply. Over the long-run, it is far more important that the government create an open economy whose production marketing and trade are driven by market forces and opportunities. By doing so, governments can foster the accumulation of foreign exchange that can be used to import needed food. The development of the requisite infrastructure and services that can ensure the even distribution of food throughout the country is a priority.

### 4.3. Input and credit subsidies to correct for market failures

Policy-makers need to assess whether there is a valid case for highly targeted input and investment subsidies to correct for market failures and/or to assist poor farmers in disadvantaged areas. As we have noted above, these subsidies are exempted from inclusion in the aggregate measure of support under the URA. Ideally, input subsidies should be distributed in the absence of any other government interventions in input and output markets, but given that, in the near to medium term, state enterprises will continue to be actors in domestic markets, input subsidies must somehow be provided independently of direct government operations in input and output markets.

Similarly, as discussed in the previous section on indirect price interventions, high interest rates are a major issue during the transition, reducing farm profitability. Domestic producers can be at a serious disadvantage vis-à-vis importers, because of a lack of access to credit at lower (prevailing international) rates, and the fact remains that farmers are relatively small 'firms', facing higher credit cost in the financial sector. As referred to above, farmers are at a distinct price disadvantage vis-à-vis importers and vis-à-vis large-scale firms. Producers of import-competing products face prices at harvest which could be considerably below the import parity price, due to the high financial cost of domestic storage resulting from high interest rates. Also, importers of grains may have access to foreign sources of credit at international lending rates, which gives them a price advantage over local producers.

## 5. Summary

In summary, we have argued that there are indeed very particular characteristics of economic systems that will serve to either accomplish or inhibit the competitive growth of an economy. These characteristics include the degree of adaptability of the economic system, the degree of robustness or health that allows the system to adjust or recover rapidly and efficiently, and the stability and sustainability of policies and crucial policy indicators that lend credi-

bility to growth. The range of economy-wide and sectoral-specific policies that might be employed is great and varied, but the importance (and the great complexity) of achieving the correct mix and sequencing of these policies should not be underrated.

We have offered, in the architecture of incentives, a veritable shopping list of potential policy reforms that may prove beneficial to transitional economies. The primary considerations in weighing these reforms against each other, and against possibly conflicting policy objectives, are to ensure the elimination, where possible, of bottlenecks or structural rigidities that might block or negate reforms, to ensure that economy-wide policies, when possible, be made simultaneously with complementary intersectoral reforms, and to ensure that reform and adjustment is kept within the bounds of the economic and social tolerance of the population. It will indeed be a most interesting time, over the next dozen years or so, to observe the rich pool of diverse circumstances and experiences that exist among transitional economies. Our hope is that we will learn a great deal about which characteristics of reforming economies will enable us to better predict, and in turn create, successful and competitive economic growth.

## References

- Csaki, C., 1994. Where is agriculture heading in Central and Eastern Europe? Emerging markets and new role for the government. In: G.H. Peters and D.D. Hedley (Editors), *Agricultural Competitiveness: Market Forces and Policy Choice*. Dartmouth Publishing, Aldershot, UK, in press.
- Darwin, C., 1859. *The Origin of the Species*. John Murray, England.
- Fischer, S. and Gelb, A., 1991. Issues in the reform of socialist economies. In: V. Corbo, F. Coricelli and J. Bossack (Editors), *Reforming Central and Eastern European Economies: Initial Results and Challenges*. The World Bank, Washington, DC.
- Gardner, B.L., 1995. *Consequences of Policy Reform in Agriculture – Experience of Eight Countries*. World Bank, Washington, DC.
- International Agricultural Trade Research Consortium (IATRC), 1994. *The Uruguay Round Agreement on Agriculture: an evaluation*. Commissioned Paper Number 9, University of Minnesota.
- Knudsen, O. and Lindert, K., 1994. Agricultural lending in transition: lessons from experience and future approaches. In: D. Umali-Deininger and C. Maguire (Editors), *Proceedings of the*

- Fourteenth Agricultural Sector Symposium: Agriculture in Liberalizing Economies: Changing Roles for Governments. The World Bank, Washington, DC.
- Papageorgiou, D., Choksi, A. and Michaely, M., 1990. Liberalizing Foreign Trade in Developing Countries: The Lessons of Experience. The World Bank, Washington, DC.
- Schiff, M. and Valdes, A., 1992. The Political Economy of Agricultural Pricing Policy, Vol. 4, A Synthesis of the Economics in Developing Countries. Johns Hopkins University Press, Baltimore, MD.
- Sjaastad, L., 1980. Commercial policy, true tariffs and relative prices. In: J. Black and B. Hindley (Editors), *Current Issues in Commercial Policy and Diplomacy*. St. Martin's Press, New York.
- Valdes, A., 1994. Agricultural reforms in Chile and New Zealand: a review. *J. Agric. Econ.*, 45: 189–201.
- Valdes, A., 1995a. Trade policy reforms and agriculture. Commentary presented at the Trade Expansion Program (TEP) Conference, January 23/24, United Nations Development Program and The World Bank, Washington, DC.
- Valdes, A., 1995b. Surveillance of Agricultural Price and Trade Policy: A Synthesis for Selected Latin American Countries. The World Bank, Washington, DC, draft manuscript.
- World Bank, 1990. An Agricultural Strategy for Poland. Report of the Polish, European Community, World Bank Taskforce. The World Bank, Washington, DC.



