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## **Weak, Strong and Even Stronger Property Rights: A Poor Explanation for the Difficulties of the Agricultural Reform in Post-Privatised Russia**

### **1. Introduction**

According to researchers involved in projects financed by the World Bank and a number of other international organisations, such as OECD and EBRD, Russia's problems, particularly the slow growth of labour productivity, are primarily explained by the weak property rights of the holders of the shares received in connection with the privatisation and re-organisation of Soviet farms. These weaknesses are attributed to Russia's failure to implement the family farm project recommended by the World Bank. Meanwhile, property rights in the Baltic countries are considered to be strong, which is why their reforms have produced better results. Also in this article, the Baltic countries constitute a good comparison group in the research of critical property rights issues, since they share the same history with Russia, but their privatisation policies, implementation methods and property rights differ from those of Russia. By comparing the development of labour productivity and farm structure in these countries, I will show that the results achieved in Latvia and Lithuania are not any better than those obtained in Russia, even though large-scale farms have largely been replaced by individual farms. I will also show that the very poor results achieved in Lithuania were most likely due to the overly strong property rights of the shareholders, and that the quantitative establishment of family farms appears to have been largely independent of the chosen Soviet farm reform strategy. Furthermore, I will analyse the structure of dairy production in the Baltic countries to show that the clear success of Estonia compared to Russia's failure is not at all based on stronger property rights or family farming (differences in property rights between Russia and Estonia are not that great, but on ability to utilise the Soviet farming tradition, the desire of the middle-class of the large-scale farms to maintain large-scale production and the opportunity offered by a particular set of political circumstances to fulfill this desire. Hence, the development of large-scale production under the conditions of capitalism is made possible by the professional and practical knowledge, formal and informal institutions, cognitive models, etc. that developed under socialism on the basis of large-scale production. Finally, I will show that the large corporative farms which, according to World Bank estimates, were doomed to failure, but have (particularly the largest ones) performed better than individual farms based on farm structure analyses.

### **2. Shock Therapy and Its Background**

Elster et al. (1998, 3) simplify reality by claiming that the post-socialist revolution was not preceded by a long period of organisational and political programme work by the counter-elite with Poland as the only exception. In the Baltic countries, such counter-elites had emerged more or less clearly due to their struggle for independence, contrary to their Russian counterpart within the Soviet Union. Especially the Estonian counter-elite had developed a fairly

elaborate political programme ultimately aimed at achieving independence (Palm, 1992). However, the rapidity of the change, the unforeseeable nature of the events and the inexperience of the new national politicians and officials with the market economy, together with the lack of financial resources, made these actors dependent on international organisations. This dependency was even heightened in the Baltic countries as the small national economies separated from their traditional trading partners and, at the same time, sought political support from the international community for their newly gained independence. These factors, rather than the underdevelopment of the counter-elite, probably explain why the tasks of drafting, planning and monitoring the reform policy in a systematic way were also in the Baltic countries largely left to technocratic international organisations, particularly the IMF, the World Bank, OECD, EBRD and a number of others. After all, they had a lot of expertise, especially in the field of economics, as well as experience in managing the economies and financial resources of many countries. Still, conflicting applications of the same guideline and variation in their implementation between the Baltic countries, not to mention between Russia and the Baltic countries, indicate that transformation politics were rather formulated and implemented through interaction with local elected officials and appointed officials instead of just dictating them.

Since the neo-liberal creed had at this stage already established its hegemony over the international financial organisations (Fourcade-Gourinchas and Babb, 2002), their recommendations placed particular emphasis on competitiveness at the economic level, which they saw as the driving force behind all human activity, and sought to cut back the role of the state as much as possible (Lane, 2000, 181).

The general thrust of the recommendations made by the international organisations is best described as “shock therapy.” This referred to the co-ordinated and comprehensive package of measures covering several institutional sectors of the economy that was to be implemented simultaneously and swiftly (see Pickel, 1997). Concretely, this meant privatisation, the liberalisation of prices and foreign trade, and a tight fiscal policy (e.g. substantial cuts in subventions and the legal provision of bankruptcy). The same package was recommended to all countries (regardless of their historical background), and for all industries, including agriculture, which is the focus of this article.

### **3. Economic Shock Therapy for Agriculture**

In the division of labour between the IMF and the World Bank, it appears that the World Bank has the primary responsibility for the drafting of the agricultural reform policy. The same neo-liberal plan was proposed as a model for the agricultural reform in all former socialist countries, even though almost all developed countries support their agricultural sectors through trade policy (customs duties, import levies, etc.) and subventions. For the purpose of this article, the key recommendations document is “Food and Agricultural Policy Reforms in the Former USSR” published by the World Bank (1992). The only unusual feature of the plan for the development of agriculture was that it called for the replacement of the large-scale farm system of the Soviet era with a family farm system. In the background, there was a presumption that family farming is more cost-effective than corporative farming due to its

lower transaction costs. However, these large-scale farms, whose ownership was restructured through the distribution of ownership shares, were assigned a temporary buffering role in the transition (Ibid., 75–77). All corporative businesses were deemed unsuitable for agriculture, and large employee-owned farms, such as co-operatives and joint-stock companies, were considered particularly poor (“more conservative”). Instead, they were encouraged to restructure themselves as limited liability companies (including partnerships) because these allow for the easy transfer of employee-owned shares to individual farms, and because these forms of enterprise were considered only as transitory stages in the evolution toward a family-farm system (Ibid., 74). Furthermore, the land and non-land assets held by former Soviet farms were to be privatised as fast as possible in the standard neo-liberal way and in synchronisation with each other, subsidies were to be eliminated (however, “some transitional support was required”) and enterprises were to be forced to adapt their production processes to changing market requirements in every way (Ibid., 45-47).

#### **4. The Origins and Content of the “Paper Share” Theory**

In Russia, Soviet farms were re-organised and privatised by issuing two types of shares. Non-land and land share certificates were issued based on years of service mainly to former and reform period employees (Patsiorkovsky et al., 2005, 8; Wegren, 2005, 231).

However, the results of the Russian agricultural reform proved to be somewhat disappointing. In an attempt to explain and resolve the problems (analogous to many other CIS countries) the World Bank, IMF, OECD and other international organizations developed the paper-share theory:

“We can look at the two most visible and significantly striking manifestations of differences in approach to agrarian reform across the region: one is the policy of distributing physical plots to individuals as opposed to policy of distributing land shares in the form of paper certificates of entitlement; the other one is the policy of establishing family farms versus the policy of maintaining collectives or cooperatives” (World Bank, 2000, 23).

Thus, the paper-share theory associates strong property rights with the progress of the family farm project. Strong property rights will ensure the temporary nature of the successors of kolkhozes and sovkhoses and the establishment of family farms only if the shareholders can convert their shares to the future family farm in the presence of strong property rights in the form of a physical plot, as well as cattle,<sup>1</sup> machinery, equipment, buildings and other means of production and subsistence required by the family farm and its household. An even if they do not get a complete line of machinery from the

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<sup>1</sup> Sometimes the adherents of the paper share theory only use it when referring to the ownership land plots (such as in the quotation above) and sometimes also when referring to non-land assets (Rolfes, 2002). Because the paper share theory is, according to the original World Bank reform programme, linked to the theory of limited liability companies as a best possible transitional form for collective farms (as opposed to neo-collectivist co-operatives and other forms of share ownership), it would be most logical to consistently include also non-land assets in it. The above reference to land shares only is understandable because the shares of non-land assets have been invested as equity in new corporative farms, and the owners have thus forfeited them. However, the main part of land-assets still remain in the full ownership of their holders and can, at least in principle, be transferred back to their personal use (see later).

large-scale farms, it is expected that the family farms will be able to develop “by specializing in high-value and labour-intensive products,” in which case allow “the individual sector could follow low-input farming practices particularly avoiding reliance on machinery and equipment” (Lerman et al., 2003, 1015). The transfer of not only land, but also cattle, machinery, etc., was relatively easy during the kolkhoz and sovkhos restructuring period of 1991–93, but the numbers of family farms established was as low as 3–4 per former collective farm (Wegren, 2005, 16).<sup>2</sup>

Upon joining as members of the privatised and restructured successor enterprises, the shareholders invested their non-land share certificates in it as equity, thus definitely forfeiting their right to transfer them back to their personal use. Also, for the same reason 25.6% of land-share owners lost the control over their assets once and for all, while 70.8% only leased the assets back to the large-scale farm, and could, at least in principle, later transfer them back to their personal use as potential family farmers (or lease or sell them to a third-party). Only 3.8% retained the land shares under their direct control (Patsiorkovsky et al., 2005, 8).<sup>3</sup>

However, the transfer of the land share certificate to personal use has been and still is difficult because the owner’s share of the land had not been converted to a physically demarcated plot of land. The fair parcelling of the land shares was difficult also in practice because the value of each plot depended greatly on its location (also in relation to the residence) and soil quality (Epstein, 2002, 185 & 187). The fact that the property share certificates could also be traded does not change this basic problem. True, the free right to sell was also restricted by the right of first refusal provided to the other employees of the enterprise and the restriction of resale to agricultural use only (Wegren, 2005, 67). Even if the Russian legislation, which remained relatively confused as a whole, has been codified in the early 2000s, and the buying and selling process itself has been defined, the confusions till continues (Patsiorkovsky et al., 2005, 9–10).<sup>4</sup>

World Bank researchers have started to call this ownership that is based on paper certificates of entitlement (as described above) “ownership solely on paper,” i.e. (very) weak property rights. Since the discontinuation of the concrete distribution of land (and non-land assets) with the restructuring of large-scale farms interrupted the recommended family farm project, this interruption has been seen as the key explanation for the problems of Russian agriculture (Lerman et al., 2004, 45). The reduction in the average size of the large farms alone was expected to improve efficiency, but the paper share system has also frozen the old Soviet structures (Ibid., 32–35 & 150–152). In order to prevent the bankruptcy of the farms Russia has in many respects reverted to the Soviet-type policy of “soft budget constraints,” with the focus on “subsidized credits and debt write-offs” (Ibid., 31 & 149–150). In

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<sup>2</sup> Family farms were also established under the Law on Peasant Farms at the end of the Soviet era (1989) and in connection with the re-organisation of the Soviet farms, but these are not the key focus of this article.

<sup>3</sup> The third group includes family farms that had broken away from the collective, as well as other groups of secondary importance for this article.

<sup>4</sup> According to Wegren (2004) the land market has, however, accelerated dramatically on the basis of small plots, ‘former’ farms and municipal land reserves. Unfortunately, I have no systematic data on the trading of land shares rented by corporative farms.

consequence, market forces do not force Russian agriculture to adapt its production and production organisation, and the problems of the farms just keep getting worse.

