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Ретроспективный анализ экономики Азербайджана за 30-летний период независимости

Губад Ибадоглу[1], Ибрагим М. Нифтиев[2]

[1] *Лондонская школа экономических и политических наук, Лондон, Великобритания,*
g.ibadoghlu@lse.ac.uk

[2] *Сегедский Университет, Институт финансов и международных экономических отношений, Сегед, Венгрия,*
niftiyev@eco.u-szeged.hu

Аннотация: Данная статья ретроспективно показывает экономические циклы и описывает экономику Азербайджана с помощью основных макроэкономических показателей, которые менялись на всех этапах развития с момента обретения независимости, уже в постсоветский период. В исследовании выделяются пять различных этапов развития азербайджанской экономики, а именно: рецессия (1991–1994 годы), восстановление (1995–2003 годы), пик (2004–2006 годы), нефтяной бум (2007–2015 годы) и застой (2016–2020 годы). В анализе в основном использовались цифровой анализ и группировка основных макроэкономических показателей по вышеуказанным периодам. Таким образом, период восстановления запомнился быстрыми реформами, а период экономического пика отразил последствия экономического роста в значительной степени за счет нефтяного фактора. Однако стагнация и период после бума в полной мере продемонстрировали суровую реальность и продолжающуюся нефтяную зависимость экономики Азербайджана. Другими словами, устойчивость азербайджанской экономики в реальности ниже кажущейся, поскольку рост основных макроэкономических показателей в значительной степени положительно коррелирует с нефтяной отраслью и ее мультипликативным эффектом. Ископаемые виды топлива относятся к невозобновляемым источникам и по прогнозам, в недалеком будущем истощатся. Цены на них волотильны, а политические режимы в большинстве богатых нефтью стран не справляются с многочисленным институциональными и управленческими сбоями в менеджменте непредвиденных, дополнительных доходов. Будущие политические устремления правительственных чиновников в Азербайджане, должны быть направлены на перераспределение имеющихся экономических и институциональных ресурсов на ликвидацию проблем отставания в секторах экономики, не связанных с нефтью. В противном случае нельзя исключить и более широкую и глубокую рецессию.

Ключевые слова: Азербайджан, постсоветская экономика, экономические циклы, переходный процесс, нефтегазовый сектор, рост за счет нефти, ненефтяной сектор, голландская болезнь

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A Retrospective Analysis of the Azerbaijani Economy During 30 Years of Independence

Gubad Ibadoghlu[1], Ibrahim M. Niftiyev[2]

[1] *London School of Economics and Political Science (LSE), London, The United Kingdom*
g.ibadoghlu@lse.ac.uk

[2] *University of Szeged, Institute of Finance and International Economic Relations, Szeged, Hungary*
niftiyev@eco.u-szeged.hu

Abstract: Here, we retrospectively describe the Azerbaijani economy since its independence from the Soviet Union in terms of the main macroeconomic indicators that evolved throughout the developmental phases and economic cycles of the country. The study identifies five distinct stages of the Azerbaijani economy, namely a recession (1991–1994), recovery (1995–2003), peak (2004–2006), oil boom (2007–2014), and post-boom (2015–2020). Our analysis mainly utilized the numerical analysis and period-based grouping of the main macroeconomic indicators. Therefore, the recovery period was notable due to rapid reforms, and the economic peak reflected the consequences of the government's oil-driven economic growth. However, stagnation and the post-boom period hit the Azerbaijani economy with full force, and revealed the harsh reality of oil dependency. In other words, the sustainability of the Azerbaijani economy seems to be below average as the growth of the main macroeconomic indicators are both highly and positively correlated with the oil industry and its many-sided effects. Extractive industries are non-renewable and rapidly exhausted. The commodity prices are highly volatile, and many political regimes of the oil-rich countries improperly manage windfall revenue. The future policy concerns of the Azerbaijani government officials should focus on rechanneling the available economic and institutional resources to address the lagging performance of the non-oil tradable sectors in the future. Otherwise, a wider and deeper recession will be unavoidable.

