Polish Agricultural Autarky: Plow the Subsidies In!

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Throughout our history, autarky has been an attractive idea for many, and while today’s public debate rarely includes a call to shut down the country and build a self-sufficient utopia, we may occasionally come across attempts to set up parts of the economy independent of external partners. When we ask the average person in the Western world whether their country should have a self-sustaining economy in terms of automobile production, such an individual will probably think we are silly. However, if we ask them about self-sufficiency in food production, there is a good chance that they will support the idea. In fact, it is easy to understand – food is a commodity we need to live, and in such a situation reason may easily be overcome by fear.

Moreover, the idea of food autarky is practiced by many countries, including those considered most economically developed or free-market oriented. One example is the United States, where the government is trying to protect its agriculture sector with subsidies and tariffs\(^1\). Perhaps the politicians in power are motivated by something other than an attempt to build an agricultural autarky, such as fear of losing the votes of agricultural voters. Whatever their motivation is, one can conclude that they are, *de facto*, trying to build food self-sufficiency in the countries they lead.

Usually their instruments are tariffs, subsidies, or various types of regulations aimed at favoring domestic agriculture over other economic sectors or twinned with foreign economies. They do nothing about economic theory critical of protectionism, supported by historical evidence of the ineffectiveness of such approaches.

For example, British tariffs and trade restrictions from the first half of the 19th century, known as Corn Laws, were designed to keep the price of grain high in Britain. This had the effect of slowing the growth of other sectors of the British economy by reducing the disposable income of the population due to rising food prices\(^2\).

Another example where state interference in agriculture led to bad consequences is communist Poland. The economy of the communist bloc was geared for war with the West, so heavy industry was relied upon as well as agriculture\(^3\). However, communism is characterized by the fact that it has huge problems with the efficient allocation of resources, because there is no natural process of price formation – in communist Poland, it was not guided by economic rationality, but by political needs and forecasts of public officials. Therefore, when the time came for systemic and

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\(^1\) [https://www.usda.gov/farmbill](https://www.usda.gov/farmbill)


economic changes in Poland, agriculture had to change.

THE COMMUNIST LEGACY
Capitalist Poland inherited the mistakes of its communist predecessor. In the late 1980s and early 1990s, the productivity of an average farmer in Poland was very low – they were able to feed about nine people with their labor, while their counterpart in developed countries could support about eighty people.

Moreover, Polish agriculture was overfilled with workers – this sector in rich countries provides jobs for about 2-8% of the economically active population. If we add occupations related to food processing etc., we get about 10-20% of all the employed. In Poland, however, it was 35%, i.e., about twice as much as in developed economies.

A large part of this number was employed directly in agriculture. In other words, a huge part of the workforce was focused on the production of downstream goods. This shows the underdevelopment of this sector, which was a result of the socialist economy. It was not until the transition to a market economy that the need for such high employment in this inefficient sector was verified by market-based competition⁴.

In 1991, about 26% of the workforce was employed in agriculture. Thanks to the development of the industry and the service sector, parts of the economy that create much more added value, those employed in agriculture changed their place of employment. This transition to more efficient industries caused them to automatically increase their productivity, and contribute to the enrichment of themselves and society as a whole. Despite the growth of industry and services, in 2020, around 9% of the Polish employed are working in farming, when the EU average is about 4.5%. If we look at the post-communist EU member states, only Romania could claim a higher share, with about 21% in 2020⁵.

The result is not only a slower development of the Polish economy, but also a greater burden on more productive workers. According to the Civil Development Forum, labor productivity per person per year in agriculture is less than PLN 25,000 (app. EUR 5,425), when in the small and medium enterprise (SME) sector, it will be about PLN 80,000 (app. EUR 17,370), while in financial enterprises it is about PLN 200,000 (app. EUR 43,430). If we look at the generated added value per employee in agriculture


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expressed in EUR, Poland occupied 25th place out of 27 members in the European Union in 2019. It is worth mentioning that in 2020, the EU average salary for agriculture, forestry, and fisheries was EUR 20,100 per worker, or about PLN 88,000. If a Polish worker wonders why they cannot have nice things the answer is: among other things, it is because of the inefficient agro-industry.

