

ARAŞTIRMA MAKALESİ / RESEARCH ARTICLE

**AMENDMENTS TO THE NATURAL GAS MARKET LAW AND MARKET
CONCENTRATION IN THE TURKISH NATURAL GAS MARKET***

**DOĞAL GAZ PİYASASI KANUNU'NDA YAPILAN DEĞİŞİKLİKLER VE TÜRKİYE
DOĞAL GAZ PİYASASINDA PİYASA YOĞUNLUĞU**

Asst. Prof. Dr. Dicle KORKMAZ¹

ABSTRACT

One of the main goals in the narrative of the Justice and Development Party for Türkiye is to become a regional trading natural gas hub. Reduction of the market concentration is a criterion to become a trading natural gas hub as this concept refers to a competitive market in which suppliers and buyers meet. The European Federation of Energy Traders has awarded Türkiye zero for the criterion of market concentration in the assessment of natural gas hubs in 2019, 2020, 2021 and 2023. The study analyzes the reasons for the market concentration in the Turkish natural gas market and questions the extent to which amendments dated April 2023 to the Natural Gas Market Law numbered 4646 serve as an opportunity to reduce market concentration in the market. It argues that weaknesses of the amended Law should be overcome and accompanied by changes in the method to subsidize the customers to reduce the market concentration.

Keywords: Market Concentration, Natural Gas Market, Türkiye, Trading Natural Gas Hub, Natural Gas Market Law Numbered 4646.

JEL Classification Codes: H25, L 44, P18, Q48.


ÖZ

Adalet ve Kalkınma Partisi'nin anlatısında yer alan ana hedeflerden biri Türkiye'nin bölgesel doğal gaz ticaret merkezi haline gelmesidir. Söz konusu kavram, tedarikçilerle alıcıların bulunduğu rekabetçi bir piyasayı ifade ettiğinden doğal gaz ticaret merkezi olmanın bir kriteri de piyasa yoğunluğunun azaltılmasıdır. Avrupa Enerji Tacirleri Federasyonu, 2019, 2020, 2021 ve 2023 yıllarında piyasa yoğunluğu kriteri için Türkiye'yi sıfır olarak notlandırmıştır. Makale, piyasa yoğunluğunun nedenlerini analiz etmekte ve Nisan 2023 tarihinde yapılan 4646 Sayılı Doğal Gaz Piyasası Kanunu değişikliğinin ne ölçüde piyasa yoğunluğunu azaltacağını sorgulamaktadır. Makale, piyasa yoğunluğunun azaltılması için Kanun değişikliğinin zayıf yönlerinin giderilmesi ve müşterilere uygulanan sübvansiyon yönteminde değişiklik yapılması gerektiğini savunmaktadır.

Anahtar Kelimeler: Piyasa Yoğunluğu, Doğal Gaz Piyasası, Türkiye, Doğal Gaz Ticaret Merkezi, 4646 Sayılı Doğal Gaz Piyasası Kanunu.

JEL Sınıflandırma Kodları: H25, L 44, P18, Q48.

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¹  Antalya Bilim University, Faculty of Economics, Administrative and Social Sciences, Department of Political Science and International Relations, dicle.korkmaz@antalya.edu.tr

GENİŞLETİLMİŞ ÖZET

Amaç ve Kapsam:

Adalet ve Kalkınma Partisi'nin anlattısında yer alan ana hedeflerden biri bölgesel bir doğal gaz ticaret merkezi haline gelmektir. Söz konusu kavram, tedarikçilerle alıcıların bulunduğu rekabetçi bir enerji piyasasını ifade etmektedir. Doğal gaz ticaret merkezlerini 18 kriter üzerinden değerlendiren Avrupa Enerji Tacirleri Federasyonu, 2023 yılındaki değerlendirmesinde Türkiye'deki doğal gaz organize toptan satış piyasasına 20 üzerinden dokuz puan vermiştir. Federasyon'un 2019, 2020, 2021 ve 2023 yılları değerlendirmelerinde Türkiye'nin sıfır olarak notlandırıldığı kriterlerden biri piyasa yoğunluğudur. Makale, piyasa yoğunluğunun nedenlerini analiz etmekte ve Nisan 2023 tarihinde yapılan 4646 Sayılı Doğal Gaz Piyasası Kanun değişikliğinin ne ölçüde piyasa yoğunluğunu azaltacağını sorgulamaktadır. Literatüre olan katkı, fiyatlama politikasına ilişkin 2015 yılı sonrası verilerinin incelenmesi ve Kanun değişikliğinin piyasa yoğunluğuna etkisinin değerlendirilmesidir.

Yöntem:

Makale, piyasa yoğunluğunun nedenlerini ortaya koyarken 2001 Tarihli ve 4646 Sayılı Doğal Gaz Piyasası Kanunu'nun ilgili maddelerini, Kanun'un uygulanması ve fiyatlama politikasını incelemektedir. Fiyatlama politikasının maliyet temelli olup olmadığını araştırmak için Brent petrol fiyatına, doğal gaz toptan satış fiyatına ve ABD Doları/TL kuruna ilişkin veriler kullanılmıştır. Fiyatlama politikasının piyasaya olan etkisini göstermek için şirket bazında sıvılaştırılmış doğal gaz ithalatı, sürekli ticaret merkezinin toplam gaz ticaretindeki oranı ve BOTAŞ'ın toplam ithalattaki payına ilişkin istatistiklerden faydalanılmıştır. Literatüre katkı olarak değerlendirilebilecek Kanun değişikliğinin piyasa yoğunluğunu azaltıp azaltamayacağı sorusunu yanıtlarken Nisan 2023 tarihli Kanun değişikliğinin ilgili maddeleri ve Türkiye Büyük Millet Meclisi ilgili Komisyon Raporu incelenmiştir.

Bulgular:

Doğal gaz piyasasındaki yoğunluğun nedenleri 2001 tarihli ve 4646 sayılı Doğal Gaz Piyasası Kanunu'nun sınırlı uygulanması, Kanun'da yer alan sınırlayıcı maddeler ve fiyatlama politikası olarak belirlenmiştir. Öncelikle, Kanun'da yer alan kontrat ve miktar devirleriyle BOTAŞ'ın piyasa payının azaltılması hükmü tam olarak uygulanamamıştır. İran ve Azerbaycan gazına ilişkin kontratların devrinde tedarikçiden alınması gereken ön onayda sorun çıkmış, dolayısıyla kontrat devri 10 milyar metreküplük Rus gazıyla sınırlı kalmıştır. Miktar devri ise sadece 1,2 milyar metreküplük Azeri gazında mümkün olabilmıştır. Kanun'un Geçici 2. Maddesinde yer alan dikey bütünleşik BOTAŞ'ın mülkiyet ayrıştırmasına ilişkin hüküm ise uygulanmamıştır. Muhasebe ve fonsiyonel ayrıştırmayı tamamlamış olan BOTAŞ'ta hukuki ayrıştırma ya da mülkiyet ayrıştırması bulunmamaktadır. BOTAŞ'ın hakim durumunu kötüye kullandığına dair bir uygulama tespit edilememiş olsa da, tedarik ve iletim bölümlerinde hukuki ayrıştırmaya gidilmemiş olması piyasaya olan güveni etkileme ve piyasaya girişleri engelleme riski yaratmaktadır. İkinci olarak, 2023 tarihli değişiklik öncesinde 4646 Sayılı Kanun'un bazı maddelerinde yer alan özel sektöre yönelik kısıtlamalar da piyasa yoğunluğunu etkilemiştir. Her ne kadar söz konusu ithalat kısıtlamaları, sıvılaştırılmış, sıkıştırılmış ve spot doğal gaza uygulanmasa da potansiyel yeni girişleri etkileyerek piyasa yoğunluğunu artırıcı niteliktedir. Üçüncü olarak, uygulanmakta olan fiyatlama politikasında maliyetler yansıtılmamaktadır. Dolayısıyla, özel sektör BOTAŞ fiyatlarıyla rekabet edememektedir. 2023 yılında yapılan Kanun değişikliğinde sözleşme ve miktar devirlerine ilişkin hüküm korunmuş ve sözleşme devirleri sona erinceye kadar BOTAŞ'ın yüzde 20 piyasa payı sınırlamasına tabi olmayacağı hükmü bağlanmıştır. Değişiklik yapılan Kanun metninde BOTAŞ'ın faaliyetlerinin ayrıştırılacağı ve yatay bütünleşmiş tüzel kişi olarak yeniden yapılandırılacağı ifadesi yer almaktadır. Ancak, ayrıştırmayla ilgili herhangi bir takvimin öngörülmemesi ve kontrat ya da miktar devirlerinde Bakanlığın onayının aranacak olması sorun olarak tespit edilmiştir. Ek olarak, yeniden yapılandırılınca kurulacak şirketlerin işletme konusu, ortaklık yapısı gibi hususların Cumhurbaşkanlığı Kararıyla düzenlenecek olması demokratik karar alma mekanizmasının dışındadır. Kanun'dan kaynaklanan sorunlara gelince, 4646 sayılı Kanun'da yer alan ithalat kısıtlamaları tamamen kaldırılmıştır. Dolayısıyla, Kanun'da yer alan BOTAŞ'ın piyasa payı yüzde 20'ye düşüncüye kadar gaz ithal etmemesi kuralı da kalkmıştır. Her ne kadar bu hüküm BOTAŞ'ın gaz ithal ederek piyasa yoğunluğunun korunmasına ya da artmasına yol açma riski taşısa da piyasanın normalleşmesi ve piyasa oyuncularına adil muamele açısından olumlu bir gelişmedir. Ancak, Enerji Piyasası Düzenleme Kurulu'nun boru gazına yönelik yeni ithalat lisanslarında Enerji Bakanlığı'nın onayını, spot boru gazı ithalatında ise miktar, süre ve uygulama yöntemi konularında Bakanlığın görüşünü almasına yönelik hüküm, Enerji Piyasası Düzenleme Kurumu'nun bağımsızlığına aykırıdır. Kanun değişikliğinde fiyatlama mekanizmasıyla ilgili herhangi bir hüküm yer almamaktadır. Kanun değişikliğiyle Enerji Piyasası Düzenleme Kurumu'nun, Bakanlığın görüşünü alarak, ihracatta ve transitte yurt içi iletim tarifelerinden farklı iletim tarifelerini tespit edebilmesi öngörülmektedir. Söz konusu hükmün yeni girişleri engelleyip engellemesi uygulamanın rekabete aykırı olup olmamasına bağlı olacaktır. Bununla birlikte, Bakanlığın görüşünün alınacak olması Kurum'un bağımsızlığına aykırıdır.

Sonuç ve Tartışma:

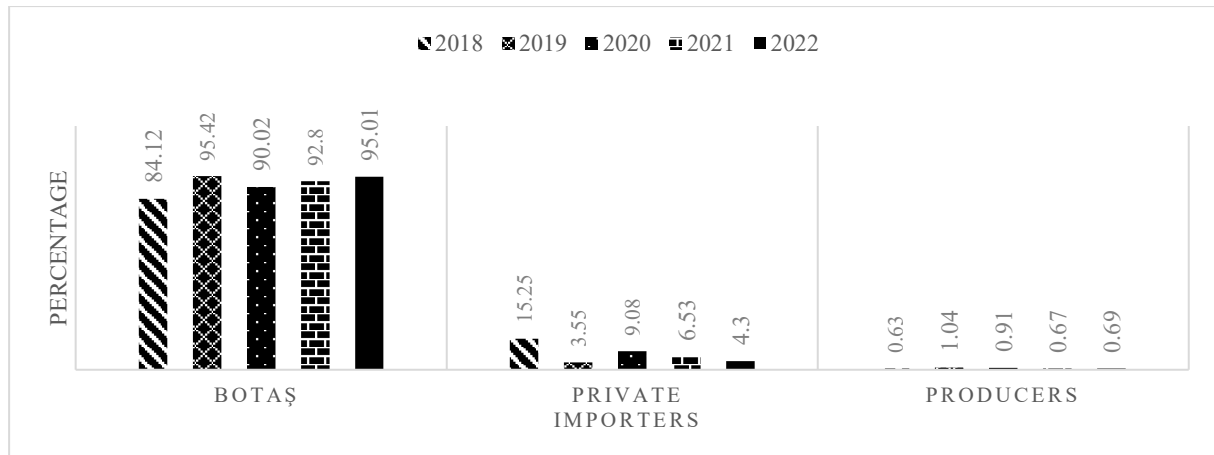
Değiştirilen 4646 Sayılı Kanun, ithalat kısıtlamalarının kaldırılması gibi olumlu adımlar öngörmektedir. Ancak, Enerji Piyasası Düzenleme Kurumu'nun bağımsızlığını olumsuz yönde etkileyebilecek ve demokratik karar alma açısından sorun teşkil edebilecek hükümler ile Kanun'da ayrıştırmaya ilişkin bir takvim öngörülmemiş olması Kanun değişikliğinin etkisini sınırlamaktadır. Buna ek olarak, maliyetlerin yansıtılmadığı fiyat politikasının devam ediyor olması yeni girişleri engellemeye devam edecektir. Dolayısıyla, piyasa yoğunluğunun azaltılması için Kanun değişikliğinin zayıflıklarının giderilmesi ve müşterilere uygulanan sübvansiyon yönteminde değişiklik yapılması gerekmektedir.

1. INTRODUCTION

One of the main goals in the narrative of the Justice and Development Party (JDP) has been becoming a regional energy trading hub (Cumhurbaşkanlığı Strateji ve Bütçe Başkanlığı, 2023, p. 24; Enerji ve Tabii Kaynaklar Bakanlığı, 2023, p. 23, 59; Dışişleri Bakanlığı, 2023). According to the narrative, any energy project, including energy investments, explorations in the Black Sea and the Eastern Mediterranean, and international energy pipelines have been contributing to this goal (Aslan, 2018, p. 31-39). Regarding the latter, a direct linkage between the Turk Stream Pipeline² and the Trans Anatolian Pipeline³, and the trading natural gas hub has been established in the JDP's narrative (Korkmaz, 2021, p. 124-127). However, the concept of a trading natural gas hub is related to establishing a liberal market, rather than geopolitics, as it means “a platform where the title (ownership) of gas molecules is exchanged between a number of buyers and sellers in both spot and futures trades” (Shi and Variam, 2018, p. 2). Therefore, examination of any progress for a trading natural gas hub requires an analysis of the fulfillment of the criteria of a trading natural gas hub.

According to the European Federation of Energy Traders' (EFET) assessment of natural gas hubs in 2023, Türkiye's natural gas hub has been awarded nine points out of 20, based on 18 criteria. This score represents a decrease compared to 2019, 2020 and 2021⁴, when the scores were 9,5, 10,5 and 10,5, respectively. In all these annual assessments of EFET, Türkiye has been awarded zero in the criterion of “resolve market structural and concentration issues (defined role for the historical player if flexibility/liquidity is scarce)” (European Federation of Energy Traders, 2023b). According to the scale, zero is given when the market is “hampered by structural or market concentration issues” (European Federation of Energy Traders, 2023b). Market concentration “measures the extent to which market shares are concentrated between a small number of firms” (OECD, 2023). The main reason for the score of zero in the EFET criterion is the dominance of BOTAŞ in total natural gas supply. As Figure 1 shows, while domestic production accounted for less than 1 percent of the total supply in Türkiye and the share of private importers was 4.3 percent in 2022, BOTAŞ had a share of 95.1 percent. There has been a decrease in the share of private importers since 2018.

