AGRARIAN REFORMS IN EASTERN EUROPEAN COUNTRIES: LESSONS FROM INTERNATIONAL EXPERIENCE

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1 INTRODUCTION AND BACKGROUND

The fall of the Berlin wall has led to a monumental change in the social and economic structure of most countries in Central and Eastern Europe (CEE) and the CIS that have profoundly affected the nature of the rural sector and the livelihood opportunities open to rural residents. Prior to 1990, most of these countries had *de facto* abolished private property rights in favor of state or cooperative ownership. Agricultural production was in most cases collective, leading to inefficiencies due to free-riding, moral hazard, and lack of individual incentives for effort supply as well as investment. In large collective or state-owned farms (about 2000 ha; 500 workers) lack of transparency added to the difficulties of monitoring implied by sheer size. The goal was to meet centrally prescribed targets established with little consideration to profit or hard budget constraints, and their survival relied on write-offs and subsidies, and political connections.

Cuts in producer and consumer subsidies, price liberalization, reduced demand with falling incomes, and lower demand for exports within the former Soviet Union led to a significant fall in the terms of trade for the agricultural sector throughout the region. As a result, input use and output from the agricultural sector declined precipitously, stronger than for non-agriculture (Csaki, 2000). The extent to which agricultural production was able to recover since the 1990s was affected by the level of economic development, the type of macro- and privatization policies pursued, as well as the extent to which these policies could actually be implemented on the ground. Land reform and farm restructuring have played an important role in this process. This is due to the importance of land as an asset for the rural population and the relevance of well-functioning land markets as basis for financial market development.

Macro statistics highlight the tremendous heterogeneity of the countries in Eastern Europe with respect to the level of economic development, land endowments, and the importance of the agricultural sector. Table 1 illustrates that per capita GNP ranged from of almost US \$10 000 in Slovenia to of US \$370 and US \$380, in Moldova and Tajikistan, respectively. In between are countries such as Armenia and Azerbaijan (\$460 and \$480),

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Table 1. General characteristics of Eastern European countries

Country	GNP per Capita (98\$)	Population Mn	Area per Rural hh	Share of pop in agric	Agric VA % of GDP	Equiv ag Income (%)	Agric Output 2000 (% of 1990)
Albania	810	3	3.14	62	53	85	124
Armenia	460	4	5.65	31	27	87	84
Azerbaijan	480	8	6.4	42	24	57	68
Belarus	2180	10	16.21	20	24	120	60
Bosnia		4	5.39	18	14	78	36
Bulgaria	1220	8	12.5	26	7	27	62
Croatia	4620	5	7.47	9	7	78	115
Czech Republic	5150	10	8.6	7	4	57	71
Estonia	3360	1	72.58	5.5	6	109	47
Georgia	970	5	7.5	27	26	96	60
Hungary	4510	10	8.19	11.2	8	71	70
Kazakhstan	1340	16	157.67	10	15	150	46
Kyrgyz Republic	380	5	16.67	52	37	71	96
Latvia	2420	2	19.35	18	9	50	47
Lithuania	2540	4	13.67	19	8	42	n.a.
Macedonia	1290	2	8.27	18	12	67	110
Moldova	380	4	5.32	43	44	102	46
Poland	3910	39	6.74	28	8	29	93
Romania	1360	23	7.31	34	11	32	95
Russia	2260	147	28.84	14	7	50	57
Slovak Republic	3700	5	11.4	na	7		65
Slovenia	9780	2	2.6	53	4	8	107
Tajikistan	370	6	1.26	63	23	37	68
Turkmenistan	640	5	73.27	45	25	56	95
Ukraine	980	50	13.13	23	19	83	58
Uzbekistan	950	24	8.97	30	31	103	104

Source: Own computation, partly based on World Bank (2001).

those with a GNP around US \$1000—Albania with \$810, Ukraine and Uzbekistan wit around \$1000, and Kazakhstan with \$1340—and the wealthier EU accession countries with per capita GNP of up to US \$5000. Inversely to the status of economic development, the importance of agriculture in the economy varies from 54 per cent in Albania and 46 per cent in the Kyrgyz Republic to less than 10 per cent in Hungary, Czech, Estonia, Kazakhstan, Lativa, Poland, Russia, the Slovak Republic, and Slovenia. With few exceptions, such as Albania, Croatia, Macedonia, and Slovenia, where agricultural output has remained constant, the index of total agricultural output for most of the countries under concern has decreased precipitously over the 1990–2000 period as illustrated in the last column of Table 1.

Although all of these countries have, during the last decade, experienced tremendous shifts in the rural structure, the extent of the transformation varies. Table 2 highlights that, within a decade, the share of land operated individually has increased from 21 to 78 per cent in CEE, transferring a total of about 33 mn ha from collective to individual ownership and management. Albania, Slovenia, and Latvia transferred high more than 90 per cent of their agricultural area while others are still left with high levels of state ownership. The corresponding figures are lower for CIS countries, where individually operated land

¹Csaki (2000) provides more detailed analysis and explanation of agricultural production trends.

Share of land held privately in different countries, 1990 and 1997 Table 2.

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CEE	Agric Area	Individual land (%)	(%) p	Shift	CIS	Agric Area	Individual land (%)	(%) p	Shift
	mn. Ha	1990	2000	mn. Ha		mn. ha	1990	2000	mn. Ha
Albania	1.13	4	100	1.08	Armenia	1.4	4	71	0.94
Slovenia	0.52	92	96	0.02	Georgia	3	7	$26+25^2$	1.32
Poland	18.4	77	821	0.92	Ukraine	42	7	26	7.98
Romania	14.8	12	671	8.14	Moldova	2.3	6	84	1.73
Hungary	5.9	9	541	2.83	Belarus	9.4	7	17	0.94
Bulgaria	6.2	13	96	5.15	Russia	195	2	13	21.45
Czech Rep.	4.3	5	80	3.23	Kyrgystan	11	1	23	2.42
Slovak Rep.	4.9	5	66	4.61	Kazakhstan	222		29	63.94
Latvia	2.4	5	95	2.16	Azerbaijan	4.4		33	1.32
Lithuania	3.5	6	29	2.03	Tajikistan	1.1	2	38	0.40
Estonia	4.5	9	65	2.66	Uzbekistan	26.7		28	6.94
					Turkmenistan	40.3	0.2	16	6.37
Avg CEE	66.55	21	78	32.82	Avg CIS	558.6	4	22.4	115.73

¹Figure refers to 1997.

