Reducing Market Distortions for a More Prosperous Ukraine

Proposals for Market Regulation, Competition Policy, and Institutional Reform

WORLD BANK GROUP

ACKNOWLEDGEMENTS

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ACRONYMS AND ABBREVIATIONS

AMCU	Antimonopoly Committee of Ukraine
CMU	Council of Ministers of Ukraine
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
HHI	Herfindahl-Hirschman Index
ICT	Information and Communications Technologies
MEDT	Ministry of Economic Development and Trade of Ukraine
OECD	Organisation for Economic Co-operation and Development
PMR	Product Market Regulation
TFP	Total Factor Productivity
WBG	World Bank Group
WDI	World Development Indicators

CONTENTS

List of Figures

List of Tables

EXECUTIVE SUMMARY

The following report is designed to support the Government of Ukraine as it strives to promote robust and sustainable growth through market-based reforms. The report examines Ukraine's market conditions, regulatory framework, and approach to government intervention in terms of their consistency with vigorous competition and economic efficiency. The report's findings inform a set of policy solutions to help Ukraine achieve its growth potential and create inclusive economic opportunities.

As it attempts to accelerate its economic recovery in the wake of the recent crisis, Ukraine has substantial scope to increase productivity by enhancing competition and implementing market-based reforms. Between 2010 and 2016, Ukraine's annual total factor productivity (TFP) growth rate averaged just 0.9 percent, and the contribution of TFP to GDP growth was negative. The country's industrial sector and export structure are resistant to change, and both remain focused on older industries such as steel, machine-building, and chemical production despite their low levels of productivity. Meanwhile, inflows of foreign direct investment have been very modest, especially in export-oriented manufacturing. Small and medium-sized enterprises play a limited role in Ukraine's economy, and larger firms and business groups dominate most sectors—suggesting that competitive, market-driven processes of entrepreneurship, innovation, and productivity growth are not functioning properly. Firms' perceptions of the power wielded by vested interests and the prevalence of cronyism, anticompetitive practices, and discrimination against foreign firms further underscore the country's distorted playing field.

Addressing these challenges through pro-competition reforms that increase market contestability and sharpen incentives to allocate resources efficiently could accelerate economic growth and promote broad-based development. Recognizing the need to increase productivity through private-sector-led growth, the government has begun implementing a set of market-oriented reforms. However, more must be done to build a modern market economy capable of generating robust, sustainable growth and shared prosperity.

Ukraine's markets are concentrated, as government interventions and regulatory barriers—combined with the dominant role of state-owned enterprises (SOEs) and the power of politically connected firms—limit entry and distort competition. The wave of privatizations in the 1990s shifted the ownership of former state monopolies to politically connected private interests, but they did not create fully open or contestable markets, and subsequent

attempts to privatize the remaining SOEs have largely failed. Certain sectors and even specific SOEs remain protected from restructuring despite operating alongside private firms in markets where competition is clearly viable. SOE market shares exceed 50 percent in at least 15 of 28 sectors and markets. These SOEs consume public resources and crowd out private investment, and their continued existence often lacks a clear rationale. In addition, the share of politically connected private firms is unusually high, reaching over 60 percent of sectoral turnover or assets in capital-intensive industries.[1] Together, SOEs and politically connected firms are the major players in at least 13 markets, including all of the key productivity-enabling sectors.

The Ukrainian economy suffers from weak competitive pressure, with little room for investment in value addition. An analysis of entry and exit dynamics reveals a persistent lack of contestability in Ukrainian markets. Even markets where competition would typically be viable tend to be dominated by a single SOE or a few large firms, often with political connections, which reduces competitive pressure and exacerbates the risk of anticompetitive practices. An econometric analysis[2] of firm-level data for 2006–2015 finds statistically significant differences in economic outcomes between politically connected firms and other firms, even when controlling for firm sector, size, and age. Not only are politically connected firms less productive than their non-connected peers, they also tend to have slower turnover, employment, and TFP growth rates. The estimated differences range from –5.7 to –16.2 percentage points for the turnover growth rate, –13.0 to –28.9 percentage points for the employment growth rate, and –4.6 to –10.1 percentage points for the TFP growth rate.

Concentrated markets and weak competitive pressures increase the costs of goods and services and diminish their quality. Ukraine ranked 83rd out of 140 countries on the 2017–18 Global Competitiveness Index (GCI), and its overall score (4.11 out of 7) has improved little over the past five years. Among Eastern European countries, only Moldova and Bosnia and Herzegovina scored lower on the GCI. Ukraine fares especially poorly on the sub-indicator for goods-market efficiency (4 out of 7) and ranks well behind close regional comparators such as Romania, Bulgaria, and Poland. Prices for basic food products, which comprise a significant portion of Ukraine's food consumption basket, are an estimated 20 to 50 percent higher than the levels observed in the OECD and in peer countries in Eastern Europe and Central Asia. Markets for certain food products, such as rice and sugar, are especially distorted by powerful interests, and prices for these goods are far above the levels of comparator countries. In addition, domestic prices for food commodities traded on international markets do not appear sensitive to changes in international prices, and domestic price regulations may have served as a floor, preventing downward price adjustment due to increased competition from abroad.

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[1] Firms are considered politically connected if they are able to influence the policy process to their advantage at the expense of the public interest.

[2] The World Bank Group and the UK Good Governance Fund (2018). Crony capitalism in Ukraine: impact on economic outcomes (English). Washington, D.C.: World Bank Group.

In Ukraine, the government's economic interventions have a major influence on market outcomes. The propensity of SOEs and politically connected firms in concentrated markets to lobby for regulatory protections and other policy-based advantages underscores the importance of mainstreaming the principle of competitive neutrality in government interventions. Even relatively minor distortions or barriers imposed in specific sectors can substantially impact market dynamics, especially in markets that are not naturally conducive to contestation.

To address these challenges, this report proposes measures to improve Ukraine's regulatory framework, institutional arrangements, and enforcement mechanisms within the context of a national competition policy. Although Ukraine's economywide and sectoral product-market regulations are relatively progressive in principle, their application must be strengthened to ensure a level playing field supported by competitively neutral public policies. At present, multiple sectoral regulators and market institutions are not fully independent and cannot effectively execute their mandates. In addition, a high degree of vertical integration in network industries and key productivity-enabling sectors (e.g., electricity and gas) can increase risks of market foreclosure, and in these cases the unbundling of monopolies or dominant players could yield substantial efficiency gains that enhance the competitiveness of downstream sectors. Therefore, a holistic competition policy must go beyond antitrust enforcement to: (i) ensure a competitively neutral environment that minimizes the policy-based advantages of SOEs and politically connected firms; (ii) improve the predictability, consistency, and transparency of the regulatory framework, both in principle and in application; and (iii) support the development of robust, independent market institutions.

CHAPTER 1

FROM MICROECONOMIC FUNDAMENTALS TO MACROECONOMIC OUTCOMES

Ukraine Has Substantial Scope to Boost Productivity through Increased Competition and Market-Oriented Reform

Ukraine is emerging from a period of slow growth in the wake of the economic crisis that marked the start of the still-unresolved conflict in the eastern part of the country. The economy has begun to stabilize, with real GDP growing by 2.3 percent in 2016 and 2.5 percent in 2017. However, this follows a cumulative 16 percent contraction in 2014 and 2015.[3] The Ukrainian government is aware that market-based reforms will be vital to accelerate growth, and the authorities have already taken important steps to increase competition. Nevertheless, much more could be done to reduce the distortive impact of the regulatory framework, especially in network industries and services, and the evenhanded enforcement of competition policy by independent market regulators will be necessary to increase investment and improve outcomes for consumers and businesses. In this context, the following report analyzes market competition in Ukraine, evaluates the efficiency of its regulatory framework, and assesses the extent to which government interventions are conducive to competition. The report's findings are designed to inform policy solutions that will help unleash the country's growth potential and create inclusive economic opportunities.

Strengthening competition policy will be critical to overcome Ukraine's decades-long lack of productivity growth and leverage the capacity of an efficient private sector to sustain progress on social development by expanding access to affordable, high-quality goods and services. Competition policy encompasses the laws, regulations, processes, and institutions necessary to ensure a level competitive playing field and address distortions that could reduce economic welfare.[4] A sound competition policy framework promotes economic growth and shared prosperity both by facilitating productivity growth within firms and by enabling the efficient reallocation of resources to more-productive firms and sectors.[5] Productivity gains reduce prices and improve the quality of goods and services, benefitting consumers—including lower-income households. Effective competition policies must consider the specific features of different markets, and well-designed

[3] World Bank Group (2018). Macro Poverty Outlook for Europe and Central Asia. Spring Meetings 2018.
[4] See Motta, M. (2004). Competition policy: theory and practice. Cambridge University Press.
[5] See Syverson, C. (2011). What Determines Productivity? Journal of Economic literature.

government interventions are especially important in sectors that are naturally vulnerable to market failures or anticompetitive practices.

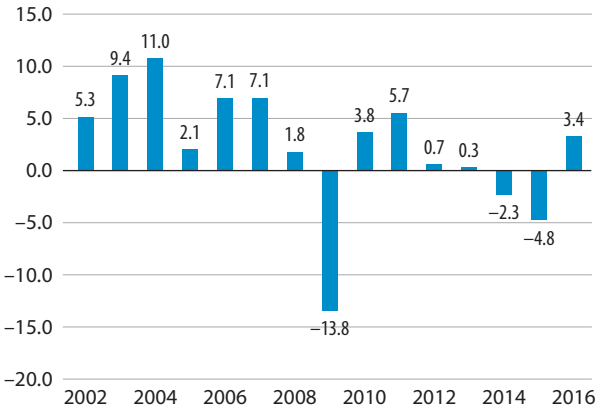
As it recovers from the recent crisis, Ukraine can accelerate its economic development by adopting pro-competition reforms that sharpen efficiency incentives. In past decades, the economy has experienced a volatile growth pattern, which expansions driven by favorable terms of trade and large capital inflows in a context of weak underlying productivity growth, persistent structural bottlenecks, and serious governance challenges. The country's industrial sector and export structure are resistant to change, and both remain focused on older industries such as steel, machine-building, and chemical production despite their low levels of productivity. Meanwhile, inflows of foreign direct investment (FDI) have been very modest, especially in export-oriented manufacturing.[6] Small and medium-sized enterprises play a limited role in Ukraine's economy, and larger firms and business groups dominate most sectors—suggesting that competitive, market-driven processes of entrepreneurship, innovation, and productivity growth are not functioning properly.[7] Firms' perceptions of the power wielded by vested interests and the prevalence of cronyism, anticompetitive practices, and discrimination against foreign firms further underscore the country's distorted playing field.[8]

Ukraine Suffers from Persistently Low Productivity, Limited Investment, and Shrinking Industrial and Service Sectors

Weak productivity growth is among the most salient, enduring, and critical obstacles to economic development in Ukraine. During 2000–08, the annual TFP growth rate averaged 6.6 percent, and rising TFP was responsible for over 80 percent of GDP growth. However, the robust TFP growth observed during this period was due in part to rebounding capacity utilization following the sharp post-transition contraction of the 1990s. During the 2008–09 global financial crisis, deteriorating external conditions caused TFP to plummet, and between 2010 and 2016 the annual TFP growth rate averaged just 0.9 percent (Figure 1), well below the rates of most comparable countries in Eastern Europe and Central Asia (Figure 2).[9] Low TFP growth rates have detracted from overall GDP growth in recent years (Figure 3). While signs of a recovery in TFP growth have emerged since 2016, restoring productivity growth to pre-crisis levels and sustaining those levels over time pose considerable challenges.

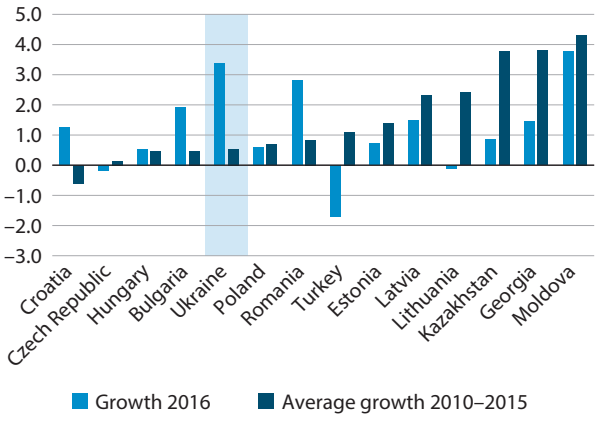
[6] FDI represented 1 % of GDP in January-July 2017. World Bank. 2017. Macro Poverty Outlook for Europe and Central Asia and World Development Indicators.
[7] World Bank (2014). Opportunities and Challenges for Private Sector Development.
[8] Economist Intelligence Unit (2018).
[9] Poland, Turkey, Lithuania, Romania, Moldova, Kazakhstan, Bulgaria, Estonia, Latvia, Croatia, Czech Republic, Georgia.

FIGURE 1 Total Factor Productivity Growth, Ukraine, 2002–2016 (%)



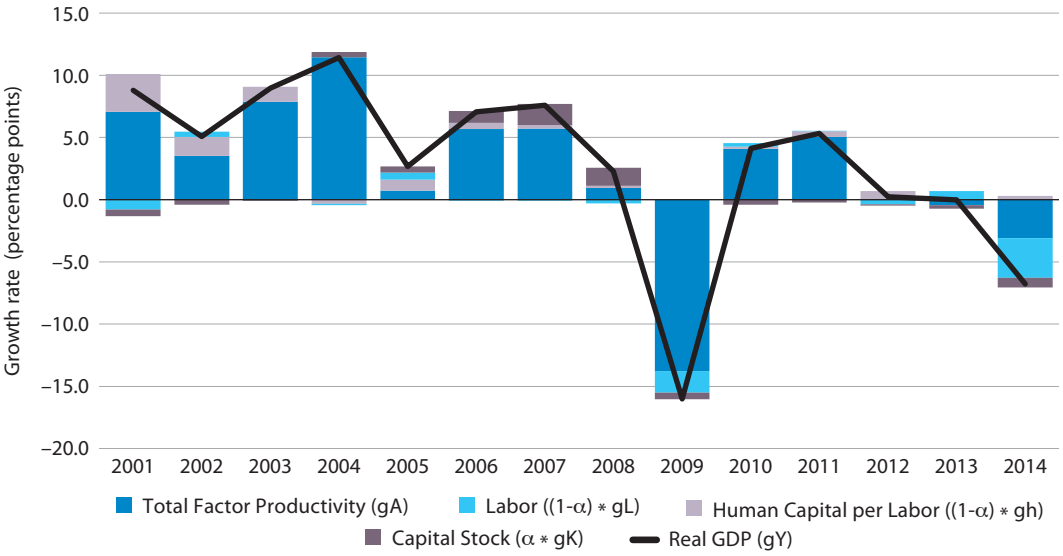
Source: The Conference Board Total Economy Database™ (adjusted version), November 2017

FIGURE 2 Total Factor Productivity Growth, Ukraine and Comparators, 2010–2016 (%)



Source: The Conference Board Total Economy Database™ (adjusted version), November 2017

FIGURE 3 Contributors to GDP Growth (percentage points)

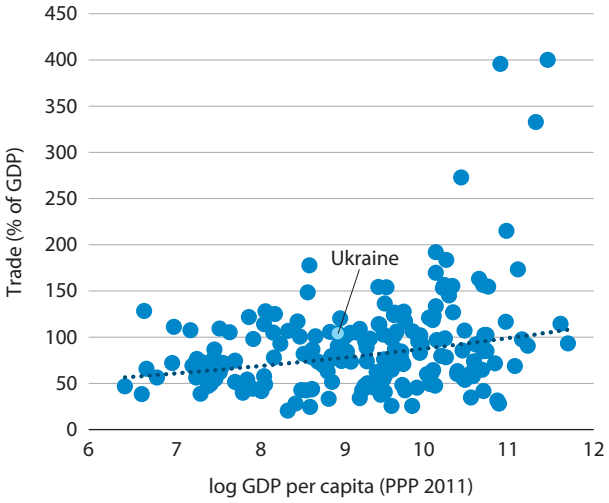


Source: World Bank staff

Note: Growth rates are weighted according to the income share of capital (%) = 40%

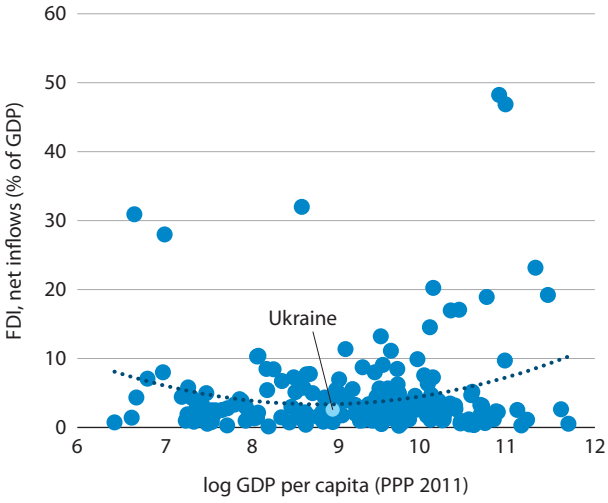
Although Ukraine is open to trade, the country could attract much more FDI, especially in higher-value, export-oriented markets.[10] While Ukraine performs relatively well on measures of trade openness[11] (Figure 4), it attracts less FDI than do many comparable countries (Figure 5). Before the crisis, annual net FDI inflows averaged 5 percent of Ukraine's GDP, but in 2017 they reached just 2.1 percent, below the levels of the Czech Republic (4.3 percent), Croatia (3.8 percent), Latvia (3.8 percent), Bulgaria (2.9 percent), and Romania (2.3 percent).[12] The slow pace of the reform process, unaddressed macroeconomic vulnerabilities, and uncertainty surrounding the 2019 elections are among the key factors weakening investor confidence.[13]

FIGURE 4 International Trade as a Share of GDP, Ukraine and Comparators, 2006–2017 (%)



Source: WDI Dataset

FIGURE 5 Net FDI Inflows as a Share of GDP, Ukraine and Comparators, 2006–2017 (%)



Source: WDI Dataset

[10] These include high-value metal and agriculture products.