Keywords: Azerbaijan, post-soviet economy, economic cycles, transition process, oil-gas sector, oil-driven growth, non-oil sector, Dutch disease

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INTRODUCTION

In 1991, Azerbaijan became independent as the result of the collapse of the Soviet Union. In the first decade of the 30 years since the collapse of the USSR, post-Soviet countries have taken a similar course of moving from a command economy to a market economy. Like other socialist countries, Azerbaijan has launched reforms to liberalize prices, liberalize trade, and denationalize property based on the Washington Consensus [1], which is considered a political recipe for development and transition by western economists. Although the first decade created differences between post-Soviet countries in the pace (shock therapy and gradual) of change to a market economy, the differences became more apparent in political governance (democratic and authoritarian) in the second and third decades. Although Azerbaijan began the transition to a market economy late in the first decade, its pace was swift; however, the authoritarian rule, which was formed mainly in the second decade and hardened in the third decade, overshadowed reforms in both the political and economic spheres, slowed down the transition phase and reduced its scope.

Today, Azerbaijan is considered to be one of the most oil-dependent countries in the world [2], where the oil boom has brought heavy inflationary pressures [3], lop-sided industrial production in favor of the extractive sector [4], and the government's wasteful spending on infrastructure projects [5]. In fact, Kaser (2003) and Mahnovski (2003) voiced the early concerns about Azerbaijan's developments, as mentioned earlier, due to the visible oil-led economic development [6;7]. This economic form resonated with the Dutch Disease and Natural Resource Curse theories that try to explain the political, institutional, and governance mistakes of the windfall revenue management [8, 9, 10, 11, 12]. Therefore, after 30 years since the independence from the Soviet Union, Azerbaijan's economic fluctuations in terms of economic cycles and developmental stages coincide with the oil-led development and they should be analyzed using numerical evaluations via retrospective approach.

Some studies evaluated and surveyed the main macroeconomic indicators based on the developmental and economic cycles of the Azerbaijani economy [13, 14, 15]. However, as both the time and country advanced after independence, new studies related to the comprehensive and systematic evaluation of the main macroeconomic indicators are required. Such studies tell the reader about the overall trends and trajectories of the Azerbaijani economy and provide the necessary information for policymakers to follow the important developments via alternative sources. The main goal of the study is to fill in the gap in retrospective assessment and contribute to the literature on Azerbaijan-related economic issues.

The purpose of the current study is to provide an overview on the main developmental phases and economic cycles of the Azerbaijani economy since the country's independence from the Soviet Union. The objective

of the study is to describe and interpret the developmental stages of the Azerbaijani economy over the past 30 years, based on a retrospective analysis of macroeconomic data. Moreover, a detailed description of the extractive industry – the engine of economic growth in Azerbaijan—, and key developments associated with the oil boom furnished systematic insights into Azerbaijan's macroeconomy. The following research question reflects the primary motivation of the study: What are the main developmental stages, trends, and economic cycles in the main economic indicators of the Azerbaijani economy between 1991 and 2021? Compared to other similar studies about the Azerbaijani economy, our findings cover a wider time frame and provide more details about the driving forces.

THE RETROSPECTIVE ASSESSMENTOF THE AZERBAIJANI ECONOMY

Since its independence, Azerbaijan has been going through long and different stages of transition from administrative management to a market economy. During this period, economic development went through several cycles: first, the recession (1991–1994), then, the recovery (1995–2003), the peak (2004–2006), an oil boom (2007–2014) and the post-boom (2015–2020). These phases can be seen in Figure 1.

The current study's calculations show that between 1995 and 2003, GDP was 90.1%, and excluding the impact of the pandemic on the economy, real GDP growth in 2019 was 3.4 times higher than in 2003. Hence, the period was characterized by positive results due to the rapid average annual growth observed in the economy of Azerbaijan for the last 30 years since independence, especially in the second decade, when exports dramatically increased following the years when the main oil pipeline projects were completed and they became operational.