²Refers to leasing by private enterprises.

Source: Own computation based on World Bank (2001); Csaki and Kray (2001).

increased from 4 per cent in 1990 to 22 per cent in 2000. Even in this group, only Belarus, Russia and Turkmenistan had less than one-fifth of their land area under individual control in 2000 and, given their physical size, the absolute amount of land transferred into private operation was large by any historical measure. Despite the partial character of the reforms, the total amount of land transferred into private ownership in the CIS countries during the last decade is larger than in Mexico's land reform, which lasted almost a century (from 1917 to 1992) and transferred about 100 mn ha to the 'social sector'. It was also larger than in Brazil's 30-year land reform effort, which transferred about 11 mn has, much of it in frontier areas, and the successful land reform in Japan which involved the transfer of 2 mn has (compared with 0.5 and 0.2 mn has in Korea and Taiwan).

In view of the magnitude of the change, it is not surprising that much remains to be done in order to complete the reform agenda and to ensure a positive impact on the welfare of rural households employed in agriculture. As the 'comparable income' in the agricultural sector in column 6 of Table 1 illustrates, income of the rural population often lags significantly behind the average, pointing towards the scope for further structural change, especially in CEE countries such as Bulgaria, Poland, and Romania. In this paper, we compare the situation of ECA countries with land reform experience from outside the region to highlight some of these challenges with respect to a number of key areas, and to point out what this might imply in terms of future strategies. Similar to the situation found in hacienda systems, a key challenge in CEE and CIS countries has been to foster well-functioning factor markets in rural areas. This suggests that, while elimination of unnecessary restrictions and establishment of accessible institutions at the local level will be part of the solution, agrarian reform has also broader social and political ramifications that need to be taken into account.

2 RESTRUCTURING OF THE RURAL SECTOR

The history of land reform illustrates why transformation in *hacienda* systems is more difficult than in tenant estates.³ It also suggests that, in the long term, the advantages provided by collectives are unlikely to outweigh the associated disadvantages. The highly variable progress in CEE and CIS countries illustrates that, as in hacienda systems, problems with market access, complementary investment, and local political resistance, have been key stumbling blocks on the road to rural restructuring. Measures to improve the functioning of complementary markets, eliminate special privileges for collectives and reduce the cost of exiting them will therefore be critical.

2.1 Conceptual Issues

Historically, experience with land reform has differed greatly depending on initial conditions. In the case of *landlord estates*, where tenants already cultivated the land, and all that was required was a reassignment of property rights, land reform was, at least

²This figure is computed by dividing the value added in agriculture by the share of labour in agriculture. It would equal one if mean income in the agricultural sector (assuming equal distribution within the sector) were exactly equal that of other sectors in the economy.

equal that of other sectors in the economy.

³*Hacienda* systems are characterized by tenants who have a small house-plot for subsistence but spend most of their time working on the landlord's home farm (Binswanger *et al.*, 1995).

from an operational standpoint, straightforward. The organization of production remained the family farm system and beneficiaries already had the skills and implements necessary to cultivate their fields. The administrative requirements associated with this type of land reform were low. Even very large processes, such as de-collectivization in China and Vietnam (about 500 mn ha and 7 mn ha, respectively), facilitated considerable efficiency gains by improving incentives to work and invest. The magnitude of such gains was affected by the difference in (long- and short-term) incentives between the before-and after-reform situation. Productivity gains from such reforms were generally more modest if before the reform (i) security of tenure and incentives to invest had already been high; (ii) cash-rent—rather than share-rent—contracts had prevailed, and (iii) landlords had provided tenants with access to credit inputs, and outputs.

In contrast to the generally successful experience in landlord estates, land reform in *hacienda* systems—i.e., systems where tenants have a small house-plot for subsistence but work most of their time on the landlord's home farm (and which are very similar to the collective farms prevailing in much of CIS and CEE—has been very difficult to accomplish, due to a number of constraints.

2.1.1 Policy distortions and market imperfections

Continued existence of implicit and explicit distortions such as agricultural protection or credit subsidies or market imperfections that differentially improved access to markets for large farms drove land prices above the capitalized value of agricultural profits, reduced the sustainability of reform benefits, and made it profitable to sell the newly acquired land (often to the old landlords). Indeed, restricted access to credit and other markets, together with insecure property rights, have led to widespread selling of land by former land reform beneficiaries—often at prices way below the productive value of the land in Nicaragua (Joakin, 1996), the Philippines (Hayami *et al.*, 2000), and Brazil (Mueller *et al.*, 1999).

2.1.2 Lack of complementary investment

Transforming a large farm into viable smallholder enterprises requires a change in the pattern of production, subdivision of the farm, and construction of infrastructure. In addition to getting access to land and productive assets (i.e. the problem of mortgage finance and farm capitalization), land reform beneficiaries need to access *ex ante* working capital, require technical assistance and output market access, and face a problem of *ex post* insurance. Without a supporting infrastructure and mechanisms to obtain complementary investment, establishing a profitable individual agricultural enterprise is difficult.

2.1.3 Political nature of reforms

In view of the impact of transferring land on the local power structure, such a measure would be opposed by the powerful. It is thus not surprising that such reforms were most

⁴Indeed, since the end of World War II, landlord estates in Bolivia, Eastern India, Ethiopia, Iran, Japan, Korea, and Taiwan have been transferred to tenants in the course of successful land reforms. While evidence on the productivity impact of such reforms is much less than what would be desirable, they have generally been associated with significant increases in output and/or productivity (King, 1977; Lieten, 1996; Besley and Burgess, 1998).

