INTRODUCTION

Economic reforms have induced important output and productivity changes in the agricultural sectors of transition countries (TCs), but with large differences between the countries. In general, agricultural output increased considerably in the East Asian TCs, while declining strongly in most Central and East European countries (CEECs) and the former Soviet Union (FSU). However, productivity increased in some Central European countries, as in East Asia. In other regions there was a considerable decline in productivity. Furthermore, important differences exist within regions.

There are three ‘extreme’ patterns in agricultural transition, summarized in Figures 1 and 2 for the first nine years of transition.

- **Pattern I (‘Central Europe’)**: a strong decline in gross agricultural output (GAO) coincides with a sharp increase in output per worker because of a marked outflow of labour from agriculture. This is the pattern followed by the Czech Republic, Slovakia and Hungary: GAO declines by around 30 per cent during the first years of transition, but stabilizes after four years. At the same time, agricultural labour productivity (ALP) increases rapidly: on average around 10 per cent annually during the first nine years of transition.

- **Pattern II (‘Russia’)**: a strong decline in GAO coincides with an appreciable decline in ALP. Russia, Ukraine and Belarus are typical examples of this pattern, as are several other newly independent states (NIS). On average, output fell by almost 50 per cent in these countries and labour productivity by around 30 per cent.
- Pattern III ('China'): a strong increase in GAO coincides with an increase, albeit slower, in ALP. Examples are China, Vietnam and, in Europe, also Albania. On average, output increased by more than 50 per cent in China and Vietnam, while labour productivity increased by 25 per cent.

The causes of these differences in post-reform economic performance include the choice of the reform policies, initial conditions, disruption of exchange relationships, regional tensions and conflict. While there is general agreement that these factors have affected transition performance, there is less agreement on their relative importance. The most intense debate has been over the Chinese reforms, and on what they imply for reforms elsewhere. Chinese reforms have resulted in extraordinary growth and are argued to have been successful because they were 'gradual', in contrast with those of the CEEC and FSU (Roland and Verdier, 1999). However, others have argued that the difference in structural characteristics of the Chinese economy at the outset of transition made the situation unique, with very few policy lessons for other transition countries (Sachs and Woo, 1994).

This paper analyses the causes of the differences in transition performance in agriculture. It draws on three empirical studies in which we estimated the

![Graph showing changes in gross agricultural output (GAO) during the first nine years of transition.](image)

**Note:** 'China' is the average for China and Vietnam; 'Central Europe' is the average for Czech Republic, Slovakia and Hungary; 'Russia' is the average for Russia, Ukraine and Belarus.

**Source:** Own calculations based on data from OECD (2000) and FAO (1999).

**FIGURE 1** Changes in gross agricultural output (GAO) during first nine years of transition
impact of reform policies and initial conditions, and their ‘intermediate results’ (that is, changes in relative prices, farm restructuring, changes in property rights and overall economic liberalization) on performance. The latter was indicated by agricultural productivity and output. Two studies (Macours and Swinnen, 1999, 2000b) used aggregate data for 15 transition countries (as presented in Figure 3); the third (Macours and Swinnen, 2000a) used annual crop output data for eight CEECs. The presentation here is organized mostly around the three patterns identified above; our three empirical studies provide for more detail on the other transition countries.

Initial conditions vary substantially among the countries (see Table 1). At the outset of transition, China and Vietnam had the lowest GNP per capita. Since it is related to the level of development the share of agriculture in employment was considerably higher in China (around 70 per cent) than in Russia (less than 20 per cent). It was lowest in Central Europe (13 per cent). China and Vietnam had a very labour-intensive agriculture. The man/land ratio was higher than unity, compared with less than 0.15 in Central Europe and Russia. Pre-transition agriculture in all countries in Table 1 was characterized by the dominance of large-scale farms. In China, the collective farms had
legal and effective property rights while land in Vietnam was state-owned, though the effective property rights were controlled by the collective farms. In Russia and other FSU countries, land was nationalized during communism, while in Central Europe most collective farm land was still legally owned by individuals, but effective property rights were controlled by the state or the collective farms. The collectivization of agriculture and introduction of central planning occurred after the Second World War in Central Europe and East Asia, while in Russia it was done earlier in the Communist period. When transition began, experience with private and individual farming was therefore more likely to be present in the rural households in the first group.

