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# **Polit-Economic Analysis of Policy-Making in Ukraine**

**Modelling and Empirical Measurement  
of the Collective Decisions on  
the Example of Agricultural Policy**

**Nino Chkoidze**



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Center for international Development and Environmental Research

Polit-Economic Analysis of Policy-Making in Ukraine.  
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the Example of Agricultural Policy

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## Vorwort

Nino CHKOIDZE greift in ihrer Arbeit ein agrarpolitisch und transformationsökonomisch hoch interessantes Thema auf. Es geht um die Erklärung der Agrarpolitik in der Ukraine. Konkret werden die politischen, strukturellen und institutionellen Rahmenbedingungen und deren Einfluss auf die politischen Entscheidungen im Agrarsektor vor den Präsidentschaftswahlen im Jahr 2010 untersucht. Darüber hinaus werden explizit auch die Rolle und der Einfluss von Interessengruppen auf das agrarpolitische Geschehen analysiert. Für ihre Analyse greift die Autorin zum einen auf das polit-ökonomische Gleichgewichtsmodell von COLEMAN und dessen Erweiterung von HENNING/PAPPI zurück. Zum anderen nutzt sie das GROSSMAN-HELPMAN-Modell zur ökonometrischen Bestimmung der unterschiedlichen Protektionsniveaus zwischen den einzelnen Agrarprodukten. In der Ukraine, wie in vielen anderen ehemaligen Sowjetländern, werden nämlich gleichzeitig einige Produktionsrichtungen netto besteuert, während andere subventioniert werden, also eine positive Protektion aufweisen. Das bedarf einer Erklärung. Vor dem Hintergrund der oft inkonsistenten und widersprüchlichen ukrainischen Agrarpolitik ist es das Ziel der Arbeit,

- die relevanten Akteure und ihre Interaktionen in der ukrainischen Agrarpolitik zu identifizieren,
- deren Präferenzen und generelle Orientierungen im Hinblick auf agrarpolitische Problemfelder zu beleuchten und
- den Einfluss institutioneller und struktureller Faktoren auf politische Entscheidungen unter verschiedenen Szenarien zu bestimmen.

Die Arbeit bewegt sich damit im Schnittpunkt von Agrarökonomie und Politikwissenschaften und möchte einen Beitrag zur rationaleren Agrarpolitikgestaltung leisten, um das bislang nicht voll ausgeschöpfte landwirtschaftliche Potenzial des Landes zu verbessern. Sie liefert auf Basis anspruchsvoller empirischer Methoden eine Reihe interessanter Detailinformationen über die schwierige Situation in einem typischen Transformationsland und ermöglicht vertiefte Einblicke in das komplexe, oft undurchschaubare Geflecht zwischen Wirtschaft und Politik. Allen an Transformationsfragen interessierten Lesern ist die Lektüre der Arbeit zu empfehlen.

Gießen, 16.01.2018

Prof. Dr. Dr. h.c. P. Michael. Schmitz





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## List of Abbreviations

AMS	Aggregate Measurement of Support
BE	Berlin Economics
BL	Bloc Lytvyn
BYuT	Bloc Yulia Tymoshenko
CAE	Collective Agricultural Enterprise
CIS	Commonwealth of Independent States
CPU	Communist Party of Ukraine
CSE	Consumer Support Estimate
DCFTA	Deep and Comprehensive Free Trade Area
EBRD	European Bank for Reconstruction and Development
EPC	Effective Protection Coefficient
EU	European Union
FA	Farmers Association
FAO	Food and Agricultural Organization of the United Nations
FAOSTAT	Food and Agriculture Organization Corporate Statistical Database
FAT	Fixed Agricultural Tax
FDI	Foreign Direct Investments
FSU	Former Soviet Union
FTA	Free Trade Agreement
GA	Grain Association
G-H	Grossman-Helpman Model
GDP	Gross Domestic Product
GG	Given Governance
GIS	Geographical Informational Systems
GSSE	General Services Support Estimate
GVA	Gross Value Added
HS	Harmonized System
IER	Institute for Economic Research and Policy Consulting
IMF	International Monetary Fund
KMO	Kaiser-Meyer-Olkin
LIML	Limited Information Maximum Likelihood
MFN	Most Favoured Nation
MoA	Ministry of Agrarian Policy
MoE	Ministry of Economy
MPS	Market Price Support
MSA	Measure of Sampling Adequacy
NF	No Feedback Effect
NGO	Non-Governmental Organisation
OECD	Organisation for Economic Co-operation and Development
OU	Our Ukraine-People's Self Defence
PA	Poultry Association
PAC	Political Action Committee
PAE	Poor Agrarian Economy
PCA	Principal Component Analysis
PERT	Political Economic Research Transaction
PEST	Political Economic Seeking Transfer
PI	Perfect Implementation
PoR	Party of Regions
PPF	Political Preference Function