In the development trajectory of the Azerbaijani economy over the past 30 years, it can be seen that it has gone through five cycles (crisis, recovery, boom, stagnation, and post-boom). Based on an analysis of macroeconomic indicators of Azerbaijan, which had a less oil-dependent economy in the first decade of independence and a heavily oil-dependent economy for the next two decades, forecasts show that the national economy will not be able to free itself of this dependence in the fourth decade. For instance, the Production Sharing Agreement (PSA) signed on 20th September 1994, for the 30-year operation

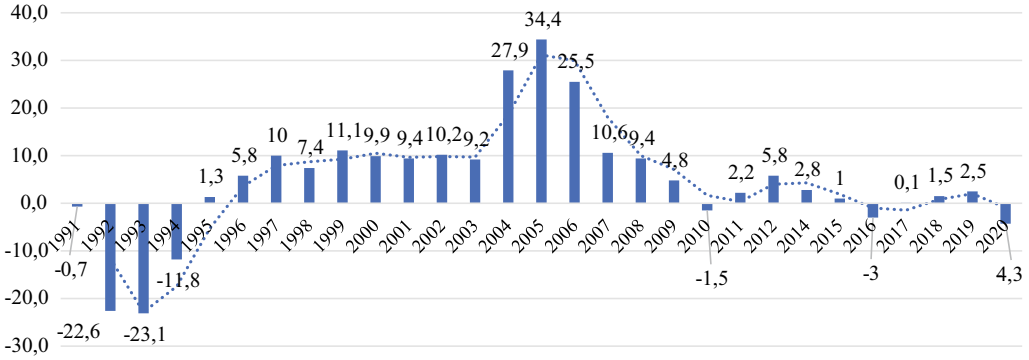


Fig. 1. GDP growth in Azerbaijan in 1991–2020, in percentage terms

Source: World Bank

of the Azeri-Chirag-Guneshli (ACG) fields was extended on 14th September, 2017, until 2049 [16]. According to the Ministry of Energy, 541.2 million tons of oil had been produced from ACG by 1st July 2020, of which 541.1 million tons of oil (including condensate) was exported for the same period [17]. Currently, the main buyer of Azerbaijani oil is Italy [18].

Under the second PSA, a new $ 6 billion platform with a daily production capacity of 100,000 barrels is expected to be launched in 2023 [19]. The platform is expected to produce 300 million barrels of oil during its operation period. This will ensure the long-term leading role of oil in the Azerbaijani economy.

More than $ 36 billion had been invested in the development of the ACG field in the first 25 years, and the total revenues from the ACG field alone amounted to $ 152 billion 893 million in the last 20 years, from 2001 to 1st September 2021. Furthermore, total revenues from the sale of gas and condensate from the Shah Deniz field since 2007 amounted to $3 billion 797 million [20]. Thus, as of 1st September 2021, the State Oil Fund of Azerbaijan received $156.690 billion in revenues from the ACG and Shah Deniz fields altogether. Moreover, by September 2020, payments to the state budget from the corporate income tax of foreign companies amounted to $17 billion, and SOCAR's earnings from shareholding in ACG totalled to $14 billion [21]. Thus, Azerbaijan's total oil and gas revenues from the development of the ACG and Shah Deniz oil and gas fields alone over the past 20 years amount to $187 billion 690 million. As of 1st July, 2021, $44 billion 104 million 900 thousand of these funds have been directed to SOFAZ as financial assets [22]. As of 1st September 2021, over the past two decades, an average of $76.47 billion (130 billion AZN) of oil revenues has been invested in the Azerbaijani economy. [23].

In addition, Azerbaijan's oil and gas sectors have always been attractive for foreign investment. Out of $77.8 billion of FDI to the country's economy from 2000 to 2017, over 85%, or $ 66.8 billion, went to the oil and gas sectors. As these funds were mainly directed to the national economy between 2000 and 2020, the annual GDP growth rate in those years was high. The main indicators characterizing the economy for these cycles are presented in Table 1.