In China and Vietnam, agriculture was heavily taxed, while in most of the CEECs and the FSU, agriculture was generally supported by heavy subsidies. Also, pre-reform, China and Vietnam traded mainly with non-CMEA (Council for Mutual Economic Assistance) countries, while the NIS countries were fully integrated into the CMEA system, trading mainly with other communist countries. The Central European countries were somewhat less integrated, but a large part of their trade still went through the CMEA system.
TABLE 1  Initial conditions and policies in transition patterns

<table>
<thead>
<tr>
<th>Patterns</th>
<th>Central Europe</th>
<th>Russia</th>
<th>China</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Initial conditions (IC)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GNP/capita PPP</td>
<td>7,670</td>
<td>6,803</td>
<td>950</td>
</tr>
<tr>
<td>Share of agr. in employment</td>
<td>13</td>
<td>17</td>
<td>70</td>
</tr>
<tr>
<td>Agric. labour intensity</td>
<td>0.13</td>
<td>0.09</td>
<td>1.49</td>
</tr>
<tr>
<td>Legal land ownership</td>
<td>individuals</td>
<td>state</td>
<td>state</td>
</tr>
<tr>
<td>Pre-reform agr. price policy</td>
<td>subsidized</td>
<td>subsidized</td>
<td>taxed</td>
</tr>
<tr>
<td>Years under central planning</td>
<td>42</td>
<td>73</td>
<td>32</td>
</tr>
<tr>
<td><strong>Reform policies (RP)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Land reform procedure</td>
<td>restitution</td>
<td>share distrib.</td>
<td>phys. distrib.</td>
</tr>
<tr>
<td>Property rights reform</td>
<td>fast</td>
<td>slow</td>
<td>fast</td>
</tr>
<tr>
<td><strong>Policy outcomes (PO)</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relative price change</td>
<td>–41</td>
<td>–60</td>
<td>+24</td>
</tr>
<tr>
<td>Use rights</td>
<td>strong</td>
<td>weak</td>
<td>strong</td>
</tr>
<tr>
<td>Agr. land in individual farms (%)</td>
<td>16</td>
<td>11</td>
<td>99</td>
</tr>
<tr>
<td>Overall liberalization index</td>
<td>0.86</td>
<td>0.60</td>
<td>0.15</td>
</tr>
</tbody>
</table>

Notes:  
1 The values are the averages of the representative countries from each pattern (Czech Republic, Slovakia and Hungary for ‘Central Europe’; Russia, Ukraine and Belarus for ‘Russia’; China and Vietnam for ‘China’.
2 Part of the land in Hungary was owned by collective farms and (therefore) only one-third of Hungarian land was restituted; the rest was privatized through compensation bonds and physical distribution.
3 Five years after start of the reforms.


REFORM POLICIES

Price and trade liberalization

All transition countries adopted some form of price reform. In Central Europe agricultural prices were liberalized in 1989–91. In Russia and Ukraine, price reforms occurred later, while in countries like Belarus prices remained heavily controlled. While the Chinese reforms are usually described as ‘gradual’, the changes in administered prices that were introduced had a significant impact. In both China and Vietnam, reforms coincided with strong agricultural price increases and a switch from compulsory deliveries to a contract system. In Central Europe, Russia and Ukraine, trade liberalization followed the collapse of the CMEA trading system. There were major effects on relative prices. The
impact of the disruption of former CMEA trade flows was more important for smaller countries and those more integrated in the system.

Privatization and land reform

There are three main land reform processes. Restitution of farm land to former owners is most important in Central Europe, although a significant part of Hungarian land was allocated through vouchers and distribution to farm workers (Swinnen, 1999). Typically, the reform laws specified that land be restituted to former owners in historical boundaries, if possible. Otherwise they receive property rights to a plot of land of comparable size and quality. Russia and Ukraine distributed most of the collective and state farm land equally per capita among collective farm members or state farm employees in the form of paper shares or certificates. In Belarus, however, private ownership of household plots was all that was allowed (Lerman, 1997). Physical distribution of farm land on an equal per capita basis to farm workers or rural households occurred in China and Vietnam, although only use rights were transferred to farmers.

In many cases, non-land assets were privatized using vouchers, which were distributed among cooperative members who had contributed land, labour or other assets.

