From Theory to Practice: Unraveling Russia's Agricultural Policy Evolution with Swinnen's Positive Theory

Abstract

This paper delves into the evolution of Russia's agricultural policy from 1990 to 2019 across 14 sectors, applying Swinnen's positive theory of agricultural protection and integrating four datasets. Employing the System Generalized Method of Moments, we analyze the political-economic drivers of agricultural protection by categorizing variables into market characteristics, economic development, and policy indicators. Additionally, we estimate complete demand and supply systems to calculate price elasticities, effectively characterizing market dynamics. Our findings reveal that national variables consistently wield a stronger influence on agricultural support than commodity-specific variables within each group. Key drivers of increased agricultural support include demand price elasticities, food self-sufficiency, agricultural employment share, sown area, oil prices, and tax revenues as a percent of GDP. Conversely, factors like supply price elasticities, food expenditure shares, terms of trade, agricultural sector share, and WTO membership have constrained government spending on agriculture.

Introduction

Russia, a leading global wheat exporter responsible for 23-33 percent of global exports in 2020-2021 (FAO, 2022), holds considerable influence over agricultural markets as both an exporter and importer, with its domestic policies playing a pivotal role in shaping market dynamics (Götz et al., 2022). Since the dissolution of the Soviet Union in 1991, Russia's agricultural policy, particularly in the agro-food system and grain industry, has undergone substantial restructuring, influencing supply and demand dynamics (Liefert & Liefert, 2012). While total agricultural support initially declined sharply after the Soviet era, it has rebounded since 2000, and the post-Soviet agricultural policy has been characterized by three key pillars guiding development strategies (Sedik et al., 2013).

Commencing with *internal economic reforms* like de-collectivization, privatization, and the liberalization of input and output markets, the early years of post-Soviet Russia (1992-1994) witnessed profound transformations in resource allocation and agricultural institutions (Wegren, 1994). Simultaneously, policies such as price liberalization, fiscal and monetary tightening, and a more open trade regime significantly reshaped the sector (Lerman & Sedik, 2013). Despite notable external policy impacts, internal institutional reforms—particularly land reforms and farm privatization—proceeded more slowly and less effectively in aligning Russian agriculture with market economy models (Kimhi & Lerman, 2015).

The second pillar of agricultural policies revolved around *state budget subsidies*. The State Program for Development of Agriculture for 2008-2012 aimed to bolster production and address rural social decline, emphasizing meat product import substitution through border protection and investment support, with an allocation exceeding one trillion rubles (Ministry of Agriculture of Russia, 2007; OECD, 2011; Uzun et al., 2014). This program was succeeded by the State Program for Development of Agriculture for 2013-2020, which targeted food

independence, enhanced competitiveness in domestic and international markets, improved financial sustainability of agricultural companies, promoted rural development, and optimized resource use with environmental considerations, backed by an allocation of 1.5 trillion rubles (Ministry of Agriculture of Russia, 2007; Wegren, 2016).

Following initial market liberalization, Russian agricultural *trade policies* gradually shifted towards protectionist measures such as export taxes and quotas. In response to the 2007-2008 rise in food prices, the Doctrine on Food Security issued in 2010 became the guiding framework for agricultural protection in Russia (Doktrina, 2010; Wegren, 2013). This Doctrine prioritized domestic production ratios to ensure food security, setting ambitious targets ranging from 80% to 95% for key commodities, including grains, sugar, vegetable oil, meat, dairy products, fish, and salt (Sedik et al., 2013), implying near-complete self-sufficiency in these sectors. Although the Doctrine lacked a clearly defined implementation mechanism, the subsequent State Program for Development of Agriculture for 2013-2020 incorporated these targets as part of its objectives while also aiming to ensure the country's compliance with WTO requirements and enhance the effectiveness of leading Russian agriculture (Ministry of Agriculture of Russia, 2012; Wegren, 2016).

Given the substantial shifts in Russia's agricultural policy during the post-Soviet period, understanding the drivers of these changes is crucial to anticipate potential impacts on global development. Our study contributes to this field by providing the first comprehensive, long-term quantitative analysis of the determinants of agricultural policy changes in Russia. By applying Swinnen's positive political economy model to Russian agricultural policy, our analysis aims to elucidate the factors influencing levels of agricultural support, offering valuable insights that complement existing literature on determinants of agricultural protection (Lopez et al., 2017; Gawande & Hoekman, 2006; Klomp & de Haan, 2013).

The article is structured as follows: Section 2 provides essential background on the determinants of agricultural support, tracing historical trends across three distinct phases. In Section 3, we apply a positive political economy model to analyze Russian agricultural policy and investigate the underlying drivers of agricultural support. Section 4 outlines our data sources and the empirical model employed in our analysis. Section 5 presents the key findings derived from our investigation. Section 6 contextualizes these results within the existing literature and offers additional forecasts considering Russia's ongoing aggression against Ukraine. Finally, the conclusion encapsulates key insights and implications drawn from our study's findings.