⁵The degree to which land reform improved productivity and cultivator welfare increased with the profitability of existing investment opportunities (Callison, 1983; Koo, 1968; King, 1977); the degree to which land ownership enabled the new owners to access markets for credit and insurance that had previously been beyond their reach (Dorner and Thiesenhusen, 1990), and the availability of new technology that could be readily adopted (Otsuka, 1991).

easy to implement if imposed by an outside power or in the context of a revolutionary change of regime. In many other contexts, the coalitions supporting such reform were difficult to sustain and opponents delayed or undermined the effectiveness of reforms, e.g. by evicting tenants, by undermining the institutions dealing with land reform, or by monopolizing output markets.

All of these constraints have their parallels in the CIS countries where the risk of being cut off from input and output markets and being subject to political harassment is reported to have been a decisive factor in the decision of many producers not to establish their own farms. The scope for large farm structures to more easily access capital, overcome imperfections in input and output markets, and provide insurance to members in times of need, often reinforced by an ideological belief in the superiority of large farms and their apparent economies of scale, have led countries to organize production in the post-reform period in collectives. However, the belief in the existence of economies of scale in agricultural production, as separate from marketing and input access, is not supported by the evidence (Binswanger et al., 1995). In virtually all of these cases, performance was dismal. Collectives in Cuba, Nicaragua, Peru, China, Ethiopia, and Vietnam, suffered from incentive problems and absenteeism, under-investment, a tendency towards discriminatory employment of non-members, and low productivity, even if compared to a smallholder sector that was discriminated against (Deininger, 1995). In Nicaragua and Peru, de facto individualization ensued as soon as the possibility of doing so arose (Merlet and Pommier, 2000; Melmed Sanjak and Carter 1994). The transition from collective to private models of cultivation has also been associated with large increases in productivity, as in the cases of China (McMillan et al., 1989; Lin, 1992; Lin et al., 1994) and Vietnam (Que, 1998; Ravallion, 2002).

2.2 Mechanisms of Land Reform in ECA Countries

The process of farm restructuring can be broken up into three dimensions, namely (i) the recognition of private property rights; (ii) the mechanism for privatization of land and its allocation to producers; and (iii) the transferability of land rights (Table 3). Using these criteria, large differences between CEE and CIS countries can be identified.⁷

CEE countries all allow full private ownership of all types of land and generally chose to privatize land by restituting it to former owners in the form of physical plots. There are some exceptions; in Hungary and Romania which pursued mixed strategies whereby land was restituted to former owners but a portion was also distributed free to agricultural workers in the interest of social equity. In Poland, state owned land was sold off, while Albania pursued a 'radical' strategy based on full redistribution of land to cultivators. Presence of a clear legal basis and the old ownership records have allowed a relatively

⁶The marked difference in the success of land reform between Korea, Taiwan, and Japan on the one side and Nicaragua, Cuba, and Vietnam on the other, suggests that the ability to redistribute large amounts of land is not a sufficient condition for land reform to be successful.

⁷Three considerations affected choice of model used (Swinnen, 1997), namely (i) assets that were still privately owned were restored implying that land could be restored while assets could not; (ii) ethnicity and nationality of former owners as no land was restored to foreign owners; and (iii) the trade-off between historical justice and social equity, conditioned largely by the character of the pre-communist land ownership distribution.

⁸In Hungary, use of financial rather than physical restitution has allowed to reduce the administrative requirements and delays associated with the latter. It also allowed to give priority to current occupants of land, thereby reducing possible negative impacts on productivity.

Table 3. Nature of land rights in CEE and CIS countries

	Region	Potential private ownership	Privatization strategy	Allocation strategy	Transferability
Poland	CEE	All land	Sale of state land	None	Buy-and-sell, leasing
Romania	CEE	All land	Restit. and distribution	Plots	Buy-and-sell, leasing
Bulgaria	CEE	All land	Restitution	Plots	Buy-and-sell, leasing
Estonia	CEE	All land	Restitution	Plots	Buy-and-sell, leasing
Latvia	CEE	All land	Restitution	Plots	Buy-and-sell, leasing
Lithuania	CEE	All land	Restitution	Plots	Buy-and-sell, leasing
Czech Rep.	CEE	All land	Restitution	Plots	Buy-and-sell, leasing
Slovakia	CEE	All land	Restitution	Plots	Buy-and-sell, leasing
Hungary	CEE	All land	Restit. and distribution	Plots	Buy-and-sell, leasing
Albania	CEE	All land	Distribution	Plots	Buy-and-sell, leasing
Armenia	CIS	All land	Distribution	Plots	Buy-and-sell, leasing
Georgia	CIS	All land	Distribution	Plots	Buy-and-sell, leasing
Moldova	CIS	All land	Distribution	Plots (from shares)	Buy-and-sell, leasing
Azerbaijan	CIS	All land	Distribution	Plots (from shares)	Buy-and-sell, leasing
Russia	CIS	All land	Distribution	Shares	Leasing, buy-and-sell dubious
Ukraine	CIS	All land	Distribution	Shares	Leasing, buy-and-sell dubious
Kyrgyzstan	CIS	All land	Distrib./Conversion	Shares	5-year moratorium
Kazakhstan	CIS	Household plots only	None	Shares	Use rights transferable; buy-and-sell
					of plots dubious
Tajikistan	CIS	None	None	Shares	Use rights transferable
Turkmenistan	CIS	All land	None; virgin land	Intra-farm leasehold	Use rights nontransferable
Uzbekistan	CIS	None	None	Intra-farm leasehold	Use rights nontransferable
Belarus	CIS	Household plots only	None	None	Use rights nontransferable; buy-and-sell dubious

Source: Adapted from Lerman et al. (2002).

orderly implementation of the restitution process, contrary to, for example the case of Nicaragua where the scope for filing relatively open-ended restitution claims has contributed to the escalation of land conflicts and the erosion of confidence in the land tenure system. This notwithstanding, the progress has been lengthy, complicated, and initially quite slow.⁹