Farm restructuring

Farm restructuring includes a reallocation of production factors (land, labour and capital) as well as an organizational reform, from cooperatives to family farms, for example. However, most TCs have a mix of various farm organizations, including private cooperative farms, joint-stock companies, family farms and part-time farms. The most radical form of restructuring was the break-up of the collective or state farms into individual holdings. This ‘farm individualization’ process was strongest in East Asia, where there was a complete break-up of the collective farms. In contrast, the share of land used by individual farms was less than 20 per cent five years after the start of the reforms in Russia, Ukraine and Belarus, and also in Central Europe.

The process of farm restructuring has been determined by a combination of reform policies, initial conditions and economic developments (Mathijs and Swinnen, 1998). First, the break-up of the collective farms was substantially higher when an important share of the land was distributed to farm workers instead of being returned to former owners. Distribution of farmland to workers reduced the transaction costs of renting or buying land and other assets for individuals wanting to leave the collective farms. Second, government policies differed significantly in the incentives or hurdles created for individual farming. Third, there is an inverse correlation between the break-up of collective farms into family farms and the pre-reform average productivity and capital intensity of the collective farms. Individuals were more reluctant to leave the large-scale farms where those farms were more productive and had fewer incentive problems.
Countries characterized by a strong shift to individual farms have typically distributed land ownership or use rights in physical terms to farm workers, have transformation regulations that do not increase the cost of leaving the collective farm, had low labour productivity and high labour intensity in collective farms and had a tradition of family farms prior to 1939–45. For example, in countries such as China and Vietnam (but also Albania and, to a lesser extent, Romania) characterized by these conditions, the larger share of land was managed by individual farms five years after the start of the reforms.

**Overall liberalization**

The liberalization index in Table 1 is from de Melo et al. (1996) and measures the average liberalization level in the whole economy five years after the start of the reforms. The index combines the extent of liberalization of internal markets (domestic prices and state trading monopolies), external markets (foreign trade regime and current account convertibility) and private sector entry (privatization of small-scale and large-scale enterprises and banking reform). The overall liberalization had progressed considerably further in Central Europe than in the NIS after five years.

**IMPACT ON OUTPUT AND PRODUCTIVITY**

First, the relative price changes following *price and trade liberalization* have had important effects on post-reform output developments. For example, Figure 3 shows a positive relationship between the relative price changes and the output changes after the first five years of reform. Importantly, the only TCs where GAO has increased during transition are the countries where relative prices have increased. Macours and Swinnen (2000a) estimate that terms of trade effects caused 40–50 per cent of the fall in average crop output in eight CEECs during transition (see Table 2).

Second, the *shift from collective farming* to individual (family) farming had a favourable impact on agricultural output. Owing to monitoring problems, the incentive to work in a cooperative is lower than in an individual farm. After the change from collectives to individual enterprise the income of the farmer is directly related to immediate performance, and therefore individual farming increases incentives for labour effort. This has caused an increase in the productivity of labour as well as in the intensity with which the other inputs are used. A similar effect has been found in studies of China (Lin, 1992) and Vietnam (Pingali and Xuan, 1992).

Interestingly, the shift to individual farms had an adverse impact on average labour productivity in agriculture, since the positive effect on labour productivity of improved effort and lower monitoring costs was more than offset by other features. First, the fragmentation of assets induced by the break-up of collective farms did not help. Second, replacement of other inputs by labour contributed to the negative relationship with *average* labour productivity. Substitution can be caused both by the increase in the marginal productivity of
labour, ceteris paribus, with the shift to individual farms and by a change in the relative price of labour vis-à-vis the cost of other inputs. The latter is reinforced by capital constraints and credit market imperfections, which are widespread during agricultural transition. Finally, in food insecure circumstances worker owners will prefer individual farming rather than face the alternative of leaving agriculture.

Third, privatization affected performance differently depending (a) on how it affected property rights and (b) on the economic environment. Regarding property rights one can distinguish between those of transfer and those of use. Transfer rights have been established in CEECs, and since 1994 also in Russia. Although land transfers have occurred on some occasions in China, there is no legal framework guaranteeing the right to transfer. However, even in the TCs where land transfer rights are legal, sales are de facto largely absent during the period analysed.

The restitution process, as in Central Europe, and the land distribution process in China, created stronger individual use rights than the share distribution process in Russia and Ukraine. Despite the allocation of land shares to members, the land remains in joint cultivation pending a further restructuring decision by the ‘shareowners’ (Lerman, 1997). Important transaction costs limit the effective use rights of the individual owners. These differences are important since the transfer of effective use rights to individuals generally induced a decline in output and an increase in productivity. The creation of effective use rights caused profit-maximizing behaviour with hard budget constraints. This resulted in a reduction of surplus input use and therefore a decline of output. At the same time it improved the allocation and efficiency of input use, causing an increase in productivity.