2. Context

Transitioning trends of the 1990s

In the early 1990s, post-Soviet Russia transitioned from a planned to a market economy, marked by turbulent agro-food policies aimed at dismantling the Soviet legacy rather than establishing a coherent post-Soviet model (Wegren, 2016). This period saw the dissolution of central planning, state resource allocation, and control over foreign trade following the collapse of the Soviet Union in 1991. Land reforms and the privatization of collective and state farms under initiatives like the "Land Reform" and the "Russian Federation Law on Autonomous Farms" granted managers autonomy in production decisions based on consumer demand (Desai, 2005). However, economic instability, declining consumer incomes, and shifts in input and output prices led to a significant 52% decline in food production on large farms by 1996 (Sedik et al., 2013), alongside reduced agricultural budgetary support (Goskomstat, 2000).

Post-Soviet Russia's shift to a market economy in the early 1990s marked the end of state control over food retail prices, leading to significant consumer hyperinflation as food

prices surged between 1992 and 1995 before stabilizing in 1996 (Goskomstat, 2000). These reforms introduced agricultural inefficiencies, increased costs, and worsened terms of trade for producers, with domestic agricultural terms of trade declining by 76% (Rada et al., 2017). Trade liberalization redirected food imports from feed grain to consumer products due to declining domestic agriculture production and reduced livestock herds, resulting in increased meat imports as domestic prices significantly dropped relative to world prices (Liefert & Liefert, 2020; Rada et al., 2017). Despite limited progress in land restructuring, most state collective farms underwent reorganization, often shifting to collective ownership due to market instability (Wegren & Belen'kyi, 1998). This period also witnessed declining agro-food economic performance, halted land reclamation, and decreased harvests, leading to regionally imposed price controls and the cessation of governmental assistance for producers by 1999, ultimately relying on Western agro-food exporting nations to prevent starvation in many regions (Wegren, 2002).

Rebounding trends in the 2000s

In the early 2000s, Russia adopted a "development state" model in agriculture to reduce food imports and increase output to levels seen in the late 1980s (Kalugina, 2014). This shift was outlined in the state document "Directions of agro-food policy towards 2010," which introduced policies like debt reduction, tariff support, and state intervention in the grain market (Kalugina, 2014). Establishing a state-owned agricultural bank providing credits and subsidies, alongside legislative changes permitting the free sale of land in 2002, facilitated an expansion in agricultural businesses (Kingwell et al., 2016). Government support spurred substantial growth in agricultural production, reduced unprofitability among large farms, initiated grain exports after 2006, and resulted in nearly an 800% increase in personal incomes for workers since 2000 (Rosstat, 2010; Wegren, 2016).

During the 2008-2012 state program for agro-food development, government support increased substantially, with over one trillion rubles allocated to the national sector (Uzun et al., 2014). However, a severe dry season in 2010 resulted in a 1/3 loss in harvest, prompting emergency measures to protect livestock herds and reinforcing the perception of state assistance as critical for growth and disaster mitigation. Despite rebounding domestic production and rising farm profitability, concerns over food security led to policy changes in 2010, including reduced import quotas and higher tariffs on meat and pork (Wegren, 2011). As Russia aimed to become a significant agro-food exporter, it maintained import quotas and targeted the Asian market, setting ambitious goals of exporting 40-50 million tons of grain by 2020, with subsidies contributing to a record harvest of 108 million tons in 2008 (Wegren, 2022).

Governing trends of the 2010s

Following Russia's accession to the World Trade Organization (WTO), the government launched the "State Program for Development of Agriculture and Regulation of Agricultural Commodities Markets in 2013-2020," allocating 1.5 trillion rubles to boost food production by 21%, processed food production by 35%, and investment by 42% (Wegren, 2016). This comprehensive program encompassed financial support for six subprograms and two federal targeted programs focused on rural territory development and land reclamation, with the overarching goal of aligning Russian agriculture with WTO requirements and enhancing its effectiveness.

The diplomatic crisis stemming from the conflict in Ukraine in 2014, marked by Russia's annexation of Crimea, spurred intensified import bans on agro-food goods from sanctioning countries, reinforcing support for domestic agriculture (Ministry of Agriculture, 2015). Amendments to the agriculture development state program in December 2014 allocated

over 2.1 trillion rubles to achieve food independence, resulting in a 43% decline in agro-food imports from the Euro 28 and opening export opportunities for non-sanctioned countries like Brazil. Russia's focus on modernizing the agro-food sector has enhanced food security, self-sufficiency, and exportable surpluses, bolstering its trading position, particularly with countries in the MENA region. Agricultural goods have become Russia's second-largest export, supported by increased subsidies and advantageous geographical positioning near Black Sea export terminals, facilitating trade with major wheat importers like Egypt (Heigermoser et al., 2022).