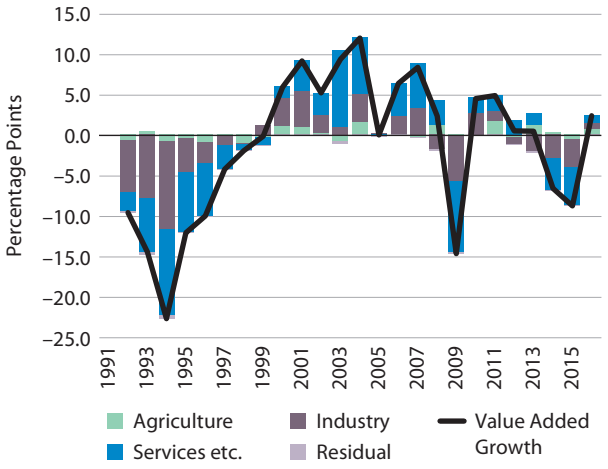
[11] According to MIT's Atlas Media for 2016, Ukraine's top exports are seed oils (US$3.44 billion, 9.8 percent of total exports), wheat (US$2.37 billion, 6.7 percent), corn (US$2.26 billion, 6.4 percent), semi-finished iron (US$2.1 billion, 6.0 percent) and iron ore (US$1.92 billion, 5.5 percent) per the 1992 Harmonized System. The country's top imports are refined petroleum (US$3.3 billion, 8.7 percent of total imports), packaged medicaments (US$1.37 billion, 3.6 percent), cars (US$1.24 billion, 3.3 percent), coal briquettes (US$1.11 billion, 2.9 percent) and petroleum gas (US$964 million, 2.5 percent). For further information, see: https://atlas.media.mit.edu/en/profile/country/ukr/

[12] Peer countries include Poland, Turkey, Lithuania, Romania, Moldova, Kazakhstan, Bulgaria, Estonia, Latvia, Croatia, Czech Republic, and Georgia.

[13] World Bank Group (2018) "Macro Poverty Outlook for Europe and Central Asia." Spring Meetings 2018.

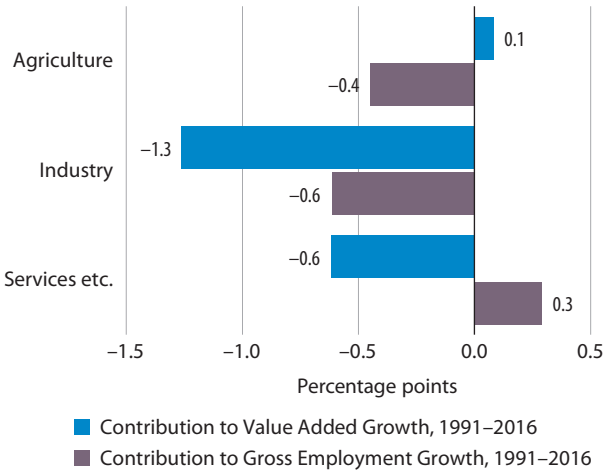
Since 2009, Ukraine's most important economic sectors have been stagnating or shrinking. Services account for 60 percent of Ukraine's GDP, followed by industry (30 percent) and agriculture (10 percent). The growth of value addition has been either low or negative in the post-crisis period (Figure 6), and the industrial sector has had the largest negative impact on the growth of total value addition (Figure 7). The service sector has also detracted from total value addition, though its contribution to gross employment has been positive due to an expanding public-sector workforce, as the share of public services in GDP rose significantly between 2010 and 2015 (Figure 8). Agriculture, meanwhile, has increased as a share of GDP and is the only major sector that made a positive contribution to value addition between 1991 and 2016.

FIGURE 6 Contribution to the Growth of Value Addition by Major Sector, 1991–2015 (percentage points)



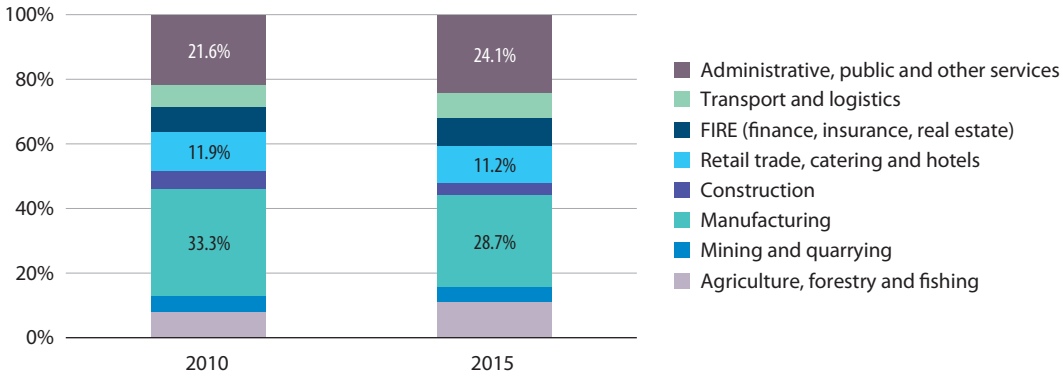
Source: World Bank staff

FIGURE 7 Contribution to the Growth of Value Addition and Gross Employment, 1991–2016 (percentage points)



Source: World Bank staff

FIGURE 8 Supply-Side GDP Decomposition by Subsector, 2010 and 2015 (%)



Source: Ukrstat.

Recognizing the need to increase productivity and facilitate private-sector-led growth, the government has launched important reforms in recent years. These efforts have focused on three areas: (i) privatization, with the government and the State Property Fund working on a privatization plan;[14] (ii) energy, with recent reforms attempting to open the electricity market to competition;[15] and (iii) digital technology, with the approval of a roadmap to increase productivity by introducing new information and communications technologies (ICT) and leveraging public-private partnerships to invest in broadband internet infrastructure.[16]

Further reforms will be necessary to build a robust and competitive market economy. Certain sectors and even specific SOEs remain protected from restructuring despite operating in markets that can sustain private firms. For example, Energoatom, which holds a market share of over 90 percent in the electricity-generation subsector, is just one of many SOEs protected from privatization by a 1999 law.[17] Moreover, many key pro-competition reforms have only been partially implemented. For example, the state-owned oil and gas company Naftogaz is currently unbundling its transmission functions, yet otherwise it remains fully vertically integrated. While the government has undertaken important reforms under very difficult circumstances, Ukraine's regulatory framework continues to restrict competition. Further improvements in competition policy could boost economic growth by promoting allocative efficiency and encouraging private investment.

[14] The new Law on the Privatization of State and Communal Property became effective in March 2018. The government has indicated that the 21 largest SOEs are scheduled to be privatized during 2018, including SOEs in the energy, chemicals, engineering, and agricultural sectors.

[15] These measures include the unbundling of electricity transmission and distribution, with the goal of establishing a liberalized wholesale market by July 2019 and liberalized household electricity prices by December 2018. See: The Law on the Electricity Market (13.04.2017 #2019-VIII) available at http://zakon3.rada.gov.ua/laws/show/2019-19

[16] Ministry of Economic Development and Trade, cited by Ukraine Digital News at http://www.uadn.net/2018/01/24/ukrainian-government-approves-digital-economy-strategy-for-ukraine/

[17] The Law on the List of Objects of State Property Not Subject to Privatization

CHAPTER 2

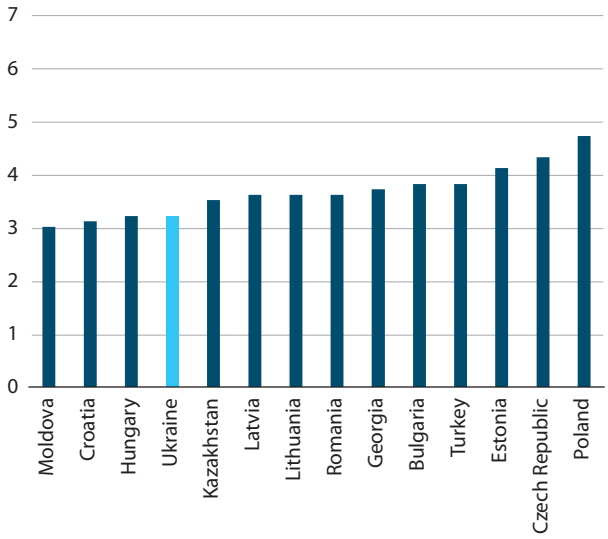
SOURCES OF COMPETITION AND MARKET CONSTRAINTS

SOEs and Politically Connected Firms Dominate Key Sectors, Weakening Market Contestability and Undermining Efficiency Incentives

Surveys and firm-level data both indicate high levels of market dominance in Ukraine. According to surveys conducted for the World Economic Forum's Global Competitiveness Report, only Moldova, Croatia, and Hungary were perceived to experience more severe market dominance than Ukraine (Figure 9). Firm-level data[18] corroborate these perceptions and highlight the increasingly oligopolistic structure of Ukraine's manufacturing markets. The share of oligopolies in the manufacturing sector[19] rose from 25 percent in 2008 to 44 percent in 2013, and a relatively large share of firms in the sector report operating in an oligopoly or duopoly (Figure 10).[20]

In addition, the large market shares commanded by SOEs and politically connected firms appear to undermine contestability and weaken efficiency incentives. High levels of market concentration are not necessarily a cause for concern, as successful firms can garner large market shares through innovation, process optimization, or other efficiency-enhancing measures. However, market dominance may also occur when firms are shielded from competition by barriers to entry or when they enjoy large regulatory advan-tages over their competitors. Competitive neutrality— the

FIGURE 9 The Extent of Market Dominance in Ukraine



Source: World Economic Forum 2017/18

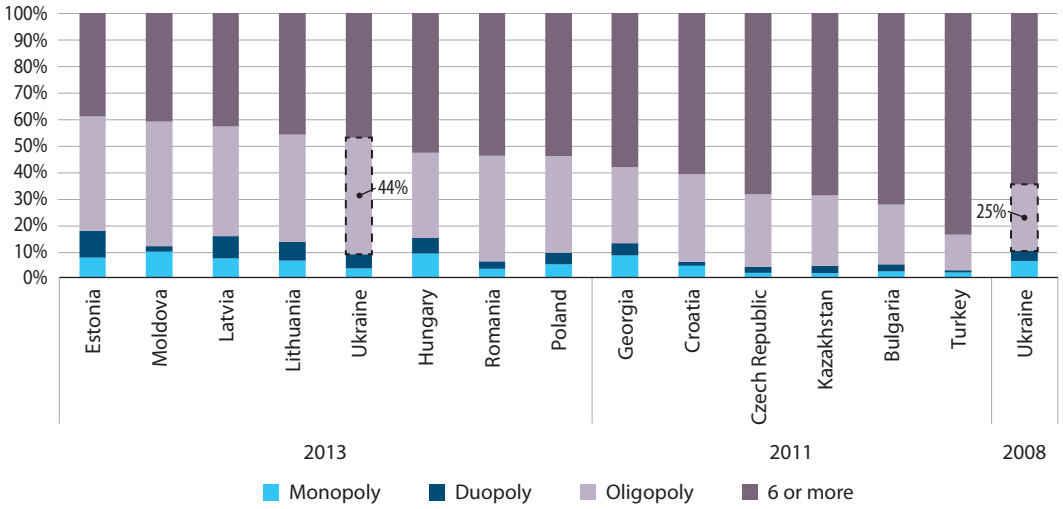
Note: Values range from 1 (highly concentrated) to 7 (highly contested)

[18] World Bank and European Bank for Reconstruction and Development Enterprise Surveys (2008, 2011, and 2013).

[19] The manufacturing sector includes food, textiles, garments, leather, wood, paper, publishing, printed and recorded media, refined petroleum products, chemicals, plastics and rubber, non-metallic mineral products, basic metals, fabricated metal products, machinery and equipment, electronics, precision instruments, transportation machines, furniture, and recycling.

[20] A description of the Enterprise Survey methodology is available at http://www.enterprisesurveys.org/methodology.

FIGURE 10 Market Structures in the Manufacturing Sector, Ukraine and Comparators



Source: World Bank/EBRD Enterprise Surveys for 2008, 2011, and 2013 (manufacturing sectors only)

principle that government interventions should not favor certain firms over others—is vital to ensure that the presence of SOEs and politically connected firms does not undermine market efficiency.

Due in part to its history as a command economy, Ukraine has an unusually large number of SOEs. A total of 3,591 SOEs are registered in Ukraine,[21] though only half are currently operational. These SOEs are not restricted to network industries with natural-monopoly segments (e.g., electricity, gas, water supply, and railways), and they operate in a wide range of manufacturing, agricultural, and financial services markets. Moreover, SOEs have repeatedly been used as instruments in corruption schemes.[22] Among comparator countries, Ukraine has an exceptionally large number of markets with at least one SOE (Figure 11).[23] Ukrainian SOEs employ about 1 million people, or roughly 5 percent of the national workforce.[24]

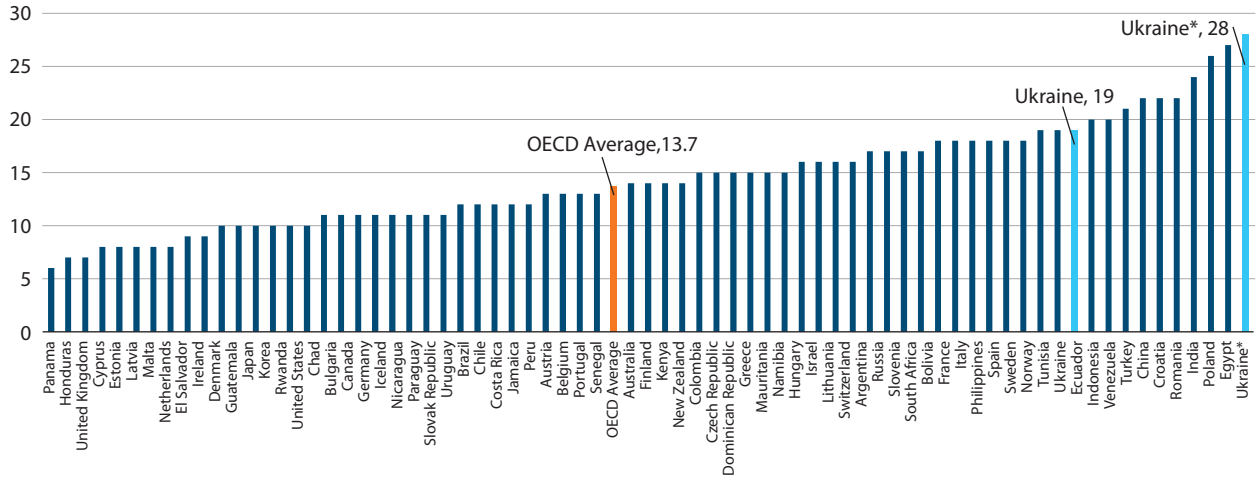
[21] Government of Ukraine (2017). See: http://www.spfu.gov.ua/ua/content/spf-stateproperty-Subiekti-gospodaruvannya.html

[22] Prime Minister Volodymyr Groysman, cited by Reuters. See: https://www.reuters.com/article/uk-ukraine-privatisation/ukraine-passes-privatisation-law-needed-for-imf-aid-idUKKBN1F71OD.

[23] World Bank and OECD (2018). The product-market regulation (PMR) indicator assesses the extent to which public policies promote or inhibit in several areas of product markets. The PMR methodology encompasses 12 subsectors and policy areas, including electricity, gas, telecommunications, postal services, transportation, water supply, retail distribution, professional services, other subsectors, administrative requirements for business startups, the treatment of foreign parties, and others, such as governance of public-controlled enterprises and antitrust exemptions. The information for Ukraine was collected in 2017, reflecting the status of the regulations as September 2017, and was used to calculate PMR scores in 2018.

[24] World Bank (2016). Systematic Country Diagnostic, p. 76

FIGURE 11 The Number of Markets with at Least One SOE, Ukraine and Comparator Countries

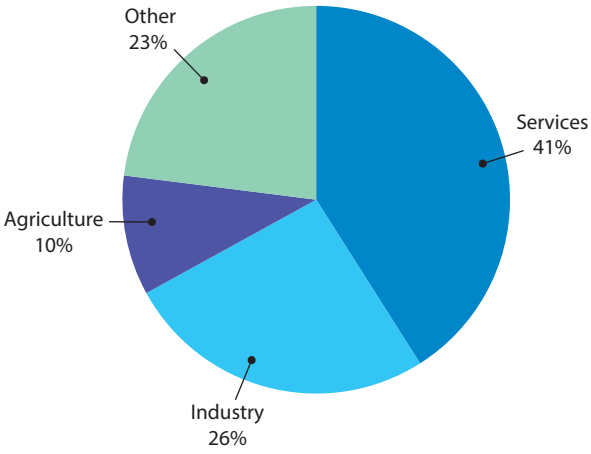


Source: Markets and Competition OECD-WBG PMR indicators (2018 for Ukraine; or most recent year)

Note: *Includes additional sectors beyond those reported in the Market and Competition World Bank/OECD PMR data.