It is still possible to bring the Russian family farm programme to a successful conclusion, but it requires the strengthening of the shareholders' property rights (Lerman et al., 2004, 94–95 & 105–106; Rozelle and Swinnen, 2004, 426–427; for an explanation of this line of thinking in a nutshell, see Rolfes, 2002).

The most visible individual researchers who have developed and used the paper-share theory include economists Zvi Lerman and Csaba Csaki (in this article referred to as Lerman et al., 2003 and 2004) and Johan F. M. Swinnen (in this article Macours and Swinnen, 2002, 387; Rozelle and Swinnen, 2004, 425–429). All three have published numerous joint articles with other researchers, and all of them hold key positions in the projects of the World Bank and a few other international organisations.

## **5. Russia vs. Estonia, Latvia and Lithuania**

According to the paper-share theory, the economic development in Russia should be weaker than in the Baltic countries because the Russian government – unlike the Estonian, Latvian and Lithuanian governments – was not willing to carry through with the process recommended by the World Bank that would have led to the replacement of the large-scale farm system with family farms. It is widely argued that the Baltic countries have strong property rights, although no systematic comparison between Russia and the different Baltic countries has been performed. All three countries are often included in larger international comparisons, but these comparisons have been restricted to occasional comments; nor has their importance been thought all the way through (e.g. Lerman et al., 2003 and 2004). Often the data for the Baltic countries is presented as the average for the whole group of countries, which blurs the great and theoretically interesting differences between the countries, or they are summarily grouped together with Central Europe (for a more systematic investigation of the differences between the Baltic countries, see Alanen, 2004). In terms of the results of the reform, Estonia actually belongs to the same group as the most successful core countries in Central Europe (the Czech republic, Hungary and Slovakia). A partial explanation for this offered by Rozelle and Swinnen (2004) is smaller farm size, which would make them easier to adapt. However, despite its problems the Russian agriculture – just like Estonian agriculture – was dominated by large-scale farms,<sup>5</sup> but in other respects the results of the reform were very much like those in – as we will shortly see – Latvia and Lithuania, where large-scale production has largely been replaced by small-scale production. Comparing the problems faced by Russia with those of the Baltic countries is easier than comparison with Central Europe due to their shared Soviet past.

These four countries were the best agricultural republics in the Soviet Union: Estonia was the best with Lithuania in the second place, and Latvia in the third place, followed by Russia in the fourth place (see Lerman et al., 2003, 10–14). Although Russia was the weakest of the four countries, the

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<sup>5</sup> Just as were the other most successful countries: the Czech republic, Hungary and Slovakia (Lerman et al., 2004, 113) – quite paradoxically from the perspective of the paper share theory.

difference to the Baltic countries was not dramatic. The difference between Russia and Latvia in agricultural production per employee was smaller than the difference between Estonia and Latvia or roughly the same as the difference between Lithuania and Estonia or Lithuania and Latvia (*Ibid.*). In all four countries, the official policy at the end of the Soviet era was to establish a family farm system alongside the existing large-scale production system with the generous financial support of the government. This support was realised in the early 1990s, but in Baltic countries the financial support from the government, as a rule, dried up when the majority of the large farms were being restructured. In Russia the situation was only slightly different: Individual (private) farms (“farmers”) received financial support prior to 1990, but the support was suspended for 1990–1991, just to continue in 1992–1993, after which it was no longer provided (Wegner, 2004, 187). All the agricultural experts I have interviewed in the Baltic countries have agreed on one thing: the strongest individual farms in each country were usually those established with government support well before the decollectivisation of large-scale farms. In the case of Russia, we can reach the same conclusion on the basis of statistics (Wegren, 2005, 78).

Agricultural subventions had been drastically cut in all four countries already before the cuts in government support, and the right to file bankruptcy was provided for large-scale farms in the early 1990s. Many enterprises went bankrupt or have simply closed down.

In connection with the issuance of the share certificates, Baltic large-scale farms were generally broken up in smaller enterprises based on one or more technology units. These agricultural enterprises comprised of an integrated dairy or meat production complex, an industrial operation such as a sawmill, or the entire technological centre of a former Soviet farm. However, these new enterprises were expected to be temporary in nature. This is why they were not initially granted ownership of the land that they farmed. This had a substantial effect on the way the enterprises were established (by local reform committees) to be offered to the share certificate holders, and it also significantly increased the threshold of purchasing shares in the new enterprises with their share certificates.

In Estonia and Latvia the decision-making power on the decollectivisation of the non-land assets of Soviet farms was delegated to the local level: In the end, the decisions on the establishment of new enterprises and the sale of non-land assets to share certificate holders were made by the general meeting of all the people entitled to share certificates of the Soviet farm. In Russia the privatisation followed the same pattern with one notable exception. The main difference compared to Russia was that in the Baltic countries a significant part of the share certificates were issued under the policy of restitution of collectivised private property.

In Estonia and Latvia legislation directed the enterprises to maintain integrated technology units during the transition phase (Alanen, 2004). In both countries, however, large quantities of movable non-land property were separated from their technology units and transferred to private operators (either to their farms or other businesses) in connection with the privatisation process. On the other hand, the Russian legislation did not prohibit the physical distribution land and non-land assets based on the number of shares, and this is what was done in Russia in some cases (Epstein, 2002, 187). In

Estonia and Latvia, however, the greater degree of transfer of non-land assets to farms was probably influenced by the fact that the land restitution process determine the preferences of individual people more clearly in terms of whether they wanted to continue large-scale production or develop their individual farm. Most holders of share certificates preferred the ownership of shares in technology units of large-scale farms to establishing a family farm of their own. Lithuanian legislation differed from the others in that it allowed for the easy transfer of non-land assets on the re-organised large-scale farms.

In Estonia and Latvia the new large-scale agricultural enterprises, which were usually much smaller than the original collective farms, were mostly joint-stock companies, and only in a few rare cases co-operative farms. About 10% of the enterprises were partnerships as recommended by the World Bank, which meant that the shareholder could choose to take (subject to the approval of the general meeting) their shares in cash, and, if cash was not available, in the form of physical assets (machinery, buildings, etc.). Russians turned the former collective farms mainly into joint-stock companies and co-operatives. In some cases, they managed to keep the legal status of the Soviet farm unchanged, but this did not, however, have any effect on the distribution of land shares (Wegren, 2005). Also most of the industrial operations found on Russian farms remained undivided and carried on with their previous non-agricultural activities – some of them even expanded these activities (Alanen et al., 2004). Meanwhile in the Baltic countries, all industrial plants were, as a rule, separated from agricultural activities.

In Estonia and Latvia, legislation divided the decollectivisation of non-land-assets in two phases. First, the assets were prepared in separate lots (such as tractors, refrigerators, etc.) and technology units (such as cowshed complexes), and only after this the shareholders were allowed to purchase them. However, the Estonian legislation allowed people to skip the first phase allowing the privatisation shares to be converted directly to shares of equivalent value in undivided production complexes. This was an unintended consequence of the law, originally this shortcut was designed to promote the establishment of service centers for family farms – based on the technology units of the Soviet farms – in accordance with the World Bank recommendation. In Estonia, however, the Annual General Meetings of many large-scale farms decided to take advantage of this opportunity and prevent the fragmentation of large-scale production, albeit with the concession that the non-agricultural parts of the farm were separated from the agricultural ones, and those who wanted to establish a family farm were allowed to purchase machinery and other necessary items up to the values of their shares. This procedure was most common on Estonia's best farms (Tamm, 2001, 432).

The procedure described above resulted in the maintenance of the operations of many former large-scale farms at almost the same the levels as before, and even when these farms were divided in smaller units, particularly if this happened based on how the population was distributed in different villages during the Soviet farm period, the operators were able to maintain such village-specific technology units in almost the same way as in the Soviet era. Based on my field interviews, this procedure was used by a significant number of farms. Not, however, the majority of all Estonian farms. This option was most popular among the best farms of the Soviet era. On the whole, the solution closely resembles the current Russian model – the most important

difference being the systematic separation of non-agricultural activities from agricultural ones in Estonia.

In Lithuania, the restructuring of the Soviet farms was concentrated to the state, and it (as well as part of the sale of non-land assets directly to the people entitled to shares) was carried out by government officials from the top-to-bottom. All of the restructured large-scale agricultural production enterprises were partnerships. When the partnerships were established, people's share certificates were constituted as shares in physical assets in the way most suitable in terms of the family farm project. This is why, for instance, a few farm employees interested in family farming could be brought together by an outside government official to form an alliance and purchase, for instance, a tractor to be shared between the three neighbours. The asset remained in use of the restructured farm as the alliance members' investment in the large-scale enterprise (partnership), but later this arrangement was changed and it became easier to transfer the asset (if the alliance members agreed) for use on their family farms.<sup>6</sup> This possibility meant that the future of the Lithuanian enterprises depended on the willingness of the shareholders (who were typically pensioners and household plot farmers) to maintain their equity in the large-scale farm. The property rights of Lithuanian shareholders were optimally efficient in terms of the paper-share theory, and consequently they were very strong.

In Estonia and Latvia the in-kind redemption of ownership shares was no longer possible after the establishment of joint-stock companies (and a few co-operatives). Instead, you could sell the share. However, in closed joint-stock companies (most of the companies were closed), the other shareholders had the right of first refusal. Throughout the 1990s, when there was a shortage of capital and the credit system was still undeveloped, the price of a share remained – according to my field studies – very low. This situation enabled the efficient accumulation of shares by those who had the money and initiative, but it offered little hope for those intending to establish or extend a family farm (a large part of the total value of all shares was often spent on purchasing machinery services from the successor farm for privatised plots or restituted family farms). Similar arrangements where a large-scale farm supports household plot farms by contracting them certain services has also reported in Russia, and inevitably leads to the concentration of ownership.

It is particularly interesting to note that the Estonian and Latvian reforms resulted in the creation of two very different farm structures (see later), even though their decollectivisation legislations were virtually identical. On the other hand, the new farm structures of Latvia and Lithuania greatly resembled each other, even though the decollectivisation legislations of these two countries and their implementations had major differences. And despite wide differences in reform policies, corporative farms remained the backbone of agricultural production in both Estonia and Russia.

In the Baltic countries, land was mostly restituted to the former owners and their heirs, but in addition to them, nearly all people living in rural areas could, on application, acquire land around their buildings or elsewhere. In

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<sup>6</sup> The number of tractors was much smaller than the number of household plot farms and family farms that needed tractors.