3. Applying a positive political economy model to Russian agricultural policy

This section applies Swinnen's (1994) positive theory of agricultural protection within a rational choice framework to understand the dynamics of agricultural support in specific commodity markets. It posits that politicians and citizens engage in a political market where policies are exchanged for political support, influenced by policy impacts on citizens' welfare. Politicians offer redistributive policies to maximize support, considering constraints like deadweight costs that diminish benefits. The model predicts increased transfers to farmers amid declining incomes relative to other sectors, assuming a concave relationship between welfare changes and political support. Moreover, changes in rural population and economic structure affect costs and benefits, determining the equilibrium level of support policies. We propose hypotheses derived from this model for empirical testing:

1. The demand elasticity does not affect political equilibrium subsidy.
2. Agricultural protection is lower for products with higher supply elasticities.
3. Optimal production subsidy decreases with increasing food expenditure shares due to offsetting tax increases.
4. Agricultural protection declines with increased food self-sufficiency.

5. Agricultural protection increases if agricultural income falls relative to non-agricultural income.
6. An increase in industrial employment or a decrease in agricultural employment raises agricultural protection.
7. Subsidy for agriculture increases as the share of agriculture in total output declines.

As per the proposed hypotheses, Table 1 outlines the expected impact of all variables employed in our analysis on agricultural support in Russia. This comprehensive overview offers insights into the anticipated influences of market characteristics, economic development indicators, and policy indicators on the dynamics of agricultural support. These groups are further segregated into commodity-specific and national-level variables, providing a nuanced understanding of the factors influencing agricultural support within the specified context.

TABLE 1. Anticipated impact of variables on agricultural support

Category	Variable	Level	Effect on support
Market characteristics	Output supply price elasticities	commodity	-
	Input supply price elasticities	commodity	-
	Demand price elasticities	commodity	ambiguous
	Food expenditure shares	commodity	-
	Net export position	commodity	-
Economic development	Terms of trade	national	-
	Ag employment share	national	-
	Ag share	national	-
	Sown area	national	ambiguous
	WTO membership	national	-

Policy indicators	Share of agricultural organizations	commodity	ambiguous
	Share of private farms	commodity	ambiguous
	Oil prices	national	+
	Tax revenues as % of GDP	national	+

4. Methods

Variable acquisition and data

For an understanding of agricultural support structures in independent Russia from 1990 to 2019, we rely on the OECD's Producer Single Commodity Transfers (PSCTs) as a primary data source. These annual monetary values represent gross transfers from consumers and taxpayers to agricultural producers, measured at the farm gate level. The PSCTs are intricately linked to policies associated with producing specific commodities, where producers must cultivate the designated commodity to qualify for the transfer.

Integral to our analysis are market characteristics variables, encompassing price elasticities, food expenditure shares, and the net export position of the product. To estimate supply elasticities with respect to output and input prices at the product level, we deploy a symmetric normalized quadratic profit function system (SNQP), utilizing the "micEconSNQP" package in R, developed by Henningsen in 2022. For the estimation of supply elasticities, our data source is the "Kazakh-Russian Farm Panel Survey" collected by the Leibniz Institute of Agricultural Development in Transition Economies (IAMO). This dataset covers diverse regions of Russia, primarily engaged in grain production, and spans the years 2015 and 2019.

To ensure a comprehensive coverage of products in production, we emphasize the 2019 wave of the survey.[1]

Demand price elasticities and food expenditure shares for each product are estimated using a Quadratic Almost Ideal Demand System (QUAIDS), following the methodology outlined in Kimsanova et al. (2023). The "Russia Longitudinal Monitoring Survey" (RLMS), conducted by the Carolina Population Center at the University of North Carolina at Chapel Hill and the Demoscope team in Russia, serves as the data source. These nationally representative surveys monitor the effects of Russian reforms on household and individual health and economic welfare from 1994 onwards. We use the 2019 survey wave for demand elasticity estimation to maintain consistency with supply elasticity data.

We calculate the net export position by determining the difference between each product's total export and import values. A binary dummy variable is employed, taking the value of 1 when exports exceed imports, indicating a positive net export position and affirming product self-sufficiency. We use United Nations Food and Agriculture Organization's (FAO) trade data for this analysis, spanning from 1992 onwards. We supplement data for 1990 and 1991 from statistical yearbooks to ensure completeness in calculating total exports and imports for the relevant commodities.