Ukrainian SOEs are present in almost 30 economic sectors, and they hold significant market shares in more than half of the markets in which they operate. A plurality of Ukraine's 100 largest SOEs operate in the service sector (Figure 12). SOEs play an especially significant role in transportation (Figure 13), as well as other productivity-enabling sectors such as electricity and banking. SOEs are also present in extractive industries such as oil, gas, and coal mining, manufacturing industries such as chemicals and machinery, and commercial activities such as real estate. SOEs hold market shares greater than 50 percent in at least 15 of 28 subsectors and markets in which they operate.[25] The law explicitly prohibits privatization of some of these. In addition to Energoatom, the list of SOEs protected from privatization includes NJSC Naftogaz Ukrainy (the monopoly gas importer), PJSC Ukrtranshaz (the monopoly gas transporter), PJSC Ukrzaliznytsia (a railroad-infrastructure operator and passenger and freight transporter); PJSC Ukrainske Dunayske Paroplavstvo (a freight and passenger

FIGURE 12 Distribution of Ukraine's 100 Largest SOEs by Sector

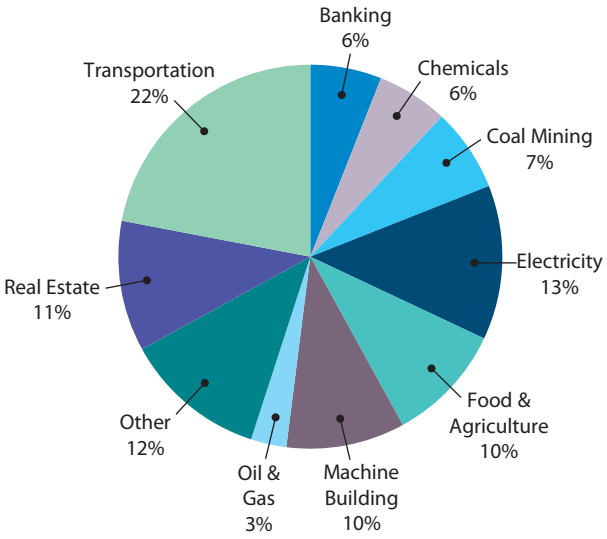


Source: MEDT (2015).

Note: "Other" includes media companies, other public services, and real estate.

[25] According to Markets and Competition OECD-WBG (2018) and MEDT (2015), at least one SOE operates in 28 subsectors and markets. However, this assessment is not necessarily exhaustive, and SOEs may also be active in additional subsectors and markets.

FIGURE 13 Distribution Ukraine's 100 Largest SOEs by Subsector



Source: MEDT (2015).

Note: "Other" includes media companies, other public services, and real estate.

transportation service provider), Dnipro and Kharkiv Metropolitan (a passenger transportation company), the Pivdennyi Machine-Building Plant (a manufacturer of fabricated metal products, machinery and equipment), Antonov (the national aircraft manufacturer), Antonov Airlines, Kiev Boryspil Airport, all of the country's seaports, all regional road-infrastructure operators, all companies involved in water collection, treatment, and supply,[26] the Hotel Dnipro in Kiev, and the State Design-Research Institute of Transport Construction("Kyyivdiprotrans").

Many Ukrainian SOEs lack a clear economic or public-policy rationale to justify their existence, and there is little indication that their benefits outweigh their costs. SOE losses strain the government's limited fiscal resources, and the market dominance of SOEs risks crowding out private investment. While some Ukrainian SOEs operate in sectors with national security implications, natural-monopoly characteristics, or other features that could potentially justify a role for the state, most SOEs are involved in sectors and markets where there is no obvious basis for government participation. Although a detailed analysis could reveal market failures that warrant SOE involvement, the international experience indicates that many sectors in which Ukraine's SOEs operate—including alcohol production, commercial banking, hotels, agriculture, and machine building—tend to function efficiently without SOEs, and SOE involvement in these sectors is rarely justified by strategic considerations or development policy objectives (Figure 14).

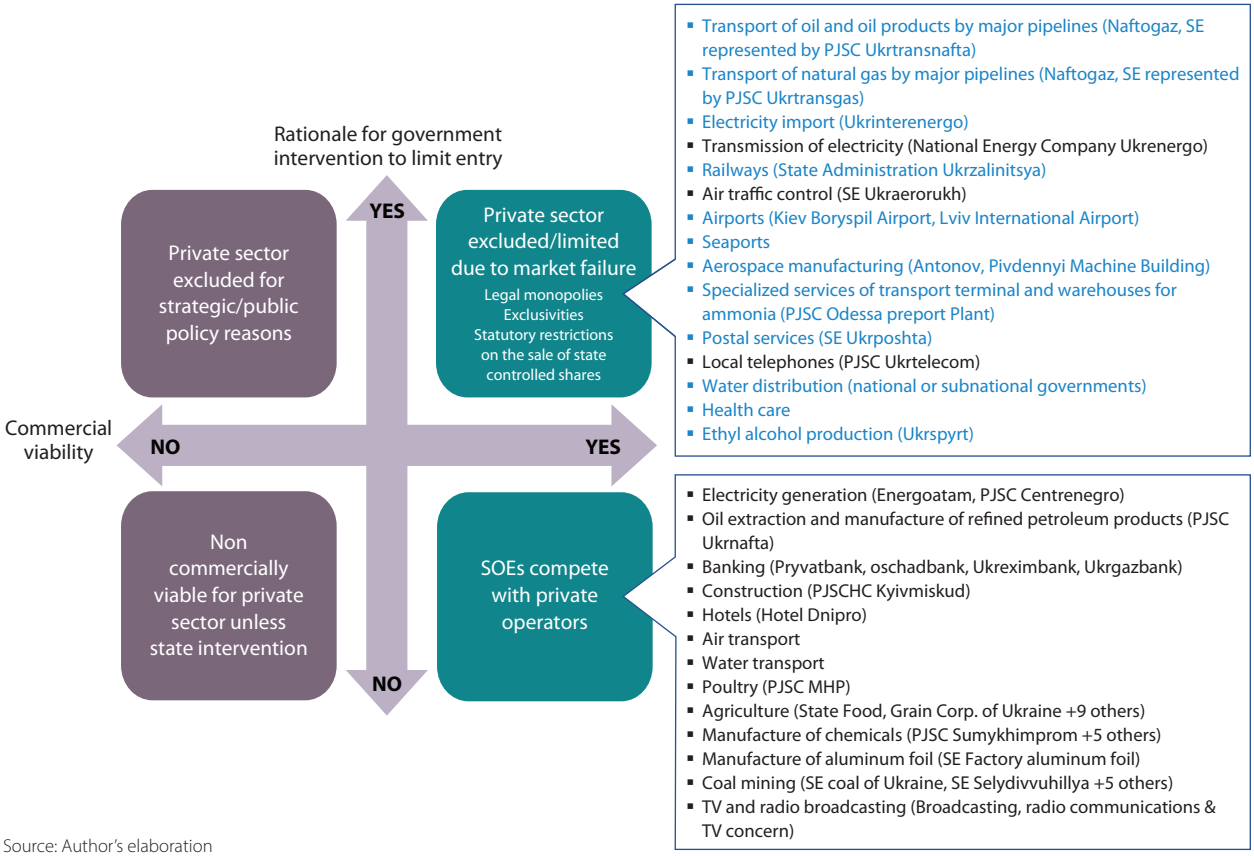
The country's large and persistent SOE footprint in a context of weak economic performance suggests that barriers to entry and market distortions are limiting the role of private firms in sectors where competition would be viable. National statistics indicate that almost half of Ukraine's largest SOEs are unprofitable, yet loss-making SOEs continue to operate—consuming productive resources that would otherwise be employed by more efficient private firms. Of Ukraine's 100 largest SOEs,[27] only 57 were profitable in 2014, and their average net profit margins were low.[28]

[26] Article 14 of the Law on Drinking Water, Water Supply and Drainage (available at http://zakon4.rada.gov.ua/laws/show/2918-14) provides for the privatization of SOEs that supply drinking water.

[27] Their combined assets totaled UAH 982.5 billion (roughly US$44.7 billion) in the first half of 2015. Their revenue averaged UAH 241.7 billion (about US$10 billion) between 2012 and 2014. Earnings before interest, tax, depreciation, and amortization (EBITDA) over the same period fluctuated between UAH 3 and 30 billion (US$250 million to US$2.5 billion). See also: http://www.me.gov.ua/News/Detail?lang=en-GB&id=5fe878f1-885c-4690-ab84-6c612b0504e2&title=MinistryOfEconomicDevelopmentAndTradeOfUkrainePublishedTheFirstReviewOfThe100-LargestStateEnterprises

[28] MEDT (2015). Ukraine's Top 100 State-Owned Enterprises.

FIGURE 14 Ukrainian SOEs across Sectors by Commercial Viability and Rationale for Government Intervention



Source: Author's elaboration

Note: Sectors that typically attract private investment are in blue.

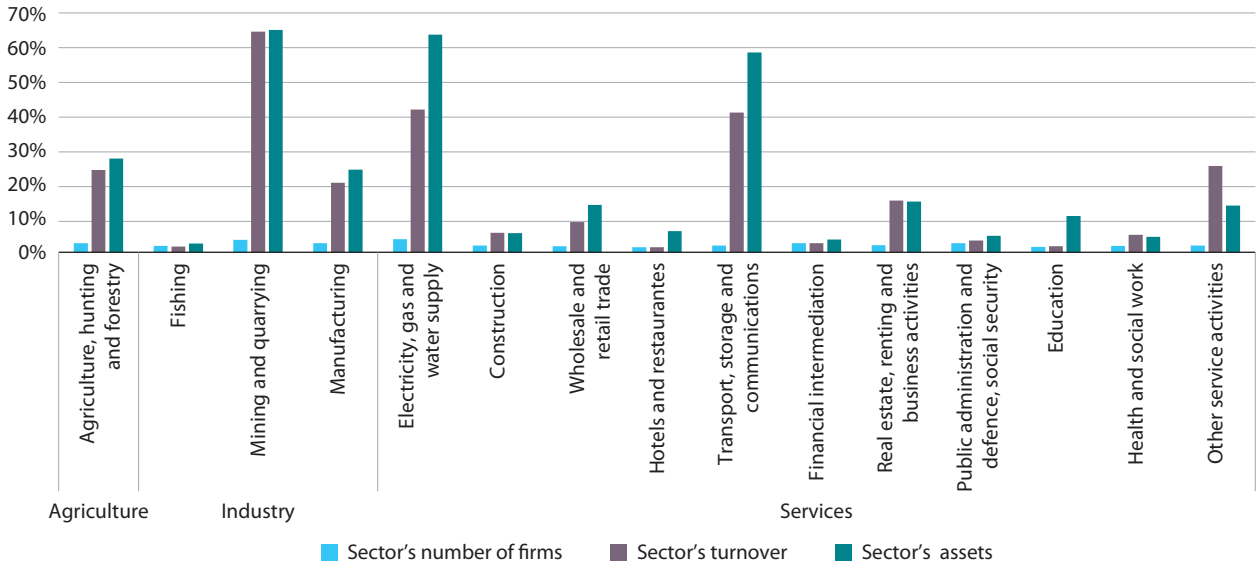
According to data from Ukraine's Ministry of Economic Development and Trade (MEDT), the country's operational SOEs contributed about 20 percent to its GDP in 2015. In the same year, the 46 largest SOEs accounted for 94 percent of SOE assets and 92 percent of SOE losses.[29]

Concentrated markets with large SOE footprints are at high risk of producing poor outcomes, especially in the absence of a fully implemented competitive-neutrality framework. While the presence of SOEs is not necessarily incompatible with competitive market outcomes, a competitive-neutrality framework is vital, particularly in markets that are naturally concentrated. To ensure their economic efficiency, SOEs must be exposed to competitive pressures from private firms on a level playing field, or they must be subject to economic regulations that establish effective performance incentives. Like SOEs, private firms that enjoy regulatory protection tend to create markets that are not fully contestable or competitive. Explicit or tacit collusion between firms can also weaken competitive pressure and distort incentives.

[29] World Bank (2016). Systematic Country Diagnostic, p. 76.

In Ukraine, high levels of market concentration and a heavy SOE footprint are compounded by an unusually large share of politically connected private firms. Firms are considered politically connected when they are able to influence the policy process to their advantage at the expense of the public interest. Recent research has found that between 0.5 and 2 percent of all firms in Ukraine are politically connected, yet these firms account for over 20 percent of total turnover.[30] Politically connected firms tend to operate in capital-intensive industries such as mining, energy, and transportation, where they account for over 40 percent of total turnover and over 50 percent of total assets (Figure 15).

FIGURE 15 Market Shares of Politically Connected Firms by Subsector, 2015 (%)



Source: The World Bank Group and the UK Good Governance Fund, 2018.

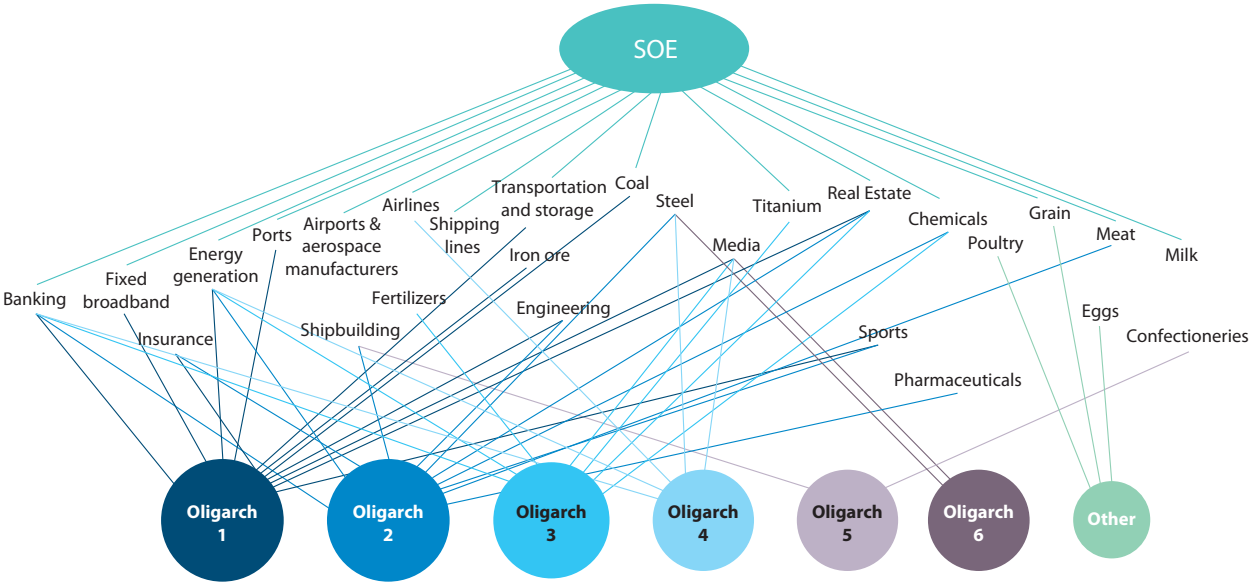
Many politically connected firms are owned by the country's oligarchs who wield enormous political and economic power. The Ukrainian oligarchs emerged during the country's transition and privatization process in the mid-1990s, when the leaders of newly formed business groups rapidly accumulated economic assets and began investing in politics to defend their market positions.[31] The Ukrainian air-transportation market is currently dominated by the oligarch-owned Ukrainian

[30] The World Bank Group and the UK Good Governance Fund (2018). Crony capitalism in Ukraine: impact on economic outcomes (English). Washington, D.C.: World Bank Group. http://documents.worldbank.org/curated/en/125111521811080792/Crony-capitalism-in-Ukraine-impact-on-economic-outcomes. This analysis uses two approaches to identify politically connected firms. The first approach is based on publicly available information on the ownership and control of businesses by individuals who have been entrusted with prominent public functions, including senior politicians and party officials, senior government, judicial or military officials, and senior executives of SOEs. A firm is considered connected if it has at least one such person among its owners, shareholders, or managers. The second approach includes companies that possess political connections through an oligarch or a business group.

[31] Wojciech Konończuk, Denis Cenuşa and Kornely Kakachia (2017). Oligarchs in Ukraine, Moldova and Georgia as key obstacles to reform. Available at: http://www.3dcftas.eu/system/tdf/Oligarchs_14%20June_FINAL_0.pdf?file=1&type=node&id=358%20

International Airlines (UIA), which carries over 80 percent of domestic passengers and is the only airline on most domestic routes, though it also serves many international destinations. Two of the three largest players in the mining and steel markets are Metinvest and Interpipe Group, both of which are owned by oligarchs. The third, ArcelorMittal, is a former SOE that was successfully privatized in 2005 after an initial privatization attempt in 2004 was marred by a corruption scandal. Another oligarch controls a group of companies known as Ostchem, which supplies over 80 percent of the domestic market for several varieties of mineral fertilizer. Yet another oligarch owns Myronivsky Hliboproduct (MHP), the market leader in poultry production and sales. Business groups owned by Ukraine's oligarchs tend to operate across multiple markets and economic sectors, leading to significant multimarket contact among politically connected firms and SOEs (Figure 16).

FIGURE 16 Multimarket Contacts



Source: Author's elaboration based on publicly available information.