Estonia this was based on a law that gave rural people the right of first refusal on the land surrounding their permanent residence, as long as no restitution claims were filed. And when some of the people entitled to restitution took cash compensation in lieu of land, agricultural land reserves increased significantly. As of 2001, the vast majority of agricultural land had been returned to individual private owners, and 64% had been restituted to former owners, 30% had been purchased under the first right of refusal and 3% had been sold at public auction (Ministry of Agriculture, 2002, 3). Based on incidental information received through interviews, I think it is possible that in the first half of 1990s this method of establishing the right of first refusal was mainly used for redeeming small-holdings, however, in the second half of the decade the law became a structural policy lever. Instead of relying solely on market mechanisms in accordance with neo-liberal principles, affordable land was soon actively channeled towards an increase in the size of the family farms considered viable and corporatively owned large-scale farms (once they had been granted ownership of the land they farmed).<sup>7</sup> In other respects too, the Estonian governments' attitude towards large-scale production changed from a rejective to a supportive one.

In Latvia, land could be acquired in the same ways as in Estonia, however, this was only possible during the swift and effective land reform in the early 1990s. Meanwhile in Lithuania, the land market and the structural development of agriculture as a whole was materially affected by a law that guaranteed 2–3 hectares of arable land for all rural residents. Since this land was generally located around the houses of rural residents, the law was in direct conflict with restitution claims. Restitution commissions had to search elsewhere for compensatory land for the latter. In Lithuania this legislation has somewhat hindered the development of viable farms. Over 20% of the farmland in each Baltic country was distributed in this way by 1995 (Alanen, 2004, 31). The household plots of the rural people of the Soviet era were privatised also in Russia, but the rural residents in Russia did not have rights analogous to the Baltic countries to get additional land.

The re-organised large-scale farms established on the basis of collective farm technology units had to resolve a land acquisition problem. before they were granted the right to own land, they could only rent it. In Estonia farms could also rent land from the state, because the restitution of land lagged several years behind the privatisation of non-land assets. In Latvia and initially also in Lithuania the restitution proceeded at a brisk pace and in synchronisation with the privatisation of non-land assets, and rental was the only available option before the successors of collective farms were granted land ownership rights. Based on my interviews, the availability of land did not pose a problem even for the largest enterprise, and large tracts of farmland remained idle especially in Estonia and Latvia, but to a lesser extent in Lithuania. Inefficient land use was also evidenced by the sharp reduction in sown area (Alanen, 2004, 25). In Russia the vast majority of farming land remained in the use of large-scale farms even after their privatisation, mostly through rental arrangements, but also through capital investments.

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<sup>7</sup> Today, Estonia has implemented a second type of right of first refusal procedure. Those who have leased government-mediated land for over ten years have the right to buy it. Based on my field studies, this act has greatly increased the concentration of land ownership, but it has only gained significance in the past few years.

According to my field interviews, Estonian large-scale farms for a long time observed a basic rule according to which the maximum rent the lessee was liable to pay to the lessor or owner was an amount equal to the land tax attributable to the land, and this practice is still common today. These agreements were usually verbal, and quite often just an unofficial continuation of the practice that started before restitution when the state made the lands available to the large-scale farms. And only the most advanced family and large-scale farms appear to have put their contracts in writing in any systematic way.<sup>8</sup> EU membership and the consequent compensation paid for uncultivated land has aroused the interest of landowners and pushed up the price of land in all Baltic countries. Of course, some land was being bought and sold in the Baltic countries, but the features described above were characteristic of the land market.<sup>9</sup>

Besides the strength of property rights, the development of the land market is also influenced by other factors, in particular the lack of solvent demand. In the Baltic countries the lack of demand was influenced by the same factors that Wegren (2005, 139–140) and Patsiorkovsky et al. (2005, 13) identified in Russia: the plentiful supply of agricultural land, the poverty of the population and demographics (ageing population and shrinking of households), as well as the declining interest in private plot farming thanks to the improving economies of these countries. Still, the absence of the physical parcelling up of Russian collective farms denotes that, in principle, all Baltic countries have stronger property rights than Russia.

Financing the production and the acquisition of the means of production have been much more difficult than acquiring land. Before EU financing became available in the Baltic countries in the early 2000s, their agricultural finance systems were inadequate, just as the Russian agricultural finance system was and still is (Wegren, 2005).

On the basis of the foregoing, the question of property rights can be condensed as follows: If we also take the company's form organisation of the re-organised successors of the collective farms into consideration,<sup>10</sup> Lithuanian shareholders had the strongest property rights. Although the property rights of the people who owned shares in the re-organised large-scale enterprises (mainly joint-stock companies) in Latvia and Estonia were not any stronger than in Russia, Estonian and Latvian property rights can be considered strong because of their much stronger land ownership rights compared to Russia. The distinction between very strong, strong and weak property rights in this article is only<sup>11</sup> made from the standpoint of the paper share theory.

## 6. Empirical Evidence

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<sup>8</sup> These rental agreements are often valid until further notice and include a contractual right of first refusal or a termination clause.

<sup>9</sup> In the Baltic countries, the sale of land for non-agricultural purposes was not restricted as in Russia. However, land valuable enough for financing agricultural investments was for a long time only available in very few geographic areas (mainly capital regions).

<sup>10</sup> All new corporative enterprises were partnerships (a variation of limited liability companies). For more information, on forms of organisation, see Lerman et al., 2004, 118.

<sup>11</sup> I do not, for instance, suggest that share property rights in Russia would be insecure.

First of all, I will compare the success of the agricultural reforms in all four countries in terms of labour productivity levels, then I will follow with an analysis of the results of the family farm project in the three Baltic countries mainly in terms of the structure of dairy farming.

### *6.1. Labor Productivity in Estonia, Latvia, Lithuania and Russia*

In spite of the reform, Russian agricultural production has seen a significant drop, but it is not the decline in production as such that distinguishes Russia from other countries. The decline in production can be simply attributed to such factors as the cessation of production in less fertile agricultural areas or the elimination of artificially boosted production (Ioffe and Nefedova, 2004). The decline was aggravated in both Russia and the Baltic countries by the collapse of the consumer demand of the population, the flood of subsidised foreign imports (triggered by the low competitiveness of the domestic food industry such as the dairies) and cuts in domestic subsidies. All of these factors were independent of agricultural enterprises, and they do not necessarily tell anything about the adaptability of agricultural enterprises to the market economy. In the Baltic countries the decline was augmented by the partial loss of the former Soviet markets within which they had been specialised in animal production with an emphasis on dairy production. In proportion to their population they had been producing about twice as much milk as the other Soviet republics (see Alanen, 2004, 15 & 275–276).

Labour productivity has declined in the majority of European post-socialist countries and it has remained at a lower level than during the Soviet era, while in the Czech Republic, Hungary, Slovakia and Estonia it has increased (see Rozelle and Swinnen, 2004, 411). The decline in labour productivity is a matter of more serious concern from the standpoint of evaluating the reform because it means that the productivity of the remaining enterprises still lags behind that of the Soviet farms. Also “the Soviet and market agriculture differed primarily by the productivity of labor power” (Lerman et al., 2004, 39). Even though labour productivity measurement has many limitations (see Rozelle and Swinnen, 2004, 411–412), its simplicity and unambiguity make it better suitable for describing the transformation of an agricultural system in the conditions of widespread subsistence farming and informal economy<sup>12</sup> than overall productivity, which, in principle, would be more comprehensive.

The comparison period is 1990–2000, when the Baltic countries did not yet receive any financial support from the EU, did not impose import restrictions and did not have the strong agricultural support institutions (such as a functional finance system) later required for EU membership. Figure 1 allows us to compare the development of labour productivity in Russia and the Baltic countries. The figure uses 1990 as an index base (1990 = 100), which is why labour productivity appears to increase when agricultural production decreases at a slower rate than productivity, and vice versa. (I would also like to point out that differences between the countries appear to have developed

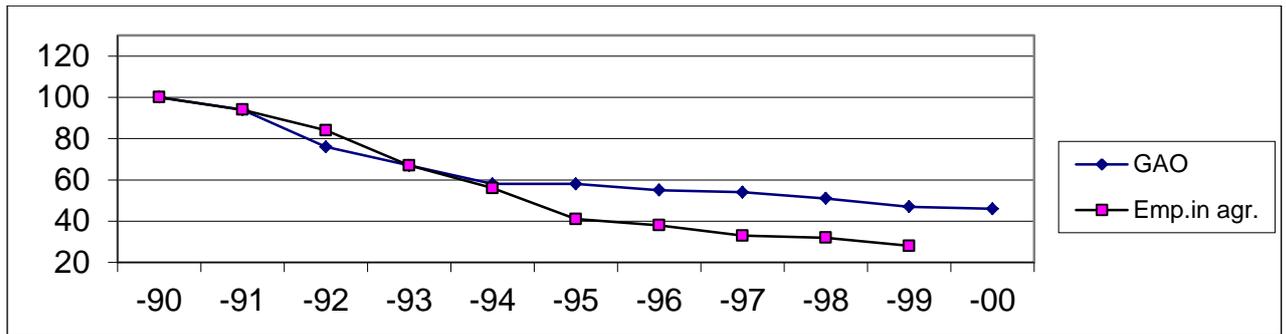
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<sup>12</sup> I have shown that for these reasons the calculations of Lerman et al. (2003) (on which also Rozelle and Swinnen base their conclusions) are, at least in the case of Lithuania, completely unrealistic (see Alanen, 2004).

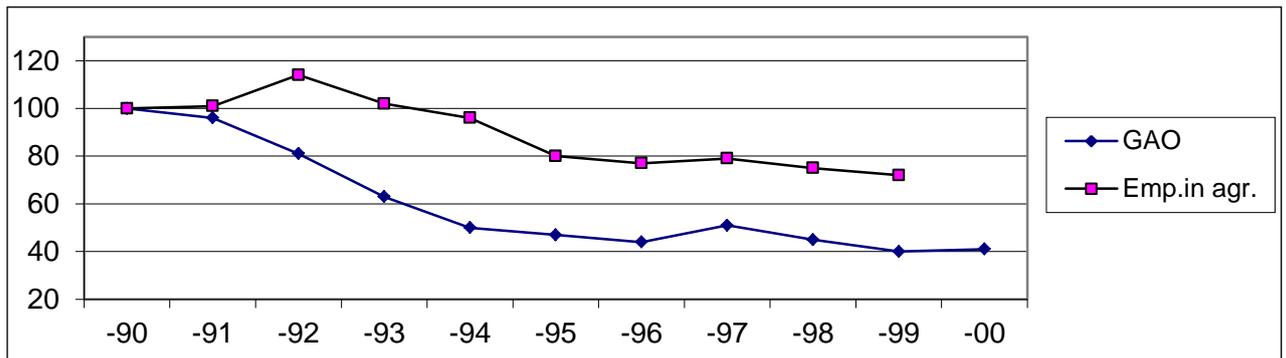
independent of such macroeconomic factors as GDP, inflation or PSE<sup>13</sup> (see OECD, 2002, 77–79, 132,135, 138 & 144).