Economic development indicators serve as exogenous shifters of political weight assigned to producers at the national level. These variables encompass terms of trade, agricultural employment share, agricultural share, and sown area. Terms of trade refer to the ratio of changes in agricultural prices to non-agricultural prices. This metric is used because agricultural prices tend to increase slower than non-agricultural prices, potentially leading to a decline in the agricultural sector's relative income compared to other sectors (Mundlak &

[1] We assume constant elasticities from 1990 to 2019 due to data constraints, recognizing the potential for variability over time.

Larson, 1992). We rely on the United Nations Statistics Division's Analysis of Main Aggregates (AMA) data to source terms of trade and agricultural share. Agricultural employment share is obtained from FAO employment data, while sown area data is sourced from statistical yearbooks.

Policy variables encompass the country's membership in the WTO, tax revenues as a percentage of GDP, oil prices, and farming structure variables such as the share of governmental and private farms. The WTO membership variable is binary, reflecting external constraints to policy, and is sourced from WTO data. Tax revenues as a percentage of GDP are obtained from World Bank data, while oil prices and farming structure variables are sourced from statistical yearbooks.

Empirical model

We articulate a simple equation to explain the dynamics of PSCTs for agricultural commodities in Russia from 1990 to 2019:

$$PSCT_{jt} = \alpha_0 + \sum_i \alpha_{ijt} C_{ijt} + \sum_k \beta_{kt} N_{kt} + \sum_m \gamma_{mt} T_{mt} + \epsilon_{jt}. \qquad (1)$$

Here, $PSCT_{jt}$ represents the values of producer single commodity transfers for commodity j in year t. C_{ijt} is a matrix of commodity-specific variables encompassing output and input supply price elasticities, demand price elasticities, net export positions of the commodities, and shares of governmental, and private farms. N_{kt} is a vector of national-level variables, including terms of trade, agricultural employment share, agricultural share, sown area, WTO membership, oil prices, and tax revenues as a percentage of GDP. The vector T_{mt} represents time dummy variables with a value of 1 assigned to the years from 1992 to 1999 and the years 2012 to 2019, indicating the periods of structural changes in the Russian economy. ϵ_{jt} represents the error term. This equation provides a comprehensive framework to analyze the determinants of

PSCTs, integrating both commodity-specific and national-level factors, along with temporal considerations.

Results

Descriptives

Figure 1 depicts trends in both national-level variables and product-specific variables from 1990 to 2019. Notably, total agricultural support experienced a significant increase, particularly starting in 1998, which coincided with a rise in oil prices and a gradual decline in terms of trade. Figure 1 (a) explicitly highlights trends at the product level. The government supported products, primarily livestock products, where the country was import-dependent. The highest support was observed for milk, reaching 230.92 billion Rubles in 2018.

As depicted in Figure 1, variables of economic development in the country mirrored global trends. Terms of trade experienced a one-year upward spike in 1999 before beginning a steady decline. Post-1999, both agricultural employment share and agricultural share experienced gradual decreases. The sown area declined steadily until 2006, after which it trended upward. Other national-level variables, such as oil prices, showed expected increases. Tax revenues as a percentage of GDP initially decreased during the early transition period before stabilizing consistently.

The share of total agricultural organizations declined over time, while the share of total private farms increased (Figure 1). Initially, agricultural organizations dominated crop production, constituting around 90%, gradually decreasing to 65%. Conversely, personal subsidiary farms' share in cereal production increased to 25%. In terms of livestock production, agricultural organizations initially held about 70%, which decreased to 57% in 2002 before returning to initial levels in recent years. Meanwhile, private farms saw a slight increase in their share of livestock production over the last three decades.