One of the biggest weaknesses of Polish agribusiness has been the fragmentation of agricultural land into a multitude of very small and inefficient farms. Low productivity of agriculture results partly from its structure in terms of holding size, but also from the general level of development of the economy. There is quite a strong correlation between the average value produced by a farm and the real productivity of labor expressed in euros per hour worked. In turn, the average created value depends, among others, on the size of the area.

We can also show a high correlation between GDP per capita PPS and real productivity per hour of labor. One source of productivity growth is increased fixed capital expenditures. Meanwhile, it often does not make economic sense to invest in specialized farm machinery when cultivating a small area, because it means that it will take a relatively long time for the investment to pay off.

However, data on expenditures on fixed assets in agriculture cannot be treated as a completely sufficient and 100% reliable basis for assessing the condition of the sector. It should be borne in mind that if there are subsidies for the purchase of machinery, farms may buy more of it than they would obtain under market conditions. Therefore, one should pay special attention to this, because, e.g., a higher share of depreciation in costs may result from higher wear and tear of machinery in the case of larger farms, even if they have fewer machines. But it is also possible that there is a surplus of machine X and a shortage of machine Y on the farm,

It is also possible that there is a surplus of machine X and a shortage of machine Y on the farm. These shortages can be eliminated by buying more machines or by using the existing machines more efficiently.

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6 Ibid.


IN THE CASE OF POLAND, DEPRECIATION IS AT LEAST SEVERAL TIMES LOWER THAN IN COUNTRIES WITH HIGH AGRICULTURAL PRODUCTIVITY precisely because of subsidies for their purchase or sale.\footnote{For an in-depth look at agricultural productivity in the EU, see, for example: Sadowski, A., Poczta, W., Beba, P., and E. Szuba-Barańska (2016) "Zróżnicowanie produktywności modeli gospodarstw rolnych w UE", [in]: Wieś i Rolnictwo, Vol. 1(170). [in Polish]} With a relatively small farm field, a farmer will rather choose to do more manual work and ask their family members for help. Confirmation of this thesis may be found in the quite strong correlation between the share of non-family workers and the amount of productivity among farms generating an annual value of at least EUR 15,000 (app. PLN 69,080). There is also a strong correlation between the average size of a holding, or the value created by agriculture as a whole, and the share of regular full-time workers in the total number of workers.

When we look at EU data and compare the depreciation of fixed assets, we can see that in the case of Poland, depreciation is at least several times lower than in countries with high agricultural productivity, if we compare the ratio of depreciation to value created.\footnote{Kulturozofia.pl (2021) "Manipulacje TVP o UE". Available [online]: https://kulturozofia.pl/manipulacje-tvp-o-ue/ [in Polish]} At the same time, according to a 2014 analysis, for every 100 ha there are 13 tractors in Poland versus 5 tractors in Denmark. This suggests that Polish farmers are buying more machinery than they actually need.\footnote{FOR (2015) "Następne 25 lat: Jakie reformy musimy przeprowadzić, by dogonić Zachód?". Available [online]: https://for.org.pl/pliki/artykuly/1972_1479-raport-for-nastepne-25-lat-jakie-reformy-musimy-przeprowadzic-by-dogonic-zachod.pdf [in Polish]} Among other reasons, this is because of the high number of small farms.\footnote{For a more detailed analysis of the topic of Polish agricultural productivity, see: Krzywulski, P. (2016) "Nie rzucim ziemi! – ekonomiczne skutki ustawy o obrocie ziemią rolną", [in]: mies.pl. Available [online]: https://mises.pl.blog/2016/08/17/krzywulski-nie-ruzicm-zie-mi/ [in Polish]} Other solutions for the farmer are to try to enlarge the farm or to sell and change the workplace, e.g., by moving to industry where productivity is higher. However, in regions with a strong attachment to tradition, there may be a mental problem of being unwilling to sell inherited land as a kind of family heritage. A consequence of the small acreage is a limited need to hire outside workers to help on the land, which is, again, confirmed by the Eurostat.\footnote{The European Union by small farm means a farm holding below 10 hectares. See: https://ec.europa.eu/info/food-farming-fisheries/key-policies/common-agricultural-policy/income-support/additional-optional-schemes/small-farmers-scheme_en}
WHAT IS POLAND DOING WRONG?