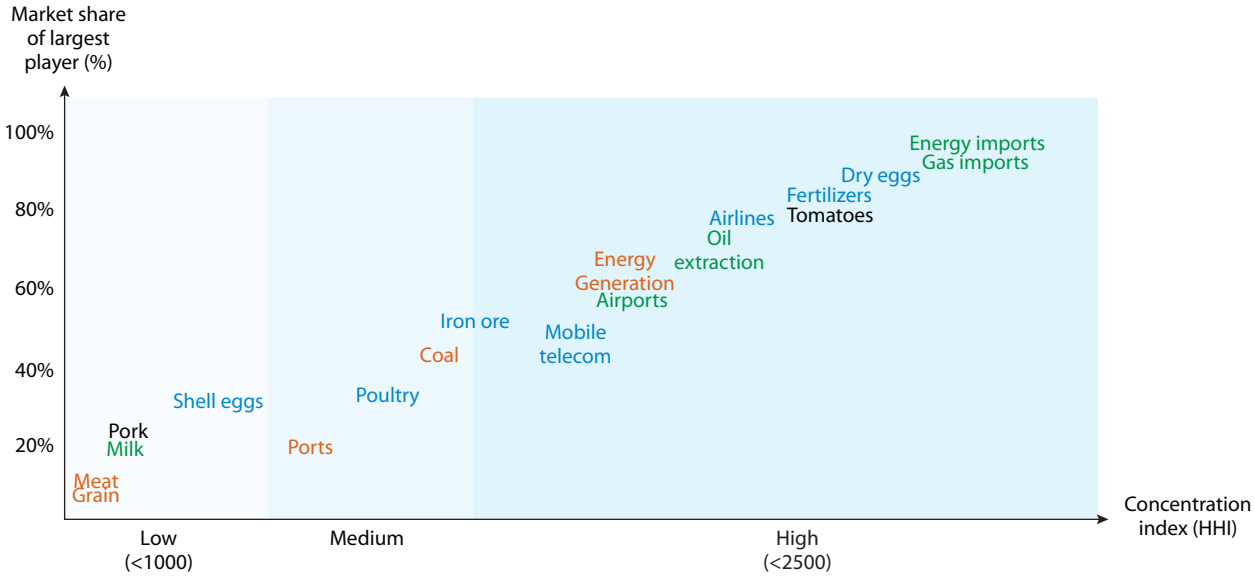
Note: The markets covered by this figure include the main product markets with SOE and/or oligarch presence.

Together, SOEs and politically connected firms are the main players in all productivity-enabling sectors of the Ukrainian economy. SOEs operate alongside politically connected firms in least 13 markets, including banking, transportation, mining and quarrying, energy, and agribusiness. The relationship between SOEs and politically connected firms varies widely from market to market. For example, the energy-generation subsector includes at least one SOE and at least one firm owned by each of the country's four most powerful oligarchs. All of the country's four biggest banks are now SOEs, after the largest, PrivatBank, was expropriated from an oligarch in 2016 due to alleged risky lending practices. In the oil and gas subsector, the government owns 51 percent of the joint stock company Ukrnaftaone, one of Naftogaz's main production and refining subsidiaries, while an oligarch is a minority

shareholder. That same oligarch controls an oil-transportation company and owns the country's largest network of gas stations. These multi-market contacts facilitate explicit or tacit collusion.

Most markets in Ukraine are highly concentrated, with the same firm or firms persistently commanding large and stable market shares. Markets with a large SOE footprint that have not been subject to privatization have tended to retain their structure over time. This is particularly true in the electricity and gas production and import subsectors. Other markets, including air transportation and fertilizer production, remain concentrated even though they lack strong network effects or other characteristics of natural monopolies. The enduring concentration of these normally contestable markets likely reflects uneven competitive playing fields due to the preferential tax treatment of incumbents and/or unnecessarily high administrative barriers to entry, including restrictions on foreign investors (Figure 17).

FIGURE 17 Market Concentration in Key Sectors with SOE and Oligarch Participation

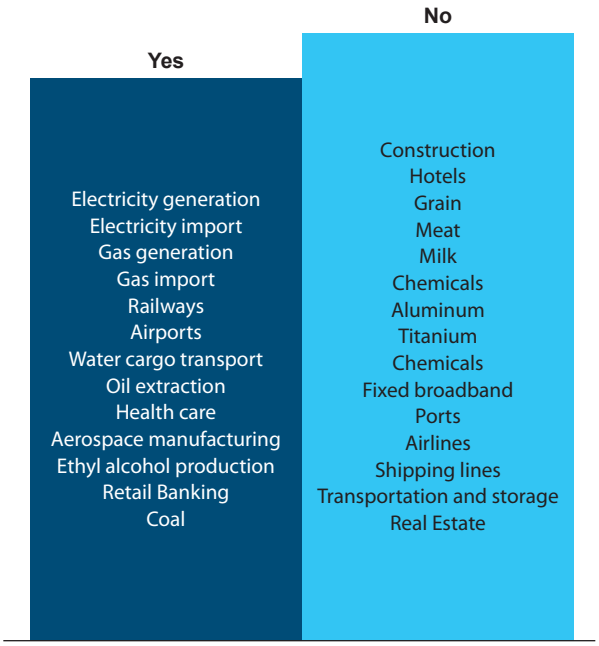


Source: Author's elaboration based on publicly available information.

Notes: Product markets are colored green when one or more SOE(s) is (are) present in the market, blue when one or more oligarch(s) is (are) present, and orange when SOEs and oligarchs are both present. The concentration indexes shown are lower limits. It should be noted that the subadditivity of costs may cause high levels of concentration in certain markets, such as mobile telecommunications, airports, energy generation, and energy imports.

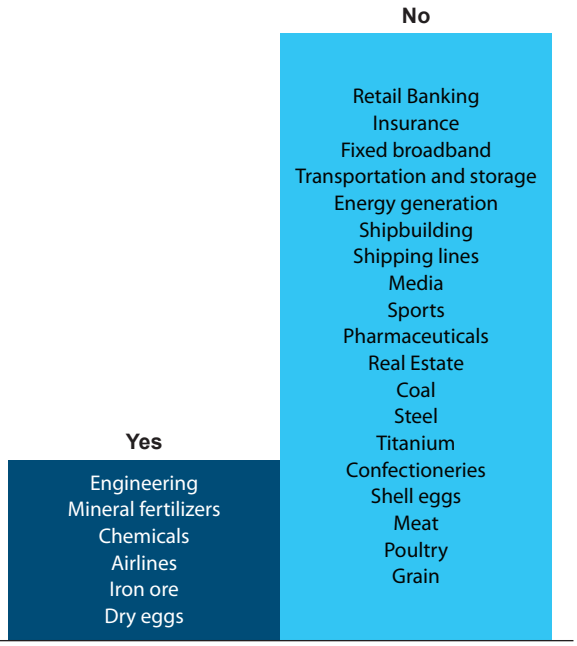
SOEs and politically connected firms are often the dominant players in their markets. As noted above, SOEs command a market share of over 50 percent in 13 of the 28 subsectors in which they operate (Figure 18). In many of the remaining sectors, multiple SOEs hold a combined market share of over 50 percent. For example, three SOEs account for a combined 60 percent of the market for port infrastructure and services. In addition, politically connected firms command a market share of over 50 percent in six of 25 subsectors in which they operate (Figure 19). Together, SOEs and politically connected firms hold a market share of over 50 percent in almost half the markets in which they operate (Figure 20).

FIGURE 18 Does One SOE Hold More Than 50% of the Market?



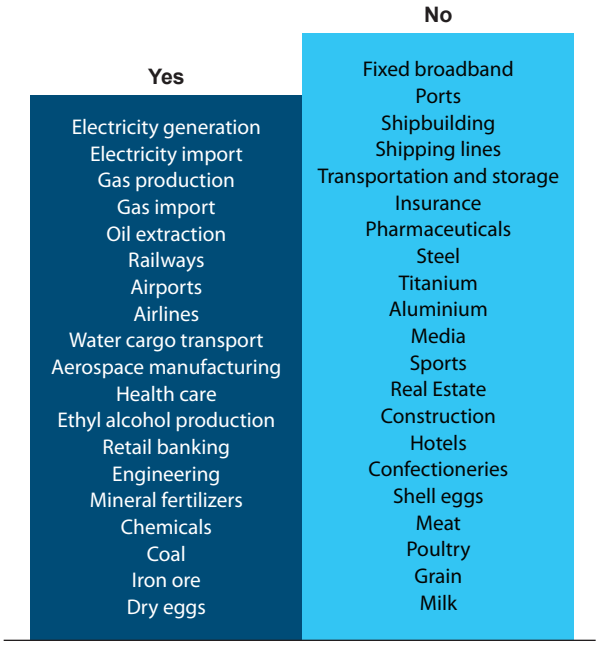
Note: This figure shows markets with SOE presence and potential private-sector investment for which information on market shares is available.

FIGURE 19 Does One Politically Connected Firm Hold More Than 50% of the Market?



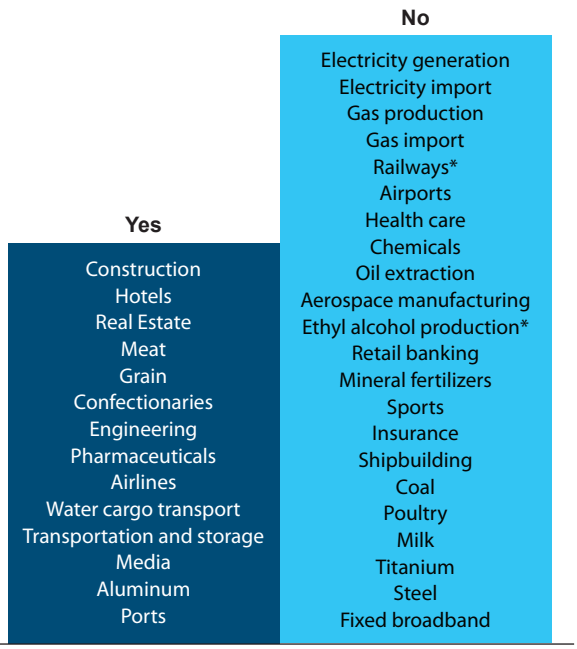
Note: This figure shows markets with oligarch presence for which information on market shares is available.

FIGURE 20 Does One SOE or Politically Connected Firm Hold More than 50% of the Market?



Source: Author's elaboration

FIGURE 21 Has a New Producer Entered the Market in the Last Three Years?



Source: Author's elaboration

Note: Information on market entry is based on investment announcements and news reports. Market entry is not possible in sectors declared legal monopolies (*). Natural monopolies are excluded from this figure.

New producers have been observed entering just 14 of the 34 markets in which SOEs or politically connected firms operate (excluding those classified as legal or natural monopolies[32]**), and in many cases these firms were only able to enter the market after obtaining an explicit government endorsement.** Several of the new entrants were large international firms with considerable investment resources and the capacity reduce infrastructure gaps and improve service quality (Figure 21). However, even major international players have struggled to enter the Ukrainian market. For example, Ryanair failed to enter the air transportation market in 2017, but it later succeeded in obtaining approval from the Ukrainian government and has announced that it will launch operations in October 2018.[33] Similarly, P&O Maritime—which is owned by DP World Group, the world's largest port operator—started operations in Ukraine in January 2018 and will provide towing services in the Odessa region.[34]

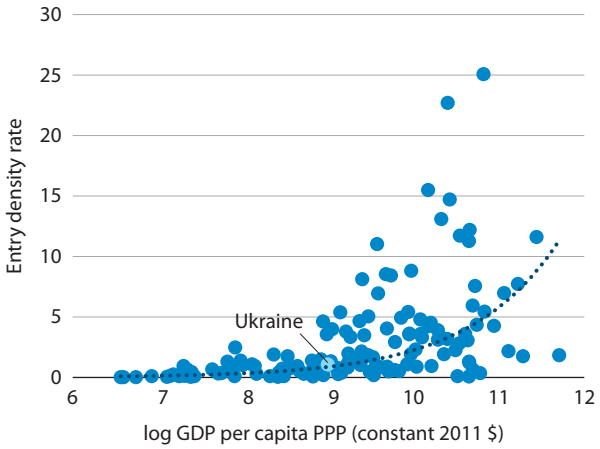
Even in markets that are not dominated by SOEs, entry remains limited. Between 2006 and 2016, the average entry density in Ukraine's formal private sector was low, both by global standards and by the standards of comparable countries (Figure 22 and Figure 23). Low entry density weakens competitive pressure in domestic markets, contributing to low productivity growth. Multiple factors could explain Ukraine's low entry density, including a lack of investor confidence due to the country's difficult macroeconomic and political situation in recent years, but regulatory barriers to entry and policies that protect certain incumbent firms almost certainly play a major role in preventing open competition.

[32] The Law on Natural Monopolies of 20.04.2000 (#1682-III) identifies the following markets as natural monopolies: transportation of oil and oil products by pipelines, transportation of natural gas and LPG by pipelines, other transportation pipelines, large-volume natural gas storage, electricity transmission and distribution, of electricity (transmission of electric energy by local electricity grids); use of railway tracks, dispatch services, stations and other infrastructure items, providing traffic to general rail transport; air-traffic control, centralized water supply and drainage systems, thermal energy transportation infrastructure, riverine and maritime port services, certain airports, and household waste-disposal services.

[33] See Ryanair's corporate website: https://corporate.ryanair.com/news/ryanair-cancels-planned-ukraine-services-as-kiev-airport-fails-to-honour-commitments/ and https://corporate.ryanair.com/news/ryanair-brings-low-fares-to-ukraine/

[34] See SD Capital Press Office: http://sd.capital/2018/01/04/the-worlds-largest-port-operator-dp-world-group-enters-the-ukrainian-market/

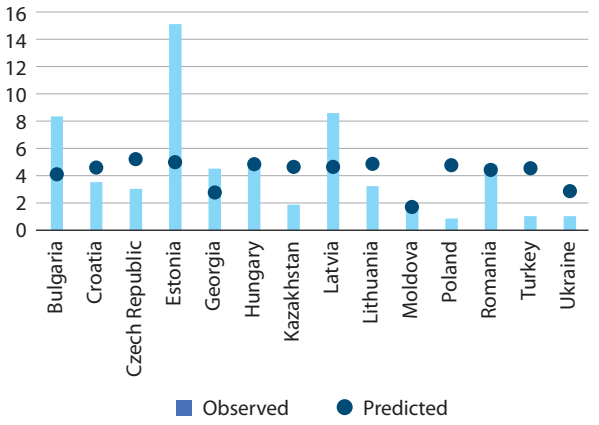
FIGURE 22 New Business Entry Density (average 2006–2016)



Source: World Bank Enterprise Surveys and WDI database

Note: New business entry density is defined as the number of newly registered formal private limited-liability firms per 1,000 working-age people (ages 15–64).

FIGURE 23 New Business Entry Density Gap Among Comparator Economies (2006–2016)



Source: World Bank Enterprise Surveys and WDI database

Note: Bars show the observed density rate (average 2006–16). Dots show the benchmark predicted by a (linear) regression with (the log of) average GDP per capita 2006–16 adjusted for (2011) purchasing-power parity as the explanatory variable.

In sum, Ukraine's markets are highly concentrated and frequently dominated by SOEs and politically connected firms, with very limited entry observed in recent years. Market concentration is aggravated by a lack of contestability in markets where competition is viable. Many large players are SOEs, which are not subject to the same general profit-maximizing incentives as private firms, while others enjoy strong political connections that enable them to lobby for regulatory protection. Moreover, multi-market contacts facilitate explicit or tacit collusion among market players. The following section examines barriers to entry, regulatory capture and protectionism, and the uneven enforcement of regulations in greater detail.

High Prices and Low Service Quality Indicate Ample Space to Improve Market Dynamics and Generate Efficiency Gains

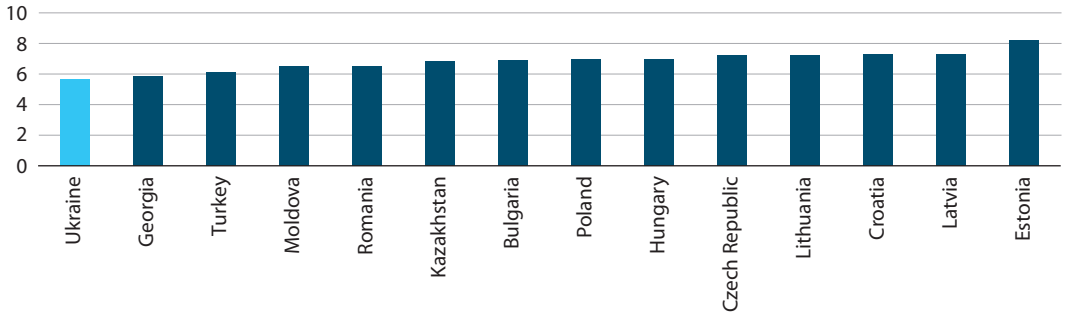
The combination of a heavy SOE footprint, numerous politically connected firms, high levels of market concentration, pervasive cross-ownership, and low rates of market entry have undermined competitive pressure and left little room for investment in value addition. Many Ukrainian markets, even those in which competition would typically be viable, are structured around a single dominant SOE or a small group of powerful firms, some of which enjoy regulatory protections and advantages. Intense market concentration coupled with widespread cross-ownership weakens efficiency incentives and greatly exacerbates the risk of anticompetitive behavior. An econometric analysis of firm-level data from 2006 to 2015 reveals

statistically significant differences in economic outcomes between politically connected and non-connected firms, even when controlling for firm size, age, and sector. Not only are politically connected firms less productive than non-connected firms, they also tend to have slower turnover, employment, and total factor productivity (TFP) growth rates. Estimated differences range from –5.7 to –16.2 percentage points for the turnover growth rate, –13.0 to –28.9 percentage points for the employment growth rate, and –4.6 to –10.1 percentage points for the TFP growth rate.[35]

An anemic competition environment in upstream sectors increases input costs and weakens service quality, undermining efficiency across the economy. SOEs and politically connected firms are especially prevalent in productivity-enabling services (e.g., utilities, transportation, and logistics) and sectors that supply industrial inputs (e.g., cement, steel, fertilizers, and oil products), and competitive distortions in these markets negatively affect overall domestic production and export competitiveness. Ukraine ranked 83rd out of 140 countries on the 2017–2018 Global Competitiveness Index (GCI), and its overall score (4.11 out of 7) has improved little over the past five years. Among Eastern European countries, only Moldova and Bosnia and Herzegovina scored lower on the GCI.