**Figure 1. Development of Gross Agricultural Output (GAO) and the Number of Employees in Agriculture in 1990–2000 in Estonia, Latvia, Lithuania and Russia**

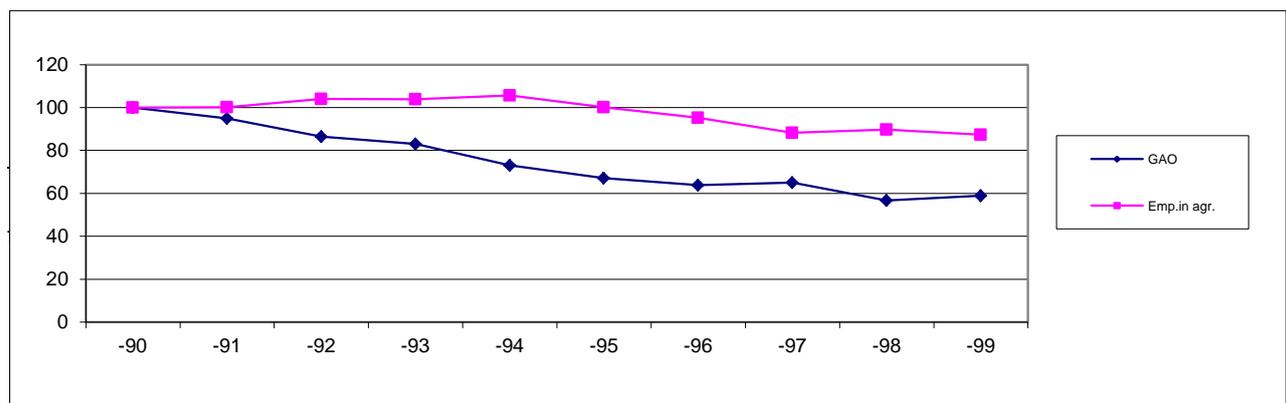
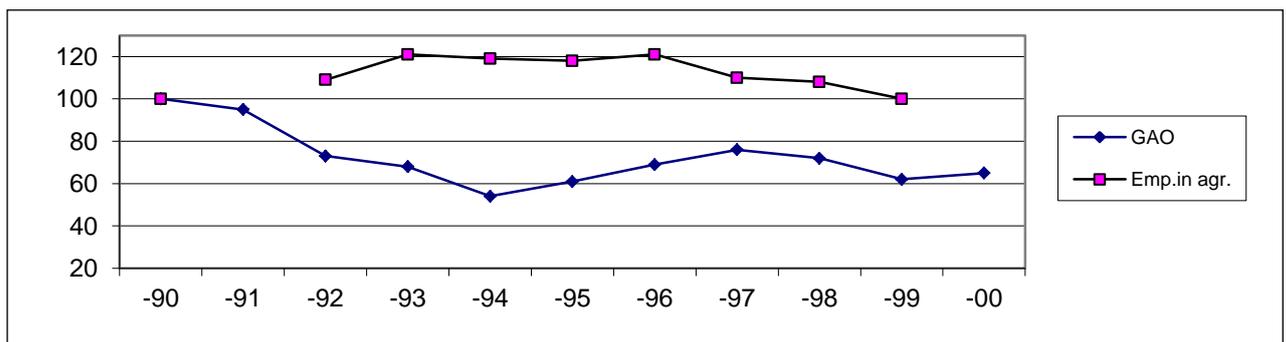
A. Estonia



B. Latvia



C. Lithuania



## D. Russia

Source: Lerman (2001), Statistical Database of Transition Countries, <http://departments.agri.huji.ac.il/economics/lerman-database.html>, 10 May 2006.

From these diagrams, we can draw the following conclusions:

1) Estonia was the only country where labour productivity increased as a result of the reform. In all the other countries it decreased and remained significantly below the level of the Soviet era until the late 1990s. The Estonian reform started slowly in 1991, the key reform year was 1993 and no unre-organised enterprises remained in 1994 (Alanen, 2004, 21). The diagrams above show that labour productivity began to increase immediately after the re-organisation. In other words, the decollectivisation of non-land agricultural assets in Estonia resulted in improved business productivity.

2) In Russian, the productivity of agricultural labour had decreased a little less than in Latvia and Lithuania<sup>14</sup> by the end of the 1990s. However, the decrease in Russia remained relatively constant until 1995–1996, after which productivity showed a slight increase. The decrease in productivity appears to have accelerated only slightly during the re-organisation (1992–1996) of Soviet farms. Whereas in Latvia and Lithuania, the radical negative changes in labour productivity took place over a period of a couple of years after 1991, after which the situation improved somewhat. Also in Latvia and Lithuania the upheavals in productivity coincided with the culmination of the decollectivisation of non-land assets, which occurred in these countries about 1–1.5 years earlier than in Estonia (Alanen, 2004, 20–21). Also the restitution of land was carried out very rapidly in Latvia, and in Lithuania it got off to a good start, even though it later slowed down. In both countries, or maybe just a shade more in Latvia, the speed and synergy of the privatisation process were, on the whole, closest to the ideal proposed by the World Bank and its researchers. In Estonia both the decollectivisation of non-land assets and restitution were stalled in the divided parliament. The process was not only delayed, but it also had less synergy. As a result, the restitution process was not truly initiated until after 1994 and it remained rather sluggish until 1997, when the pace started to pick up (Alanen, 2004, 19-23).

In summary, the labour productivity data from the Baltic countries yields results that are more or less opposite to the predictions of the World Bank and its researchers (for more details, see Alanen, 2004).

3) From the standpoint of labour productivity, the country that faced the greatest problems in the early years was Lithuania, even though their re-organised large-scale enterprises satisfied most World Bank recommendations. Instead of joint-stock companies or co-operatives, the Lithuanians established limited liability companies, i.e. partnerships, where the shareholders are in a particularly strong position in relation to the company. In addition to Lithuania, I have also interviewed partnership shareholders in Estonia. The progression described above was observed in both countries. The only difference is that in Estonia (and Latvia) partnerships only constituted a small part of the successors of collective farms.

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<sup>14</sup> Besides statistical errors, small differences in statistics can also be explained by different statistical practices.

The strong property rights of the shareholders left farm managers effectively unable to develop the activities of their large-scale farms in a commercially viable manner, and unable support households, e.g., by continuing to provide subsistence farms with machinery contracting and other services in keeping with the Soviet tradition. Even more fatal was the fact that shareholders – i.e. not only family or household plot farmers, but also others, such as the numerous pensioners – could ruin the technical foundation of the enterprise by redeeming their share. One or two people may not pose a problem as such, but they could trigger a chain reaction: While the tangible-asset base of the large-scale farm continued to be eroded, those who did not redeem their share at the very beginning grew rightfully concerned over receiving very little or worthless assets later, if anything. Once this process was underway, it was not uncommon that the Annual General Meeting decided was it best to shut the company down and divide the assets between the members when it was still possible distribute them among the shareholders in relatively fair and orderly manner. Another detail that has been considered a problem was the centralised nature of the Lithuanian restructuring process, because this often involved ignoring local expertise (see Alanen, 2004). However, after conducting further field interviews I have come to the conclusion that this factor just seemed important because the state officials made their re-organisation work in close co-operation with the local people.

Also Russian large-scale farms provided support to the private plot farms of their employees – depending on the farm and area – and some scholars have, based on case studies, drawn the conclusion that also in Russia the impact of household plot farmers on the development (labour productivity) of large-scale farms as shareholders has been largely negative (Amelina, 2000). However, according to a more comprehensive study, this support had dwindled to next to nothing by 2001 (Wegren, 2005, 185). Therefore, in Russia the negative impact of household farmer shareholders (analogous to Lithuania) has not been systematic, but at most a temporary phenomenon, although there were obvious local differences.

In summary, labour productivity in Russia certainly was not any lower than that of Latvia or Lithuania, and only Estonia was able to improve its agricultural labour productivity. How can we explain these differences in labour productivity? Can the differences between Baltic countries be explained by the different farm structures or company types?

### *6.2. The Adaptability of Different Dairy Farm Types to the Market Economy*

In order to gain a more concrete understanding of the process, I will next compare Baltic labour productivity data with dairy herd sizes and data on the distribution of dairy herds on different types of farms collected through agricultural censuses and surveys. This is due to four reasons. First, all Baltic countries were highly specialised in dairy farming during the Soviet era. As the OECD report (2002, 19) puts it, “the dairy industry continues to be the backbone of the agro-food sector in the three Baltic countries.” Therefore, the overall success of the decollectivisation can be reasonably judged based on the structure of dairy farming. Second, cattle could be easily transferred from one farm to another, and their redistribution to any number of small farms was not as big a problem as was the redistribution of most machines and

buildings. Third, herd size allows you to determine whether the farm is a household plot farm, a more developed family farm or a large-scale farm (with wage-labour). Even today, most family farmers in the Baltic countries find it hard to manage 30 dairy cows with family labour. A collective farm cowshed typically housed 50–80 cows, and they were looked after by 5–10 people. Private plots (household farms) on a former Soviet farm usually had a single cow or none at all, but their old cowshed (which often dated from the pre-collectivisation days) often had room for a few more. However, the size, condition and equipment of the cowshed set clear limits to the expansion of the cattle herd: you could not have a technologically advanced family farm, or a cattle of over 10 heads, in most of these cowsheds (for more details, see Alanen 2004, 40–41).

For the purpose of this analysis, I have grouped the farms in categories based on the number of dairy cows. I believe these categories best correspond to those typical socioeconomic characteristics that allow us to define both the starting point and the end result, even though all of the farms in each category might not fully meet the specified characteristics.<sup>15</sup> The category characterisations are based on the interviews and observations I have made in the countries themselves, as well as on published agricultural census data, which include, e.g., cross-tabulations between herd size categories and, e.g., cultivated area, mechanisation and production buildings, but unfortunately the same cross-tabulations have not been performed in all countries.