Figure 1. Share of Market Players in Total Natural Gas Supply (%)



Source: (Enerji Piyasası Düzenleme Kurumu, 2019, 2020, 2021, 2022, 2023).

Since an exchange of natural gas between buyers and sellers is expected in a trading natural gas hub, a reduction of the market concentration is significant to increase the number of players and allow competition in the natural gas market. Market concentration is one of the challenges mentioned in various studies within the context of liberalization of the Turkish natural gas market (Daştan, 2021; Bülbül, 2010; Bülbül, 2007; Demir, 2016; Erdoğan, 2011; Atiyas et al. 2012; Erdoğan, 2007; Arslan and Kazdağlı, 2011). Some other studies make recommendations on how to overcome those obstacles in the market (Kakışım, 2020; İcik and Atak, 2021; Düzyol, 2012; Topuz,

² The Turk Stream Pipeline transports Russian gas to Türkiye and the European Union.

³ The Transanatolian Pipeline transports Azeri gas to Türkiye and the European Union.

⁴ Gas hub scorecard was not published for the year 2022 due to “exceptional market events” (European Federation of Energy Traders, 2023a).

2019; Gökdemir, 2009; Soysal et al., 2012). Similarly, Karan et al. (2014) and Biresselioğlu et al. (2019) examine the strengths, weaknesses, opportunities, and threats in the Turkish natural gas market. Regarding the competitiveness of the market, Daştan (2023) questions the extent to which liberalization has ensured competitive prices and secure supplies during 2004-2022. He argues that changes in oil prices, exchange rates and network charges have an impact on price hikes, and underlines the relationship between lack of competitive prices in the market and insecurity in gas supplies.

This paper differs from other valuable studies by questioning the extent to which the amendment to the Natural Gas Law dated April 2023 (hereinafter amended Law) can provide a reduction in market concentration. As the current literature has shown, there are legislative reasons behind the market concentration in the Turkish natural gas market. Therefore, examination of the amended Law is significant to explore the political will, if any, for reducing the market concentration. The concept of political will refers to “the extent of committed support among key decision makers for a particular solution to a particular problem” (Post et al., 2010, p. 659). Post et al. (2010, p. 659) identify “a commonly perceived potentially effective policy solution” as one of the variables to measure political willingness along with others⁵. Accordingly, this paper explores the extent to which the amended Law stands as a policy solution and overcomes the problems. The paper, first, explains the causes of the market concentration and analyses the Natural Gas Law dated 2001, numbered 4646 (hereinafter the Law) and the pricing policy for the low score in EFET’s assessments of Türkiye in terms of market concentration. Although these have been studied in the literature, this section serves as the background to explore the amendments to the Law. Furthermore, this section includes the recent data on pricing, which updates the current literature. Afterwards, the paper analyses the extent to which the amended Law makes changes in reducing the market concentration, which is the contribution to the literature.

2. REASONS FOR THE MARKET CONCENTRATION

Temporary Article 2 of the Law had envisaged reducing the share of BOTAŞ in Türkiye’s gas consumption to 20 percent by 2009 (Natural Gas Market Law, 2001, p. 34). The target was considered “unnecessarily ambitious” (World Bank, 2004, p. 3) by the World Bank. Similarly, the Turkish Competition Authority drew attention in 2012 to the fact that the Law introduced regulations for a “developed” or “mature” market at a time when the natural-gas market in Türkiye was at the stage of “growth” (Soysal et al., 2012). Türkiye has not experienced a relatively important decrease in the share of BOTAŞ in total supplies. Figure 1 demonstrates the share of BOTAŞ in total natural gas supplies since 2018. The reasons for the market concentration are threefold, which are the limited implementation of the Natural Gas Law, restrictions in the Law and the pricing policy.

2.1. Limited implementation of the Natural Gas Law

The implementation of the Natural Gas Law has remained limited regarding two aspects, one of which was contract/volume release to decrease the share of BOTAŞ in the market. Temporary Article 2 foresaw BOTAŞ making a tender for transferring import contracts with all the rights and obligations to private companies. In case of a reluctance of gas suppliers, a volume release would be accomplished on condition that the import company would perform all liabilities of BOTAŞ (Doğal Gaz Piyasası Kanunu, 2001, p. 16). However, the progress for the contract release was limited owing to difficulties in obtaining prior consent from suppliers in the cases of Iranian and Azerbaijani contracts. The only contract release that occurred was for four bcm/year of Russian gas in 2007. In 2012, following the termination of BOTAŞ’s contract with Gazprom, private companies also contracted six bcm/year of Russian gas. Volume release was also limited with the only example of the transfer of 1.2 bcm of Azeri gas to SOCAR.

Secondly, Temporary Article 2 had also envisaged the vertically integrated structure of BOTAŞ to continue until 2009 except for distribution activities, and re-organization of the company later. This would have an indirect impact on encouraging new entries and reducing market concentration as unbundling the incumbent company increases the trust of other potential market players. Since the aim of unbundling is to differentiate the competitive segments from non-competitive ones, the separation of supply and transmission, which have a natural monopolistic character, of a vertically integrated company is essential for providing market entries. If it is not achieved, there is

⁵ The other variables are identified as follows: sufficient set of decision makers, common understanding of a problem and commitment to a supporting solution (Post et al., 2010, p. 659).

a risk that the transmission company may put barriers to new entries, which would compete with itself in production or supply segments, for getting access to the network. This is due to the conflict of interest between new entries and the supply segment of the vertically integrated company. New entries to the market would have a negative impact on the revenues of the vertically integrated company (Talus, 2011, p. 112).

Temporary Article 2 foresaw BOTAŞ to be re-organised in a horizontally integrated structure and then privatization of companies, except the transmission company, which means ownership unbundling⁶. Within twelve months following the end of the preparation term, account unbundling among transmission, storage, sales and import activities would have been accomplished (Natural Gas Market Law, 2001, p. 34).

The organization of BOTAŞ, as of March 2024, can be considered as account and functional unbundling. The first one refers to separate accounting systems for each activity and the latter refers to the management of different activities of a vertically integrated market in different departments. BOTAŞ owns the transmission network, liquefied natural gas (LNG) terminals and storage facilities and is an importer and exporter in the market. These activities are realized via different departments in the company, which is affiliated to Türkiye Wealth Fund. Privatization⁷ has not been realized in the Turkish market.

Not only the separation of transmission and supply segments of the incumbent company but also the publication of the network code for transmission lines and the rules for the usage of LNG and storage facilities are significant for new market entries. In Türkiye, the framework for third-party access to the transmission network, LNG and storage facilities was established after the enactment of the Law. Although there has not been proven discriminative behavior of the incumbent company, lack of progress in terms of legal separation of competitive and non-competitive segments of BOTAŞ has a risk of creating reluctance of potential market players to get access to the market.

2.2. Restrictions in the Natural Gas Law

Not only problems in implementing the Law but also restrictions in the Law contributed to market concentration. Two types of import restrictions for private companies caused the continuation of BOTAŞ's dominance in the market. First, Temporary Article 2 did not allow private companies to import from suppliers who already had contracts with BOTAŞ. New import contracts were allowed for the same amount of gas after the expiry of BOTAŞ's contracts. However, the Energy Market Regulatory Authority (EMRA) could still permit new imports on the grounds of concerns regarding the security of supply and export needs (Natural Gas Market Law, 2001, p. 34). Second, imports from suppliers with whom BOTAŞ does not have contracts were subject to the approval of BOTAŞ and the Ministry of Energy, according to the Decree (numbered 725 dated 2006) of EMRA (Enerji Piyasası Düzenleme Kurumu, 2006). Although these restrictions did not apply to LNG, CNG and spot pipe-gas imports (with the amendments dated 2018), they created a barrier for new entrants to import pipeline gas. These restrictions aimed to prevent BOTAŞ's financial loss due to take-or-pay risks since the contracted volumes exceeded consumption in 2001, when the Law was enacted. However, many of the long-term contracts terminate in the 2020s, as will be elaborated on in this paper later.