Ukraine's ICT sector is the weakest among comparator countries—a serious liability for an economy in which services account for 60 percent of GDP. Ukraine scores poorly on the ICT Development Index, lagging regional comparators such as Moldova and Romania (Figure 24). Ukraine's internet bandwidth per internet user is especially low at just 45 percent of the European average.

FIGURE 24 ICT Development Index 2017



Source: International Telecommunication Union (2018)

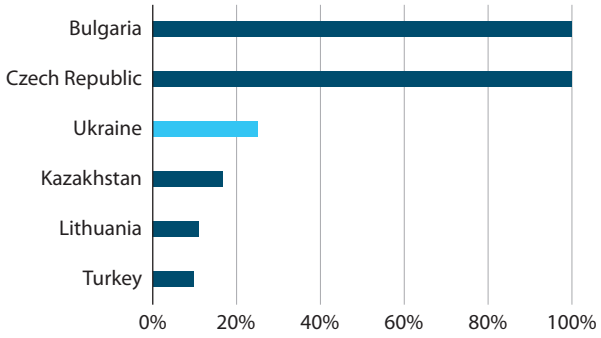
[35] World Bank Group and UK Good Governance Fund (2018). Crony Capitalism in Ukraine: Impact on Economic Outcomes.

High costs and low service quality are especially prevalent in Ukraine's port subsector. In 2016, the Ministry of Infrastructure reported that average port charges in Ukraine were 2.5 times higher than those in other regional ports. In 2015, cargo transshipment tariffs in Odessa and Mykolaiv were US$15 and US$13 per ton, respectively, about 2–3 times the European average of US$5–7 per ton.[36] In surveys conducted for the World Bank's 2016 Logistics Performance Index, respondents in Ukraine were more likely than those in most comparator countries to report that port infrastructure quality was either poor or very poor (Figure 25) and that port charges were high or very high (Figure 26). Although tariffs reportedly decreased by 30 percent in 2016–17, there is still ample room for improvement.

The poor condition of Ukrainian railways increases transportation costs. The current rail network (excluding Russian-controlled Crimea and Donbas) covers more than 41,500 kilometers. However, the poor condition of the country's railways does not allow for high-speed travel. In 2016, Ukrzalyznytsia, a state-owned railway that provides 50 percent of passenger and 82 percent of cargo transportation services, reportedly fulfilled only 30 percent of demand for cargo cars and locomotives, forcing potential exporters to wait and pay for idle time.[37]

Domestic prices for basic food products that comprise a significant portion of Ukraine's food consumption basket[38] appear to be 20–50 percent higher than prices for comparable goods in OECD countries and regional peers.[39] Until 2016, the government regulated the prices of food products

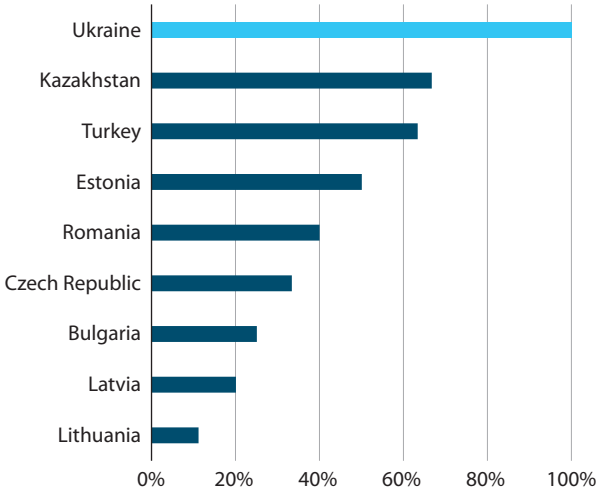
FIGURE 25 Port Infrastructure Quality, Ukraine and Comparator Countries (% of respondents reporting "poor" or "very poor" quality)



Source: WBG 2016. Logistics Performance Index

Note: In Estonia, Georgia, Moldova, Poland, Latvia, Romania, and Hungary, 0% of respondents found quality of port infrastructure to be low/very low

FIGURE 26 Port Charges, Ukraine and Comparator Countries (% of respondents reporting "high" or "very high" charges)



Source: WBG 2016. Logistics Performance Index

Note: In Georgia, Moldova, Poland, and Hungary, 0% of respondents found port charges to be high/very high

[36] KyivPost (2017). Ukraine's infrastructure needs $30 billion, more transparency. Available at: https://www.kyivpost.com/business/ukraines-infrastructure-needs-30-billion-transparency.html

[37] Ibid.

[38] The following basic food products are included in the price analysis: apples, bananas, beef, butter, chicken, eggs, fresh fish, lettuce, local cheese, pasteurized milk, mushrooms, onions, oranges, peanut or corn oil, pork, potatoes, tomatoes, white bread, white flour, white rice, and white sugar.

[39] Using 2010-2017 data from Numbeo and the Economist Intelligence Unit (EIU) (see Annex).

considered "socially important,"[40] yet a cross-country empirical analysis indicates that basic food products in Ukraine cost as much as 50 percent more than they do in OECD countries.[41]

The differences in the average prices for key food products in Ukraine vis-à-vis its comparators may indicate a lack of competition in certain food-product markets. While prices for chicken and eggs are broadly similar to those of comparator countries, which may reflect relatively robust competition from EU producers in the Ukrainian poultry market, Ukrainian households appear to pay significantly more for milk, onions, oranges, tomatoes, wheat bread, and white rice than do households in comparable OECD countries and regional peers (Table 1). Industrial associations, such as the Dairy Alliance and the Food and Vegetables Association, operate in many of these markets, and higher prices may indicate the presence of price or market-sharing agreements, with negative implications for consumers.[42]

In addition, a comparison of food prices in key cities reveals that residents of Kiev, Ukraine's capital, pay about 40 percent more, on average, for basic food items than do residents of similar cities in the OECD and regional comparator countries. The results of the city-level analysis remain robust when using alternative datasets that include other major Ukrainian cities like Dnipropetrovsk, Kharkiv, Lviv, Odessa, and Sumy. A domestic price comparison shows that food prices were about 13 percent higher in Kiev than in other Ukrainian provinces between March 2014 and December 2017, even after controlling for demand drivers (e.g., population and disposable income) and cost drivers (e.g., labor and transportation costs).[43]

Oligarchs dominate several of Ukraine's major food-product markets. These include chicken, eggs, rice, and sugar. While chicken and egg prices are broadly in line with those of comparable countries, the average Ukrainian prices for rice and sugar appear to be significantly higher.[44]

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[40] Food products classified as socially important include flour, bread, pasta, cereals, sugar, beef, pork, poultry, sausage products, milk, cheese, sour cream, butter, sunflower oil, and buckwheat meal. See http://artlife.rv.ua/?area=ukrainian-news/31139

[41] The Numbeo database includes data for 35 OECD countries (Australia, Austria, Belgium, Canada, Chile, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, South Korea, Latvia, Luxembourg, Mexico, The Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States) and 7 additional regional comparators (Bulgaria, Croatia, Georgia, Kazakhstan, Lithuania, Moldova, and Romania). The EIU database includes data for 32 OECD countries (Australia, Austria, Belgium, Canada, Chile, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, South Korea, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, the Slovak Republic, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States) and 3 additional regional comparators (Bulgaria, Kazakhstan, and Romania). The analysis considers differences in demand and cost factors impacting prices such as income per capita, import costs, and tariff rates, and all specifications are included in Table A.1 in the Annex. The results are generally robust to the inclusion of additional regional peers (see Table B.1 in the Annex). While the analysis uses purchasing-power parity conversion rate, the results remain robust when the market exchange rate is used (see Tables C.1 and D.1 in the Annex).

[42] An in-depth competition assessment could analyze market dynamics and gauge the risk of anticompetitive outcomes.

[43] The analysis uses food-price data from the World Food Program for 23 basic food products: beef, beetroots, buckwheat meal, butter, cabbage, carrots, chicken, curds, eggs, pasteurized milk, mixed sausage, onions, pasta, pork, potatoes, rye bread, salted pork fat (salo), sour cream, sunflower oil, white bread, white flour, white rice, and white sugar. For the full specifications, see Tables A.2, B.2, and C.2 in the Annex. Price dispersion across Ukrainian provinces is generally low for the food products analyzed, but some products such as salo, cabbage, and potatoes exhibit greater price dispersion (see Figure A.4 in the Annex).

[44] For all specifications, see Table A.3 in the Annex.

TABLE 1 Market Structures for Individual Food Products

Product	Level of Prices in Ukraine/Ukrainian Cities . . .			Number of Firms	Market Share of Largest Player[1]	Vertical Integration	Industry Association	Tariff MFN (Average of Ad Valorem Duties)	Importance of Exports[2]	Importance of Imports[3]
	Ukraine vs. OECD (Numbeo Data)	Dnipropetrovsk, Kharkiv, Kiev, LVIV, Odessa, and Sumy vs. Comparator Cities (Numbeo Data)	Kiev vs. Comparator Cities (EIU Data)							
Chicken	—	—	—	Over 270 industrial producers	38%	x	Poultry Breeders Union of Ukraine	12.7%	27%	11%
Eggs	—	—	—	Over 200 industrial producers; over 1,000 households	31% shell eggs / 87% dry eggs	x	Poultry Breeders Union of Ukraine	12%	2.7%	2.6%
Local cheese	Higher	Higher	N/A	—	23.2%	—	—	10%	3.6%	5.9%
Milk	Higher	—	Higher	Over 3	23%	x	Dairy Alliance	10%	10.3%	3.1%
Onions	Higher	—	Higher	—	—	x	Fruit and Vegetables Association	10%	0.0%	0.9%
Oranges	Higher	Higher	Higher	—	—	—	—	0%	0.0%	0.1%
Pork	N/A	N/A	Higher	—	22%	x	Association of Pig Breeders	11%	0.6%	3.4%
Tomatoes	Higher	Higher	Higher	—	80%	—	Fruit and Vegetables Association	10%	0.4%	2.0%
White bread	Higher	Higher	—	>100 bakeries	—	—	—	10%	—	—
White flour	N/A	N/A	Higher	—	—	—	—	15%	0.7%	0.1%
White rice	Higher	Higher	Higher	—	—	—	—	5%	0.0%	2.0%
White sugar	N/A	N/A	Higher	Over 50 industrial producers	28%	—	National Association of Sugar Producers of Ukraine	50%	3.4%	2.0%

[1] Source: AMCU and publicly available information. Data availability allowed the estimation of a Herfindahl-Hirschman index (HHI) for the following products: chicken (1,631), indicating a moderately concentrated market; eggs (558), an unconcentrated market; sunflower oil (1,747), indicating a moderately concentrated market; and white sugar (603), indicating an unconcentrated market. Based on the HHI, the concentration levels are classified as follows: (i) unconcentrated markets: HHI below 1500; (ii) moderately concentrated markets: HHI between 1500 and 2500; (iii) highly concentrated markets: HHI above 2500. See U.S. Department of Justice and Federal Trade Commission 2010. Horizontal Merger Guidelines.

[2] MIT Atlas Media. 2016. For further information, see https://atlas.media.mit.edu/en/profile/country/ukr/

[3] Ibid.

In addition, domestic prices for certain internationally traded food commodities do not appear sensitive to global price changes, suggesting that domestic distortions may limit the pass-through effect of imports.[45] An analysis of various food commodities reveals that domestic prices for rice and sugar do not respond to international price changes. The insignificant impact of international prices on domestic prices may reflect price regulations, which applied to these two food products and many others during the period under analysis.[46] Rather than acting as a ceiling to keep staple food prices affordable, Ukrainian price regulations may actually have served as a floor, preventing downward price adjustments due to import competition.[47] In August 2016, the government launched a pilot project eliminating state price regulation on most of the food products, and in July 2017 these price regulations were permanently lifted.

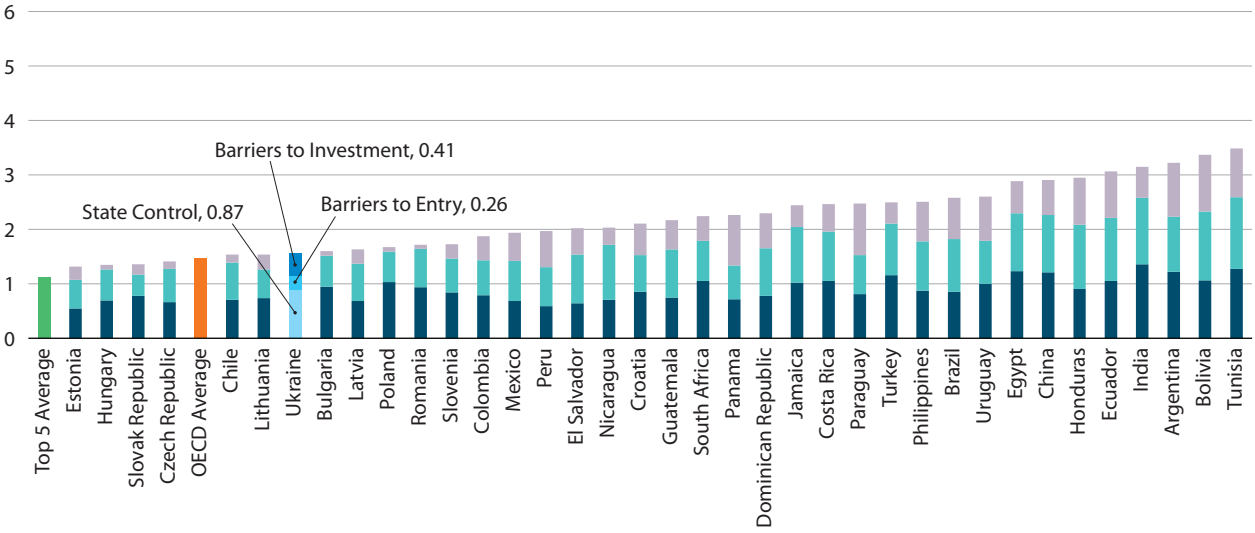
Reforming Ukraine's Regulatory Policies and Market Interventions Can Reduce Distortions and Improve Outcomes for Firms and Consumers

Many Ukrainian markets lack adequate competitive pressure to ensure efficiency, and government interventions play a major role in shaping market outcomes. Given the propensity of SOEs and politically connected firms in concentrated markets to lobby for regulatory protections or undue advantages, the design and implementation of government interventions have a major impact on economic efficiency. In this context, aligning economic policies with competitive-neutrality principles will be vital to restart productivity growth. Competitive neutrality is especially critical in upstream sectors and markets that are not naturally conducive to contestability, as even minor distortions or regulatory barriers in these areas can negatively impact economy-wide productivity and competitiveness.

Excessive state control over the economy and the prevalence of barriers to entry in network industries are major obstacles to competition. Ukraine's aggregate Product Market Regulation (PMR) indicator[48] is broadly comparable to the OECD average (Figure 27). However, regulations

[45] A pass-through analysis was conducted to determine whether domestic prices of rice, sugar, sunflower oil and wheat flour respond significantly to differences between international and Ukrainian prices and, if so, to determine the speed of adjustment and whether upward and downward price adjustments are symmetrical. International prices were obtained from the World Bank's Commodity Price Database, and Ukrainian national average prices were obtained from the World Food Program.
[46] Price data are from March 2014 to December 2017.
[47] National Investment Council. 2017. https://mfa.gov.ua/mediafiles/sites/uae/files/NIC_Middle_Year_Report_2017.pdf
[48] The OECD-WBG PMR data are part of the WBG's Markets and Competition Policy Database. Each area addressed within the PMR methodology sheds light on specific restrictions of the regulatory framework, both economy-wide and in key sectors of the economy. These areas include: electricity; gas; telecommunications; post; transport; water; retail distribution; professional services; other sectors; administrative requirements for business startups; treatment of foreign parties; and other issues such as SOE governance or antitrust exclusions and exemptions.

FIGURE 27 **Product Market Regulations, Ukraine and Comparator Countries, 2018 (index scores from 0 [least restrictive] to 6 [most restrictive])**



Source: Markets and Competition OECD-WBG PMR indicators. 2018 PMR scores for Ukraine.