It is worth considering how politicians cause harm to agriculture. In the Polish law, there are many ways in which farmers can be supported at the expense of the rest of society. The most important one seems to be KRUS, the state social insurance system intended only for agriculturists. The difference between the general social insurance system and KRUS can amount to approximately PLN 1,318 (app. EUR 292). The difference per year is 15816 PLN (app. 3508 EUR)\(^17\). The amount for a farmer running both an agricultural holding and a non-agricultural activity is not much higher.

This disparity means that there is a solid financial encouragement to stay on the land, even if the gross income remains relatively low. Therefore, it is important that politicians strive to limit the existence of KRUS as much as possible, including its abolition. Moreover, as a farmer, one can forget about the income tax, because they will be mostly affected by the special agricultural tax\(^18\). It sometimes happens that KRUS is used for tax fraud in order to understate tax liabilities. As a proof, let us use the 2013 Supreme Audit Office report on a survey of the entitlements of people registered as farmers, according to which, about 30% of those surveyed should not be enrolled in KRUS\(^19\).

IN THE POLISH LAW, THERE ARE MANY WAYS IN WHICH FARMERS CAN BE SUPPORTED AT THE EXPENSE OF THE REST OF SOCIETY

There are also companies in the farming sector that are controlled by the state. The state agency, the National Agricultural Support Centre, controls thirty-eight companies of "strategic importance" and owns shares in another twelve companies, including, among others, an agritourism farm\(^20\). This means that private enterprises from the agricultural sector – generally not very productive in comparison with other sectors anyway – have to fight against entities supported by taxpayers, i.e. with enormous political and financial capabilities. *Nota bene*, it is a good place for politicians to employ their family members or friends, which is done on a huge scale in Poland\(^21\).

\(^{17}\) To be precise, in reality this difference might be smaller. A Polish farmer for each full hectare of agricultural land pays 1 PLN (EUR 0.22) as a health insurance fee. So a farmer with 100 ha in the general insurance system will pay PLN 1,457.49 (EUR 323) and in KRUS PLN 239 (EUR 53) per month, making a difference of PLN 1,218 (EUR 270). See: [*Poradnikprzedsiebiorcy.pl* (2021) “Rolnik i działalność gospodarcza – ZUS czy KRUS”]. Available [online]: https://poradnikprzedsiebiorcy.pl/-rolnik-i-dzialalnosc-gospodarcza-zus-czy-krus [in Polish]


Competition is also weakened by legal restrictions on agricultural land trading, which in Poland was introduced by a set of laws in 2015 and 2016. This has made it difficult for new entrants, both individual and corporate, to enter the market and for existing farms to expand. If we analyze the EU data again, we can see quite a strong correlation between productivity and the number of holdings with a created value between EUR 25,000 and 250,000 (app. EUR 5,430 and 54,280). There is also a very strong correlation between the amount of value created by the sector and the number of farms creating more than EUR 50,000 (app. EUR 10,860) or more than 10 ha. This means that politicians have thus limited the productivity growth of Polish farmers.

Moreover, we can point to many financial support programs for farming, mainly from the EU. An example of such a subsidy from 2021 may be support for the development of the production of specific animals, where you can get up to PLN 900,000 (app. EUR 200,000). In total, under the Common Agricultural Policy, the European Union has provided Poland with EUR 61.2 bn until the end of October 2020. Arguably, some of that money has gone to businesses that will spend it in an economically efficient way. But it is equally certain that a piece of this pool will also go to farms, where there will be wasted resources. This means that the EU with national governments will actually support companies that should be shut down because of their low productivity.