*Household plot farms with 1–2 heads (on average 1.3–1.4 heads).*

Household plot farms are the true heirs of the Soviet tradition. However, they are no longer supported by the large-scale farm to the extent they used to be, and most of the production is primarily destined for home consumption, even though a proportion of the crop may be sold to the neighbours. In Estonia they had difficulties in selling milk to the dairies (and public institutions, such as schools and restaurants). However, in Latvia and Lithuania the dairies always accepted the milk supplied by household plot farmers. The economic size of the farm is very small, although the farm may include several hectares of land received under restitution. These restituted fields often remain uncultivated or they have been rented out, and any cultivation by the family is primarily aimed at home consumption and cattle fodder. In addition to dairy cows, household plot farms also often have other animals that are kept for the same purposes. Production is carried out mainly with hand tools in the same old buildings as in the Soviet era, and the farmers are mostly old people (pensioners). Many farms in Latvia, and especially in Lithuania, have gone back to a horse-drawn economy. Due to the small cattle herd size, it is likely that a larger proportion of plot farm households earn the main share of their income outside agriculture than of the farm households in the next category.

*Traditional small-holdings with 3–10 heads (on average 4–5 heads).*

In the same way as above, small-holdings practice a mixed economy of animal husbandry and crop production. They are, in a manner of speaking, an extended and commercialised version of the household plot farm, and the

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<sup>15</sup> For instance, on a modern farm specialised in arable farming may only have one cow, which is why it will be wrongly classified in the household plot farm category. However, based on my interviews most of the farms fit nicely in the categories provided.

households receive their primary income from it. These types of farms were often made possible by the existence of an old family cowshed dating from the pre-decollectivisation period (and the pre-machanisation period).<sup>16</sup> This farm type was mainly created as a result of land restitution. Very few of these holdings have modern cowsheds, production is mostly done by hand and they only provide a modest return. Estonian small-holdings have had great difficulties in selling their milk to the dairies, which is why they have taken to selling the milk directly to their neighbours or collecting it themselves from a number of farms for delivery to the dairy. There are no such marketing problems in Lithuania and Latvia, since there are relatively few modern dairy farms. For small-scale dairy farming, Lithuania has established a nationwide system in which the milk is collected from all farms in common bulk tanks. The milk quality is often poor on household plot farms, and, as a result, prices low. Dairy farming is very labour intensive, so it is difficult to receive a regular income from outside the farm. Due to marketing problems, hard work, ill health, ageing, etc. many small-holdings have adapted their cattle to fit mainly the needs of home consumption. Since the EU Common Agricultural Policy includes special schemes for transforming subsistence farming to commercial agriculture, a small percentage of the households in this category will be able to move to the next size category.

Household plot farms and traditional small-holdings can be grouped under the collective title of *traditional small-scale dairy farms*. The following farm size category, *family farms*, can be divided in two sub-categories: *traditional family farms with 10–29 heads* and *modern family farms with 30–49 heads*.

On *traditional family farms*, the average number of cows was 13–15. Herds of this size can no longer be managed by hand in the old Soviet tradition, but the degree of mechanisations varies greatly from farm to farm. These farms typically have a fair sized (5–10 head) cowshed inherited from the days of the first independence, which may have been expanded and modernised to varying degrees. Some have taken over the cowshed of the former collective farm, while a few others have a modern cowshed built with substantial government support in the early 1990s. There is plenty of machinery for crop farming, but the mechanisation often has huge gaps that are filled by contracting services.

Farms in the next sub-category, *modern family farms*, usually have 30–49 heads, and most of them are still today small capitalist enterprises that typically employ a minimum of one full-time outside employee. With the help of modern technology these farms could well be managed entirely by family labour. This is why the EU considers dairy cattle herds with 30–60 heads the ideal size for family farms (Stanikunas et al., 2004, 187), and in addition to the fact that natural development can be

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<sup>16</sup> The Latvian agricultural census shows that 43% of all cattle sheds dated from the pre-1940 period, i.e. from the days of the first independence of the Baltic countries (Results of the 2001 Agricultural Census in Latvia, 2003, 283–285). Similar observations were made on my various field visits to Estonia and Lithuania (see Alanen, 2004, 40–41). The age of the cattle sheds also explains why they had room for several dairy cows – even though they were only allowed to keep one cow during the Soviet era. Other farm animals, such as bull calves and pigs, were allowed during the Soviet era, but it was these somewhat larger cattle sheds inherited from the days of the first independence that facilitated the expansion of traditional household plot farms to traditional small holdings.

expected to go in this direction, this development is also encouraged by government policy and funding. In Estonia, land areas not subject to restitution claims or where the original landowner has been compensated in cash have been allocated for this purpose. Still in the late 1990s the majority of Latvian and Lithuanian farms in this herd size category were corporative farms, and they still are in Lithuania. Earlier data for Estonia is unavailable, but today corporative farms only constitute the majority in the herd size category of farms with over 100 heads in Latvia and Estonia (Agricultural Farms in Latvia 1996, 1997, 46; Agricultural farms, 2001, 58; Statistical Yearbook of Lithuania 2002, 2003, 395–396; Agricultural Census 2001, I, 2002, 109).

The *successor enterprises* that continue the tradition of the Soviet farm technology units, albeit on a much smaller scale than the large Soviet farms that were specialised in dairy farming, can be divided in two groups: *dairy farms with 50–99 heads* (on average 70 heads) approximately the size of a *single large* (or two smaller) *Soviet cowshed(s)* and *very large cowshed complexes with 100–299 heads* (on average 170–180 heads) comprising several (2–6) buildings. And since they do not have as many heads of dairy cattle as the highly specialised Soviet farms, they should, according to World Bank estimates, be more agile in their adaptation to the market economy.

Despite the technology's origins, the *single Soviet cowshed* size category contains an approximately equal number of corporative and individual farms. The greater adaptability should, according to World Bank estimates, be evident in the share of individual farms compared to the other large-scale enterprises in the same size category, since the largest size categories are almost exclusively (small complexes) or exclusively comprised of corporative farms.

*Very large cowshed complexes* (with 5–10 or more cowsheds) *often have more than 300 heads* (in Estonia the average size was about 550 heads and in Latvia and Lithuania over 450 heads). They are the closest successors of the large-scale dairy cattle farms of the Soviet era, which is why their adaptability should be the lowest.

### 6.3. Analysis of Cattle Type Classes

Table 1 shows the distribution of cattle and cows based on herd size. The comparison is only slightly compromised by the fact that the Lithuanian agricultural census was conducted one and half years after the Estonian and Latvian censuses. Table 1 shows three clear tendencies: a) the very large number of household farms and the strong continuity of the Soviet household farming tradition in a new form in all the three countries; b) the high degree of concentration of dairy production in Estonia; and c) the great difficulty of building a family farm system in place of large-scale production in Latvia and, as the following tables will show, particularly in Lithuania.

**Table 1. Shares (%) of Dairy Herds and Heads in the Baltic Countries by Size Category**

Year	Estonia (1)			Latvia (2)			Lithuania (3)		
	2001 Herds	2001 Heads	Heads/ herd	2001 Herds	2001 Heads	Heads/ herd	2003 Herds	2003 Heads	Heads/ herd
Size cat	%	%		%	%		%	%	
1–2	74.9	13.0	1.3	78.6	40.5	1.3	78.0	44.5	1.3
3–9	18.0	11.5	4.6	19.1	30.8	4.5	20.4	36.0	4.1

10–29	4.5	9.7	15.0	1.8	10.2	15.0	1.4	7.9	13.0
30–49	0.7	3.5	37.0	0.2	2.6	37.0	0.1	1.6	37.0
50–99	0.6	6.0	70.0	0.1	3.2	68.0	0.1	1.6	67.0
100–299	1.3	24.0	172.0	0.1	6.5	179.0	0.1	3.7	182.0
300–	0.1	32.4	555.0	0.1	6.2	455.0	0.0	4.7	473.0
Total (%)	100.1	100.1	-	100.0	100.0	-	100.1	100.0	-
Total (N)	17,775	128,258	7.2	73,888	193,408	2.6	193,413	451,100	2.3

Sources: (1) Agricultural Census 2001, I, 2002, 109; (2) Results of the 2001 Agricultural Census in Latvia, 2003, 224; (3) Number of Livestock and Poultry, 2004, 77.

First, let us focus on *a) the large number of household farms*. In all three countries, dairy farming is characterised by the numerical dominance of very small herds of 1–2 heads in which household plot farms have a 75–78% share. According to agricultural censuses traditional household plot farms make up up to 93–98% of all dairy herds (see Table 1). Such modest dairy production as this cannot alone provide a sufficient livelihood (above the poverty line). This question is closely linked to the poverty problem and it is also indirectly admitted in the OECD assessment. According to the assessment: “The employed populations in Latvia and Lithuania include large numbers of subsistence farmers, most of whom contribute only marginally to GDP and cannot pay taxes or social insurance contributions at normal rates” (OECD, 2003, 8; for a more comprehensive analysis, see Alanen, 2004, 48–50). On the developments after the agricultural census, we have got data from Estonia and Latvia. In Estonia the shares of the two smallest herd size categories fell by over 50% over a period of four and a half years (Table 2). This was also the case in Latvia (Table 3), where their shares decreased by over 25% in just three and a half years. For Latvia, we also have herd size data for the years preceding the agricultural census (Table 4) indicating that the decrease of household farms had already started a few years earlier. In all likelihood, a similar development also took place in Estonia because, in both countries, the total number of cows on all individual farms reached its peak on the year immediately following the decollectivisation (in Latvia this was in 1993 and in Estonia in 1994) and began to decline the next year (Alanen, 2004, 275).

Lithuania had adopted the partnership system. There the number of cows on all individual farms grew until 1998 (Alanen, 2004, 276), which is much longer than in Estonia or Latvia. From 1997 onwards we also have size category-specific data (Table 5) on the development of herd sizes. For comparison, I have divided the period preceding the agricultural censuses in two distinct parts. The period prior to 2001 and the period between 2001 and 2003 (when the EU financial support for the development of institutions and farm structure was already beginning to take effect). In Lithuania the number of small cattle herds declined during the first period, but the number of herds in the 3–9 head size category dwindled even more dramatically. As a result, dairy production became increasingly dominated by small-scale farms: the average number of heads of cattle on a Lithuanian farm dropped from 2.4 to 2.1. Since the number of partnerships also declined rapidly during this period,<sup>17</sup> I wonder if the transformation household plot farms into traditional small holdings had been partly dependent on the machinery and other services provided by the partnerships?

<sup>17</sup> Statistical Yearbook of Lithuania 2002 (2003), 398.

During the EU accession period (2001 onwards), there was a turn, but the average farm size in 2003 remained smaller than in 1998.

The transformation experienced by the Baltic countries cannot be described as a transition to a modern system, but rather as the adaptation of Soviet era household plot production to conditions where the shortage of arable land has been replaced by the shortage of modern technology, especially now that they no longer receive the support previously provided by the Soviet farm. The Lithuanian situation and special difficulties are aptly illustrated by the fact that the larger small-scale farm category dwindled faster than the very smallest size category, which may indicate that they had an even greater shortage of machinery and technology than their neighbours.