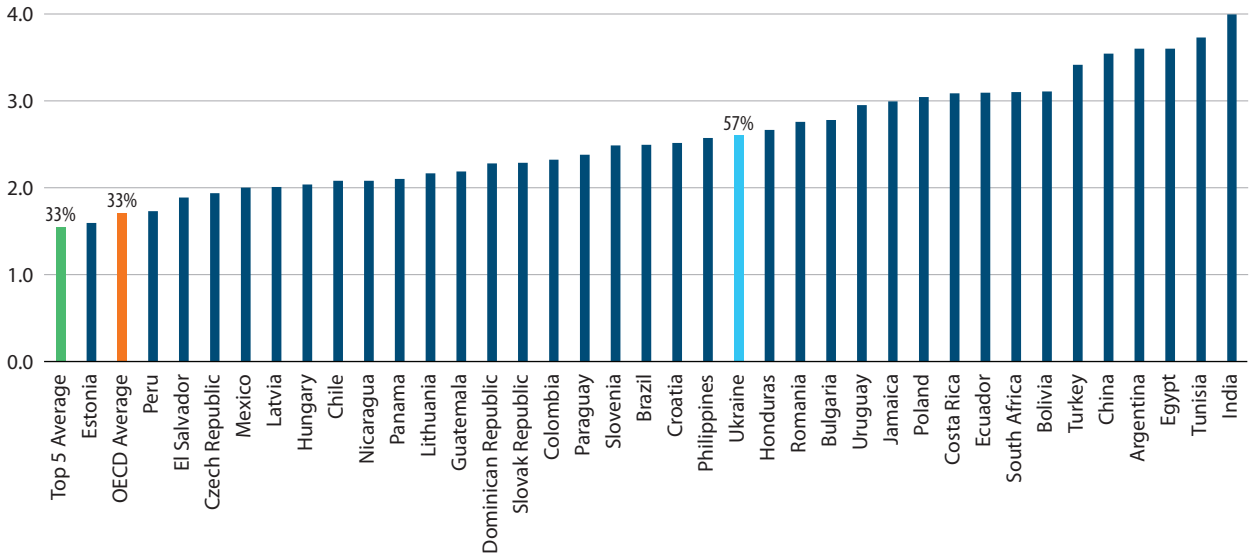
Notes: The top 5 performers are the Netherlands, the United Kingdom, the United States, Austria, and Denmark.

that allow for state control over certain aspects of the economy or that establish barriers to competition in network industries are high by international standards and may impose binding constraints on competition.

As described above, Ukraine has a much larger SOE footprint than do most comparator countries. Ukraine's PMR score for state control (2.62) is well above both the OECD average (1.72) vand the scores of neighboring countries such as Hungary (2.05) and the Slovak Republic (2.17) (Figure 28). SOE governance is the largest contributor to the restrictiveness associated with public ownership, and Ukraine's PMR score in this area (4.5) significantly exceeds the OECD average (3.57).[49]

[49] Higher scores indicate more restrictive policies and regulations.

FIGURE 28 **Restrictiveness of Product Market Regulations Pertaining to State Control, Ukraine and Comparators, 2018 (index scores from 0 [least restrictive]to 6 [most restrictive])**



Source: Markets and Competition OECD-WBG PMR indicators; 2018 PMR scores for Ukraine.

Note: The top 5 performers are the Netherlands, the United Kingdom, the United States, Austria, and Denmark.

Restrictive regulatory frameworks in network industries—where many Ukrainian SOEs operate—limit the entry of private firm in segments where competition is viable. Ukrainian law defines certain segments of the electricity, gas, and transportation sectors as natural monopolies, while the postal services, railways, alcohol production, and water distribution markets are all legal monopolies.[50] While natural monopolies can, in principle, be efficient, legal monopolies may restrict entry in markets where competition would be both viable and beneficial.

The entry of new firms is explicitly capped in several services markets. Bilateral agreements impose quantitative limits on the entry of foreign firms in the road passenger transportation subsector, and the participation of foreign investors in the fixed-line telecom sector is limited. These caps ultimately reduce competitive pressure both in markets subject to regulatory restrictions and in substitute markets.

[50] Ordinary letters weighing up to 50 grams and simple postcards are carried by Ukrposhta, which is designated as the national postal services provider under Art. 15 of the Law on Postal Services of 04.10.2001 #2759-III (http://zakon2.rada.gov.ua/laws/show/2759-14). Passenger and freight railroad transport services are provided by Ukrzaliznytsia, which is designated as the national basic railroad service provider under Art. 4 and 9 of the Law on Railroad Transport (http://zakon2.rada.gov.ua/laws/show/273/96-%D0%B2%D1%80) .Ethyl alcohol is produced by SOEs in line with Art. 2 of the Law on State Regulation of the Production and Sale of Ethyl, Cognac, and Fruit Alcohol, Alcoholic Beverages, and Tobacco Products (http://zakon3.rada.gov.ua/laws/show/481/95-%D0%B2%D1%80)

Market concentration and regulatory protections can facilitate anticompetitive behavior. For example, a lack of clarity regarding the regulation of firms with significant market power and the use of termination rates can encourage abuse of dominance in the fixed-line telecom market. Likewise, the absence of regulations or guidelines aimed at preventing collusion by trade associations could facilitate price fixing or market sharing.

The current configuration of Ukrainian market institutions and their regulatory frameworks is inconsistent with ensuring competitive and efficient markets. Even in markets were an independent regulator exists, SOE dominance and regulatory constraints can still inhibit competition. For example, without extensive SOE unbundling and regulatory liberalization of the wholesale electricity market, private investment in the generation and transmission segments will be inadequate and may even accentuate weaknesses in competitive neutrality and facilitate anticompetitive practices. Conversely, regulatory reform may be insufficient to foster competition in the absence of an independent sectoral regulator. The liberalization of certain transport subsectors (railways, ports) and telecom assets (spectrum allocation) may not facilitate market opening or accelerate growth without effective sectoral regulators. In addition, inadequately enforced regulations in the mobile telecom and airport subsectors may undermine service provision and encourage anticompetitive behavior. Similarly, a lack of regulatory clarity and transparency in the road transportation and fixed-line telecom subsectors may distort network investments, increase administrative costs, weaken incentives to comply with regulations, and potentially advantage larger or better-connected market players. Table 2, below, maps the impact of regulatory distortions and constraints on competition across sectors, and Box 1 identifies the potential gains from reducing regulatory restrictiveness in network industries and services.

Beyond the aspects captured by the PMR, in practice: (i) the regulatory framework is implemented in a discriminatory manner in the network and enabling sectors, (ii) there is a lack of competitive neutrality, including in markets dominated by SOEs, and (iii) enforcement of the overall competition policy and law is not fully tackling anticompetitive behavior.

Unclear regulations and uneven or discriminatory enforcement increase administrative costs, weaken compliance incentives, and tend to benefit large firms and incumbents. Ukraine scores 5.8 out of 10 on the Bertelsmann Stiftung Transformation Index for market organization, lagging behind the average for comparator countries. The index measures the perception that clear rules are in place to guide stable, market-based competition. Moreover, numerous instances of discrimination have occurred regardless of the regulatory framework. For example, Ukraine International Airlines has historically received preferential rates for passenger transfers, aircraft service, and parking space at the country's largest airport, the state-run Kiev Boryspil, as well as preferred parking space for aircraft and prime real estate in the airport terminals. In some market segments, such as airline baggage-handling services, the regulatory framework is limited, and enforcement is wholly inadequate.

TABLE 2 Examples of Market Regulation Distortions and Competition Constraints in Enabling Sectors

	Electricity				Gas				Transport					Telecoms	
	Generation	Import	Transmission	Distribution	Generation	Import	Transmission	Distribution	Road	Railways	Ports	Airlines	Airports	Mobile	Fixed
Market structure															
Market share of largest player (%)	60%	>90%	100%		50–90%	>90%				>90%		>80%	60%	42%	
State participation in the largest firm	Yes	Yes	Yes	No	Yes	Yes	Yes		No	Yes	Yes	No	Yes	No	Yes
Private-sector presence	Yes	N/A	No		Yes	Yes	Yes	Yes	Yes	No	No	Yes	No	Yes	Yes
Number of firms			1	25					> 56,000	1				13	
Government interventions															
a) That restrict entry															
Legal or natural monopolies*															
Relative ban on entry															
b) That facilitate anticompetitive conducts															
Collusion															
Abuse															
c) That distort the competitive playing field															
Largest player has access to preferential conditions															
Discriminatory treatment of foreign operators															
Institutional arrangements and market structures															
No structural unbundling of SOE															
No regulator															
No independent regulator*															
No regulatory framework or ineffective regulations															
Lack of regulatory clarity															
Lack of transparency															

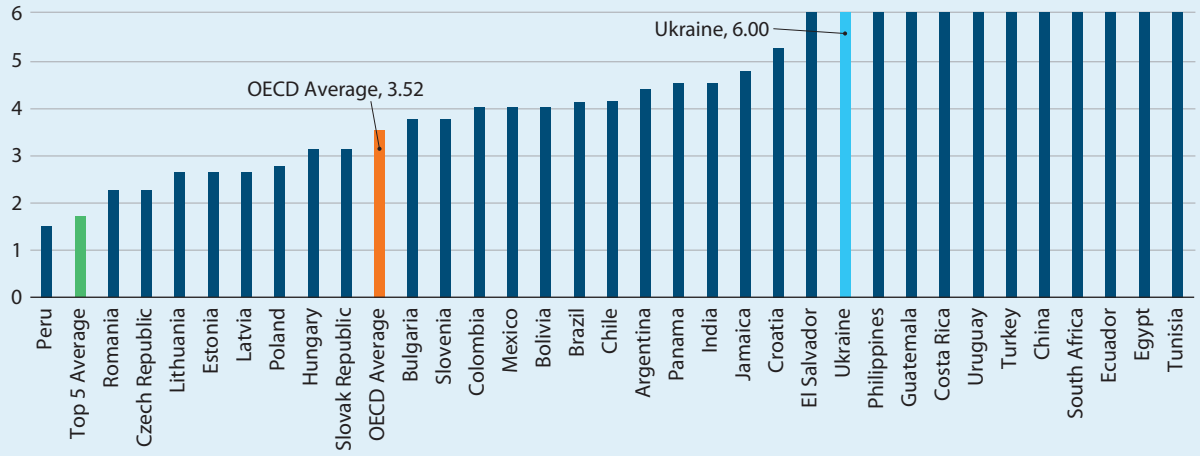
Source: Author's elaboration

Note: * the Telecommunication Regulator lacks independence, notably regarding spectrum allocation.

BOX 1 Potential Gains from Reducing Regulatory Restrictiveness in Network Industries and Services

A less-restrictive regulatory framework could significantly enhance competition in Ukraine, especially in network industries and services. Simulations show that a decrease in regulatory restrictiveness in network-based input sectors (e.g., electricity, gas, and water supply), as well as postal and telecommunications services, retail and wholesale trade, transportation, and other business services, would significantly accelerate the growth of value addition, generating up to 0.015 percentage points of additional annual GDP growth, all else being equal. As Ukraine's annual GDP growth rate has averaged 2 percent over the past two years, this increase would be significant. Moreover, this estimate is a lower-bound figure, as it reflects the country's current regulatory framework; regulatory reforms and improvements in enforcement could further strengthen competition in these industries, magnifying their contribution to growth.

FIGURE 29 Regulatory Restrictiveness in the Railway Sector, Ukraine and Comparator Countries (index scores from 0 [least restrictive]to 6 [most restrictive])



Source: Markets and Competition OECD-WBG PMR indicators.

Note: The top 5 performers in the railway sector are the United Kingdom, Peru, Romania, the Czech Republic, and Canada; information for Nicaragua, the Dominican Republic, Paraguay, and Honduras is not available.

Discriminatory treatment tends to be especially problematic when institutional arrangements create conflicts of interest between regulatory policies and commercial objectives. For example, the railway SOE, Ukrzaliznytsia, handles freight traffic (and the associated infrastructure assets), and it holds a legal monopoly on international and domestic passenger transportation. This market structure, combined with the lack of an independent sectoral regulator, makes proper regulatory enforcement almost impossible. In the water transportation subsector,

the government simultaneously acts as an operator and a regulator, causing conflicts of interest. The lack of both an independent regulator and a regulatory framework that includes third-party access regulations creates inconsistency between the state's regulatory and operational roles and incentivizes the creation of barriers to entry.

The regulatory framework or implementation weaknesses related to the existing policies applicable to SOEs and private sector point to the lack of competitive neutrality. The regulatory framework for SOEs grants them advantages over private firms. Moreover, corporate governance rules differ depending on whether SOEs are fully public firms or joint-stock companies,[51] and while Ukrainian legislation defines commercial and non-commercial SOE activities, unbundling is not yet effective.[52] SOEs are also legally protected from competition in otherwise competitive sectors that are not listed as legal or natural monopolies. The discretionary enforcement of regulations further distorts the competitive playing field. Governmental responsibilities for SOE oversight are dispersed across institutions with overlapping mandates, and SOE performance is not transparently reported, preventing an objective assessment of their effectiveness and market impact. As of November 2015, only 40 percent of operational SOEs had published reports online.[53] Moreover, SOEs have traditionally enjoyed preferential access to finance through state-owned banks or government guarantees, and public guarantees to SOEs were equivalent to 18 percent of GDP in 2014. Direct subsidies to SOEs represented around 2.5 percent of GDP in 2014 and 1.3 percent in 2015[54] with direct subsidies to the coal and energy sector alone accounting for about 1 percent of GDP.[55]

Inadequate competitive neutrality extends to competition among private firms, as politically connected business groups use various channels to obtain preferential treatment from the government. Such treatment may include favoritism in the public procurement process, preferential access to privatized state assets, trade regulations that restrict imports, favorable tax treatment, subsidized loans from state-owned banks, concessional development financing via public debt guarantees, and state aid in the form of direct transfers from the budget.[56] Figure 30, below, presents a competitive neutrality gap analysis for Ukraine.

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[51] While joint-stock companies are subject to the same corporate rules as private firms, fully public SOEs are not. See Art. 73 of the Commercial Code.

[52] An unbundling process is underway in the gas and electricity sectors. An SOE was formerly responsible for electricity generation, importation, supply, transmission, and distribution. However, under Art. 32 of the Law on the Electricity Market of 13.04.2017 #2019-VIII (http://zakon3.rada.gov.ua/laws/show/2019-19), which took effect on December 12, 2017, electricity transmission is now separated from generation, distribution, and supply. According to Art. 47, which will take effect on December 12, 2018, electricity distribution is to be separated from generation, transmission, and supply.

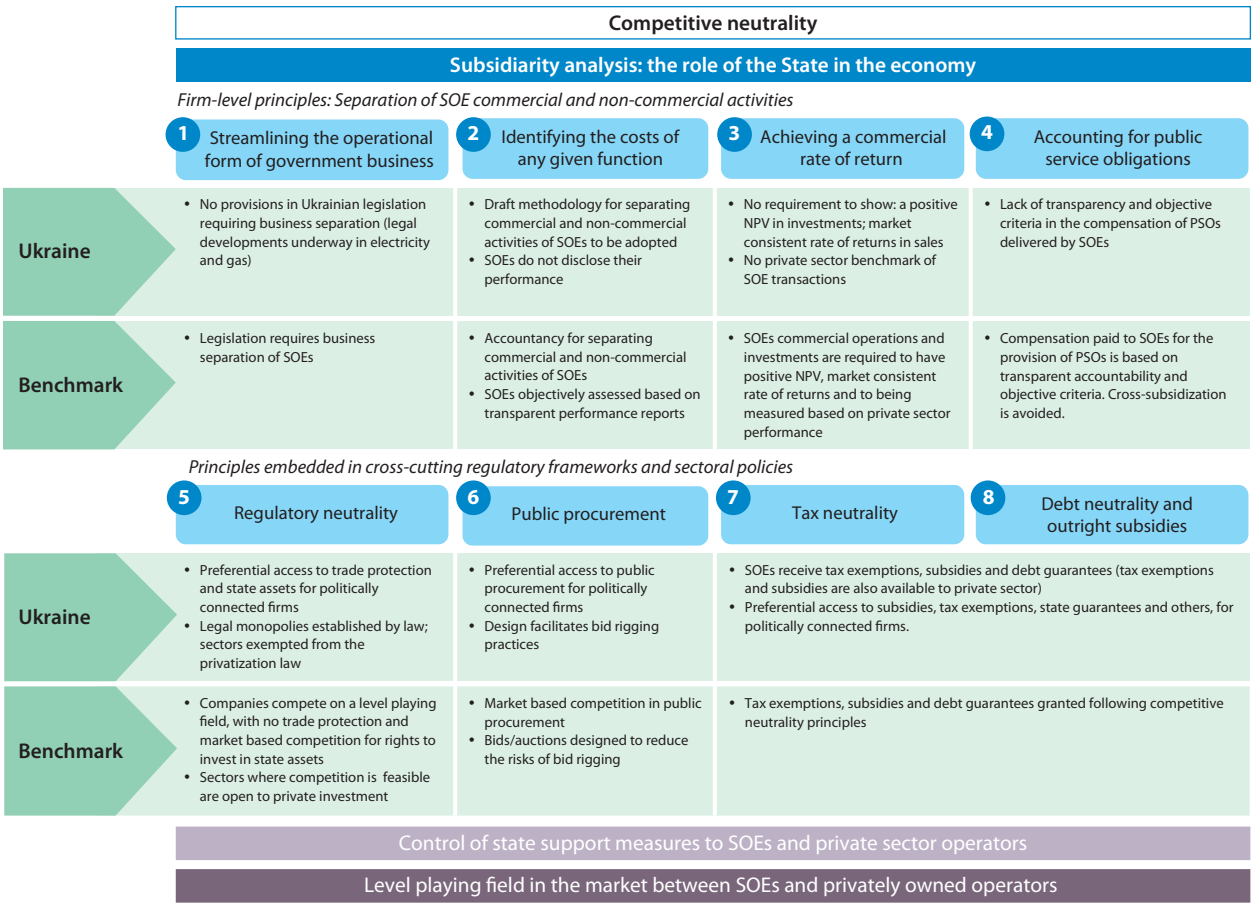
[53] MEDT. 2015. Reform of State-Owned Enterprises. Presentation in November 2015.

[54] IMF. 2016. Ukraine. Technical Assistance Report – Reforming Management and Oversight of State Assets.

[55] IMF. 2015. IMF Country Report No. 16/31, Ukraine, Reforming Management and Oversight of State Assets, p. 27.

[56] World Bank Group and UK Good Governance Fund. 2018. Crony Capitalism in Ukraine: Impact on Economic Outcomes. p. 6.