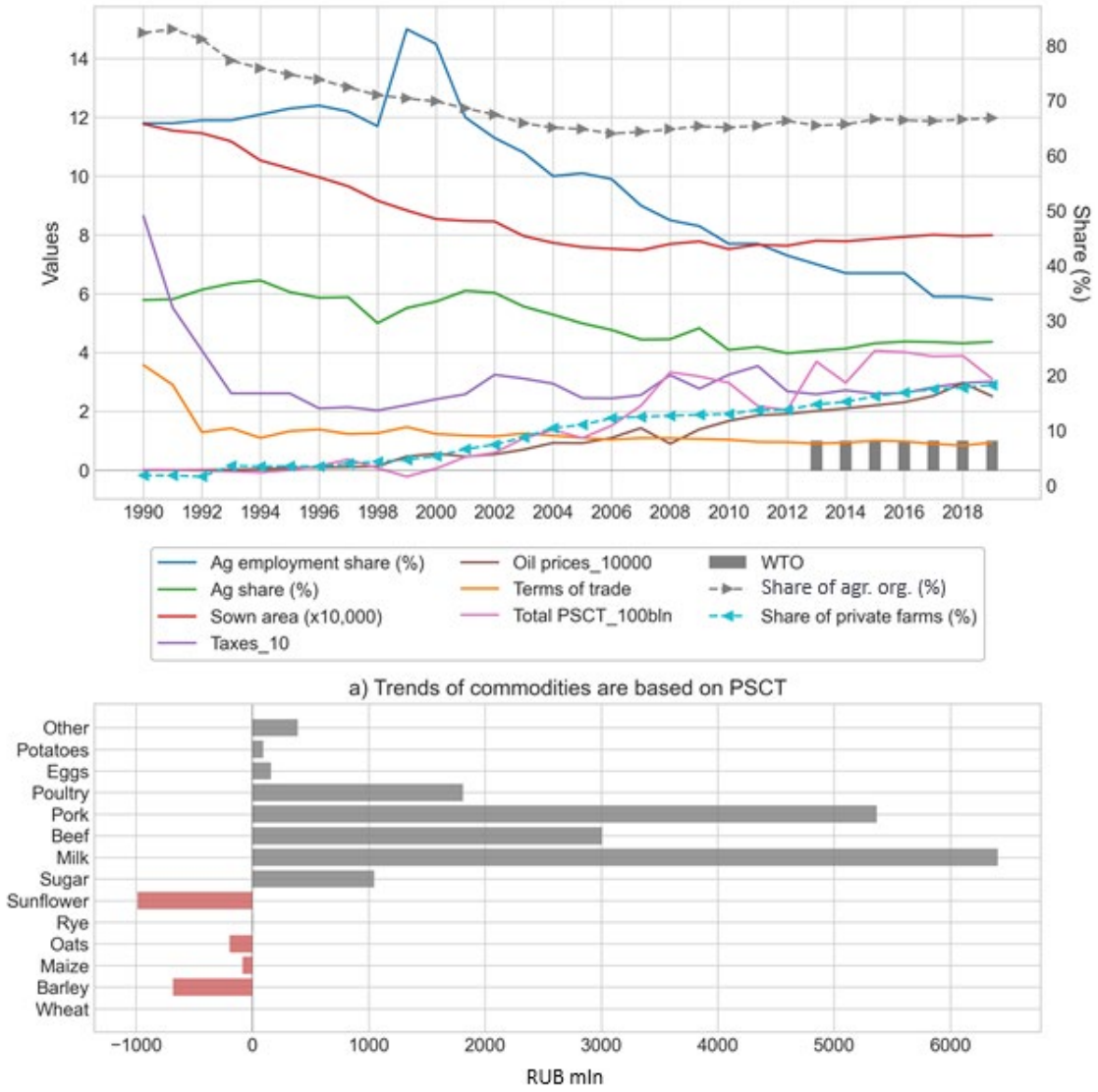

Figure 1. Changes are linear trend between 1990-2019. *Note:* Number of observations is 420.

Elasticity estimation

Figure 2 displays the estimated supply and demand elasticities. The left-hand panel (a) shows the supply elasticities with respect to output prices and input prices. The uncompensated own-price elasticities and food expenditure shares are shown on the right-hand side of the figure (b & c). Output supply elasticities range from -0.44 to 0.62, indicating an overall relatively inelastic supply across all products. Higher prices for sunflower, sugar, milk, and eggs resulted

in decreased quantities supplied, while increased prices for wheat, beef, pork, poultry, and potatoes led to increased quantities supplied. Conversely, supply elasticities with respect to input prices show opposite trends to output supply elasticities in terms of signs.

The uncompensated own-price elasticities, as expected, range from (-1.90) to (-0.03). Except for potatoes (-1.90) and other products (-1.22), demand for all food groups is classified as own-price inelastic, indicating quantities that respond to price changes by less than one. Potatoes, being imported with volatile prices and consumed widely among the population, heighten households' price sensitivity. The relatively lower own-price elasticity for more expensive and imported items like beef, pork, and poultry can be attributed to the significance of these products in the Russian diet.