Given the highly fragmented structure of land ownership in the pre-WWII period, together with complex inheritance regulations, the process of restitution has led to a very fragmented land ownership structure. In countries with higher level of economic development, many of the new landowners had no intention of farming their land and levels of absentee ownership are high. Well-functioning land markets would therefore be of great importance and rental markets have indeed long been used to consolidate the operational structure. Although the transaction cost of doing so through rental is high, sales markets have not emerged to the degree one would expect. This is partly because households want to keep land as a safety net, and partly because they expect land to appreciate greatly with EU accession. Evidence also points towards a highly dualistic operational structure in virtually all CEE countries whereby a very small number of large farms produce the lions' share of output, complemented by a huge number of small farms (Sarris et al., 1999). Although these farms may not be the optimum structure, expansion of dynamic small farmers is constrained by (i) overall uncertainty which favours (short-term) leasing that is not conducive to longer-term structural changes; (ii) lack of access to technology and human capital; and (iii) constraints in accessing working capital and funds for investment. In fact, recent analysis suggests that there is a danger of subsidies being used to prop up inefficient small farms, rather than contributing to much needed structural change (Davidova et al., 2001). Despite the far-reaching progress, privatization remains incomplete to varying degrees (see Table 2), especially insofar as state farms are concerned (Csaki, 2000).

CIS countries are characterized by even greater variation with respect to recognition of private ownership rights, the process of farm land privatization, and the transferability of such land. As illustrated in Table 3, only some of these countries (Armania, Georgia, Moldova, Azerbaijan, Russia, Ukraine, Kyrgyzstan, and Turkmenistan) recognize private property rights to all land. Others (e.g. Tajikistan and Uzbekistan) recognize no private ownership rights whatsoever, while Kazakhstan and Belarus recognize rights to household plots only. Households plots, which emerged in the 1930s, entitle households to a plots of less than 1 hectare for home consumption. In addition to providing an important safety net, these plots have historically accounted for more than one-third of recorded production.

Where undertaken, land privatization in CIS countries was based on distribution of land. With the exception of Armenia and Georgia, which distributed land directly in the form of plots, former workers on collective farms received shares to a certain part of their enterprise's land and/or assets, without specifying a concrete physical plot. Whether and how such shares can be transformed into actual parcels differs between countries, but is critical for the extent to which 'privatization' will result in actual changes of production practices and the operational structure. Two groups of countries can be distinguished. The first consists of 'radical reformers' such as Armenia, Georgia, Moldova, and to some extent Kyrgyzstan and Azerbaijan, where land was distributed very broadly. This made an

⁹In Romania, for example, many of those who received parcels were now elderly, about 40 per cent lived in urban areas, and many had no experience in small holder farming. Further, the parcels resulting from the restitution process were often too small for commercial agriculture. The courts were inundated with real estate cases, expected to take up to five years to resolve.

important contribution to households' subsistence and has been widely credited with helping to reduce poverty during the transition (World Bank, 2002). In the future, the challenge will be to link these producers to markets and provide mechanisms for voluntary consolidation. The second, and much larger group, consists of countries where, despite 'privatization' of land, little more than the name of the enterprise has changed because of the limited scope (or desire) to transform shares into actual land parcels. For example in Russia, all except about 10 per cent of the land area has been transferred into private ownership. However, most of this land is held by agricultural enterprises which, in practice, operate very similar to the way their predecessors did. Farms that are truly privately operated comprise only 6-7 per cent of the agricultural land (with household plots making up another 6 per cent). The ability and incentive of these enterprises to restructure is impeded by a large debt overhang, suggesting that without some mechanisms that would allow the restructuring of debt, progress in farm restructuring is unlikely (Csaki and Lerman, 2000). For example, in Ukraine, a 1999 Presidential decree that facilitated restructuring of large scale farms led to the re-registration of collective enterprises as private, private-lease enterprises or co-operatives. However, of the farmers who received land share certificates, only 8 per cent left the collective farms, and 84 per cent rented their land share certificates to the farms from which the certificates were issued. Kazakhstan has issued notional land use rights and asset ownership certificates to farm workers (covering 107 mn ha). Land share rights need to be either converted into land parcels for the process of starting a private farm or contributed to the capital of the collective enterprise. The majority of the farmers have opted for the latter, which is not surprising in view of the prevailing market imperfections. Without having safeguards in place that would prevent the loss of land shares in case of bankruptcy, they may well end up losing their ownership rights (Csaki and Kray, 2001).

2.3 Implications

One implication which emerges from the above is that the ability to increase agricultural productivity and rural welfare will hinge on the scope for improving the functioning of land and factor markets in rural areas. These markets are still far from perfect, and the experience of established large farms and their bosses under the socialist environment may provide them with substantial advantages in access to the sources of political power and actual inputs, as compared to newly created and inexperienced individual farmers. As a result, there is little motivation for individuals to exit from existing collectives and corporations, and force their breakup through the creation of family farms. In addition to measures such as improvement of governance and accountability at the local level and provision of infrastructure, service cooperatives could provide access to markets, credit and information, as well as bargaining and insurance, despite the suspicion of farmers against 'collective' institutions. Farmers' associations are widespread in Romania and other CEE countries. In Azerbaijan, farmers seek out opportunities to establish farmers associations for marketing (Csaki and Kray, 2001). Creation of an array of service cooperatives, as well as provision of start-up capital and links to extension, market information, and credit, have been cornerstones of the pilots to establish private farms in Moldova (Lerman et al., 1998).