Fourth, the impact of privatization on productivity is conditional upon liberalization in the rest of the economy. In particular, slow liberalization resulted in significant rigidities in the capital and labour markets, reducing the inflow of capital both for working purposes and for investment, as well as slowing the outflow of surplus labour. Macours and Swinnen (2000a) conclude that, because of market imperfections, the direct efficiency impact of privatization in countries such as Romania and Bulgaria was negative, but positive in the Central European countries, such as Hungary and the Czech Republic, where liberalization removed factor market imperfections to a greater extent. In countries such as Romania and Albania, productivity gains from privatization arrived primarily indirectly through the shift to individual farming (Table 2).

Furthermore, in Central Europe strong productivity gains occurred despite a relatively limited shift to individual farming. Compared with Russia and Ukraine, where large-scale farms continued to dominate as well, farms in Central Europe generally have undergone more effective restructuring, including both management reform and operation adjustments. In contrast, Lerman and Csaki (1997) report that, despite some ‘downsizing’ in restructured farms, internal reorganization has not produced major results in Russia and Ukraine and the collective framework has preserved most of its traditional function. As a result of this lack of restructuring, Sedik et al. (1999) detect a decline in farm efficiency during transition in Russia.
TABLE 2  Contribution of different causal factors to crop output changes in eight CEECs between 1989 and 1995

<table>
<thead>
<tr>
<th>Explanatory variable</th>
<th>% of total change</th>
<th>% of explained change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relative prices</td>
<td>-46</td>
<td>-52</td>
</tr>
<tr>
<td>Weather</td>
<td>-10</td>
<td>-11</td>
</tr>
<tr>
<td>Farm restructuring</td>
<td>+18</td>
<td>+20</td>
</tr>
<tr>
<td>Shift to individual farms</td>
<td>+68</td>
<td>+77</td>
</tr>
<tr>
<td>Disruption</td>
<td>-50</td>
<td>-57</td>
</tr>
<tr>
<td>Land privatization</td>
<td>-39</td>
<td>-44</td>
</tr>
<tr>
<td>Czech, Slovakia, Hungary</td>
<td>-24</td>
<td>-27</td>
</tr>
<tr>
<td>Other CEECs*</td>
<td>-51</td>
<td>-58</td>
</tr>
<tr>
<td>Uncertainty</td>
<td>-12</td>
<td>-13</td>
</tr>
<tr>
<td>Residual</td>
<td>-12</td>
<td></td>
</tr>
<tr>
<td>Total output change</td>
<td>-100</td>
<td>-100</td>
</tr>
</tbody>
</table>

Note:  * Primarily Albania, Romania and Bulgaria, since in Poland and Slovenia land privatization was less important.

Source:  Macours and Swinnen (2000a).

Finally, organizational and contractual disruptions caused a decline in output and productivity during transition. External disruptions resulted from the collapse of the CMEA trading system. Internal effects arose from the break-up of the strong integrated system within supply chains, with central planning as the enforcement mechanism. The break-up of this contracting system with privatization, restructuring and liberalization, in the absence of alternative contract enforcement mechanisms and information distribution systems, caused dislocation in output and investment (McMillan, 1997). Several explanations of this result focus on the disruptions of relation-specific investments, due to information problems, search frictions and absence of contract enforcement mechanisms.

Roland and Verdier (1999) argue that the Chinese dual-track liberalization allowed enterprises to reap the informational benefits from price liberalization while avoiding the disruption associated with the breakdown of the planning system. Despite the inefficiencies of only liberalizing some of the prices, partial continuation of state control at the beginning of transition may avoid the output disruption and temporary fall in investment generated by a ‘Big Bang’ policy. Rozelle (1996) explains how the initial and abrupt liberalization of the fertilizer market in China in 1985 caused major disruptions in fertilizer supplies, leading the government to take back control of sales in 1987. Five years later, by which time China’s domestic marketing capacity had developed, new fertilizer liberalization resulted in no disruption.