FIGURE 30 Competitive Neutrality Gap Analysis

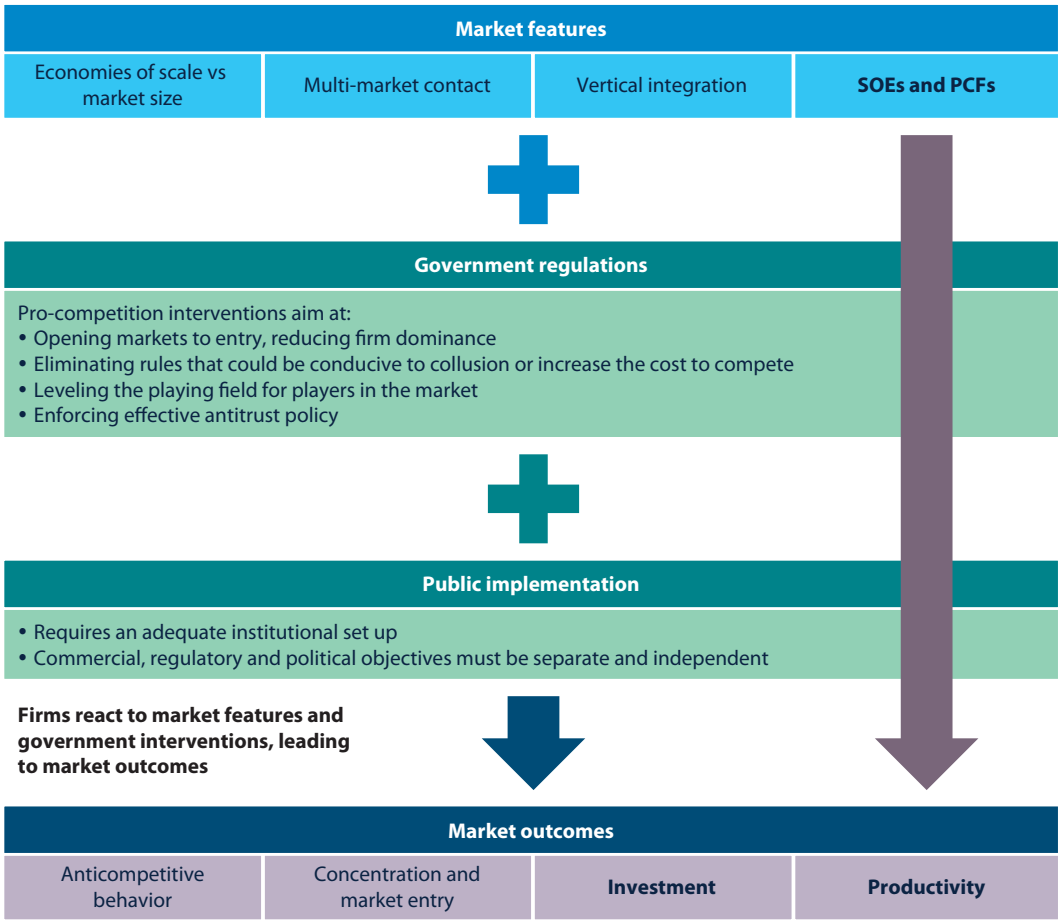


Source: Author's elaboration

While product market regulations are relatively progressive, serious implementation gaps and pervasive deficiencies in competitive neutrality underscore the considerable scope for improvement. Inadequate institutional and regulatory arrangements in input and network sectors increase the cost to compete, and weaknesses in competitive neutrality benefit some players over others, distorting the allocation of resources (Figure 31). Even sectors that were technically liberalized continue to perform poorly. For example, the lack of operational independence by the telecommunications regulator and the presence of an SOE in charge of spectrum assignment has effectively precluded an efficient allocation of the mobile telecommunications spectrum, which may help explain why Ukraine's international internet bandwidth per internet user is less than half the European average (Box 2).

Further improvements in the enforcement of competition policy will be necessary to ensure the effectiveness of the legal framework. Strengthening enforcement is particularly important for the Anti-Monopoly Committee of Ukraine (AMCU). Within its competition-advocacy mandate, the AMCU

FIGURE 31 An Analysis of Implementation Issues in Ukraine Using the Markets and Competition Policy Assessment Tool



Source: Author's elaboration

Note: The grey arrow represents the influence of SOEs and politically connected firms over regulatory design and enforcement, which directly—and negatively—impacts market outcomes.

is expected to work with sectoral regulators and line ministries to identify and address competition constraints in key sectors of the economy. However, the AMCU's enforcement capacity is inadequate to police cartel behavior and discourage harmful abuses of dominance. The AMCU's independence vis-à-vis the state and the private sector remains inadequate, and its existing institutional guarantees and financial and human resources are inadequate to fulfill its mandate. In addition, the unclear prioritization of competition principles across all stages of the public procurement process and the limited enforcement of rules against bid rigging compromise public expenditure efficiency and distort the competitive playing field. To minimize competitive distortions associated with state aid, both to private firms and SOEs, the authorities should begin by carefully review-ing the state aid granted to large SOEs—especially those with poorly defined public-service obligations—and to politically connected firms, with a view toward minimizing preferential treatment and strengthening the overall state-aid control framework.

BOX 2 The Impact of Market Concentration, Conflicts of Interest, Weaknesses in the Regulatory Framework, and the Lack of an Independent Regulator on the Telecommunications Sector

Due in part to limited competition in the telecommunications sector, Ukraine lags comparator countries such as Romania, Poland, and Kazakhstan on key measures of ICT development, especially internet penetration. Ukraine's fixed and mobile telecommunications markets remain relatively concentrated: three operators provide fixed-line services, Ukrtelecom, Kyivstar and Datagroup. Ukrtelecom owns fixed-line infrastructure. Ukrtelecom dominates fixed-line services, with a market share of 80 percent in 2017.[57] The mobile telecommunications subsector features a larger number of players but remains relatively concentrated. The largest providers are Kyivstar, Vodafone, Lifecell, and Intertelecom. Ukrtelecom is also present on the mobile telecom market through its Trimob brand.[58] Ukraine's internet bandwidth per user is equivalent to 45 percent of Europe's bandwidth. The Ukrainian telecommunications framework is expected to be aligned with the relevant EU legislation, which should help address some of the distortions that currently impact both mobile and fixed-line services.

Fixed-line telecommunication services

The licensing and authorization regime for the fixed-line services market is unclear.[59] The blurred distinction between licenses and authorizations increases the cost of competing in the market, as navigating the regime is burdensome for businesses. This ambiguity also allows the National Commission for the Regulation of Communications and Informatization (NKRZI) to limit the number of players in the market.[60] Moreover, only firms registered in Ukraine are eligible to be telecommunications operators, which likely creates a barrier to entry for foreign firms.[61] The framework for regulating operators with significant market power is also poorly defined, which may result in either the under-regulation of operators with significant market power or the over-regulation of operators without market power, discouraging innovation and investment and potentially reinforcing the dominance of the incumbent.[62] Generally, telecommunications operators are not subject to rules requiring functional or accounting separation, and the resulting prevalence of

(continues on next page)

[57] Fixed-line internet service providers included Ukrtelecom (with a market share of 23 percent), Kyivstar (11.5 percent), Volia (8 percent), Datagroup (4.6 percent), Farlep (2 percent) and Lanet (1 percent) in 2017 (NKRZI, 2019).

[58] In 2017, in the mobile telecommunications market, Kyivstar had a market share of 48 percent, Vodafone: 34.4 percent, Lifecell: 14.1 percent, Intertelecom: 3 percent, Trimob: 0.64 percent and Telesystems: 0.18 percent (NKRZI, 2019).

[59] Under Article 42(7)(7) of the Telecommunications Law (http://zakon.rada.gov.ua/cgi-bin/laws/main.cgi?page=1&nreg=1280-15), the following sectoral activities are subject to licensing: (i) providing fixed-line services and operating telecommunication networks; (ii) providing wireless access to the telecommunications network and operating telecommunications channels; (iii) providing mobile telephone services and operating telecommunication networks and channels; and (iv) maintaining and operating telecommunications networks, radio broadcasting, and broadcast television networks. While general authorization regime has yet to be developed, Article 42(2) of the Telecommunications Law creates an authorization and registration regime, under which "Business entities wishing to carry out activities in the field of telecommunications shall, not less than a month before the beginning of their submission, submit to the national commission that carries out state regulation in the field of communication and informatization, the application for inclusion in the register of operators, telecommunication providers in the form approved by the national commission that carries out state regulation in the field of communication and informatization." Only firms that have been added to the registry may offer telecom services, subject to compliance with the applicable rules for the specific type of telecom service provided.

[60] Law on Telecommunications, Article 47.

[61] Law on Telecommunications, Article 27(2).

[62] For example, the scope of interconnection obligations for network operators and telecommunications providers under Article 39(1)(12) is unclear.

vertical and horizontal integration facilitates the abuse of market power, reinforces dominance, and increases the risk of anticompetitive behavior. Finally, the lack of clarity regarding the cost-based measure for national and international termination rates may hinder efforts to regulate markets where operators have significant market power.

Mobile telecommunications

The lack of pro-competition regulation in the mobile telecommunications subsector appears to be slowing the development of mobile services in Ukraine. The NKRZI contributes to developing the National Table of Radio Frequencies Allocation, but the final regulatory decisions are taken by the Council of Ministers of Ukraine (CMU).[63] Similarly, the NKRZI is authorized to grant licenses for the use of the radio spectrum, but determining the fees for issuing, renewing, extending, or duplicating these licenses is the responsibility of the CMU.[64] The NKRZI's limited independence over spectrum matters risks reinforcing dominance or restricting entry through the discretionary application of rules. The Law on Radio Frequencies divides the authority for spectrum licensing and spectrum assignment, and it allocates the latter to an SOE, the Ukrainian State Center for Radio Frequencies, which appears to carry out both commercial and regulatory functions.[65] This conflict of interest may compromise the state's competitive neutrality by encouraging discrimination between operators and protecting vested interests. The transfer, trading, or leasing of radio-spectrum licenses is not allowed, and the lack of a secondary market constitutes a barrier to entry and expansion, which could reinforce market dominance. The absence of a framework for unlicensed portions of the spectrum also hinders innovation and restricts market access among businesses and industries that rely on those portions of the spectrum, such as those that use technologies associated with the so-called "internet of things." In addition, there is no framework that takes into account competition considerations for sharing infrastructure or assets (including the radio spectrum),[66] which risks facilitating anticompetitive agreements among market players. Infrastructure-sharing agreements can promote efficiency and foster market competition, as they lower barriers to entry and expansion. A system for assessing how active and passive infrastructure sharing affects competition must account for the following factors: (i) the degree of cooperation or autonomy between the parties to the agreement, which is also a function of the passive or active nature of the infrastructure; (ii) the parties' market power; (iii) the agreement's duration; and (iv) the broadness, density, and other characteristics of the infrastructure or assets covered by the agreement.

[63] Article 14(2)(3) and (4) of the Radio Frequency Law (Law No. 2244-VIII of December 7, 2017)

[64] Article 14(2)(5) of the Radio Frequency Law.

[65] Article 16(3)(1) of the Radio Frequency Law. For a description of the activities of the Ukrainian State Center of Radio Frequencies, see http://www.ucrf.gov.ua/en/about-the-centre/main-activity/

[66] A draft law #5051 that is currently reviewed by the Verkhovna Rada of Ukraine proposes rules on radio spectrum sharing. See also the Law "On access to construction, transport and power engineering facilities for the development of telecommunication networks": https://zakon.rada.gov.ua/laws/show/1834-19.

CHAPTER 3

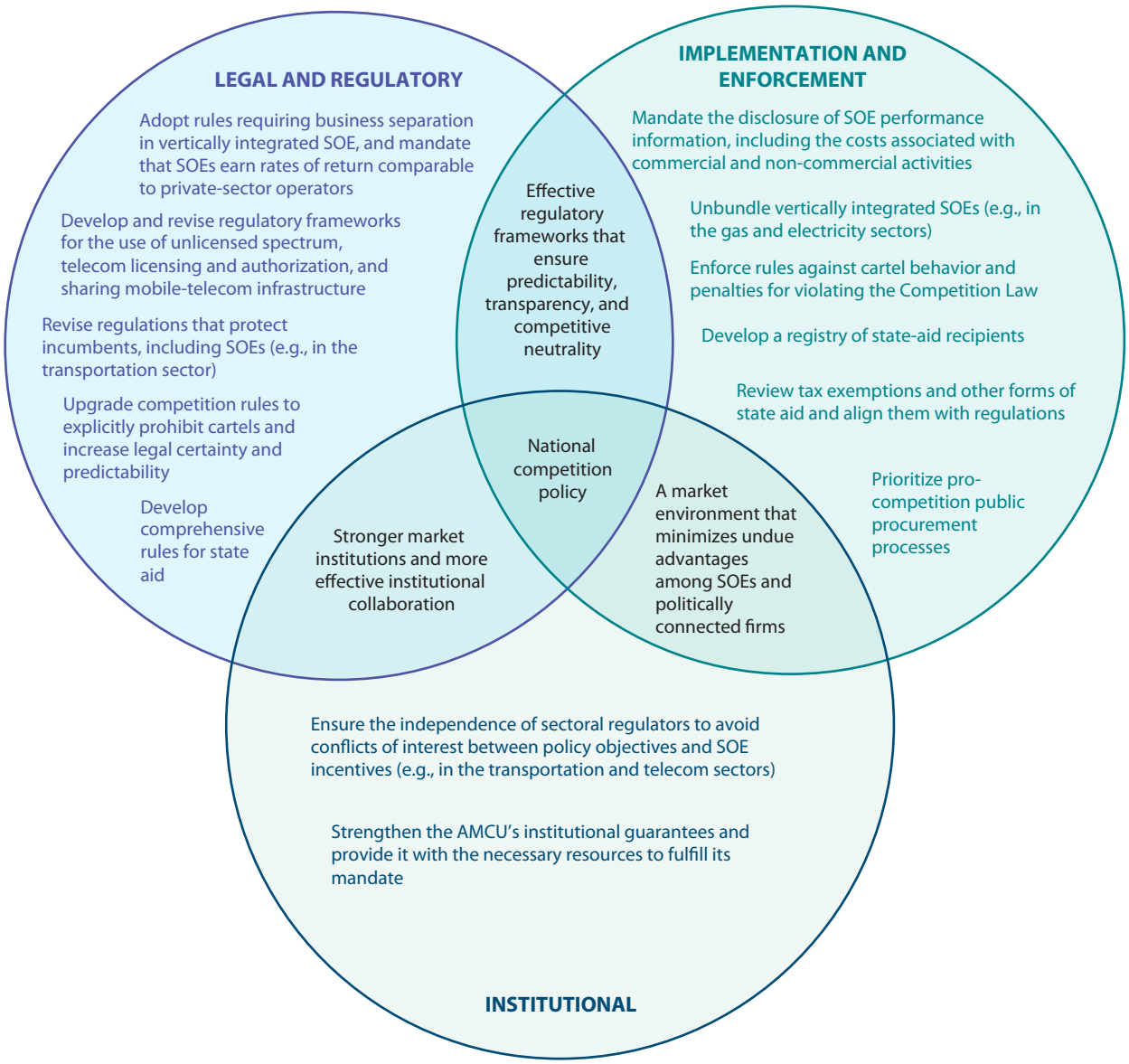
PROPOSALS TO STRENGTHEN MARKET INSTITUTIONS, REGULATION, AND COMPETITION

One of the most important goals of a successful competition policy is ensuring that government policies and regulations do not unnecessarily restrict entry, facilitate collusion, increase the cost of competing, or distort the level playing field by providing an undue advantage to specific firms. In 2016, Ukraine's renewed commitment to enhance market competition resulted in the AMCU planning the adoption of a new National Competition Policy.

As discussed above, weaknesses in the competition framework adversely affect market outcomes in Ukraine. Many manufacturing subsectors are dominated by SOEs and politically connected firms, and barriers to entry contribute to the formation of oligopolistic market structures. Constraints on competition are especially binding in network industries and productivity-enabling sectors, increasing production costs economy-wide. High levels of vertical integration, especially in public utilities such as electricity and gas, can increase the risk of market foreclosure if not properly addressed through unbundling and effective regulatory enforcement. While the country's economic regulations are relatively progressive in principle, their uneven application prevents market institutions from ensuring a level playing field and maintaining competitive neutrality. Moreover, several key sectoral regulators and market institutions are not fully independent and cannot effectively support competition.

Addressing these challenges will require improvements in the country's regulatory framework, institutional arrangements, and enforcement mechanisms. A holistic competition policy must go beyond antitrust enforcement to: (i) ensure a competitively neutral administrative environment that minimizes the policy-based advantages of SOEs and politically connected firms; (ii) improve the predictability, consistency, and transparency of the regulatory framework, both in principle and in application; and (iii) support the development of robust, independent market institutions. Specific recommendations for strengthening Ukraine's competition policies and institutional arrangements are presented in Figure 32 and Table 3, below.