In CIS countries where a significant share of land remains under collective management, elimination of legal biases and other advantages which collective structures

continue to enjoy, together with imposition of a hard budget constraint and establishment of procedures for debt workouts are likely be the most important instruments to put the farming structure on a sounder footing (Lerman and Csaki, 2000). The example of Kazakhstan illustrates that debt restructuring will not necessarily lead to the emergence of a small farm structure, and that safeguards for workers will be necessary, especially if workers had invested their 'shares' in bankrupt enterprises (Gray, 2000). Where large biases in favor of collective farms or against individual farms continue to exist, as in Tajikistan (Duncan, 2000), Uzbekistan (Brooks and Lerman, 2000), doing so is likely to be an effective means to bring about an improvement in the economic climate for rural areas. A reduction of the cost of exiting large farms could include a simplification of the processes that can be used to convert paper shares into physical plots, or the introduction of systematic campaigns that provide the opportunity of doing so.

Review of past experience illustrates that initial assumptions, whereby privatization would lead to the rapid establishment of a family farming structure, were too simplistic on three counts. First, studies pointing towards higher efficiency of family farms were all undertaken in environments with well-functioning markets, and the difficulty of establishing well-functioning markets, similar to what is needed for land reform in a context of haciendas, has been vastly underestimated and under-researched. Second, if house plots already provide a basic level of insurance, the equity benefit from splitting up the land endowment of large farms would be much more limited than in countries where land reform is undertaken to provide land for the landless. Finally, even if family farms are more efficient than large ones, equal division of the available area under large farms might, except in the poorest countries, not be sufficient to provide rural households with an income comparable to the national level or above the poverty line. The pervasive market imperfections in CIS countries, the scope for house plots to provide basic insurance, and the need to obtain an income that is at least comparable to the overall per capita level does not imply that restructured collectives or corporate large farms will remain the mainstay of the rural structure. However, even though large farms may eventually give way to smaller structures (which may be partnerships rather than individual family operations), the process is likely to be more complex, lengthier, and more affected by the policy environment, than has traditionally been assumed.

3 LAND RIGHTS AND LAND MARKET DEVELOPMENT

By determining the scope for investment, land transactions, and credit access, the nature of land rights awarded in the process of land reform will have an important impact on the nature and speed of structural change in rural areas post-reform. However, various concerns have traditionally caused regulators to severely restrict the rights that have been awarded to land reform beneficiaries, thereby precluding structural change and the scope for land reform to contribute to a vibrant rural sector. While privatization of land rights implies withdrawal of the state from making decisions on allocation of specific factors of production, it still has an important role in setting the framework for the functioning of markets, the verification of land rights and the establishment of supportive infrastructure. In traditional land reform programs, the extent to which this has been accomplished in a cost-effective manner has been a major determinant of long-term success and sustainability. In CEE and CIS countries, the challenges are even greater, as rapid changes in farm structure threaten to depopulate rural areas. Most of the CEE and

CIS countries allow the transferability of ownership or use rights although in practice the ability to exercise these rights may be limited. International experience illustrates that it is critical to ensure at least security and transferability of use rights, to reduce the transaction costs to facilitate the emergence of markets, and to eliminate biases against any particular group of potential right holders.

3.1 Key Principles

Secure and transferable land rights are important for three reasons. First, a level of *tenure security* sufficient to provide owners with incentives for longer-term investment is a key precondition for land-related investment, an issue that is of particular relevant in situations where significant productivity increases can be realized by investing in new technology and infrastructure, or where, for example because as a result of structural change the stock of capital is outdated or not well suited to the new conditions.

Second, *transferability* of land rights is critical to facilitate exchange of land between cultivators whose levels of efficiency differ widely. This will be important in three situations, namely (i) if, for exogenous reasons (e.g. restitution in the case of Eastern Europe), the land ownership structure is highly fragmented; (ii) once opportunities in off-farm employment emerge and the non-agricultural opportunities starts to take off, and (iii) if there is great heterogeneity of skills across the population, implying that some households (e.g. pensioners) are unable to make optimum use of their land.

Because of its immobility and virtual indestructibility, land with secure, clearly defined, and easily transferable ownership rights is an ideal collateral. Use of land as collateral, which is predicated upon possession of formal land title, is a necessary condition for participation in formal credit markets for medium- and long-term credit and may also improve the ability to participate in informal credit markets. Existence of well-documented and transferable property rights and of institutional arrangements to facilitate the low-cost transfer of land is likely to make an important contribution to the development of financial markets in rural areas.

Many countries have ideological reservations against granting private ownership rights to land. While ownership rights are generally a pre-condition for using land as a collateral in credit markets (although mortgage-able leases of sufficient length may allow to overcome this problem, as in the case of Vietnam), secure long-term leases are normally sufficient to realize the investment- and transferability benefits associated with welldefined land rights. In China, while rural land is awarded under 30-year contracts, use rights to urban lands are given subject to longer time limits (70 years for residential use and 50 years for industrial and cultural use) that can be renewed, transferred, bequeathed, and mortgaged within the specified lease period. As a result, a normal market in land use rights has emerged (Wang and Murie, 1999) in the advanced coastal provinces. Similarly, in Vietnam, the '1998 Law on Land' provides automatically renewable leases of 20 years for annual crops and 50 years for perennials, allows for mortgaging of these leases, and permits foreign investors to obtain leases to land following certain conditions. In Israel, all land is state owned and leased to farmers for terms of 49 or 99 years, without any negative impact on the functioning of land markets, suggesting that lack of full ownership need not be a constraint to the emergence of land markets as long as such rights are transferable.

However, to ensure that land reform beneficiaries make the best use of the land that was often transferred to them at great social cost, it is essential to ensure that they have access

to markets and technical assistance so as to enable them to make the best use of their land. Even in cases where these were provided, traditional land reforms have often restricted the land rights awarded to beneficiaries, with unfavourable consequences regarding their ability to access credit and/or for their offspring to exist agriculture. Misguided fear of beneficiaries selling off their lands, as well as a desire to cut the costs of land reform implementation has led many countries to limit transferability of land rights for beneficiaries, and to impose other restrictions, such as rent ceilings¹⁰ or land ownership limits 11 on all other land owners. This has tended to drive transfers into informality, reduce investment incentives, and undermine the emergence of a healthy land market following land reform. The problem is particularly pronounced in Korea (King, 1973) and the Philippines (Hayami et al., 1990) where limitations on land market activity have severely limited investment and land market activity well beyond the reform sector. In Mexico, restrictions on the ability to rent out or sublease ejido land have over time contributed to making the reform sector a refuge of poverty (Velez, 1995) and recent reforms that eliminated these restrictions had a significant and positive impact on land market participation and household welfare. At the same time, the fact that land received under land reform was freely transferable is viewed as one of the key ingredients for success of land reform in Chile (Jarvis, 1985).