Macours and Swinnen (2000a) estimate that between 30 per cent and 60 per cent of average crop output decline in CEECs was due to institutional disrup-
tions. On the basis of a case study of the Slovakian sugar sector, Gow and Swinnen (1998) show that output and yields increased dramatically, both at the processing and at the farm level, after new contract enforcement mechanisms and solutions to input contracting were implemented. The solution to contract hold-ups in this case – as in other transition countries (McMillan, 1997) – came from private rather than public enforcement. Foreign direct investment was of major importance in the change.

INITIAL CONDITIONS, REFORM POLICIES AND PERFORMANCE

To separate the impact of initial conditions on performance from those of reform policies, we used a combination of a principal component analysis and regression analysis in Macours and Swinnen (2000b). We show that six indicators of initial conditions (see Table 1) can be captured by two principal components. PC1 has high negative weight for income level, and high positive weights for labour intensity and the importance of agriculture in the economy, and can therefore be interpreted as an index of the level of development at the beginning of transition. PC2 has high positive weights for years under central planning and integration in the CMEA, and a high negative weight for land in private ownership pre-reform, and can be interpreted as an index of the level of distortions at the beginning of transition.

![Classification by principal components of initial conditions: index of pre-reform development (PC1) and index of pre-reform distortions (PC2)](image)


FIGURE 4 Classification by principal components of initial conditions: index of pre-reform development (PC1) and index of pre-reform distortions (PC2)
Figure 4 plots all the countries according to these indices of development (PC1) and distortion (PC2). The three patterns of transition, based on performance, can be clearly distinguished within this classification of initial conditions. The Central European group had a higher level of development (PC1) and lower pre-reform distortion (PC2). Russia, Ukraine and Belarus differed mostly from this first group by higher pre-reform distortion. China and Vietnam had a much lower level of development than the other groups, and moderate levels of distortion.

Our regressions show that, during the first five years of transition, the development of agricultural output was, to an important extent, determined by initial conditions, both directly and indirectly, through their effect on policy outcomes. We concluded that initial conditions explain the main differences between countries in output changes during the first five years after the reforms. However, the estimation results also suggest that (exogenous) reform policy choices played an important role in determining labour productivity developments during the first years of transition. After correcting for the endogenous part of the different policy outcomes, the establishment of strong use rights and the overall liberalization of the economy had a significant positive effect on agricultural labour productivity.

**PATTERNS OF TRANSITION**

Table 1 summarizes the relationship between the differences in economic performance and the initial conditions, the key reform policies and the policy outcomes. Both Russia and Central Europe were characterized by pre-reform subsidization of agriculture, relatively low labour intensity of farms and a small share of agriculture in the economy, but differed in the pre-reform land ownership and the period under central planning. In Russia and Central Europe, terms of trade declined in agriculture following price and trade liberalization due to pre-reform taxation of agriculture, but the choice and implementation of privatization, land reform and overall liberalization policies differed substantially.

In Central Europe, land reform through restitution and physical distribution led to stronger individual property rights. Further, the more extensive and more radical liberalization of the general economy in Central Europe reduced obstacles for intersectoral labour mobility. In contrast, in Russia land ownership rights were allocated in the form of shares in the former collective and state farms, causing weak individual property rights and limited incentives for resource allocation improvements. Also the dependence of individuals on farms for food security and social benefits, such as housing, further reduced mobility and the outflow of labour from agriculture. In combination with low overall liberalization and the lack of individual farming skills after several generations of communist rule, labour mobility from farms and to other sectors has been constrained. Hence surplus labour has not left agriculture and is trapped in large-scale farms that continue to be dominated by old management. The consequence is that, with decreasing terms of trade, while agricultural output
has declined to a similar extent to that in Central Europe, labour productivity has fallen with output in Russia, while it increased strongly in Central Europe.

A third pattern, followed by China and Vietnam, is characterized by growth in both output and productivity during transition. These countries started from a very labour-intensive agriculture, which was taxed. Price and trade liberalization caused an improvement in the terms of trade. Institutional reforms included the distribution of clear and strong land use rights to farm workers and rural households, and a complete break-up of the collective and/or state farms into individual holdings. Because of the high labour intensity (and low labour productivity) on the collective farms the shift to individual farming implied important benefits because of improved labour incentives and profit maximization, and low costs from fragmentation. The strong shift to individual farming was also stimulated by the low level of income in countries where food security concerns played an important role: in China and Vietnam cases of radical and widespread decollectivization emerged to some extent spontaneously as a reaction to a major crisis.