The Law also foresaw BOTAŞ not to "execute a new natural gas purchase contract [excluding LNG] until its imports fall down to the twenty percent of the national consumption" (Natural Gas Market Law, 2001, p. 6). Despite this provision, BOTAŞ signed a new contract with Azerbaijan, which contributed to the continuation of BOTAŞ's dominance in the market, to import pipe gas from the Shah Deniz II field in 2011.

There was also a restriction in the Law which may have had a negative impact on the entry of potential market players. The Article 4(4) of the Law required separate import licenses for importing gas from each supplier (Natural Gas Law, 2001, p. 6), which caused complaints in the private sector (Kara, 2013). An amendment to the Natural Gas Law excluded spot pipe-gas, LNG and CNG imports from this provision.

⁶ Ownership unbundling means that "all integrated energy companies sell off their gas and electricity networks. In this case, no supply or production company is allowed to hold a majority share or interfere in the work of a transmission system operator" (European Commission, 2023).

⁷ It is significant to mention that there is not a consensus among the stakeholders on the necessity for privatization. Many of them are in favor of legal unbundling, which refers to the separation of activities of the vertically integrated company into different entities. For example, the Competition Authority argues that a strong vertically integrated but legally unbundled company is necessary to establish a liquid market. There are also narratives of the representatives of the private sector accepting a legally unbundled state company as long as it plays fairly in the market in which competition is established (Korkmaz, 2021, p. 185).

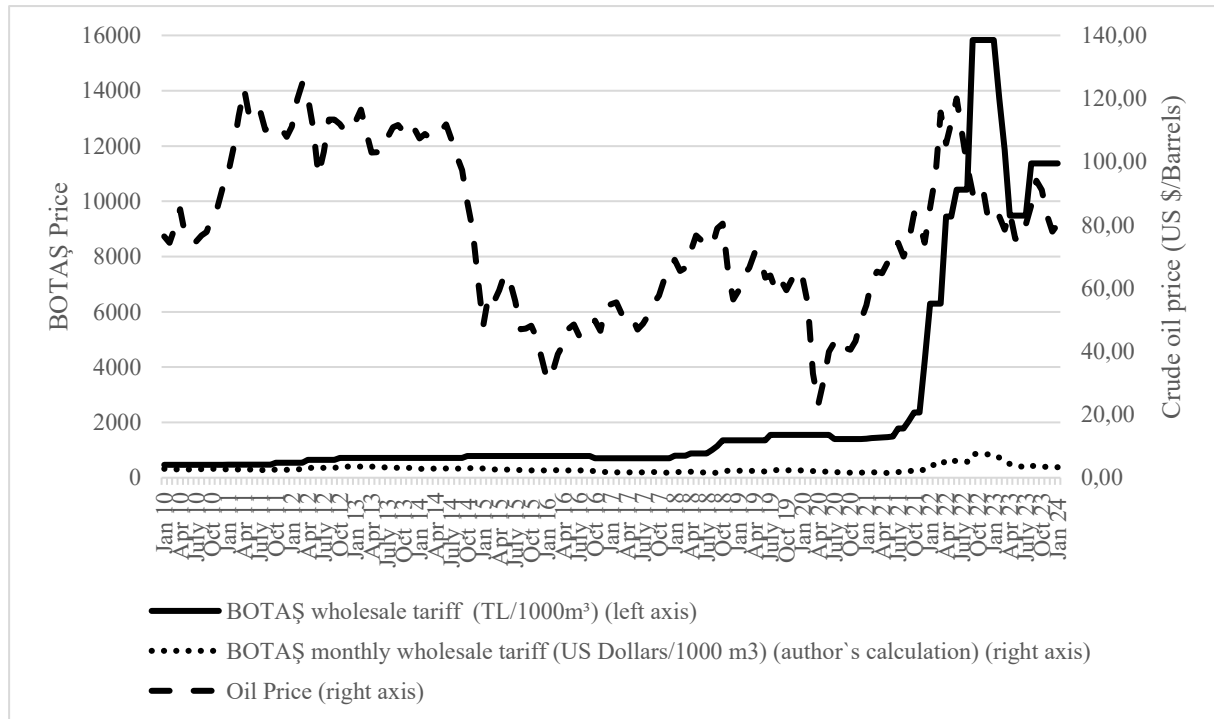
2.3. Pricing Policy

BOTAŞ's pricing policy creates an obstacle for new entrants, thus contributing to concentration in the market. The pricing policy is derived from the governments' policies to supply inexpensive gas to industry, households and utilities, rather than from the decisions and practices of an independent enterprise (Özen, 2012, p. 41; Soysal et al., 2012, p. 121, 125)⁸.

BOTAŞ adopted an automatic pricing mechanism reflecting changes in the exchange rate and import prices during 2008-2009. However, the company soon abandoned this mechanism due to low LNG prices, BOTAŞ's consumers' transfer to private suppliers and take-or-pay risk (Özen, 2012, p. 40-42; Dilli and Nyman, 2015). Figure 2 shows BOTAŞ's prices for eligible consumers consuming more than 300,001 m³ per year since 2010. Although the long-term natural-gas contracts are oil-indexed with a 6 to 9-month time lag in the formula (except the Russian contract which was renewed at the end of 2021), the BOTAŞ price did not reflect the fluctuations in oil price.

The prices remained stable from January to October 2011 and increased on five occasions (including a slight increase in January 2013) until October 2016. The decrease in oil prices starting from July 2014 did not cause any change in the price of natural gas until October 2016. Accordingly, this lack of change in BOTAŞ's prices during 2015 and 2016 at a time when global gas prices were in decline, raised complaints in the industry on how to compete with other countries (Demir, 2016, p. 261-262). Whenever oil price decreases are not reflected in the wholesale price, due to compensation of previous losses, the pricing policy may also harm competitiveness. The BOTAŞ price did not change during the periods of October 2016-January 2018, October 2018-June 2019, July 2019-June 2020, September 2022-January 2023, April-June 2023, and August 2023-February 2024 despite changes in oil prices.

Figure 2. A Comparison of BOTAŞ's Price of Natural Gas for Eligible Consumers Consuming More Than 300,001 m³/year (US\$) and The Price of Crude Oil (2010-May 2023)

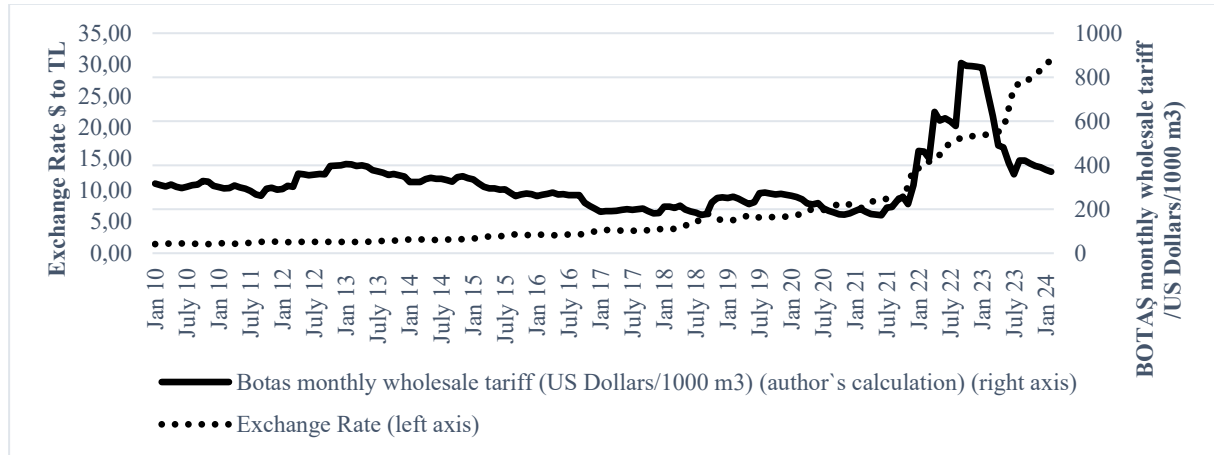


Source: Adapted from Dilli and Nyman, 2015, p. 142. Data from Argus Media, 2019; İzgaz, 2023; World Bank, 2024.