Next, I will analyse the *b) high degree of concentration of dairy production in Estonia*. If we shift our focus from cattle herds to the number of dairy cows (Table 1), we see that Estonia – even though it shares the large number of small cattle herds characteristic of all Baltic countries – differs substantially from its neighbours in that the Estonian cattle population was concentrated on farms based on Soviet cowsheds. These cowsheds held 62.4% of all cows in Estonia, 15.9% of all cows in Latvia and 10% of all cows in Lithuania. The extent of large-scale production is a better explanation than any other factor for the differences in average herd size between the countries. While the average herd size in Estonia was already 7.2 heads in 2001, in Latvia it was 2.3 and in Lithuania 2.1 (Tables 2–5). In terms of total dairy production, the small cattle herds play a relatively marginal role (24.5% of all cows) in Estonia, while in Latvia and Lithuania they must be taken seriously (70–80% of all cows). This explains why Estonian dairies do not have to take their milk, which is often of poor quality and would entail high collection costs, while Latvian and Lithuanian dairies would not be able to operate without the milk produced by small farms.

Overall, Estonia was able to preserve the technology units of the Soviet era better than its neighbours, and this, more than anything else, explains the growth of total agricultural productivity in Estonia.

But what about the vitality of these very large cowshed complexes, did it fade away or grow stronger? In Estonia (Table 2), the number of cows only increased in the larger cowshed complexes, which, however, may be partly due to the ability of some smaller cowshed complexes to increase their cattle size to such a degree that they moved up to the next-highest size category in the statistics. This is further proof against the World Bank thesis that the smallest corporative and individual farms would be better in adapting to the market economy than them. The absolute growths in the number of cows kept by very large cowshed complexes in Estonia (Table 2) and Latvia (Table 3) are in the same league. However, the countries differ in one thing: in Latvia the number of “single Soviet cowshed-sized” farms increased, while in Estonia their numbers dwindled.<sup>18</sup> What happened in Estonia was against the estimations of the World Bank, which had stressed the economic benefits of smaller size large-scale farms and individual ownership (as I have remarked above, half of this group were individual farms also in Estonia).

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<sup>18</sup> Since the number of smaller cowshed complexes does not grow, the decrease is not explained by this factor.



Year Size category	2004			Change from 2001		
	Share	in shares	in numbers	Share	in shares	in numbers
1-2	77.9	-0.7	-17.9	34.0	-6.5	-19.5
3-9	18.3	-0.8	-20.7	27.2	-3.6	-15.5
10-29	3.0	+1.2	+35.2	15.0	+4.8	+40.3
30-49	0.4	+0.2	+67.7	4.4	+1.8	+66.1
50-99	0.2	+0.1	+67.0	5.4	+2.2	+66.0
100-299	0.1	+0.0	+2.7	7.4	+0.9	+7.9
300-	0.1	+0.0	+0.0	6.6	+3.3	+8.2
Total (%)	100.0	-	-	100.0	-	-
Total (N)	61,293	-	-17.1	185,224	-	-4.8

On 31 December 2004 the average herd size was 3.0. Compared with the 2.6 head average of 1 July 2001 the average number of cows in a cattle herd increased by 15.4%.

Sources: Results of the 2001 Agricultural Census in Latvia, 2003, 224; Agricultural Farms in Latvia 2004, 2005, 27-28.

**Table 4. Changes in the Share of Dairy Herds and Heads in Latvia by Size Category on 1 January 1997 and the Changes from 1 July 2001 (%)**

Year Size category	Cattle herds			Cow heads		
	1997 Share	Change to 2001		1997 Share	Change to 2001	
Heads		in shares	in numbers		in shares	in numbers
1-2	81.3	-2.7	-28.9	47.6	-7.1	-40.1
3-9	17.8	-1.3	-31.6	29.2	+1.6	-25.7
10-29	0.6	+1.2	+84.3	3.7	+6.5	+94.6
30-49	0.1	-0.4	+197.8	0.9	+1.7	+106.7
50-99	0.1	-0.0	-25.3	5.4	-2.2	-12.6
100-299	0.1	-0.0	-33.3	3.5	+2.0	-27.2
300-	0.1	-0.0	-54.9	9.7	-3.5	-54.9
Total (%)	100.1	-	-	100.0		
Total (N)	116,723		-36.7	274,554		-29.6

On 1 January 1997 the average herd size was 2.3. Compared with the 2.6 head average of 1 July 2001 the average number of cows in a cattle herd increased by 13.0%.

Sources: Results of the 2001 Agricultural Census in Latvia, 2003, 224; Agricultural Farms in Latvia 1996, 1997, 46.

**Table 5. Changes in the Share of Dairy Herds in Lithuania by Size Category (%)**

Years Size category	1998			2001		
	Share	Change to 2001		Share	Change to 2003	
Heads		in shares	in numbers		in shares	in numbers
1-2	82.6	+1.4	-12.4	84.0	-6.0	-14.0
3-9	17.0	-1.2	-21.8	15.8	+4.6	-22.7
10-29	0.2	-0.1	+70.8	0.1	+1.3	+151.6
30-49	0.0	+0.1	+52.5	0.1	+0.0	+111.8
50-99	0.1	-0.1	-45.8	0.0	+0.1	-71.9
100-299	0.1	0.0	-52.0	0.0	-0.0	-4.1
300-	0.0	-0.0	-39.3	0.0	-0.0	+18.4
Total (%)	100.0	-		100.0		
Total (N)	242,334		-13.8	274,554		-7.4

Source: Statistical Yearbook of Lithuania 2002, 2003, 395-396.

Third, I will focus on *c) the difficulty of building a family farm system.*

World Bank researchers assumed that “by specializing in high-value and labor-intensive products, the individual sector could follow low-input farming practices, particularly avoiding reliance on machinery and equipment” (Ibid., 1015). Indeed, the early 1990s looked promising because that was the time when small-scale producers in all the Baltic countries, including former household plot farmers, specialised in dairy production (Alanen, 2004, 278–279). Thus, they appeared to be replicating the strategy used by small farmers in the northern parts of Europe and America since the late 1800s (Hussain and Tribe, 1981), i.e. overcoming the diseconomies of scale associated with small-scale production by specialisation. Still, far too many small-scale cattle farmers were unable to specialise and expand their business into a family farm.

Tables 2, 4 and 5 do show that the development of household plot farms even to the size of traditional small-holdings has been very difficult in both Latvia and Lithuania. The tables also reveal a small but indicative difference between the countries: in Latvia the share of household plot farms starts to decline already in the late 1990s at the same time as the share of traditional small holdings increases. While in Lithuania, the trends are quite the opposite. I wonder if this is indicative of problems with the partnership system recommended by the World Bank?

Despite all these challenges, Latvian farmers and, to a somewhat lesser degree, Lithuanian farmers, managed to create a modern family farm sector, and, surprisingly, family farms were as widespread in Estonia as in Latvia, even though Estonia boasts strong large-scale production that is largely based on old Soviet structures (see Table 1). If we add traditional family farms and modern family farms (farms that meet the EU size criteria) together, we will see that 13.2% of all Estonian cows, 12.8% of Latvian cows and, slightly less, 9.3% of Lithuanian cows were on these farms. These figures also strengthen the conclusions that the number of family farms cannot explain the great difference in total agricultural productivity in favour of Estonia (Figure 1).

The number of small herds in Estonia had more than halved over the four and a half years following the agricultural census (Table 2), and, interestingly, the number of herds on traditional family farms had also decreased by more than 25% (even though the relative share of this farm category is on the increase). Could it be that traditional family farms (Table 2) have difficulties in maintaining competitive production that would also provide a decent living in a market dominated by corporative farms?

It is also worth mentioning that, according to my field interviews, the large corporative farms also benefit from their dominating market position and get a higher price for their milk (even considering the higher quality of the milk produced on Estonia’s corporative farms), and that the largest milk producers often join forces for price negotiations with the dairies as well as to maximise their purchasing power (machinery, cattle feed, etc.).

In Latvia (Tables 3 and 4), where labour productivity (and milk yield per cow) are lower than in Estonia, the number of traditional family farms has increased steadily both before and after the agricultural census, and also in Lithuania their number has been growing bit by bit (Table 5).

One thing in common with all the three countries is the gradual strengthening of the modern family farm category. However, the share of this

category in the total milk production remains small, and in Lithuania almost non-existent (1.6% of the cow population, see Table 1).

It is difficult to draw final conclusions about the future prospects of this farm category, but there is good reason to remind ourselves that the agricultural policy of the Estonian government has supported the expansion of the land base of modern family farms and corporative farms as mentioned earlier, and that projects aiming at the creation of family farms have been executed in all Baltic countries during the EU membership. EU has, for example, assisted small farms in the transformation from subsistence-oriented production to commercial farming. Despite these efforts, the share of modern family farms in the total number of cows in Estonia (Table 2) has not risen above 5.1%.

#### *6.4. Path Dependency in Baltic Agriculture*

If we compare family farms with the two categories that are the contemporary successors of the Soviet system, i.e. small cattles herds (in household plot farms and small holdings) that carry on the household plot tradition and large farms that make use of the technology units of the former Soviet cowshed complexes, the total number of cows on both types of family farms still lags behind both of these categories despite the ambitious aims of the family farm project. However, in Lithuania they are only slightly behind large-scale farms. The importance of the cowshed as the basis of this three-way division is essential, since both the owners of small herds operating on the basis of the household plot farming tradition and the large-scale farmers operating on the basis of the cowsheds of the collective farm have only developed their production within the framework of their cowsheds: by repairing, mechanising and expanding the existing cowsheds. The threshold for building new cowsheds (see Alanen, 2004, 40–43) has constituted a virtually insuperable barrier for farms large and small. For small farms, such an investment would have been utterly overwhelming, and for larger farms as well, only the first years of EU membership have created the necessary preconditions for the construction of all new cowshed buildings. Before that, mainly only the peasant farms, which had received assistance at the end of the Soviet era and the very beginning of the period of independence had new cowsheds. When the cowshed complex technology units were allowed to collapse – such as happened in Latvia and Lithuania to a far greater extent than in Estonia, family farms were unable to replace them due to insufficient funding (and most probably also due to lack of a family farming tradition). The case of Estonia shows that the creation of family farms may well ultimately have been largely independent of the preservation of large-scale farms since the greater amount of resources released from large-scale farms in Latvia or Lithuania did not help these countries take family farming to any higher level than Estonia. The continuity of family farms was also different from the above because most of the strongest family farms had already been established at the end of the Soviet era and the beginning of the period of independence before the privatisation of the Soviet farms – with the help of generous financial support from the large-scale farms of that time and the government.