In combination, these factors contributed to increases in output and productivity. However, the food security worries, as well as the link between social benefits (such as housing) and economic sectors, increased intersectoral (and rural–urban) mobility costs, contributing to the slower growth of labour productivity than output. Institutional and organizational disruptions contributed to investment and output declines. They are argued to have been more important in Central Europe and Russia than in China, with its more ‘gradual approach’ to market liberalization. Several analyses show that these disruptions have caused important declines in output.

However, our analysis suggests that key determinants of output growth in China are (a) the terms of trade effect, which was importantly determined by the pre-reform taxation of agriculture, and (b) radical reforms in the allocation of land property rights and in the reorganization of agricultural production. In fact, Albania, the only European country with structural characteristics similar to those of China (and Vietnam), introduced radical market liberalization, causing strong disruptions in exchange relationships. This has not prevented it from recording high growth rates in GAO as in China (and Vietnam) – in fact, since the start of the reform in 1991, and despite the chaos following the 1997 political upheaval, average output growth in Albania has been almost 10 per cent annually (Cungu and Swinnen, 1999).

All this suggests that key determinants of agricultural growth during the first years of transition in China have also been initial conditions, (radical) land reform and farm restructuring. Hence one should be careful in using the ‘Chinese miracle’ as an example for advocating gradual reforms in other transition countries.

**TRANSITION DYNAMICS**

During the first years of transition, output changes have been greatly affected by initial conditions. However reform policies, relative to initial conditions,
increased in importance as the transition progressed. Figure 1 shows that, while output continued to drop in Russia, this trend was reversed in Central Europe where, after the initial decline, output started recovering.

We observe in several Central European agricultural markets (more so in the crop sector than in livestock production) that output development is U-shaped, with three phases: an initial decline caused primarily by deteriorating terms of trade and contract disruptions, a bottoming out when the terms of trade stabilize and their effect phases out, then a later increase in output caused by increases in productivity. The latter phase is crucially affected by reform policies, rather than by initial conditions.

Figure 5 illustrates this effect for the case of sugar. In Central Europe, Russia and Ukraine sugar output initially declined, then recovered significantly in Central Europe after growth resumed with an inflow of foreign direct investment and improved farm management following the necessary reforms (Swinnen et al., 2000). Figure 6 shows that, while the initial fall in output coincided with the relative price decline, the recovery of output has been due to increases in yields resulting from the reforms. In contrast, in Russia and Ukraine no such recovery occurred.

The conclusion from these comparisons is consistent with our previous argument: transition output falls have been determined largely by initial conditions, but productivity changes and growth resumption are much more affected
by reform policies. The impact of the policies becomes dominant as transition progresses.

CONCLUSIONS

Both initial conditions and reform policies have affected the performances of transition countries. Agricultural output has been strongly affected by initial conditions, while productivity was influenced more by reform policies. Furthermore, it has been mainly the initial output changes which have been dependent on initial conditions, while later changes have been more affected by reform policies. More specific conclusions are the following.

First, relative price developments resulting from the price and trade liberalizations are a key factor in explaining the differences in agricultural performance between transition countries. Second, a key condition for productivity improvement is the allocation of (at least) strong use rights on agricultural production factors, including land, to individuals. The allocation of strong use rights induces an effective restructuring of production organizations. Third, the extent to which management differs in efficiency from pre-reform management, rather than the shift to individual farming in itself, is a key factor in improving productivity in agriculture.
Fourth, the overall liberalization of the economy, along with assured food supply and social security, affect the opportunity and mobility costs for labour employed in agriculture and therefore the labour productivity changes during transition. Finally, liberalization and the restoration of secure tenure rights stimulate factor market developments, which improve access to capital and land and enhance productivity.

NOTES

1 In this paper East Asian transition countries include China, Vietnam, Laos and Myanmar; CEECs are the Balkan TCs (Albania, Bulgaria, Romania and Slovenia) and the Visegrad TCs (Czech Republic, Hungary, Poland, Slovakia); FSU refers to the 15 republics of the former Soviet Union, NIS (newly independent states) refers to the FSU without the Baltics (Estonia, Latvia and Lithuania).

2 Table 1 summarizes the initial conditions and reform policies for the three ‘extreme’ transition patterns. Details on initial conditions and reform policies for all transition countries are in Macours and Swinnen (1999).

3 Only in former Yugoslavia, Poland, Laos and Myanmar was most agricultural land managed by individual (family) farms.

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