⁸ Electricity and natural gas prices have both direct and indirect effects on inflation due to consumption of energy for producing goods and services. According to the Turkish Industry and Business Association's report, an increase of 10 per cent in electricity prices causes an increase of inflation for 0.38 points while an increase of 10 per cent in natural gas causes an increase of inflation for 0.34 points (Sandalkhan, et al., 2018, p. 12).

Since gas imports are paid in US Dollars (US \$) but gas is sold in Turkish Liras (TL), we need to also mention the extent to which exchange-rate fluctuations in the Turkish economy are reflected in the natural gas price.

Figure 3. USD to TL Exchange Rate and BOTAŞ Monthly Wholesale Tariff to Eligible Consumers Consuming More Than 300,001 m³/y



Source: (Argus Media, 2019; World Bank, 2024; İzgaz, 2023; Türkiye Cumhuriyeti Merkez Bankası, 2024).

As Figure 3 demonstrates, fluctuations in the exchange rate do not necessarily cause a change in BOTAŞ's prices in TL. The BOTAŞ price in TL during January 2013-September 2014 and October 2014-September 2016 did not change despite the weakening of the TL against the US\$. However, there was a dramatic increase in BOTAŞ's prices in TL in the second half of 2018 and 2019 (Figure 2)⁹. Drawing attention to increases in the oil price and exchange rate, BOTAŞ underlined that a change in its prices was inevitable (Elektrik Üreticileri Derneği, 2018). However, such domestic price increases do not fully reflect the changes in the exchange rate. Depreciation of the TL causes an increase in the relative value of gas imports, thus causing Türkiye's current account deficit to widen. For example, BOTAŞ's wholesale price for industrial customers in February 2019 was 1352.00TL, which was equal to US\$ 256.00 at the time. The price increased to 1550.00 TL, which was equal to US\$ 273.00 in July 2019, and did not change until July 2020. However, it declined in value to US\$ 227.00 in June 2020 due to a loss of value in TL (Argus Media, 2019). It is striking to see that the BOTAŞ price fell from US\$ 843.00 in January 2023 to US\$ 481.00 \$ in May 2023, just before the general elections¹⁰.

2.3.1. Impact of the Pricing Policy

The pricing policy of BOTAŞ has several impacts, one of which is related to new entries in the market. BOTAŞ's subsidised prices contribute to market concentration since it is difficult to compete with these prices. This was openly declared by the representatives of the Ministry of Energy and the Ministry of Industry in the Turkish Grand National Assembly: "... the targets to reduce BOTAŞ's market share and scale down its presence in the natural gas market in Türkiye via contract and volume releases have not been achieved due to subsidies to the natural gas prices and [thus] the private sector has not been a serious player within this context" (Türkiye Büyük Millet Meclisi, 2023, p. 28).

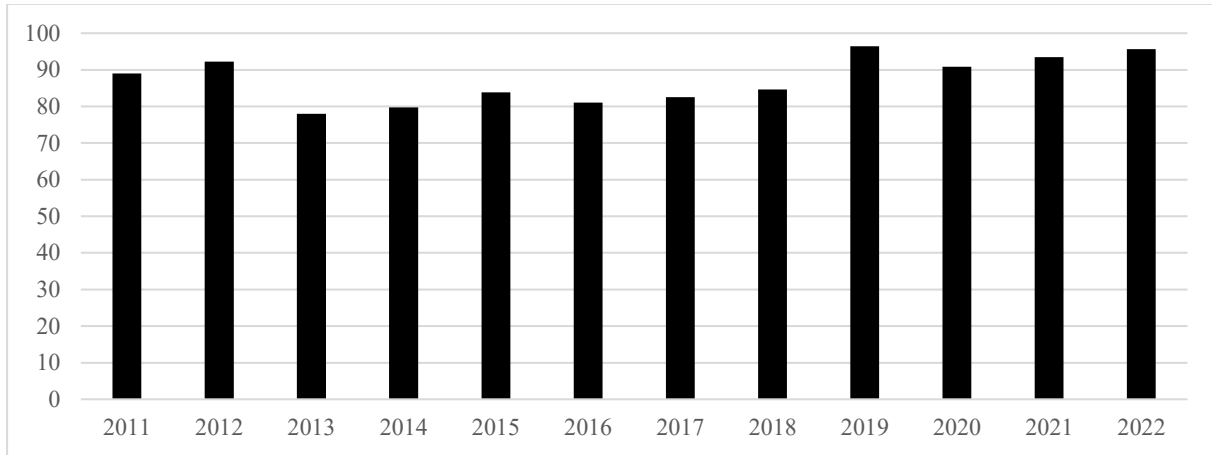
As Figure 4 shows, the minimum share of BOTAŞ in total imports was 78 percent in 2013 and the maximum was 96.42 percent in 2019. The private importers' share in total imports declined from 15.35 percent in 2018 to 4.33 percent in 2022 due to these subsidised prices, coupled with an increase in BOTAŞ's LNG imports and weaker demand. An additional problem for the private importers occurred due to the fact that some of them had applied a 10.25 percent discount to their contracts with domestic companies on the grounds that they had received the discount

⁹ The price increase for households and industrial consumers consuming less than 300,000m³ natural gas accounted for 29.5 per cent in 2018 whereas it accounted for 68.9 per cent for industrial consumers and 93.75 per cent for utilities (Argus Media, 2019).

¹⁰ Bearing in mind the 6-9 months lag of oil price to tariffs, we can conclude that the oil price of April-July 2022, which was US\$ 106.00-109.00 per barrel, was taken into account in the January 2023 tariff with the exchange rate of one \$ equalled to 18.79 TL. On the other hand, the TL lost value (one \$ equalled to 19.72 TL) in May 2023, in which the oil price fell to US\$ 84.00-90.00 per barrel.

from Gazprom in 2016. However, the price disputes in the arbitration court ended in favour of Gazprom (Suphi, 2018, p. 22-23), thus creating an additional problem for the private importers. Take-or-pay obligations in contracts force these private importers to sell their gas to BOTAŞ because of the impossibility of competing with subsidised prices.

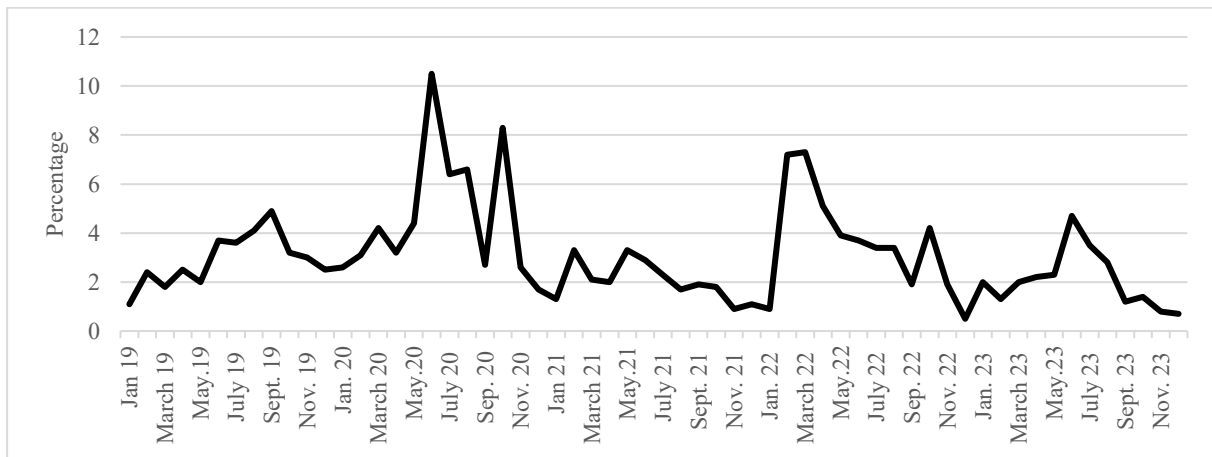
Figure 4. BOTAŞ's Shares of Total Imports (%)



Source: (Data from Enerji Piyasası Düzenleme Kurumu, 2019, p. 10; 2020, p. 12; 2021, p. 13; 2022, p. 14; 2023, p. 14).