FIGURE 32 Priority Areas for Strengthening National Competition Policy



Source: Author's elaboration

TABLE 3 Policy Recommendations

Short term	Medium term	Responsible institutions
Legal / Regulatory Recommendations		
Adopt rules requiring business separation in vertically integrated SOE, and mandate that SOEs earn rates of return comparable to private-sector operators		MEDT/ SPF/AMCU
Develop and revise regulatory frameworks for the use of unlicensed spectrum, telecom licensing and authorization, and sharing mobile-telecom infrastructure		CMU/Ministry of Infrastructure / NCSRCI/ AMCU
	Revise regulations that protect incumbents, including SOEs (e.g., in the transportation sector)	CMU/Ministry of Infrastructure/AMCU/ other government agencies
Upgrade competition rules to explicitly prohibit cartels and increase legal certainty and predictability		AMCU/CMU
Develop comprehensive rules for state aid		AMCU/CMU
Implementation / Enforcement Recommendations		
Mandate the disclosure of SOE performance information, including the costs associated with commercial and non-commercial activities		MEDT/SPF/line ministries AMCU
	Unbundle vertically integrated SOEs (e.g., in the gas and electricity sectors)	CMU Ministry of Infrastructure
Enforce rules against cartel behavior and penalties for violating the Competition Law		AMCU
Develop a registry of state-aid recipients	Review tax exemptions and other forms of state aid and align them with regulations	AMCU/MEDT/ Ministry of Finance /other line ministries
Prioritize pro-competition public procurement processes		AMCU/MEDT
Institutional Recommendations		
Ensure the independence of sectoral regulators to avoid conflicts of interest between policy objectives and SOE incentives (e.g., in the transportation and telecom sectors)		CMU/Ministry of Infrastructure/other government agencies
Strengthen the AMCU's institutional guarantees and provide it with the necessary resources to fulfill its mandate		CMU/AMCU

REFERENCES

Government of Ukraine (2017) *Unified Registry of the State Property Objects.* Available at: http://www.spfu.gov.ua/ua/content/spf-stateproperty-Subiekti-gospodaruvannya.html

International Monetary Fund (2016) Ukraine. Technical Assistance Report – *Reforming management and Oversight of State Assets.*

KyivPost (2017) *Ukraine's infrastructure needs $30 billion, more transparency.* Available at: https://www.kyivpost.com/business/ukraines-infrastructure-needs-30-billion-transparency.html

Martínez Licetti, Martha; Iootty, Mariana; Goodwin, Tanja; Signoret, José. 2018. *Strengthening Argentina's Integration into the Global Economy: Policy Proposals for Trade, Investment, and Competition*. International Development in Focus. Washington, DC: World Bank.

Ministry of Economic Development and Trade (2015*) Ukraine's Top 100 State-Owned Enterprises.*

Ministry of Economic Development and Trade (2015) *Reform of State-owned enterprises.* Presentation in November 2015.

Motta, M. (2004) *Competition policy: theory and practice.* Cambridge University Press.

SD Capital Press Office (2018) *The world's largest port operator enters the Ukrainian market.* Available at: http://sd.capital/2018/01/04/the-worlds-largest-port-operator-dp-world-group-enters-the-ukrainian-market/

Syverson, C. (2011) *What Determines Productivity?* Journal of Economic literature.

Reuters (2018) *Ukraine passes privatization law needed for IMF's aid,* written by Natalia Zinets. Available at: https://www.reuters.com/article/uk-ukraine-privatisation/ukraine-passes-privatisation-law-needed-for-imf-aid-idUKKBN1F71OD

Ryanair Corporate (2017) *Ryanair Cancels Planned Ukraine Services As Kiev Airport Fails To Honour Commitments.* Available at: https://corporate.ryanair.com/news/ryanair-cancels-planned-ukraine-services-as-kiev-airport-fails-to-honour-commitments/

Ryanair Corporate (2018) *Ryanair brings low fares to Ukraine.* Available at: https://corporate.ryanair.com/news/ryanair-brings-low-fares-to-ukraine/

Ukraine Digital News, based in Ministry of Economic Development and Trade of Ukraine (2018) *Ukrainian government approves digital economy strategy for Ukraine.* Available at: http://www.uadn.net/2018/01/24/ukrainian-government-approves-digital-economy-strategy-for-ukraine/

Wojciech Konończuk, Denis Cenuşa and Kornely Kakachia (2017) *Oligarchs in Ukraine, Moldova and Georgia as key obstacles to reform*. Available at: http://www.3dcftas.eu/system/tdf/Oligarchs_14%20June_FINAL_0.pdf?file=1&type=node&id=358%20

World Bank Group (2014) *Opportunities and Challenges for Private Sector Development.*

World Bank Group (2016) *Systematic Country Diagnostic*

World Bank Group (2017) *Macro Poverty Outlook for Europe and Central Asia and World Development Indicators.*

World Bank Group (2018) *Macro Poverty Outlook for Europe and Central Asia.* Spring Meetings 2018.

World Bank Group (2018) *Ukraine: A New Vision for Competition Policy to Boost Competitiveness and Growth.*

World Bank Group & UK's Good Governance Fund (2018) *Crony capitalism in Ukraine: impact on economic outcomes (English)*. Washington, D.C.: World Bank Group.

ANNEX

TABLE A.1 Price Comparison Analysis: Ukraine vs. Comparator Countries in the OECD

	(1)	(2)	(3)
Ukraine	0.523***	0.477***	0.534***
	(0.070)	(0.101)	(0.113)
Log of GDP per capita PPP (2011 international $)	0.100**	0.095**	0.180**
	(0.046)	(0.044)	(0.066)
Log of cost of import		0.044	0.077
		(0.108)	(0.067)
Tariff rate, applied			0.066**
			(0.030)
No. of observations	3,142	3,142	3,142
R-squared	0.887	0.888	0.896

Notes: Results are from an OLS regression using 2010–2017 data from the Numbeo. All regressions include product and year fixed effects. Standard errors clustered at the country level are in parentheses. ***, **, and * indicate significance at 1 %, 5 %, and 10 %.

TABLE B.1 Price Comparison Analysis: Ukraine vs. Comparator Countries in the OECD and Selected ECA Countries

	(1)	(2)	(3)
Ukraine	0.370***	0.312***	0.328***
	(0.043)	(0.047)	(0.066)
Log of GDP per capita PPP (2011 international $)	0.005	0.023	0.058
	(0.031)	(0.030)	(0.045)
Log of cost of import		0.100	0.105**
		(0.067)	(0.048)
Tariff rate, applied			0.047
			(0.034)
No. of observations	3,706	3,706	3,706
R-squared	0.883	0.885	0.889

Notes: Results are from an OLS regression using 2010–2017 data from the Numbeo. All regressions include product and year fixed effects. Standard errors clustered at the country level are in parentheses. ***, **, and * indicate significance at 1 %, 5 %, and 10 %.

TABLE C.1 Price Comparison Analysis: Ukraine vs. Comparator Countries in the OECD

	(1)	(2)	(3)
Ukraine	0.404**	0.482**	0.529***
	(0.161)	(0.177)	(0.162)
Log of GDP per capita PPP (2011 international $)	0.795***	0.803***	0.874***
	(0.110)	(0.110)	(0.124)
Log of cost of import		–0.074	–0.047
		(0.112)	(0.082)
Tariff rate, applied			0.055**
			(0.027)
No. of observations	3,142	3,142	3,142
R-squared	0.874	0.875	0.880

Notes: Results are from an OLS regression using 2010–2017 data from Numbeo. All regressions include product and year fixed effects. Standard errors clustered at the country level are in parentheses. ***, **, and * indicate significance at 1 %, 5 %, and 10 %.

TABLE D.1 Price Comparison Analysis: Ukraine vs. Comparator Countries in the OECD and Selected ECA Countries

	(1)	(2)	(3)
Ukraine	0.202	0.228*	0.243*
	(0.124)	(0.130)	(0.137)
Log of GDP per capita PPP (2011 international $)	0.655***	0.647***	0.677***
	(0.087)	(0.090)	(0.094)
Log of cost of import		–0.046	–0.042
		(0.082)	(0.081)
Tariff rate, applied			0.040**
			(0.030)
No. of observations	3,706	3,706	3,706
R-squared	0.868	0.868	0.871

Notes: Results are from an OLS regression using 2010–2017 data from Numbeo. All regressions include product and year fixed effects. Standard errors clustered at the country level are in parentheses. ***, **, and * indicate significance at 1 %, 5 %, and 10 %.

TABLE A.2 Price Comparison Analysis: Kiev, Ukraine vs. Comparator Cities in OECD and Selected ECA Countries

	(1)	(2)	(3)
Ukraine	0.281**	0.295**	0.414***
	(0.126)	(0.111)	(0.112)
Log of GDP per capita PPP (2011 international $)	–0.104	–0.105	–0.031
	(0.077)	(0.080)	(0.075)
Log of cost of import		–0.020	–0.026
		(0.100)	(0.081)
Tariff rate, applied			0.046***
			(0.014)
No. of observations	14,385	14,385	14,385
R-squared	0.855	0.855	0.861

Notes: Results are from an OLS regression using 2010–2017 data from the Economist Intelligence Unit (EIU). All regressions include product and year fixed effects. Standard errors clustered at the country level are in parentheses. ***, **, and * indicate significance at 1 %, 5 %, and 10 %.

TABLE B.2 Price Comparison Analysis: Dnipropetrovsk, Kharkiv, Kiev, Lviv, Odesa, and Sumy in Ukraine vs. Comparator Cities in OECD and Selected ECA Countries

	(1)	(2)	(3)
Ukraine	0.435***	0.409**	0.419***
	(0.143)	(0.152)	(0.151)
Log of GDP per capita PPP (2011 international $)	0.785***	0.787***	0.806***
	(0.084)	(0.082)	(0.083)
Log of cost of import		0.039	0.037
		(0.094)	(0.094)
Tariff rate, applied			0.028
			(0.039)
No. of observations	16,051	16,051	16,051
R-squared	0.823	0.823	0.824

Notes: Results are from an OLS regression using 2010–2017 data from Numbeo. All regressions include product and year fixed effects. Standard errors clustered at the country level are in parentheses. ***, **, and * indicate significance at 1 %, 5 %, and 10 %.

TABLE C.2 Price Comparison Analysis within Ukrainian Provinces

	(1)	(2)	(3)	(4)
Kiev dummy	0.093***	0.127***	0.114***	0.131***
	(0.006)	(0.027)	(0.027)	(0.031)
Log of disposable income per capita		–0.032	–0.036	–0.059
		(0.026)	(0.027)	(0.044)
Log of population			0.026	0.024
			(0.017)	(0.034)
Log of labor cost				0.004
				(0.022)
Log of price of fuel (diesel)				–0.408***
				(0.012)
No. of observations	25,657	25,657	25,657	25,657
R-squared	0.938	0.938	0.938	0.939

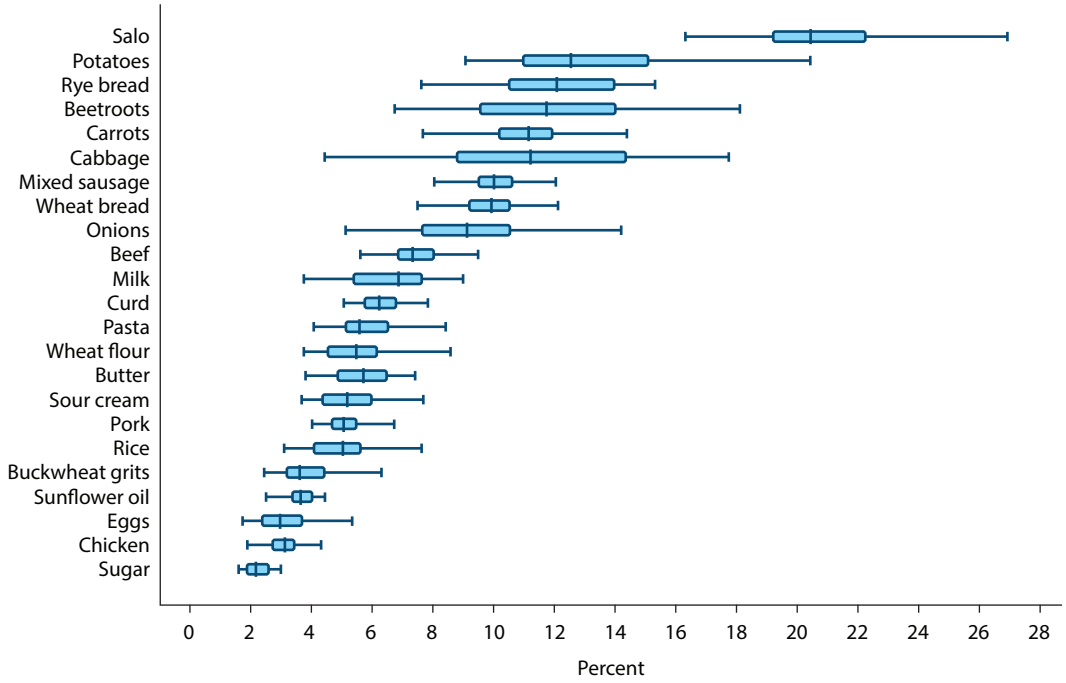
Notes: Results are from an OLS regression using 2014–2017 monthly data from the World Food Program. The dependent variable is the logarithm of retail prices (LCU/kg). All regressions include product, month and year fixed effects. Standard errors clustered at the country level are in parentheses. ***, **, and * indicate significance at 1 %, 5 %, and 10 %.

TABLE A.3 Price Comparisons Analysis: Ukraine vs. OECD and Selected ECA Countries

	(1)	(2)	(3)	(4)
Ukraine	0.380***	0.380***	0.324***	0.341***
	(0.026)	(0.044)	(0.046)	(0.064)
Oligarchs products	0.531***	0.531***	0.531***	0.531***
	(0.025)	(0.025)	(0.025)	(0.025)
Oligarchs products*Ukraine	–0.067**	–0.067**	–0.068**	–0.070***
	(0.026)	(0.026)	(0.026)	(0.025)
Log of GDP per capita PPP (2011 international $)		–0.000	0.017	0.051
		(0.032)	(0.031)	(0.047)
Log of cost of import			0.096	0.101**
			(0.068)	(0.049)
Tariff rate, applied				0.046
				(0.034)
No. of observations	3,706	3,706	3,706	3,706
R-squared	0.090	0.090	0.092	0.096

Notes: Results are from an OLS regression using 2010–2017 data from the Numbeo. All regressions include product and year fixed effects. Standard errors clustered at the country level are in parentheses. ***, **, and * indicate significance at 1 %, 5 %, and 10 %.

FIGURE A.4 Coefficient of Variation of Prices Across Ukrainian Cities



Notes: Price dispersion is measured by the coefficient of variation.

BOX 3 Price Comparison Analysis: Are Prices of Basic Food Products Higher in Ukraine?

The analysis assessing whether food prices are significantly higher in Ukraine than in comparator countries uses two data sources: (a) "Numbeo" – an online global database of user contributed data on cost of living with information on consumer prices, and (b) Economist Intelligence Unit (EIU) – a survey-based database of consumer prices for over 160 items. The sample was restricted to products available in Ukraine and where yearly data were available in either the Numbeo or the EIU database. The sample covers yearly information on prices of 14 and 20 products, respectively, in the Numbeo and EIU databases from 2010 to 2017. Both databases apply different methodologies in gathering price data across countries, thus strengthening the comparability of price information used in this analysis.

The baseline empirical specification for the price comparison analysis follows the equation:

$$\ln(Price_{it}) = \beta_1 Ukraine + \beta_2 \ln(Z_{it}) + \eta_i + \delta_t + \varepsilon_{ijt}$$

where for each food product *i* in country *j* in year t; Price is the price (US$/kg), *X* is a vector of cost and demand shifters such as *GDP per capita PPP (2011 international $)*, *cost of imports*, and *tariff rates*, *Ukraine* is a dummy variable for observations in Ukraine, η are product fixed effects, δ are year fixed effects, and e is the error term. The *Ukraine* dummy variable captures the difference in average food prices in Ukraine relative to the average prices across the comparator countries after adjusting for the differences in per capita GDP PPP, import costs, customs duties, product types and time effects. The variable capturing costs to import (taken from the Trading Across Border dataset) accounts for domestic transport costs. Other sources of transport costs (oversees shipping) depend on the origin and destination of each product, for which data is not consistently available.

The food products were selected based on their relative importance to the average Ukrainian consumer and availability in the databases[67]. The analysis uses different sets of comparator jurisdictions to account for potential distortions in markets of other countries[68].

[67] The analysis used the following 14 products from the Numbeo database: Apples (1kg), Banana (1kg), Beef Round (1kg or Equivalent Back Leg Red Meat), Chicken Breasts (Boneless, Skinless, (1kg), Eggs (regular, 12), Lettuce (1 head), Loaf of Fresh White Bread (500g), Local Cheese (1kg), Milk (regular, 1 liter), Onion (1kg), Oranges (1kg), Potato (1kg), Rice (white, 1kg) and Tomato (1kg), while the following 20 products from the EIU database we analyzed: Apples (1 kg), Bananas (1 kg), Beef (filet mignon, ground or minced, roast, steak, stewing, 1 kg), Butter (500 g), Chicken (fresh, frozen, 1 kg), Eggs (12), Flour (white, 1 kg), Fresh fish (1 kg), Lettuce (1 head), Milk (pasteurized, 1 liter), Mushrooms (1 kg), Onions (1 kg), Oranges (1 kg), Peanut or corn oil (1 liter), Pork: (chops, loin, 1 kg), Potatoes (2 kg), Sugar (white, 1 kg), Tomatoes (1 kg), White bread (1 kg) and White rice (1 kg).

[68] The comparator countries with available data in the Numbeo database include 35 OECD countries – Australia, Austria, Belgium, Canada, Chile, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, South Korea, Latvia, Luxembourg, Mexico, The Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom, and United States – and 7 additional selected regional – Bulgaria, Croatia, Georgia, Kazakhstan, Lithuania, Moldova, and Romania. The comparator countries with available data in the EIU database include 32 OECD countries – Australia, Austria, Belgium, Canada, Chile, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, South Korea, Luxembourg, Mexico, The Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Spain, Sweden, Switzerland, Turkey, United Kingdom, and United States and 3 additional selected regional – Bulgaria, Kazakhstan, and Romania.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