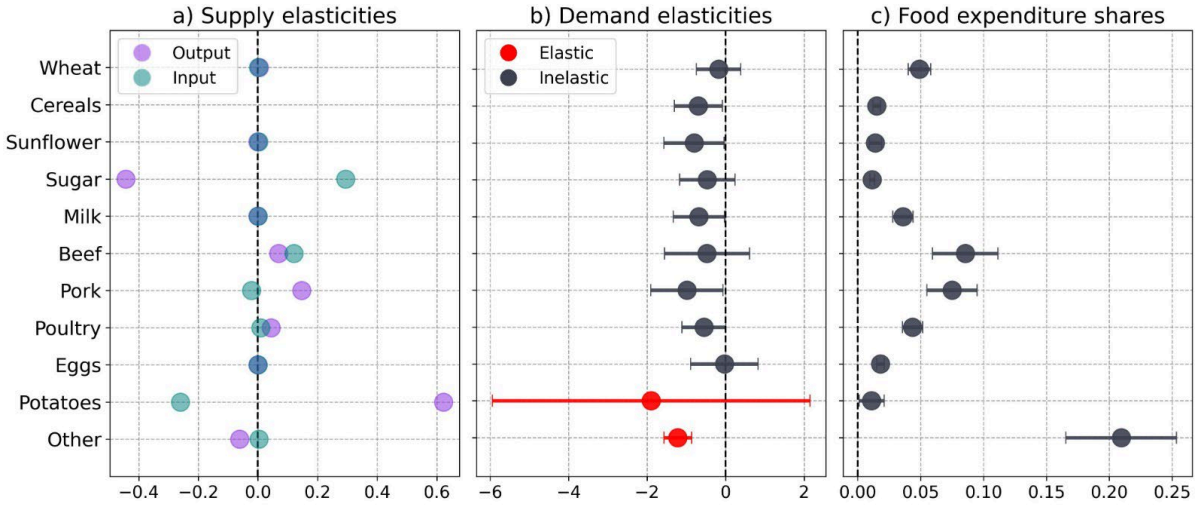

Figure 2. Estimated price elasticities and food expenditure shares. The estimation of supply elasticities relies on 847 observations, while 6,855 observations are employed for estimating demand elasticities and food expenditure shares.

Empirical model estimation

Employing a Generalized Method of Moments (GMM), specifically the system GMM approach, we address potential endogeneity issues of subsidies with explanatory variables. This method involves two equations, where an additional equation represents the first difference of all the variables in the original equation. Figure 3 presents the estimation results for the drivers

of PSCTs. While the AR(1) statistic does not reject the hypothesis of no first-order correlation of error terms, the AR(2) statistic indicates no second-order correlation. The Sargan test confirms the appropriateness and strength of the instruments used.

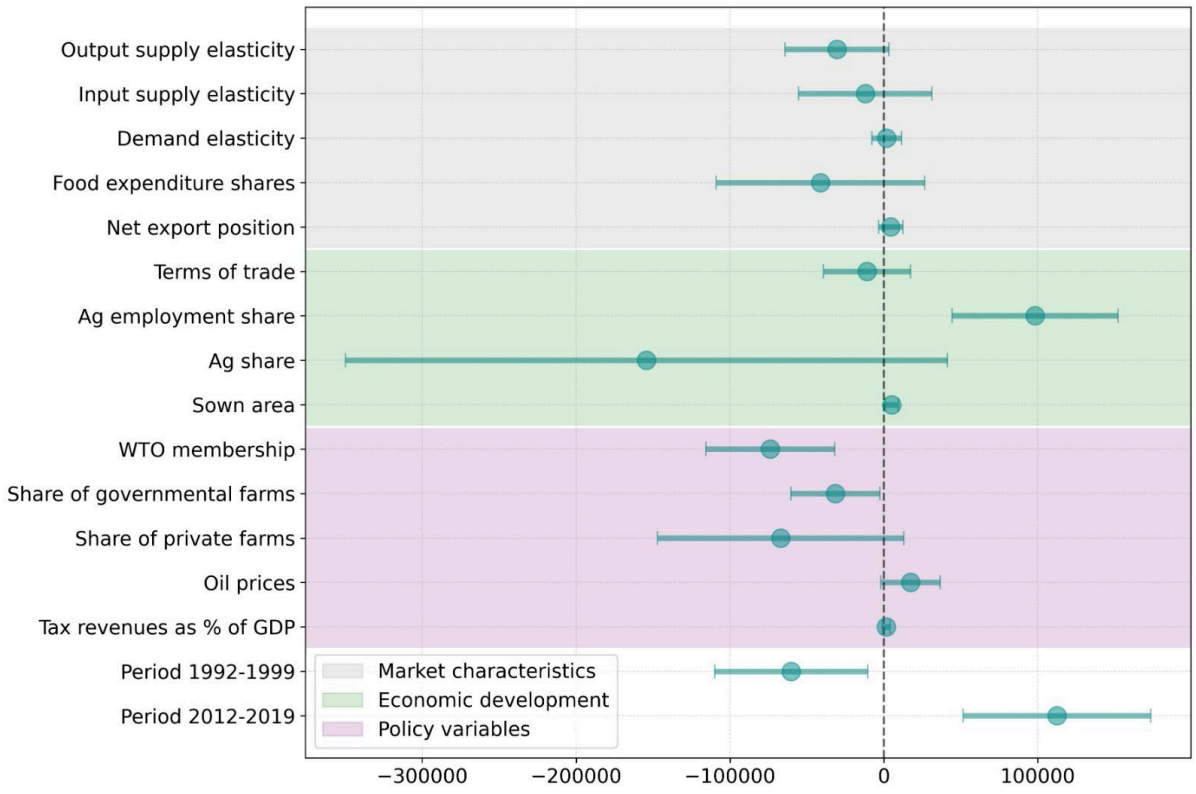

Figure 3. Determinants of Russian agricultural support. Note: AR(1)=0.031, AR(2)=0.548, and Sargan test=0.565. Exclusion of lagged PSCT is warranted based on its quantitatively smaller impact with a coefficient of 0.866 (0.077). The agricultural employment share is divided by ten, while oil prices and the agricultural share are divided 1000 in Figure 3 to align with the scaling of other variables.