The amount of trade volume taking place at the organised wholesale natural gas market serves as another indicator of the impact of BOTAŞ's pricing policy. As Figure 5 shows, the share of the continuous trading platform, which serves for market players to balance themselves and make spot trades while BOTAŞ is responsible for balancing the system based on the market conditions (Aksoy, 2018), in total consumption is very low. While the peak point occurred in June 2020 with a share of 10.5 percent, the lowest one occurred in December 2022 with a share of 0.5 percent. The share of the continuous trading platform in total gas consumption was 2.9 percent on average in 2019, 4.7 percent in 2020, 2.05 percent in 2021, 3.61 percent in 2022 and 2.07 percent in 2023 (Figure 5).

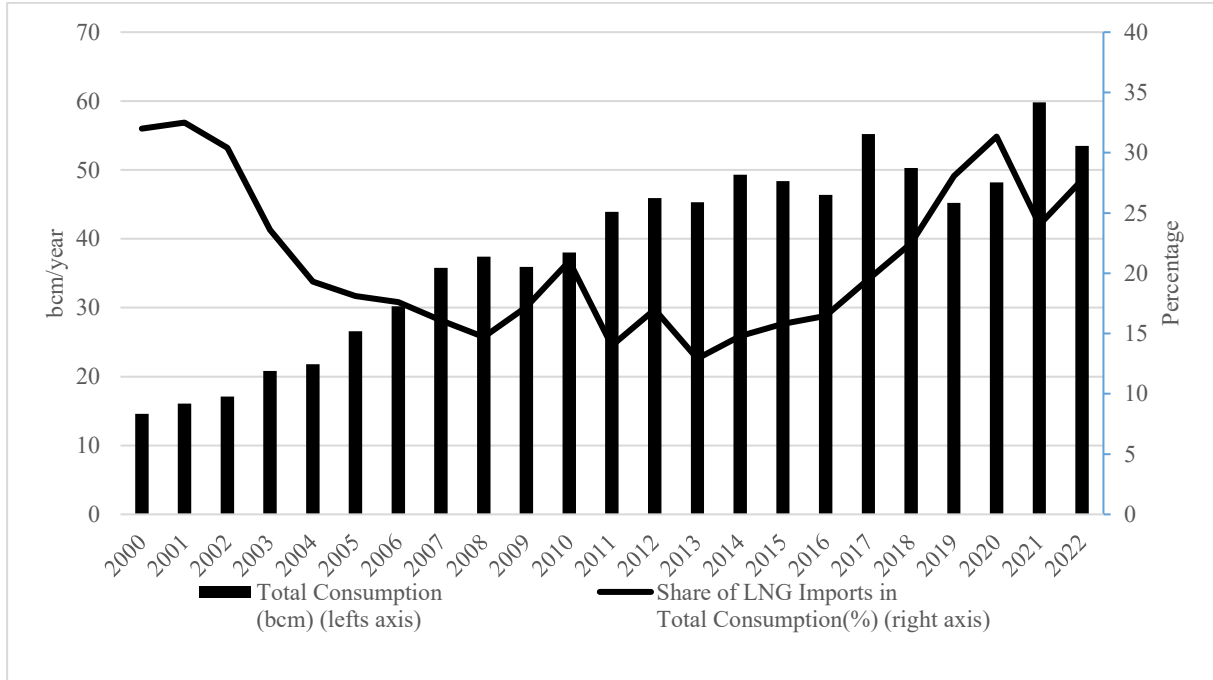
Figure 5. Share of the Continuous Trading Platform in Total Gas Consumption (%)



Source: (EPIAŞ, 2020, p. 6; EPIAŞ, 2023, p. 11).

Although legislative obstacles do not apply to LNG and spot pipe-gas imports, as mentioned in the previous section, the pricing policy harms the LNG and spot pipe-gas imports by creating an entry barrier. While the share of LNG imports in total consumption has been increasing since 2013 (Figure 6), BOTAŞ dominates LNG imports. As Figure 7 shows, BOTAŞ imported all LNG supplies in 2021 and 2022 and its share in LNG imports in 2020 was 96.74 percent (Enerji Piyasası Düzenleme Kurumu, 2021, p. 21). Therefore, BOTAŞ remains the major user of the LNG terminal owned by the private sector in addition to the ones BOTAŞ owns directly.

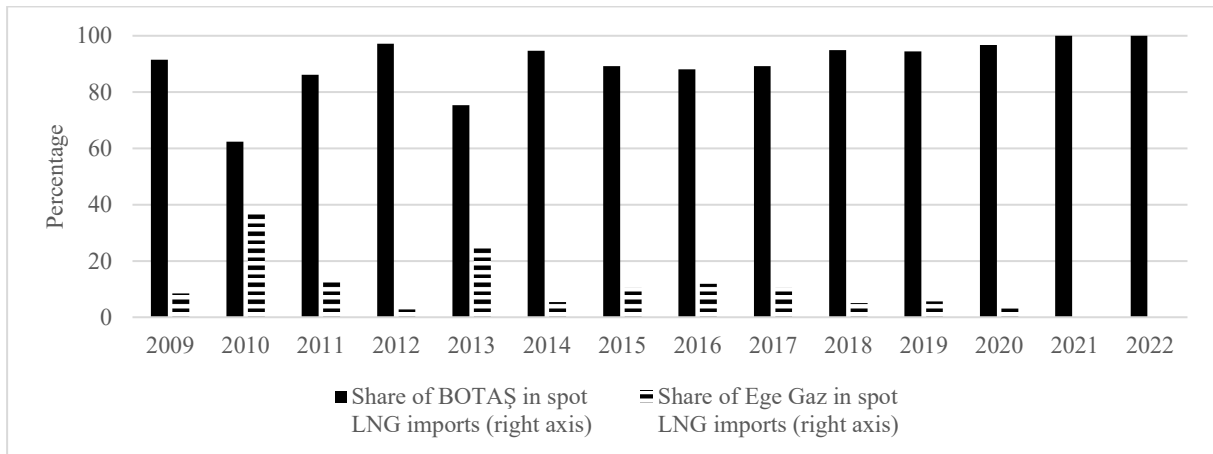
Figure 6. Share of LNG Imports in Total Gas Consumption