When talking about poor farm productivity, it is not just about the misallocation of resources, over-employment or too many machines. Small productivity also means production of goods on which there is a poor yield under market conditions, and so it pays off only thanks to state support. It is not without reason that in 2007 the Swedish Minister of Agriculture, Eskil Erlandsson, proposed eliminating subsidies to the agricultural sector, except those re-
lated to environmental protection\textsuperscript{27}.

Similar to subsidies, protection duties applied by the European Union\textsuperscript{28} has limited access of European consumers to cheap food from outside the EU. This approach administratively inflates prices on the intra-EU market, which also means increased profits for farms – an indirect support for farmers\textsuperscript{29}. According to a 2008 OECD analysis, a family of four in the EU lost almost USD 1,000 (app. EUR 850) in higher prices and taxes due to tariffs\textsuperscript{30}.

At the same time, the custom duties reduced the market incentive to direct efforts towards the production of higher-order goods. As a result, the resources of European farms are wasted on providing goods that could be produced by producers in less developed countries. In this way, the EU, in the name of preserving the privileges of a part of society, deprives the rest of the cheap food and hinders the enrichment of, among others, African farmers.

The former British Ambassador to Poland, Charles Crawford, once commented on European agricultural subsidies:

"[it is a program] that inefficiently transfers taxpayers' money to feed the rich French peasants and drives up food prices in Europe, while contributing to the pauperization of Africa, a problem we are trying to solve through inefficient, yet expensive, aid programs (...)\textsuperscript{31}"

On the other hand, it seems that the European Union can be praised for its Everything but Arms initiative\textsuperscript{32}, which consists in implementing preferential access to the EU market for producers from poor countries. However, it is worth mentioning that the EU was able to subsidize exports so that farmers from developing countries could not compete with EU crops\textsuperscript{33}.

\textsuperscript{27} The Local (2007) "Sweden: ‘Abolish EU farm subsidies". Available [online]: https://www.thelocal.se/20070529/7443/

\textsuperscript{28} http://capreform.eu/the-protective-effect-of-eu-agricultural-tariffs/


2649_201185_35738477_1_1_1_1%2C00.html


\textsuperscript{33} https://innovation.journalismgrants.org/projects/the-dark-side-of-italian-tomatoes
It is also worth looking at another mechanism implemented by the European Union, i.e. intervention through administratively established prices, intervention purchases or production limits, such as the so-called milk quotas. This mechanism is harmful because it disturbs market signals flowing from consumers to producers, thus increasing the risk of making a wrong investment decision, which happened in Poland in 2013 and 2014.

The result of such a policy may ultimately be a crisis in a given industry due to signals of high profitability in a given market through the actions of public administration. Moreover, in this way, consumers’ access to cheap food is reduced, which makes them financially unproductive farms instead of directing their money to savings or purchase of other types of goods.

At the same time, such an action can lead to shortages or surpluses in the market, and reduce market flexibility during crises. As an example of the EU’s wasteful use of resources in agriculture, in 2009 the EU bought 30,000 tons of butter that did not sell. A similar situation happened with wine in 2005-2007. One can also mention the sugar crisis in Poland in 2011, when the price of sugar jumped by about 40% due to, among others, too tight of EU limits.

Also in the United States, after World War I, there were attempts to administratively control the prices of agricultural products and, in the end, this only worsened the situation of farmers.


It is worth adding that the European Union has ended the so-called milk or sugar quotas in 2015 and 2017: https://www.euractiv.com/section/agriculture-food/news/eu-puts-end-to-30-years-of-milk-quotas/; https://ec.europa.eu/commission/presscorner/detail/en/IP_17_3487

LESSONS FROM NEW ZEALAND

Some readers may not believe in proving the counter-effectiveness of subsidies, minimum prices, or restrictive tariffs through economic reasoning. Therefore, it is useful to refer to a real-life example, which is the history of New Zealand in the second half of the 20th century. In 1950, New Zealand had a GDP per capita 26% higher than the average of OECD countries, only to reach a GDP per capita 27% below average in 1990.41

The reason for this economic regress was a series of misguided decisions by the ruling class for many, many years until 1984, when the long process of reforming the state and the economy began. In the 1970s and 1980s, minimum prices for agricultural products, production input subsidies, low-interest loans, tax breaks, and debt forgiveness were introduced in response to rising oil prices, falling prices for consumer goods, and income from agricultural exports to Britain. In addition, there were high administrative barriers to the import of agricultural products and subsidies for general business, agricultural activities, and exports.