While an appropriate legal framework is a necessary condition for land market activity to materialize, such a framework by itself will often be insufficient unless institutions for implementation and dissemination at the local level are available. Since, by definition, land reform is often introduced into an environment where markets are not functioning or where local institutions are dominated by political groups averse to these reforms, emphasis on creating accountable and transparent institutions that are accessible at the local level is of particular relevance. For example, in the case of India, there was no shortage of laws strengthening the rights of sharecroppers. However, only massive implementation of such laws through local level committees ('operation Bharga') in one state, West Bengal, helped make them effective and was shown to have had a big welfare impact (Banerjee *et al.*, 2001). Similarly, registration of land rights received by reform beneficiaries in Nicaragua through an independent registry has been shown to increase land values by about one third (Deininger and Chamorro, 2002). In Mexico, legislation that eliminated tenure insecurity for land reform beneficiaries and allowed land

¹⁰Ceilings on the amount of rent to be charged to improve the welfare of tenants without land reform, in urban as well as rural contexts. Although there is evidence that these interventions transferred some resources to tenants, they are normally an inefficient way to effect such resource transfers, for a variety of reasons. First, implementation of tenancy laws is costly in terms of economic resources and administrative capacity. Second, the benefits from rental legislation are largely confined to sitting tenants and imposition of tenancy regulation may decrease access to land or housing by those who did not have a contract at the time when the legislation was promulgated, i.e. the landless and extremely poor. Third, rent ceilings will invariably reduce investment incentives thereby further distorting markets and reducing land access, the goal they were meant to promote. Realizing that rent controls without tenant protection will just lead to widespread evictions, some Indian states, notably West Bengal, have introduced a more comprehensive package of tenancy protection. While this has led to some immediate improvements (Banerjee et al., 1999), little evidence exists as to the long-term impact of such a measure. This is important as in other regions, tenancy regulations have found inhibit land-related investment and, by prohibiting secondary tenancy arrangements, prevent access to land by the landless while at the same time binding existing tenants to the land even if they are no longer able or willing to farm. To the extent that this is the case in India, the short term benefits may well be outweighed by long-term disadvantages.

¹¹Especially if such limits apply to legal persons as well, thus precluding banks from foreclosing on loans, this could have disastrous impacts on the broader financial system in rural areas, as is the case in the Philippines (Habito and Paterno, 2001).

transactions, helped to spark a land market and yield significant welfare benefits only in *ejidos* where everybody's land rights had been documented and entered into the registry (Deininger *et al.*, 2002).

3.2 The Challenge for Establishment of Land Markets in Eastern Europe

The Eastern European experience clearly illustrates that markets will not emerge by themselves and that, for markets to function, supportive institutions are needed. Such institutions need to provide access to information, establish standard forms of contracting, and—through legal structures and procedures—facilitate impartial enforcement of contracts if needed (Bromley, 2000). It is now widely recognized that such institutions will not emerge by themselves and take time to build and that, in situations where they do not exist, privatization will not have the desired positive impacts.

In the area of land, such institutions will include accessible registries, integrated with the cadastre, that can provide clear, comprehensive, and unambiguous evidence of land ownership and cheap verification, as well as transfer of property rights. These need not be burdened by undue bureaucratic or precision requirements.

Experience shows that establishing such institutions will require not only overcoming long-standing rivalries between different ministries but also the development of private professions to support the sector. Moreover, such institutions will require support from local governments as well as the private sector to be accessible and implementable. While some CEE countries, such as Hungary, have made remarkable progress in establishing such institutions, there remains considerable scope for exchange of experience and learning.

Given the fragmentation caused by restitution or radical redistribution of land, development of well-functioning land rental and sales markets will be of critical importance to help CEE and CIS countries overcome the dualistic operational structure that prevails currently. It would also be important to allow consolidation of operational and subsequently ownership holdings once the macro conditions are right, to realize the productivity gains which, according to a number of recent studies, can be realized by doing so (FAO, 2001).

In the short term, lease markets have a number of advantages as compared to sales markets, in particular higher flexibility, lower cash requirement, and the ability to gradually extend leases to act as a precursor of later sales. ¹² This is supported by the fact that, in a number of CEE and CIS countries, leasing emerged even in cases where the final ownership status of land was not yet clarified. Most countries in CEE as well as CIS allow rental transactions on paper, thus being much less distortionary than many countries who have traditionally implemented land reforms. Renewable and secure long-term leases as a means to gain full land ownership should clearly be promoted. To provide investment incentives, leases need to be of sufficiently long duration and enforceable with the courts in case of conflicts. In practice, leasing may be restricted by regulations that either require self-cultivation and allow transfer only in exceptional circumstances, limitations on the amount of rent to be charged, the minimum or maximum length of leases, size restrictions,

¹²In fact, land leasing is widespread as a means to adjust farm size in developed countries, accounting for more than 60 per cent of the cultivated land in Belgium, France, and Germany where recent studies suggest that tenants have higher productive efficiency than owners (Koester, 2001), largely because they face the true opportunity cost of land

the need to have official documentation, or requirements to register leases. These restrictions, together with a failure to provide long-term security, tend to reduce welfare and undermine the scope for emergence of a land market and their abolition would be warranted.