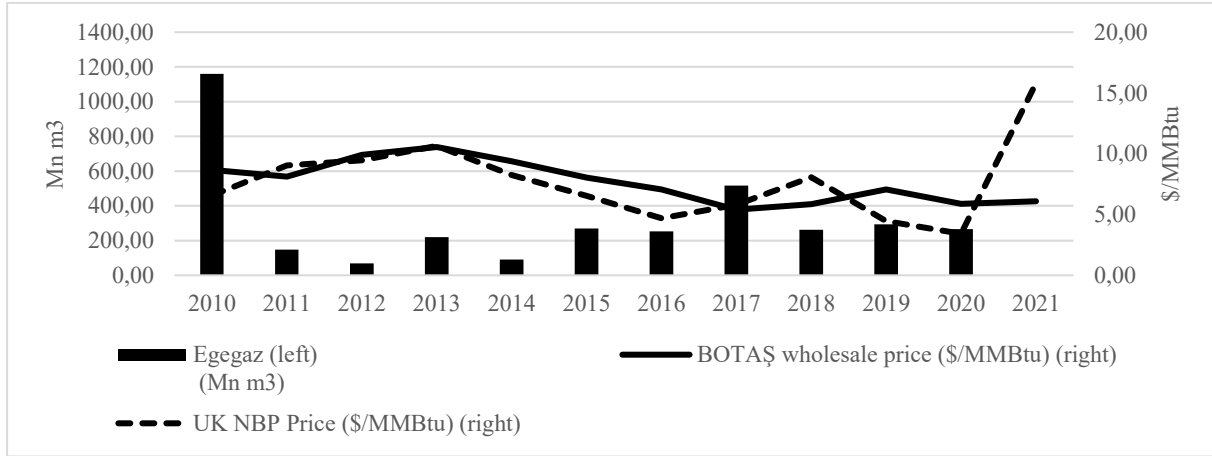
Source: (Enerji Piyasası Düzenleme Kurumu, 2019, p. 8, 13, 18; 2020, p. 16, 20; 2021, p. 15; 2022, p. 15; 2023, p. 16).

Figure 7 shows the share of imports of Egegaz, a private company that started spot LNG imports in 2009 with a share of 1.5 percent of total consumption, in spot LNG imports. The share of Egegaz was highest (37.66 percent) in 2010, when BOTAŞ wholesale prices for industry consuming more than 300,001 m³/y were more than the Dutch natural gas hub TTF prices as a comparison. However, the volume of Egegaz imports has not reached the level of 2010 since then, even when BOTAŞ wholesale prices were higher than TTF prices in 2012, 2014, 2015, 2016, 2019 and 2020 (Figure 8). This shows that lower LNG prices have not provided access to private companies in the Turkish natural gas market. One of the reasons might be the fact that the timing of BOTAŞ’s announcement of its monthly prices, which is the last day of the previous month, creates uncertainties in the market (Soysal et al., 2012, p. 126-127; Topuz, 2019, p. 15).

Figure 7. Shares of BOTAŞ and Ege Gaz in Spot LNG Imports



Source: (Enerji Piyasası Düzenleme Kurumu, 2021, p. 21-22; 2022, p. 15).

Figure 8. LNG Imports of Egegaz and a Comparison of BOTAS and TTF Prices

Source: (Data from BP, 2023, p. 33; Türkiye Cumhuriyeti Merkez Bankası, 2024; Enerji Piyasası Düzenleme Kurumu, 2019, 2020, 2021, 2022).

As for spot gas, the regulation dated September 2019 enables the allocation of capacity for spot pipe-gas import in the current transmission system, which may increase market entries. The EMRA holds monthly auctions for the allocation of unused capacity of each import pipeline for spot gas imports. However, the interest of the private sector has remained limited. Only 5 companies, except BOTAS, have imported spot pipe gas since September 2020 in different months (Enerji Piyasası Düzenleme Kurumu, 2023, p. 9-11; 2022, p. 9-11; 2021, p. 9-10).

The pricing policy has a negative impact not only on the new entries in the market but also on the budget of BOTAS. The company's loss in 2021 accounted for 17.9 billion TL, 26.8 million TL in 2020, 5.6 billion TL in 2019 and 2.5 billion TL in 2018. It was openly stated in the 2021 Report of the Treasury that the loss occurred due to the fact that BOTAS did not reflect the expenses incurred to protect consumers and limit the increase in inflation (Hazine ve Maliye Bakanlığı, 2022, p. 40-42). Similarly, the representatives of the Ministry of Energy explained BOTAS's loss with the increase in global natural gas prices and the fact that these price increases were not reflected to customers and the subsidization of citizens (Türkiye Büyük Millet Meclisi, 2023, p. 30).

Bearing all these in mind, to reduce the market concentration, Türkiye needs to achieve progress in the following: Accomplishing contract/volume release, re-organising BOTAS to unbundle the transmission and supply segments, removing the restrictions for the private players and adopting cost-reflective pricing. Cost-reflective pricing may be coupled with different tools for subsidies such as direct aid via the Ministry of Finance to vulnerable customers rather than a reduction in the natural gas price of the incumbent company. Last but not least, termination of long-term LNG and pipeline contracts provides an opportunity for Türkiye to reduce market concentration¹¹. Among these contracts, the Algerian LNG contract of 4.4 bcm/y and the Azeri gas contract of 6 bcm/y will end in 2024. The Russian gas contract of 16 bcm/y via the Blue Stream Pipeline, the Russian gas contract of 5.75 bcm/y via the Turk Stream will end in 2025 whereas the Iranian contract of 10 bcm/y in 2026. All contracts belong to BOTAS. Although the termination of these long-term agreements serves as an opportunity to reduce market concentration, we need to keep in mind that this type of opportunity does not always allow new entries. For example, the re-negotiations of the Azeri and Russian contracts at the end of 2021 did not reduce the market concentration. Rather, it was decided that BOTAS would renew its Russian contract of 4 bcm/y with a contract of 5.75 bcm/y of natural gas for four years (Abay, 2022). As for the Azeri gas, BOTAS signed a new contract to receive 11 bcm in total until the end of the year 2024 (Danış, 2024).

¹¹ For ex. when the Russian gas contract of 6 bcm/y ended at the end of 2011, Taner Yıldız, the then Ministry of Energy, declared that BOTAS would end the contract as the demanded price reduction was not approved. New contracts with the private sector were signed in 2012 and 2013 for 6 bcm/y. Therefore, the re-negotiation of the Russian contract contributed to the reduction of the market share of BOTAS. However, the outcome of these negotiations is controversial as Türkiye gave permission for the South Stream Pipeline, which was planned to carry 64 bcm/y Russian gas to Europe, to pass territorial waters. Alexey Miller, Chairman of Gazprom, considered this permission "a very nice present for the New Year" (Offshore Energy, 2011).

3. THE AMENDED LAW AND THE MARKET CONCENTRATION

This section aims to explore the extent to which the amended Law makes a change in the reasons for market concentration, namely limited implementation of the Natural Gas Law, restrictions in the Law and the pricing policy.

3.1. The Amended Law and Contract/Volume Release and Unbundling

As mentioned in the previous sub-sections, there has been limited implementation of the Natural Gas Law regarding contract/volume release and unbundling, which has contributed to the market concentration. The amended Law also foresees BOTAŞ reducing its market share via contract and/or volume release. It also retains the provision on the market shares of wholesalers not to exceed 20 percent of the annual consumption. However, the amended Law envisages BOTAŞ not being subject to the limitations on the market share until the process of contract release is completed. Therefore, BOTAŞ is allowed to retain its market share to be more than 20 percent until contract release is achieved. The approval of the Ministry of Energy will be sought for contract or volume release (Resmi Gazete, 2023, p. 2), which shows the political will to retain the control.

The experience so far related to contract release shows us that one of the main challenges of contract release is the reluctance of suppliers to give consent, as it occurred in the cases of Iran and Azerbaijan. Furthermore, the previous experience of contract release demonstrates that in case of consent, suppliers seek advantages in return. Gazprom's consent for contract release in 2005 allowed the operation of four private companies in the Turkish downstream market. In three of these companies, Gazprom had shares via its subsidiaries¹². Similarly, the renewal of the 6 bcm/year Russian gas contract at the end of 2011 provided an increase in the imported amount of gas by Bosphorus Gas, in which Gazprom Germania had owned 70 percent of its shares, and allowed Akfel Gaz, a subsidiary of Akfel Holding in which Gazprombank had minority shares, to get access to the market. Therefore, the Russian consent for the contract release and renewal of the Russian contracts with the private companies occurred at a time when Gazprom was one of the players via its subsidiaries in the Turkish downstream market.