This is why small herds still prevail in Latvia and even more in Lithuania, and the share of family and corporative farms of total production is

growing at a very slow pace in both of these countries. This is indicative of the failure of the World Bank strategy in these countries, and the outstanding failure of Lithuania that followed the guidelines most closely.

The harsher stress provoked by the Lithuanian reform policy on the country's entire agricultural system compared to its Baltic neighbours is aptly described by the development of the milk yield per cow – a good indicator that directly reflects all kinds of issues related to animal food and care. I have earlier shown that it was Lithuania that experienced the deepest and longest decline in milk yield per cow in the 1990s, which affected both individual and large-scale farms, as well as family and household plot farms (Alanen, 2004, 34–36).

The core of the failure of the strategy recommended by the the World Bank (and other international organisations) lies in the underestimation or outright elimination of the developmental potential – both material and social – of the large-scale technological production tradition established during the Soviet era.

This does not only refer to that part of the technical and social heritage (education, practical skills) directly related to formal institutions (enterprises and their technology units, educational establishments, research institutions) and infrastructure (road and utility networks, irrigation systems, etc.), but also to the informal institutions (such as models of collaboration, division of labour and understanding) in which the formal institutions are embedded, as emphasised in institutional economics (see North, 1997). This is why history cannot be avoided – not even with the radical doctrines prescribed by the World Bank. Even though Lithuania was the most diligent adherent to the neo-liberal doctrines of the countries currently under comparison, the Lithuanian government was not able to transform the household plot farming tradition of the Soviet era into family farming. Instead, household plot farming has remained remarkably tenacious in Lithuania. In addition to the deterioration and disappearance of the large-scale farming system in Lithuania, this decision also led to the worst gridlock of the family farming project in the Baltic countries.

And conversely, it can be said that family farming in these countries lacked a tradition where family members would have been socialised on their home farms to a number of technical and commercial family farming skills and division of labour well before the establishment of the farm. Furthermore, the farms lacked supporting association activities (farmers' cultural associations), deep-rooted interest groups, parties and co-operative organisations. These kinds of informal institutions (and co-operative formal institutions based on them) cannot be imposed from the top to the bottom, but they must be allowed to develop (Granberg and Nikula, 2006). At the theoretical level, this is a case of the asynchronicity of the various sub-systems of social development as described by, e.g., Parsons (1966, 21–29). Ralf Dahrendorf took the asynchronicity of the various sub-systems of social life as his starting point when he formulated a strategy for the transition policies of post-socialist countries as early as in 1990, and this strategy can still be understood as an alternative to the neo-liberal shock therapy currently practiced. Dahrendorf (1990, 77, 81, 92–93) argued polemically that the economic reform can be completed in six years, while the development of the civil society (and the development of adequate cognitive models and lifestyles) can take up to 60

years. Even though older people in the Baltic countries had some experience in family farming, this experience was a product of horse-powered agriculture, making it more of a detriment than benefit for these old people as they took up farming or advised their children in farming. My interviews indicated that the conservatism of the traditional peasant culture in particular prevented the new farm owners from taking effective advantage of the opportunities presented by the transition phase.

Since the family farms lacked the support of governmental and/or government-regulated institutions, especially finance, education and counselling system, from the start of the decollectivisation phase all the way up to the EU era, it is no wonder that the development of family farming was slow. Indeed, the best family farms had been already established at the time of the establishment of peasant farms well before the decollectivisation phase. The best peasant farms were able to gain strength and independence with the support of the government and large-scale farms, and they were often established by the managers and specialists of the Soviet farms instead of true representatives of the peasant tradition.

This is why family farming in Latvia and Lithuania did not become stronger than in Estonia despite their stricter adherence to the World Bank recommendations (family farming in Lithuania fared the worst of the three). Still, the neo-liberal family farm reforms managed to destroy the greater part of the Latvian and Lithuanian large-scale production tradition. Paradoxically, the path dependency on the Soviet tradition is still seen in these countries in the role played by household plot farms and (traditional) small holdings that have evolved from plot farms as the most important producers of agricultural products – this applies, at least, to the field of dairy farming in which both these countries were specialised in the Soviet era.

If the Baltic governments had, instead of copying the family farm system, initiated innovative “rearrangements, reconfigurations, and recombinations” of the formal and informal institutions of the Soviet era as suggested in Stark and Bruszt’s (1987, 7) application of the path dependency concept, the chances of a successful reform in agriculture would have been considerably better. The decentralised nature and delayed implementation of the Estonian reform gave local-level agricultural actors a chance to learn from the successes and mistakes of their predecessors, and this structural opportunity for learning is considered one of the key determinants of development in Estonia (Aligica, 2003, 9–10). This is why Estonian large-scale farms did not only survive, but were able to re-organise themselves in connection with the reform in a way that alone among the countries under comparison led to the increase of labour productivity on the same dairy farming basis on which Estonia as well as Latvia and Lithuania had been specialised in the Soviet era. And according to my interviews, the best farms generally appear to be the ones that were not divided in lots – for which the shareholders would have bidden – at the beginning of the reform. On these best farms the employees became direct shareholders in an undivided agricultural enterprise, just like in Russia, with the exception that in the Baltic countries non-agricultural activities had been separated from agriculture during the reform (Alanen et al., 2003).

During the EU membership period, the issues of financing and counselling have been substantially resolved, but judging by the development

of farm structure, investment support and subsidised loans – as well as general price etc. subsidies – seemed to mostly benefit those who were already successful. Although also the EU is interested in strengthening family farms, data from Estonia – the most developed agricultural economy in the Baltics – shows that this support has further strengthened the corporative farms if anything. And dairy farming is no exception. Also the differences in yield per hectare have evolved for the benefit of corporative farms in the farming of both grain and industrial or fodder crops, as well as in fields traditionally dominated by small-scale production, such as potato cultivation (see Agriculture 2004, 2005). Although potato production in Estonia still is very much dominated by small farms, the much higher yields of corporative farms are indicative of the potential of mechanised large-scale production also in root crop and vegetable production. Since Estonia is the only country in the region that has managed to increase its agricultural labour productivity above the level achieved during the Soviet times, it would be reasonable to assume that it would lead the way for its neighbours. At the same time, the case of Estonia challenges the central idea of the World Bank strategy: that small-scale producers can evolve into modern family farmers “by specializing in high-value and labour-intensive products” and thus avoid “reliance on machinery and equipment,” as well as the idea that family farmers are more effective in adapting to the market economy than corporative farms, or that small corporative farms are more effective in adapting than large ones. The philosophical system behind the World Bank guidelines may well not apply to highly mechanised and modernised agriculture.

## **7. First Conclusions Regarding Russia: the Lithuanian and Latvian Models**

The negative conclusions in the case of Lithuanian are related to the very strong property rights of shareholders in its partnership system. Even though the Lithuanian government meticulously followed World Bank guidelines on the replacement of large-scale production with family farms, their policy did not create favourable conditions for the establishment of family farms, but it has complicated the management of large-scale farms, caused the chain-reaction-like depletion of its capital stock and ultimately, through the destruction of the large-scale technology units, also the loss of the social and material heritage of the Soviet economy.

In Lithuania the development of family farms has been even slower than in Estonia or Latvia. This may be somewhat explained by the automatic right granted to all rural families to receive 2–3 hectares of land around their house, but it is difficult to conceive that this could have set the basic direction for the whole reform. Therefore, if the Russian reform would have followed the Lithuanian model, I cannot think of any logical reason why the consequences of the in Russia would not have been analogous. Large-scale production would have been destroyed, but family farms would have been too weak, especially as they (very much like family farms in the Baltic countries) lacked the formal and informal institutions needed to support the establishment and development of family farms as well as the infrastructure required by small-scale agriculture. This is why most of the workers who would have lost their jobs on the large farms would have, just as in Lithuania, remained household plot farmers because the few pieces of

machinery and other non-land assets they would have received during the privatisation process would hardly have enabled them to cultivate the much larger acreage they would have received in land shares any better than Baltic agricultural employees were able to cultivate the lands they received mainly through restitution.

In all the Baltic countries, the comparison with Russia is somewhat difficult because in these countries the privatisation of land with the restitution method distinguished between the land reform process and non-land asset reform process much more sharply than in Russia. Anyway, in the case of Latvia, I have proposed that the radical haste and, paradoxically, the better synchronisation of these two processes may have made – against the World Bank’s shock therapy assumptions – preserving technology units even more difficult for the Latvians than it was for the Estonians, where the laws were almost identical, by increasing the number of family farm builders interested in non-land assets and competition between them) (Alanen, 2004, 25 & 46–47). From the standpoint of the present article, the matter can also be argued that the successful synchronisation and radical acceleration of land restitution and the decollectivisation of non-land-assets actually strengthened the property rights of land share holders, which has increased their willingness to break away from the farm. Therefore, the *de facto* stronger property rights have undermined the technology units of the large-scale farms, and at the same time they have also made it difficult to establish family farms in Latvia because the non-land-assets were scattered too widely among the beneficiaries. According to Epstein (2002, 187) the similar distribution of non-land-assets between all landowners was even done in a few rare cases in Russia under the supervision and control of research institutes. However, these resulted in a “substantial worsening of the social situation.” Epstein’s text remains only a passing reference (and inference) and, as such, does not constitute sufficient proof. It is, however, in keeping with the comparative conclusion I have drawn above about the development of family farms being largely independent of the relatively large differences between the countries in the process with which the large-scale farms in Estonia, Latvia and Lithuania were privatised. Therefore, the strengthening of land share rights would only lead to a shift towards the Latvian model.

Hence, any procedure that weakens the core of the Soviet farms, i.e. their technology units, would also weaken large-scale production, but would offer only minimal help to the family farms. In more concrete terms: only a small portion of the assets extracted from large-scale farms (such as cows) could be readily transferred to small farms, while transferring the main part (i.e. the cowsheds and their fixed technology, such as the feeding system) was impossible, or the assets were ill-suited (even the tractors were too big) or there were too few of them (tractors and combine harvester) considering the need and the farmers were not able to build the necessary machinery systems (a tractor needs ploughs, a trailer, etc.).

The ability to build the current family farms has *de facto* been dependent on quite other matters, such as the availability of machinery donated from abroad (old, but still but usable machines were donated by farmers in neighbouring countries to farmers in both Baltics and Russia, social networks (they could also play a decisive role in, e.g., the acquisition of donated machinery), businesslike ability to make use of the conditions of the

transition period to raise investment capital (including participation in the grey economy), the support of relative networks (machinery, help, expertise, connections to powerful people), etc.