The empirical results reveal that PSCTs in Russia are primarily influenced by economic development indicators, including terms of trade, agricultural employment share, agricultural share, and sown area. Specifically, a one percentage point increase in the agricultural share leads to a decrease in agricultural support by 1,542,534 million Rubles. Conversely, a one percentage point change in agricultural employment share results in an increase in support by 982,075.3 million Rubles. Moreover, an increase in sown areas by one hectare correlates with a rise in support by 5,182,145 million Rubles.

Market characteristic variables generally align with the hypotheses, except for the net export position of products, which exhibits a slight positive correlation with agricultural support. An increase in supply elasticities relative to output prices corresponds to reducing agricultural support by 30,467.94 million Rubles. In comparison, a rise in food expenditure shares decreases agricultural support by 41,238.38 million Rubles.

Among the policy variables analyzed, Russia's accession to the WTO had a substantial impact, leading to a significant reduction in support for farmers by 73,814.18 million Rubles. Comparatively, an increase in oil prices resulted in a support increase of 17,315,670 million Rubles for every one percent rise. Tax hikes correlated with increased agricultural support, while backing for governmental and private farms gradually declined over time. These trends reflect expected periods of difficulty during the early transition and subsequent efforts to revive the national food security doctrine.

Discussion

Considering the current conflict between Russia and Ukraine, it is essential to analyze the future trajectory of agricultural support policies in Russia. Historically, post-Soviet agricultural policy has been characterized by instability, marked by fluctuations between liberal and national-conservative reforms. Initially supporting private farming, there has been a shift towards favoring large agricultural organizations, accompanied by implementing protectionist measures under the guise of national security concerns. The evolving international landscape, domestic political instability, and farmers' electoral considerations further shape agricultural policy, rendering it susceptible to changing political priorities.

Market characteristics indicate that price elasticities of supply are inelastic (Figure 2 a)), implying that increasing subsidies for products with such supply characteristics leads to only minor increments in quantity supplied. Consequently, the primary advantage of the subsidy lies

in boosting producer revenue rather than substantially augmenting output. Notably, in 2015, the largest agricultural organizations received 50% of all subsidies, contrasting sharply with the 10% received by the largest enterprises in 1995 (Uzun et al., 2019), highlighting the ongoing dominance of large agro-holdings in reaping benefits from agricultural support. Given the inelastic price elasticities of supply, this trend is expected to persist during the conflict, leading to continued reliance on agricultural support policies.

With demand price elasticity being relatively elastic compared to supply for most products (Figure 2 a) and b)), consumers witness limited price reductions but significantly increase their consumption, especially for items with higher demand elasticities than supply. Given the Russian government's focus on subsidizing livestock products (Figure 1 a)) and their substantial share of food expenditure (Figure 2 c)), heightened consumption of heavily subsidized goods is expected. Given the predominant import status of these products (Rada et al., 2017) and potential global food price increases (Hughes, 2022), there is an expected rise in demand for increased government support.

On average, a slightly positive correlation exists between total food self-sufficiency (net export position) and agricultural support. However, upon examining the support structure (Figure 3), it becomes evident that mainly imported products receive high subsidies due to inadequate infrastructure for producing technologically advanced goods like milk products (Liefert & Liefert, 2020), while exported products such as grains are taxed. Thus, the support structure aligns with our expectations at the product level. Given the increased grain harvest in 2022-23, resulting in a 23% volume rise compared to the previous five-year average (Tani et al., 2023), Russia's export taxation of grain will likely reduce prices.

Prices and incomes significantly impact terms of trade, agricultural employment share, and agricultural share across both agricultural and non-agricultural sectors. The positive correlation

between agricultural employment share and agricultural support, despite a slight decrease in employment share and a gradual increase in support in descriptive trends (Figure 1), lacks a clear explanation. These indicators evolve gradually over the long term due to the time required for individuals to acquire qualifications for new professions, exhibiting slow responses to sudden shocks. Consequently, despite Russia's substantial increase in military production since the war against Ukraine began (Roth, 2024), significant shifts in these indicators during the conflict are improbable.