Contract release is a controversial method to decrease the market concentration. According to the Competition Authority, an increase in the number of market players via contract releases cannot be considered new entries as a contract release does not make any change in the amount of gas supplied and the supplier. Within the scope of competitive markets, new entries aim to get market shares by putting pressure on the price, cost and profit margin. The Authority recommended in 2012 to adopt volume release, which was a successful method for achieving progress in liberalization efforts in Germany, Italy Austria and Spain, as a method for reducing BOTAŞ's market concentration (Soysal et al., 2012, p. 72). Bearing in mind that the amended Law provides the legal base for volume release, any progress/lack of progress will demonstrate the political willingness to reduce the market concentration.

Regarding unbundling, the amended Law foresees BOTAŞ continuing its vertically integrated structure until re-organisation of the company as a horizontally integrated legal entity would be accomplished via unbundling its activities. Temporary Article 2 gives the task to unbundle BOTAŞ and finalize re-organisation of companies regarding their capital, shareholders and scope of operations by a Presidential Decision (Resmi Gazete, 2023, p. 2). During the discussions in the Energy Commission of the Turkish Parliament, the representatives of the Ministry of Energy referred to the unbundling as a tool that paves the way for new entries to the market. It was stated that the separation of the segments of transmission and trade into two different entities in a horizontally integrated structure was the model foreseen (Türkiye Büyük Millet Meclisi, 2023, p. 30), which reminds of legal unbundling. However, in its dissenting opinion, the opposition criticized the Article on the grounds that "one person decides everything" (Türkiye Büyük Millet Meclisi, 2023, p. 66) as the re-organisation of the companies after unbundling would be decided by the President. Furthermore, it was underlined that the amended Law should have included a provision stating that the majority of the unbundled companies belong to the state (Türkiye Büyük Millet Meclisi, 2023, p. 65-66).

¹² The four private companies were Shell Enerji, Bosphorus Gaz, Enerco Enerji and Avrasya Gaz. Gazprom Germania had owned 70 percent of Bosphorus Gas before it transferred all its shares to the Sen Group in September 2018. Gazprombank owned half of the shares of a joint venture called Promak. The Akfel Holding in which Gazprombank had minority shares owned the other share of the joint venture. The joint venture owned 60 percent of Enerco Enerji and 60 percent of Avrasya Gaz while Akfel Gaz was the subsidiary of Akfel Holding, which was confiscated after the coup attempt. However, Gazprom sold its shares in Bosphorus Gas to Sen Group in September 2018. It is also claimed that the company sold its shares in Promak, which was a joint venture having shares in other private importers (Sabadus, 2018).

The main challenge regarding unbundling is the lack of a clear timetable. There is no deadline for finalizing the re-organisation of BOTAŞ. Furthermore, the fact that all details, including the shares, capital and scope of unbundled companies will be decided by the President is far from a democratic decision-making procedure.

3.2. The Amended Law and Restrictions in the Previous Law

The amended Law removes import restrictions for all players, including BOTAŞ. This means that the provision in the previous Law for BOTAŞ not to import any pipe gas until its share was reduced to 20 percent is not valid anymore. This may cause BOTAŞ to continue importing pipe gas, which may keep or increase its market share. However, this may also be considered a step towards the normalization of the market and a fair treatment of market players. Although the removal of import restrictions for private players is a step forward, Supplementary Article 3 of the amended Law foresees the Energy Market Regulatory Board to seek the approval of the Ministry of Energy to permit imports. The Article foresees the Board, in its permissions, to bear in mind the competitiveness of the natural gas market, obligations arising from contracts, export opportunities and whether BOTAŞ has import contracts with potential suppliers or not. The amended Law excludes LNG, spot pipe gas and CNG imports from this Article. However, it envisages the Board to decide the amount of spot pipe- gas imports, the duration of them and the method by asking the opinion of the Ministry of Energy (Resmi Gazete, 2023, p. 2), similar to the previous version.

Removing import restrictions for the private sector was a demand of many stakeholders (Korkmaz, 2021, p. 184-185, 193). Nonetheless, the necessity to seek the approval of the Ministry of Energy for pipe gas and the opinion of the Ministry on the duration, amount and method for importing spot pipe gas are against the independence and autonomy of EMRA (Türkiye Büyük Millet Meclisi, 2023, p. 64). In the Preamble of the Amended Law, it is stated that the Supplementary Article aims to establish a competitive market, which is trustable for domestic and foreign firms and is objectively operated (Türkiye Büyük Millet Meclisi, 2023, p. 19). However, it is a big question whether private players would be able to trust in the market when EMRA is not autonomous and the Ministry of Energy retains the power.

3.3. The Amended Law and the Pricing Policy

As subsidies applied by BOTAŞ are a part of the pricing policy, the amended Law does not include anything on prices. The only Article related to prices is on transmitting fees for exports. The amended Law foresees EMRA having the authority to decide different transmission fees for exports and transit, after taking the opinion of the Ministry of Energy. The extent to which this Article may create an obstacle to new entries depends on the implementation and whether this differentiation creates anti-competitive behaviors. However, the necessity to take the opinion of the Ministry of Energy is against the independence of the EMRA.

4. CONCLUSION AND POLICY IMPLICATIONS

This paper first portrays the reasons for market concentration and then examines whether the amended Law can make a change on market concentration in the market. Such an analysis provides an opportunity to explore the political willingness to create a competitive market with an independent regulatory authority. Limited implementation of the Law in terms of contract/volume release, import restrictions in the Law and the pricing policy contributed to the market concentration in the market. Furthermore, the lack of unbundling in the transmission and supply segments of BOTAŞ has had a risk of having a negative impact on new entries due to a lack of trust.

Although the amended Law has removed import restrictions, foresaw re-organisation of the company via unbundling and retained the contract and volume release, these amendments do not provide sufficient grounds for reducing the market concentration. Progress in reducing the market concentration depends on the willingness of all actors, namely the Turkish authorities, the Turkish private sector and the suppliers (in the case of contract release). While removing import restrictions in the amended Law can be considered a further step, the need to get the approval of the Ministry of Energy for importing pipe gas inhibits the independence of the EMRA and shows the political will to control the market developments. Furthermore, the opinion of the Ministry is necessary about the amount, duration and the method in the case of spot gas imports. In addition, the provision in the amended Law for re-organisation of companies after the unbundling of BOTAŞ to be decided by a Presidential Decree cannot be considered a democratic decision-making process. Last but not least, there is no timetable for the unbundling of BOTAŞ, which creates uncertainty. Therefore, the amended Law has a risk of causing a continuation

of distrust in the market. Bearing all these in mind, the impact of the amendments in the Natural Gas Law is likely to remain limited.

In addition to the problems of the amended Law, the continuation of the pricing policy which creates obstacles for new entries demonstrates that the change in the variable of “a commonly perceived potentially effective policy solution” (Post et al., 2010, p. 659) of the concept of political will is very limited. The introduction of a cost-reflective pricing policy and changing the method to give subsidies remain an urgent need to establish a competitive natural gas market. Any progress in the pricing policy would not only create a fair subsidy policy among customers but also reduce the market concentration. Otherwise, the private sector’s willingness would be limited in an environment difficult to compete in terms of prices. Rather than subsidies via the price of BOTAŞ, which would impede the operation of the market, subsidies to vulnerable customers in different segments via the Ministry of Finance and Treasury would not only increase competition but also create justice in society and increase energy efficiency. Otherwise, lack of progress in reducing the market concentration would be one of the stumbling blocs to becoming a well-functioning trading natural gas hub.

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