Policy makers are often concerned that, after decades of collectivism, exposure of new landowners to land sales markets may cause them to dispose of their assets without being aware of their true value, thus leading to negative social consequences such as concentration of land with speculators and foreigners. The example of Kazakhstan suggests that such concerns may not be completely unfounded. 13 As a consequence, sales moratoria are often imposed together with allowing private land ownership. Such moratoria may be justified as a way of allowing new land owners to acquire better knowledge of their asset and prevent quick sell-off at unrealistic prices in an environment where markets work very imperfectly. 14 To ensure that they achieves the intended effect, moratoria should be accompanied by information campaigns explaining property rights and land market transactions and be clearly restricted in time. Also, by restricting land ownership by foreigners and legal entities, or by specifying farm size limits, many countries exclude a significant source of potential demand (and financing) in land markets. While these restrictions are often politically motivated, they carry a clear cost and should be avoided where possible. Replacing blanket prohibitions with more neutral stipulations (e.g. right of first refusal) that will have the same effect may be one option to accomplish this.

Even in countries where no restrictions on land market activity exist, high transaction costs can significantly reduce the amount of land transacted, thereby making it more difficult to harness the potential for structural change. An important issue relates to excessive charges for private services (e.g. notaries) necessary to consummate land transactions. For example, in Romania, notary fees are reported to amount 10–15 per cent and in some cases up to 30 per cent of land prices (Duncan and Prosterman, 2000). The fact that the magnitude of these fees varies across countries (being quite low in Moldova, for example), suggests that entry barriers may allow certain professions to establish a quasi-monopoly on the market, restrict supply, and charge premiums. Regulatory policies that encourage entry and a competitive structure for the performance of their services could thus have a major impact. Also, transaction taxes on land sales, which are reported to reach up to 20 per cent of land values in the literature (World Bank, 1998), can act as a significant deterrent. A decentralized land tax would be less distortionary. Also, dissemination of information on land prices could make an important contribution to better transparency.

¹³In Kazakhstan, the managers of farm enterprises took advantage of the total lack of asset management experience among the rural population to entice the new shareholders to sell their land shares. In this way, large segments of the rural population turned over their main asset, and land was concentrated in the hands of a small number of farm bosses. This negative effect probably could have been avoided had the government of Kazakhstan temporarily restricted buying and selling of land and instead limited transferability to short- or perhaps medium-term lease transactions. Such approach to transferability of land would allow rural people to postpone irrevocable decisions to a later stage, when the economic situation has normalized and individuals have become more cognizant of the implications of land transactions (Lerman *et al.*, 2002).

¹⁴In fact, the experience of the mass privatizations supports this argument. Many recipients of mass privatization vouchers in Russia in the early 1990s blindly rushed to sell them to speculators and professional investors. They did not recognize the long-term value of the new asset and precipitously converted it into something familiar—cash. These early 'voucher sellers' understood the implication of their irrevocable decision only much later, when gradual normalization had led to steep increases in the value of stock of the privatized companies, which they could have owned had they only avoided selling the vouchers.

4 CONCLUSION

Even though the transformation of rural enterprises in Eastern Europe is of an order of magnitude that is several times greater than what had been faced in traditional land reform efforts, the latter provide a number of lessons:

- While they are hardly optimal from the point of productive efficiency, collectives and co-operative farms may survive for a long time in an environment characterized by significant market imperfections.
- Improving the functioning of land markets in rural areas, one of the key challenges of any land reform effort, requires a framework of locally accessible and transparent institutions that often does not exist.
- Establishing such an institutional environment will go beyond the merely technical content of cadastres and registries and have political connotations, as was the case with earlier land reforms.

The paper has illustrated key differences between CEE and CIS and some of the challenges faced in each of them in the course of completing the land reform agenda and improving the functioning of factor markets. In CEE, a critical challenge is to build on the progress made in terms of establishing private ownership structures, to consolidate the accomplishments in the context of a broader strategy for rural development that will help to stem the rapid depopulation of rural areas, and in this process to avoid policy interventions that would introduce major distortions.

In the CIS, issues are less straightforward and 'first best' solutions may rarely be possible. Even though progress is highly uneven, useful definitions of transferable property rights exist by now in many countries and a significant portion of land (residential, commercial, industrial, and agricultural) is in private hands, allowing the gradual emergence of secondary markets. Considerable progress can be made by utilizing windows of opportunity and emphasizing competition between localities. Recent trends towards greater decentralization are likely to support this process in several respects. Local governments may be more likely to mount demonstration programmes, as they will benefit more directly from their success which can then provide an impetus for imitation by other local government units. Although this is clearly not a patent solution, it provides a cautiously optimistic perspective.

REFERENCES

Baneerjee AV, Ghatak M, Gertler P. 1996. Empowerment and efficiency: the economics of tenancy reform, Massachusetts Institute of Technology.

Besley T, Burgess R. 1998. Land Reform, Poverty Reduction and Growth: Evidence from India. LSE (mimeo).

Binswanger HP, Deininger K, Feder G. 1995. Power, distortions, revolt and reform in agricultural land relations. Handbook of Development Economics, Vol. III, Behrman J, Srinivasan TN (eds).

Bromley D. 2000. Perspectives on privatization during transition. Paper presented at KATO Symposium, Berlin, Nov 2-4; 2000.

Callison CS. 1983. Land to the Tiller in the Mekong Delta: Economic, Social and Political Land Reform in Four Villages of South Vietnam. University Press of America: Bloomington, IN.