The effect of state support for farmers was to make them insensitive to market signals, decrease innovation, and reduce resource efficiency. A good example is the buyout of land for agricultural purposes, which was not profitable to cultivate without subsidies – by 1984, more than two million hectares were cultivated solely because of subsidies. The buyout of land was accompanied by an increase in land prices, making it unaffordable for poorer farmers.

At the same time, farm productivity and competitiveness on world markets declined. There was also overproduction – for example, in the early 1980s, 39 million lambs were produced for export, only to dispose of 6 million in one year due to lack of demand.42

However, during New Zealand’s reforms, state aid to agriculture was eliminated. According to OECD estimates using data from 1986-2016, the share of government support in gross farm income fell from 20% in 1986 to nearly 0% in 2016. Over the same period in the European Union, support declined from less than 40% to about

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MYTHICAL SELF-SUFFICIENCY IN REALITY

The area of land devoted to agriculture decreased. The environment was positively affected by the previously mentioned reduction in the number of sheep, which produce greenhouse gases and require the use of water – the consumption of which also decreased in relation to other sectors of the economy\(^\text{46}\).

Of course, we should mention the parallel reduction of taxes for the rest of the economy and the decrease in food prices\(^\text{47}\).

Thanks to the reform, a huge part of New Zealand agricultural products could be exported, and it was noticed that the share of higher value products in exports increased. For example, between 1983 and 2002, the share of sheep carcass in exports decreased from 83% to less than 10%, while increasing the share of specific parts of the sheep from 15% to 90%, overall maintaining the increase in the value of exported products.


\(^{46}\) https://www.oecd.org/greengrowth/35468762.pdf

\(^{47}\) https://ifreetrade.org/?article/liberalising_agriculture_lessons_from_new_zealand
Thanks to the reform, a huge part of New Zealand agricultural products could be exported, and it was noticed that the share of higher value products increased by 123%. The structural change of New Zealand’s export means that the domestic production chain has been extended and some workers have been redirected to the production of higher-order goods.

Additionally, wine production has expanded – from six thousand hectares to over thirty-five thousand between 1984 and 2016 – as well as horticulture, whose export revenue increased more than tenfold between 1985 and 2016. That is, farm incomes have generally diversified, which is desirable in times of a crisis.

Some may ask about the cost of this reform. There is no denying that it was a difficult time for many farmers and their families in the country, but this, however it sounds, is normal during the transition from an inefficient industry to one based on market signals.

Only 1% of farmers were unable to adapt to the changes and had to change industries, despite earlier fears of the collapse of small farms. Some workers moved from rural to urban areas to seek work. Unfortunately, the New Zealand Labor government has failed with short-term support for struggling farmers during the transition, and as a result, an increase in farm suicides has been noted. However, it should be noted that some rural communities set up Rural Support Trusts to support farm families during these challenging changes. Such trusts still exist today and help, for example, during natural disasters.

The behavior of the New Zealand electorate is interesting as well – initially, the removal of subsidies was met with opposition from rural areas, only to increase its impact over time.

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50 https://www.cato.org/commentary/new-zealand-farmers-dont-want-subsidies


52 https://ifreetrade.org/?article/liberalising_agriculture_lessons_from_new_zealand

hold on the rural electorate in 1987 – including taking back the rural stronghold of the opposition, the Manawatu region. The change in preferences of the electorate confirms the words of Roger Kerry of the New Zealand Business Roundtable, who stated that “you would be hard pressed to find a farmer who wanted subsidies back”.

**WHAT SHOULD POLAND DO?**

Since the Polish legal system is partially dependent on that of the EU, some changes can be made by Poland alone, while others will require a broad coalition of European countries lobbying across the EU.