PSE	Producer Support Estimate
RIE	Rich Industrial Economy
SLB	State Land Bank
SPS	Sanitary and Phytosanitary Measures
ST	Single Tax
TRAINS	Trade Analysis Information System
TRQ	Tariff Rate Quota
UAH	Ukrainian Hryvnia
UCAB	Association “Ukrainian Agribusiness Club”
UNCTAD	United Nations Conference on Trade and Development
USA	United States of America
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
VAT	Value Added Tax
WTO	World Trade Organization
2SLS	Two-Stage-Least-Squares

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# 1 Introduction

## 1.1 Problem Statement and Objectives

The agri-food industry is an important economic sector for Ukraine. Agricultural production amounts to about one tenth of the Gross Value Added (GVA) of the country. The external dimension of the sector plays an increasingly significant role. The contribution of the agri-food sector to total exports with about 38% in 2015, for instance, is substantial (Zelenska, 2016). Excluding rural households, agriculture represents the main source of income of about 17% of employees. About one third of the Ukrainian population resides in rural areas (Nivyevskiy et al., 2015).

The Ukrainian agriculture experienced a fundamental structural transformation since the early 1990s. In the course of the privatisation processes, agricultural land was transferred to about 7 million rural inhabitants, members of the former collective farms. At present, the Ukrainian agriculture carries a dual character: parallel to millions of households with agricultural plots averagely sized from two to five hectares, there are 45 379 enterprises of different organisational and legal forms. Despite recent decreasing tendencies, the share of households in agricultural production remains, with about 44.9%, still considerable (State Statistics Service of Ukraine, 2015). More than half of the agricultural land is currently leased and concentrated in large companies, the acreages of which often reach several hundred thousand hectares.

After years of production decline and stagnation, the Ukrainian agri-food sector began to recover from 2000 on, as a consequence of reform efforts, and since records mainly positive growth rates. Particularly in recent years, the sector experiences rapidly increasing profitability (Zelenska, 2016). The agricultural potential of the country, however, is far from being fully realised. In view of existing land reserves, the climatic and geographical conditions as well as the relatively low population density, Ukraine has a great potential to further raise its agricultural production and consolidate its position as one of the world's largest agri-food exporters. By further increasing productivity and expanding the export volume, agricultural producers could achieve substantial additional revenues (World Bank, 2008). Ad hoc policy-making and resulting uncertainties, lack of transparency and unequal treatment of agricultural subsectors, however, hamper investments, which are needed for development of capital-intensive



areas and productivity gains. This is aggravated by lack of expertise, inefficient infrastructure and limited access to production factors (Cramon-Taubadel et al., 2008). A difficult process of transformation, overall political turbulences and economic crises impede the formulation of consistent agricultural policy, necessary to form stable expectations. The latter, however, are of utmost importance for a sustainable development of the agricultural sector.

According to experts' assessment, Ukrainian agricultural policy does not place sufficient emphasis on the provision of public infrastructure and other supporting services. The excessive regulatory environment involves high transaction costs (Nivyeveskiy et al., 2015). While specific sub-sectors obtain considerable support through payments based on area, animal heads and outputs, a concessional credit programme as well as tax privileges, other sub-sectors suffer from a rather negative protection. Despite formally declared governmental commitments and state programmes, policy-making continues to be ad hoc and opportunistic, lacking a cohesive long-term strategic perspective aligned with economic principles (ibid.).

The present thesis analyses general political, structural and institutional conditions, which shaped the agricultural policy in Ukraine during the last phase of the Orange coalition in the run-up to the presidential elections in 2010. The study identifies the relevant actors in the policy domain and their interrelations. Furthermore, it aims to shed light on preferences and general orientation about topical agricultural issues – which are especially important against the backdrop of the erratic policy decisions. Further objectives of this thesis refer to the influence of institutional and structural factors on the determination of policy outcomes under different scenarios. To this end, the study not only deals with the constitutional order of the political system, in which decisions are formally adopted and implemented, but also with role and access structures of agricultural interest groups. As theoretical framework, the political-economic equilibrium model of Coleman (1966, 1990) and Henning (2000) is applied. This approach aims to analyse multidimensional collective decisions. The final policy outcomes are modelled as the result of the resource exchange between governmental and non-governmental actors, whereas access and exchange relations are organised in policy domain networks (Henning, 2000). Thus, the thesis carries an interdisciplinary character: the applied approach at the interface between agricultural economics, political science and economics adequately addresses the complexity of the issue.



Besides overall agricultural policy, the possible influence of organised groups on the formation of agricultural trade policy, in particular on the structure of import tariffs, is analysed in this thesis by application of the Grossman-Helpman (1994) model. The influence of organised interests on the trade policy pattern is examined by taking into consideration the dual character of Ukraine's agricultural structure. This is the first study which applies the Grossman-Helpman Model (G-H) on an agricultural sector of a transition country.