Contrary to Sedik et al.'s (2013) forecast of minimal change in Russian agricultural policies following WTO accession, our findings indicate a substantial negative impact of WTO accession on agricultural support. The debate surrounding WTO accession raised concerns among farmers and authorities, with grain exporters notably unaffected by the membership (Portansky, 2011). However, WTO accession conflicted with the objectives outlined in the previous State Program for Development of Agriculture in 2013-2020, prioritizing food security and self-sufficiency.

Supporters of Russia's WTO accession highlighted potential economic growth benefits, estimated to reach up to 11% of GDP, while opponents warned that WTO membership could jeopardize these gains (Fean, 2012). Previously backed by government policies, agricultural producers felt betrayed when import duties on products like live pigs were drastically reduced (from 40% to 5%) in 2012, sparking protests, even within the legislature (Vorotnikov, 2012). Despite opposition from the agricultural lobby, Russia ratified the protocol for WTO accession in August 2012, signaling a departure from prioritizing food security in government discourse (Cooper, 2012). This trend is expected to persist, given Russia's commitment to WTO membership.

Our findings regarding the types of farms indicate that despite a declining trend in agricultural production by agricultural organizations, governmental spending has increased. Conversely, production growth by private farms has received less governmental support. Consequently, agricultural organizations have a notable lobbying influence, while private farms lack political power in lobbying efforts.

The distribution of support funds from the federal budget is further supplemented by regional governments using their own budgets before reaching the end users (Uzun et al., 2019), resulting in varying subsidy rates across Russia's regions (Kvartiuk & Herzfeld, 2021). This differential allocation of state support extends to farm types, where the top 248 largest agricultural enterprises (1.2% of the total) received 40.9% of all subsidies in 2015. Notably, these enterprises received 2.5 times more subsidy per Ruble of sales compared to the smallest enterprises in the first group (Uzun et al., 2019).

Amid the conflict, Russia's GDP saw a surge fueled by heightened energy exports to Asia (O'Donoghue, 2023), likely leading to an uptick in government expenditure in the agricultural domain. This observation resonates with our research, revealing a consistent positive relationship between oil prices, tax revenues, and governmental allocation to agriculture over time. Despite economic headwinds, Russia's pivotal role as a significant energy exporter positions it strategically to bolster its agricultural sector through amplified state backing.

Historical periods affirm that during the early transition years, the agricultural sector primarily faced taxation (Figure 1). Subsequently, as economic development progressed, substantial state support was extended through initiatives like the State Program for the Development of Agriculture (2012-2020). As Russia's aggression against Ukraine unfolds, it is likely to steer a new trajectory in the economy and agricultural sector, where the issue of state support will emerge as a crucial topic.

Conclusion

Over the past three decades, Russia's agricultural policy has transformed from taxing farm households to subsidizing them, driven by concerns for national food self-sufficiency. This period has seen oscillations between liberal and national-conservative reforms, with initial support for private farming shifting towards favoring large agricultural organizations and implementing protectionist measures under national security pretexts. Furthermore, Russia's entry into the WTO signaled a departure from prioritizing food security in governmental discourse.

This study explores the political and economic drivers behind Russia's agricultural policy changes by utilizing Swinnen's (1994) positive theory of agricultural protection alongside data from 1990 to 2019 for 14 agricultural commodity sectors. Empirical findings suggest that economic development indicators and policy variables such as terms of trade, agricultural employment share, sown area, WTO membership, and oil prices significantly influence agricultural subsidies. Over the last three decades, Russia's non-agricultural sectors have contributed to increased subsidy support for agriculture, reflecting a structural transformation observed in other developed countries as they transition from rural to urban economies.

Russia's accession to the WTO resulted in a noticeable reduction in agricultural subsidy rates, limiting the scope for stimulating agricultural production without distorting markets. Consequently, measures aimed at promoting agricultural development within these constraints include investments in infrastructure facilities, revitalization of research institutes focusing on breeding and genetics, agricultural education improvements, rural infrastructure development, and modernization of livestock complexes to address environmental challenges. However, these measures are not easily implementable in a country that previously relied on market-distorting mechanisms to support the agricultural sector.

This article refrains from predicting the future trajectory of agricultural support in Russia due to the country's shifting priorities and political uncertainties. It is imperative to address a fundamental question to formulate a coherent long-term agricultural policy: What is the overarching goal of this policy? Is Russia aiming to achieve food self-sufficiency, thereby minimizing food imports, or does it aspire to boost the export of high-value-added agricultural products, positioning itself as a significant player in the global food market? While these strategies are not mutually exclusive, they entail distinct practical measures. The misconception that addressing food autonomy must precede embarking on an export-oriented strategy is misguided and counterproductive. Transitioning between these scenarios incurs additional costs, which could be mitigated by setting clear development objectives.

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