Certainly, Polish politicians can abolish all pension and tax privileges, with KRUS at the forefront. The elimination of such a strong financial factor will cause some to abandon their economically irrational farms and move to manufacturing and services, probably from villages to cities. Unfortunately, there, they may face, among others, problems with finding a new job, a higher tax wedge, and a shortage of housing. Therefore, the reform of agriculture in Poland must be a part of a larger, more comprehensive reform and concern the whole economy, as the history of New Zealand teaches us.

Civil Development Forum proposes, among others, reduction of taxation of work of the least productive people or reduction of excessive protection of tenants. In the case of Poland, it can also be recommended to make labor law more flexible, deregulate business regulations in general, and increase the supply of land for residential construction. An increase of land supply can be accomplished by the liquidation of regulations on land trade, as well as by the liberalization of regulations on change of land use.

However, by liquidation of unprofitable farmlands, their plots would be taken over by enterprises or farms, whose productivity is higher, and thus jobs would be created that would create more value for the economy. Specialized farm equipment would also find a larger, more profitable use.

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Even greater benefits will be achieved when this is combined with the removal of impediments to land trade, making it possible for high productivity latifundium to emerge. While a larger number of huge farms would lead to lower food prices and create new jobs in the production and export of higher-order goods in this sector. The structural change of farms might ultimately slow down – though not stop – the exodus of workers from the countryside to the cities and give a second life to small municipalities, with an increase in the standard of living of their residents.

The final element within the national government’s reach is, of course, the privatization of state-owned lands and enterprises, which will make competition between farms healthier. On the other hand, privatization of state-owned land will increase the supply of land, which means a decrease or slower increase in prices. This will allow new players with less financial capacity to enter the industry. The obtained funds can be allocated for covering at least a part of costs connected with the reform.

In the EU forum, it is worth fighting for the reduction of customs duties and other administrative barriers to trade. We should return to the discussion on TTIP, i.e. the trade agreement with the United States, and lobby for the most liberal regulations in trade agreements being negotiated with, among others, Australia and New Zealand, and go back to talks with, among others, India and African countries. Furthermore, when negotiating agreements, we should strive for the deregulation of EU agricultural and food regulations, to the extent that these regulations actually restrict freedom of economic activity.

Last but not least, we should limit minimum prices, guarantee purchases, and restrictions imposed on the volume of production. The EU itself has shown quite recently that price controls do not work as they should and do more harm than good. The shaping of supply and demand should be given back to society, so that in the long run everyone – including farmers – benefits. Although legislators should keep in mind that such a change will probably cause changes in the structure of employment and capital, as unprofitable enterprises will collapse and be replaced by new ones.

CONCLUSIONS
As mentioned at the beginning, although the idea of total self-sufficiency of the economy is not very popular today, for many,

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“IT MAY BE A PARADOX TO MANY, BUT WE MAY ACHIEVE GREATER FOOD SELF-SUFFICIENCY BY FREEING THE INDUSTRY AND ALLOWING IT TO BE REGULATED DIRECTLY BY THE MARKET

the need to protect selected branches of the economy is like an axiom. Proponents of this view seem to think that in this way they will protect their society from hunger in crisis situations and will have control over the quality of products. The fear of limited access to food is understandable – after all, we have had a problem with it for most of human history – and, thus, we want to feel in control, but the attitude it causes is economically irrational.

The continuation of agricultural policy by the Polish will not lead to food collapse in the country. But by doing so, the economy will not use its full potential, which obviously worsens the food security. As history and economic theory show, it will take longer for the food market to recover from crises because it is relatively inelastic, and so we cannot expect significant productivity gains in our agricultural fields. This could mean that in the face of climate change, we can forget about store shelves full of relatively cheap goods and we will become dependent on countries where proper agricultural development was previously taken care of.

It may be a paradox to many, but we may achieve greater food self-sufficiency by freeing the industry and allowing it to be regulated directly by the market. In this way, we will effectively and continuously eliminate resource-wasting enterprises while supporting those with increasing productivity. The result is also that more resources are available to the public for use in emergency situations. As the example of New Zealand has shown, letting the market self-regulate means we waste fewer resources while producing more food, which, in turn, will drive down prices and will improve food sovereignty.

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