- Csaki C, Lerman Z (eds). 2000. Structural change in the farming sectors in Central and Eastern Europe: lessons for EU accession—Second World Bank/FAO Workshop, June 27–29, 1999 Technical Paper 465. Europe and Central Asia ESSD, World Bank, Washington, DC.
- Csaki C. 2000. Agricultural reforms in central and Eastern Europe and the former Soviet Union: status and perspectives, *Agricultural Economics* 22: 37–54.
- Csaki C, Lerman Z, Sotrikov S. 2000. Farm sector restructuring in Belarus: progress and constraints. *Technical Paper*, no. 475. Europe and Central Asia Environmentally and Socially Sustainable Development Series. World Bank: Washington, DC.
- Csaki C, Kray H. 2001. The Agrarian Economies of Central-Eastern Europe and the Commonwealth of Independent states: an update on status and progress in 2000, ECSSD Working Paper 32, World Bank, Washington, DC.
- Davidova S, Gorton M, Iarizoz B, Chapling H, Ratinger T. 2001. The productivity and profitability of individual farms in the Czech Republic. Paper presented at FAO workshop on individual farming, Budapest Sept. 2001.
- Deininger K, Chamorro JS. 2002. Investment and income effects of land regularization: the case of Nicaragua. *Policy Research Working Paper* 2752. World Bank: Washington, DC.
- Deininger K, Binswanger H. 1999. The evolution of the World Bank's land policy: principles, experience, and future challenges. *World Bank Research Observer* **14**(2): 247–276.
- Deininger K, Lavadenz I, Bresciani F. 2002. Mexico's 'second agrarian reform': implementation and impact. *Policy Research Working Paper*. World Bank: Washington, DC.
- Deininger K. 1995. Collective agricultural production: a solution for transition economies? *World Development* 23(8): 1317–1334.
- Dorner P, Thiesenhusen WC. 1990. Selected land reforms in east and southeast Asia: their origins and impacts. *Asian Pacific Economic Literature* **4**: 69–95.
- Duncan J. 2000. Agricultural land reform and farm reorganization in Tajikistan. *Rural Development Institute Reports on Foreign Aid and Development* **106**: Washington: Seattle.
- Gorton M. 2001. Agricultural land reform in Moldova. Land Use Policy 18: 269-279.
- Gray J. 2000. Kazakhstan: a review of farm restructuring. *Technical Paper*, no. 458. Europe and Central Asia Environmentally and Socially Sustainable Development Series. World Bank: Washington, DC.
- Hayami Y, Adriano LS, Quisumbing MAR. 1990. *Toward an Alternative Land Reform Paradigm, A Philippine Perspective*. Ateneo de Manila University Press: Manila.
- Hayami Y, Kikuchi M. 2000. A rice village saga. *Three Decades of Green Revolution in the Philippines*. IRRI, Los Banos, Philippines.
- Jarvis LS. 1985. Chilean Agriculture Under Military Rule: From Reform to Reaction, 1973–1980. Institute of International Studies: University of California, Berkeley.
- Joakin J. 1996. The impact of structural adjustment and property rights conflicts on Nicaraguan agrarian reform beneficiaries. World Development 24(7): 1179–1191.
- King R. 1977. Land Reform: A World Survey. G. Bell and Sons: London.
- Koo AYC. 1968. Land Reform and Economic Development: A Case Study of Taiwan. Praeger: New York.
- Lerman Z, Brooks K. 1999. Turkmenistan: an assessment of leasehold-based farm restructuring, Technical Paper, no. 500. Europe and Central Asia ESSD. World Bank: Washington, DC.
- Lerman Z, Brooks K. 2001. Turkmenistan: an assessment of leasehold-based farm restructuring. *Technical Paper*, no. 500. Europe and Central Asia Environmentally and Socially Sustainable Development Series. World Bank: Washington, DC.
- Lerman Z, Csaki C, Moroz V. 1998. Land reform and farm restructuring in Moldova: progress and prospects, *World Bank Discussion Paper*, no. 398. World Bank: Washington, DC.

- Lerman Z, Csaki C, Feder G. 2002. Land policies and evolving farm structures in transition countries. World Bank: Washington, DC.
- Lieten GK. 1996. Land reforms at centre stage: the evidence on West Bengal. Development and Change 27: 110-130.
- Lin JY. 1992. Rural reforms and agricultural growth in China. American Economic Review 82:
- Lin JY, Cai F, Li Z. 1994. Why China's Economic Reforms Have Been Successful: Implications for Other Reforming Economics. Peking University and the Chinese Academy of Sciences: Peking.
- McMillan J, Whalley J, Zhu L. 1989. The impact of China's economic reforms on agricultural productivity growth. Journal of Political Economy 97: 781–807.
- Melmed-Sanjak J, Carter MR. 1991. The economic viability and stability of capitalized family farming: an analysis of agricultural decollectivization in Peru. Journal of Development Studies 190-210.
- Merlet M, Pommier D. 2000. Estudios sobre tenencia de la tierra. Nicaragua Managua, Nicaragua: IRAM (Institut de Recherches et d' Applications des Méthodes de Développement).
- Mueller B, Alston LJ, Libecap GD. 1999. Titles, Conflict and Land Use: The Development of Property Rights and Land Reform on the Brazilian Amazon Frontier. University of Michigan Press: Ann Arbor.
- Otsuka K. 1991. Determinants and consequences of land reform implementation in the Philippines. Journal of Development Economics 35: 339–359.
- Pomfret R. 2000. Agrarian reform in Uzbekistan: why has the Chinese model failed to deliver? Economic Development and Cultural Change 48(2): 269–284.
- Que TT. 1998. Economic reforms and their impact on agricultural development in Vietnam. ASEAN Economic Bulletin **15**(1): 30–46.
- Ravallion M, van de Walle D. 2001. Breaking up the collective farm: welfare outcomes of Vietnam's massive land privatization policy research working paper 2710. World Bank: Washington, DC.
- Sarris A, Doucha T, Mathijs E. 1999. Agricultural restucturing in central and eastern Europe: implications for competitiveness and rural development, European Review of Agricultural Economics 26(3): 305-329.
- Swinnen JF. 1999. The political economy of land reform choices in central and eastern Europe. Economics of Transition 7(3): 637–664.
- Swinnen J. 2000. Ten years of transition in Central and Eastern European agriculture. Paper presented at KATO Symposium, Berlin, Nov 2-4; 2000.
- Velez F. 1995. Los Desafios que Enfrenta el Campo en México. In México a la hora del cambio, Rubio L, Fernández (eds). Cal y Arena: México; 135-159.
- Wang YP, Murie A. 1999. Commercial housing development in Urban China. Urban Studies 36(9): 1475-1494.

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