## 8. Further Conclusions: the Estonian Model vs. the Russian Model

The case of Estonia demonstrates that Russia's low labour productivity is not due to large-scale production, very large corporative farms or corporative ownership as such, nor does the "syndrome of the labour-managed firm" automatically follow from employee ownership. Not even the Russian reform model – maintaining the enterprise as a whole instead of dividing it into parts – cannot explain the poor development, since the best Estonian large-scale enterprises of today have re-organised themselves using the same (Russian) model.

We will continue our analysis and present theoretical ideas about the possible causes of this later in this article, but let me emphasise once again that the property share rights in Estonia's re-organised corporative enterprises are not any stronger than in Russia.

The question why Estonian large-scale production was able to increase its productivity while Russian large-scale farms were not requires thoughtful consideration. Even though large-scale production remains the backbone of the agricultural production system in both of these countries, only the Estonians were quickly able to turn the tide in a more positive direction.

According to research, the rural population, not only in Russia but also in all the Baltic and Central European countries, was unwilling to relinquish large-scale production. This was common knowledge, which is why researchers who were involved in World Bank projects regarded this sort of conservatism as an anti-reform element (see Alanen, 2004, 44). However, my own research shows that the rural population of the Baltic countries was by no means an unambiguously conservative force, but that the "kolkhoz system" was widely criticised. Open criticism was, above all, voiced by the middle-class of the Soviet farms, i.e. professionals with a college education (such as agronomists and veterinarians), engineers and elite workers (the latter were in charge of the machinery system). In many ways, the managers of the Soviet farms during the reform period shared this criticism. These people who had once been actual "personifications of local power" (Alanen, 2001, 70), during the decollectivisation phase they had become dependent on the middle-class of the Soviet farms – also in their programme proposals (Alanen, 2004, 46–47). It was also these groups of people who were most committed to large-scale production despite their criticism. The value of their education, professional status, income and modern way of life all depended on a work organisation based on large-scale production. The middle-class also produced the "citizen activists" of the decollectivisation phase (Alanen, 1999 and 2001).

Even as the middle-class in the Baltics criticised the "kolkhoz system," it did not want to replace large-scale production with a family farm system, and for the majority<sup>23</sup> of them becoming a family farmer would have been an involuntary step backward into a more traditional way of life. Above all, the

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<sup>23</sup> This does not exclude the possibility that individual people supported the family farm project of the governments, called for the large-scale farms to be closed down and took up family farming themselves – but they did not represent the majority of the middle-class.

middle-class wanted to modernise and democratise the large-scale production heritage that in the countryside not only symbolised the crisis-ridden Soviet economy in general, but also (in the Baltic countries) embodied occupation and national oppression. In addition to being pro-independence the middle-class was also modern. From the standpoint of the middle-class, the proponents of the World Bank guidelines were “conservatives,” even “traditionalists.” In connection with the interviews I have often heard these kinds of complaints, especially in Estonia (see also Alanen, 2001, 126). And this middle-class modernisation effort does not by any means deviate from the main current of Western social science. The most important classic of sociological modernisation theory is definitely Talcott Parsons. For him, modernisation required the explicit replacement of family farms with a business system based on a formal rationality and the creation of a separate core family – just as he has suggested in his most important rural sociological essay “Some considerations on the theory of social change” (1961, 227–233, 238). This perspective on the criticism of the middle-class and its modernisation efforts differs fundamentally from the family farm ideology or, on a wider scale, from peasantism. For example also Stephen K. Wegren, whose critical essays have been an invaluable source of inspiration for this article often (with his colleagues) analyses decollectivisation from a far too peasantist perspective: e.g. as a “giving reform” (in contrast to decollectivisation as a “taking reform,” see Wegren, 2005, 14–15). To transfer this thinking to the decollectivisation phase we need to postulates, for example, such peasantist conflict of interest contents as the “hunger for land.” Based on my interviews, a longing for the family estate and the pre-WWII way of life also seized many people in the Baltics, particularly among old-age pensioners and unskilled labourers in remote villages, and even these workers were of the older generation (Alanen, 2001). However, for the Soviet middle-class, at least as far as the Baltic countries are concerned, the closure of large-scale production was first and foremost a “taking reform”. When Wegren criticises the idea of Soviet farm workers having been opposed to the Russian reform (and in this sense conservative) in his book “The Moral Economy Reconsidered,” it should be noted that the goal of the Russian reform was not the closure of large-scale production as it was in the Baltic countries, but the development of family farming alongside large-scale production.

The Estonian government tried to replace large-scale production with family farms but delegated (in the same way as in Latvia) the decision-making to the local level. Due to delays in the decollectivisation process in Estonia, however, there was plenty of time for debate and learning from the experiences of pioneering enterprises, as well as enterprises in Latvia and other countries, such as the GDR. Debate at the local level ja practical action geared toward preserving large-scale production were enough to challenge the hegemony of family farm discourse, a hegemony that it had acquired among Estonian politicians, media and general public, and that was in perfect keeping with the guidelines of the international institutions (see also Alanen, 1999; Alanen, 2001, 136–141; Alanen, 2004, 44–47). This result reflects the importance of the concrete consideration of interest analysis and subjective action, which have been largely ignored in the research on decollectivization

or remained a matter of speculation on the conservatism of the managers or employees (for one of the few exceptions, see Wegren 2005, 69–103).

In Russia there was even more time for implementing the reform and adapting the farms than in Estonia. Nor were their external circumstances any worse as far as e.g. agricultural subsidies, inflation, competition from foreign imports, loss of export markets and failure to pay for products are concerned (see OECD, 2002; Tamm, 2001), even though systematic research on this subject is yet to be done. However, unlike Estonian agricultural enterprises, in reaction to the shock therapy of the early 1990s Russian agriculture very much like Russian industry (see Woodruff, 1999) initially tried to protect itself from the commodity markets and sought support from the informal networks of the Soviet era through barter of their products with other enterprises and, instead of specialisation, through diversifying their production and by relying on their old social networks in the public administration rather than adapted its production to the market economy. Only much later, thanks to the turn of events during the Putin administration, large-scale production has managed to consolidate its economic position (Wegren, 2005), but before this the difference in labour productivity between Russia and Estonia had become very evident. I believe that this reaction to shock therapy is the “black box,” the opening of which will provide us with a better explanation of the outcome (in comparison with Estonia) than weak property rights.

In their book “Making Capitalism Without Capitalists” (1998), Eyal, Szelenyi and Townsley raise the effect of the “Bildungsbürger” tradition that knits the cultural sphere to the post-socialist transformation problematics. This cultural element that was created largely through education in Germany and other Central European countries represented Western (French and British) influence to them and strongly promoted the formation of civic society, the modernisation of economy and administration, and the emergence of bourgeois relations. Although the rule of “communism” was not based (following Bourdieu’s theory) on economic capital, but on social capital, it nevertheless differed from feudalism, that is considered a form of rule analogous to communism, in that “the party expected individuals, even if they were promoted on the basis of their political capital, to acquire the appropriate educational credentials if they wanted to maintain their new offices and positions of authority” (Ibid., 65). And unlike feudalism, party rule “is justified according to rationalistic criteria, not tradition” (Ibid., 68). Similarly, Eyal et al. assume that professionals (together with former dissidents who had come to power) initiated a conscious process of adapting enterprises developed during socialism to bourgeois relations.

However, for agriculture, the World Bank and other international institutions did not propose an enterprise adaptation programme. Instead, they called for the current organisational structure to be replaced with entirely different structure. In all three Baltic countries the political elite adopted this policy, but only the Lithuanian government maintained ultimate control over the process by concentrating the implementation of the reform to the central administration. This is why the efforts of the Lithuanian government were directed at eliminating the institutions based on the Soviet era large-scale production instead rationalising them.

Historically, Estonia and Latvia have formed an integral part of the core of the German cultural sphere. Both Estonia and Latvia had been annexed to

the German-Roman Empire as early as in the 13th century, and this link was later strengthened by the Lutheran church and the German upper class.<sup>24</sup> Estonia, together with the Czech Republic, Slovakia and Hungary, had all belonged to the same cultural core and they were also the four countries where the agricultural reform resulted in an immediate increase in labour productivity. Delegating decision making to the local level opened a door for the professionalism that had emerged from the middle-class of the Soviet farms, but haste eliminated the possibility of achieving the same in Latvia. In Estonia, however, there was enough time (and the middle-class may have been a little stronger). Although the crucial decisions on salvaging the large-scale production heritage and the initial rationalisation changes were made on individual Soviet farms, these same individual enterprises were later developed as collaboration between enterprise managers and experts in agricultural administration, who had gained a good level of work experience during the Soviet era. Furthermore, the attitude of most politicians towards large-scale production changed relatively quickly from an unsympathetic one to a sympathetic one.

According to Eyal et al., a strong *Bildungsbürgertum* tradition had been firmly established in Russia before the October revolution, but despite this, the Russian privatisation process was accompanied by much more widespread embezzlement and theft by public officers. Unlike in Eastern Central Europe, dissidents and the “*nomenclatura*” of the old system did not create “political capitalism” in Russia (Ibid. 4–5). This resulted in the creation of two different trends: Eastern Central Europe was characterised by “capitalism without capitalists,” while the emerging Russian structure was “capitalists without capitalism” (Ibid. 5–6). Considering this stage of development of the *Bildungsbürger* theory would appear to be still too speculative, but the difference in reaction to the shock therapy between Russia and Estonia was great, and the reaction by protecting the organisation from the market instead of adapting it to the market was shared by both Russian agriculture and industry. Also the government’s attitude, until the arrival of the Putin administration, was even more characterised by blind faith in market forces and the ensuing ideological “state withdrawal” (Wegren, 2000) than it was in Estonia. The policy of the Estonian agricultural administration has been more active as evidenced by, e.g., its active intervention in the land market notwithstanding the fact that the liberal doctrine of small government has been embraced by the Estonian government. So, it seems that the Russian reaction has not only been different, and a cultural explanation is needed. However, the “black box” will not open solely on this basis without additional empirical research. However, such research should draw on the entire conceptual system of the social sciences more historically and broadly instead of the narrow conceptual system of economics in order to cover the different time scales of social development and interdependencies between unofficial and official institutions, belief systems and material culture more adequately (cf. Aligica, 2003).

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<sup>24</sup> Both Estonia and Latvia had been annexed to the German-Roman empire as early as in the 13th century, and this link was later strengthened by the Lutheran church and the German upper class. Estonia, together with the Czech Republic, Slovakia and Hungary, had all belonged to the same cultural core and they were the four countries where the agricultural reform resulted in an immediate increase in labour productivity.

However, the comparisons of Russia with the Baltic countries made in this article already show that Russia would not have had anything positive to gain from the strengthening of property rights. In all likelihood it would probably have resulted in the final collapse of the existing production system.

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