## 1.2 Outline

The thesis is divided into seven Chapters. In order to better identify the research question, Chapter 2 deals with the economic and agricultural situation in Ukraine after the independence. Against the background of the transition processes, the main phases of introduction and implementation of agricultural policy reforms are described. Following this, the key issues of Ukrainian agricultural policy are analysed, which include land reforms and farm structure, agricultural support and foreign trade policies, rural development, the agro-processing sector as well as environmental issues. The following Chapter 3 analyses the Ukrainian political system, decision-making processes as well as relevant players in the policy field.

Chapter 4 gives a review about general as well as specific agricultural political-economic approaches. It starts with basic concepts, assumptions and behavioural patterns of political-economic models. Since the agricultural policy domain is a classic field in which the influence of organised interest groups on political agenda-setting is assumed to be considerable (Persson and Tabellini, 2000) at least in developed countries, formal political-economic approaches are presented, which use neoclassical or game-theoretical equilibrium models to analyse the lobbying strategies of interest groups or the impact of lobbying on political decision outcomes and the welfare of society (Henning, 2004). The discussed models include theories of rent-seeking (Tullock, 1967; Krueger, 1974), logic of collective action (Olson, 1965), Chicago School approaches (Stigler, 1971; Peltzman, 1976; Becker, 1983, 1985) as well as the political market model (Tyers & Anderson, 1992). Afterwards, theoretical concepts are described, which seek to explain the interactions between policy-makers and voters instead of interest groups. In this context, the traditional median-voter theorem as well as the political preference model (Swinnen & Van der Zee, 1993) are discussed. The latter is particularly widely applied in agricultural policy research. Before presenting the political exchange model, the approach actually used in this study, the theoretical part briefly outlines alternative



models also analysing the multidimensional policies, including the probabilistic voting and agenda-setting models (Shepsle 1979; Shepsle & Weingast, 1981; Romer & Rosenthal, 1978, 1979).

Starting with the Coleman model (1966, 1990), the basic theoretical foundation of the political exchange model is delineated. Collective decisions are achieved by the exchange of votes (or power resources) between political actors as part of their legislative work proportionally to their interest intensities in various policy dimensions (“log-rolling”). In the following, extensions and modifications of Henning (2000) are depicted according to which the final policy outcomes are equal to the mean of the preferences of all actors involved, weighted by the respective power shares in the exchange equilibrium. Furthermore, the theoretical part deals with the operational and formal model of political influence developed by Henning that simultaneously takes multiple interest groups and political actors into account. In particular, the model reflects lobbying activities in terms of an exchange of politically valuable resources. To guarantee a non-opportunistic behaviour, political exchange is embedded in the policy domain network. In order to minimise the transaction cost of exchange, actors engage in brokerage relations which imply that those interest groups not only exchange influence resources directly, but also indirectly through other interest groups or politicians (Henning, 2004).

The political exchange model is followed by the approach for trade policy developed by Grossman and Helpman (1994). The latter offers a model to assess the influence of organised interests on trade protection patterns. Due to its tightness, the model is well suited for an econometric application and has been widely used in studies about trade policies.

The empirical analysis of this work is divided into two sections. While in the first one the application of the political exchange model is based on self-collected data, the analysis in the second section uses secondary data. Chapter 5 starts with the calculation of the institutional decision-making power of the political actors by using the Shapley-Shubik index for different constellations. The evaluation and analysis of personal interviews provide preferred positions of relevant political actors and interest groups regarding the major agricultural policy issues as well as the nature and intensity of their interactions. The structure of communication and the resource exchange between the actors are identified through an empirically obtained policy network. The quantitative network analysis measures power and influence distribution in equilibrium. The array of policy preferences is used as indicator of underlying ideological



orientations. In the framework of quantitative political policy analysis, the outcomes of the reference scenario are calculated. A number of simulated scenarios examine the influence of institutional and structural changes on the agricultural policy outcomes and give insights about possible shifts in general orientation. The scenarios include the situation without lobbying or exchange of resources, constitutional amendments in the form of the introduction of the two-chamber parliamentary system as well as a political setting with a strong party government. The scenarios regarding institutional changes stem from the ongoing debates about constitutional amendments during the study period.

Chapter 6 deals with the possible influence of organised interests on import tariffs. The study applies the Grossman-Helpman (1994) “Protection for sale” theoretical framework and is based on the detailed panel data from the time period prior to Ukraine’s World Trade Organization (WTO) accession, when the decisions were made relatively independently. The econometric model is estimated by use of instrumental variables, considering the possible endogeneity of the regressors. Hereby, different specifications for the variable identifying the political organisation level are employed. The sensitivity analysis tests the robustness of the results. Chapters 4 and 5 conclude with the evaluation of the respective methodological limitations of the applied models and assess the informative value and explanatory power of the achieved results.

The final Chapter 7 summarises the present work and outlines the future research needs.