Table 1. Macro-indicators characterizing the economic cycles in the Azerbaijani economy for 1991–2020, in percentage terms

Indicators	1991-1994 (recession)	1995-1999 (recovery)	2000-2006 (boom)	2007-2014 (stagnation)	2015-2020 (post-boom)
Real GDP growth rate	-14.55	7.12	18.1	4.87	-0.36
Oil GDP growth rate	-	-	24.7	5.3	- 1.8
Non-oil GDP growth rate	-	-	11.8	9.3	0.5
Inflation	1,052.8	85.2	4.7	7.2	6.2
Investments	-	57.55a	34.27	13.15	-10.96

Source: The indicators were calculated by the author based on the statistics of the SSC and the Central Bank.

Note: a The calculation for this represents the years 1996–1999.

Although the first production at the ACG field was recorded in 1997, as can be seen from the table, based on the increasing role of oil in the economy of Azerbaijan, the GDP has been calculated separately for the oil and non-sector sectors since 2000. Although oil revenues accounted for more than half of GDP after 2006, this ratio has changed since 2013 with the decline in oil revenue in GDP terms. Along with the decline in oil production since 2012 and the fall in oil prices since 2014, the increase in economic growth in the non-oil sector has also played a key role in this change.

Because increasing oil revenues play a special role in providing information about the fiscal policy in Azerbaijan in the long term, it is possible to say that one of the priority tasks of the government is the optimal management of revenues. The experiences of other countries that face a similar problem make clear that there is no standard approach or recipe for obtaining a good solution. For this reason, it is a difficult and complex task to determine the adequate fiscal policy in these circumstances. [24].

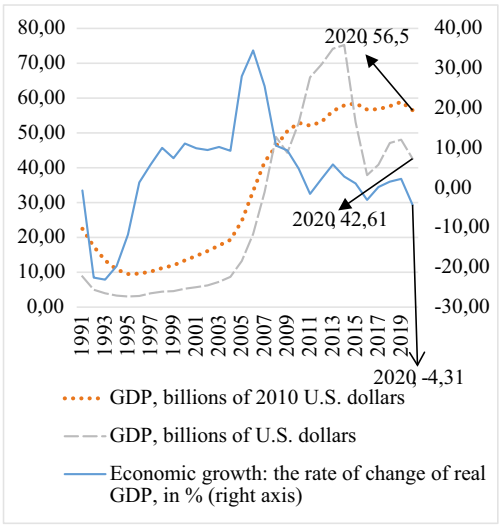
GDP, INFLATION AND EMPLOYMENT DYNAMICS

As shown in Figure 2, panel a GDP in current prices indicates that the recovery stage of the national economy concluded in 2005 (reaching 24.7 billion USD) and sharply increased by 68.8% at the beginning of the oil boom period in 2007. Until 2014, GDP reflected sharp upheavals, but the economy returned to 2006 levels in 2015 (33.3 billion USD) when the oil boom began. The GDP in 2010 prices did not reveal any sharp decreases in 2014–2015 compared to the GDP in current prices; however, economic growth rates, as measured by the rate of the change of real GDP, bottomed out at -3.06 percent in 2018, which was the only negative indicator since 1995. The negative growth rate illustrates the seriousness of the impact of the post-boom period on the national economy.

The picture related to GDP per capita reveals a similar situation (see Figure 2, panel b). In current USD, GDP per capita has experienced gradual growth since the late 1990s. It took off as the oil boom started (rising by 522.63% in 2006 relative to the 1995 level), reaching its highest value in 2014 (7,891.31 USD) and falling to 5,500.31 USD and 3,380.74 USD in 2015 and 2016, respectively, when the oil prices collapsed in the international commodity markets. In the post-boom period, GDP per capita in Purchasing Power Parity (PPP) and constant 2010 USD declined. Accordingly, in 2016, GDP per capita in PPP terms bottomed out around 1,4238.78 USD, while the same indicator gave the highest value since independence in 2015 (14,853.91 USD). GDP per capita in constant 2010 prices was stable; however, the post-boom period average was 5,864.346 USD, which is 3.43% lower than the peak value of 2014.

The increase in capital investments (as measured in current billion USD) starting from 2002 was mainly due to the rapid growth of the oil industry and its numerous effects on the rest of the economy (e.g., government-sponsored non-oil manufacturing, infrastructure spending, and other subsidies). In addition, Figure 3, panel *a*, shows that capital investments fell to 37.1% of GDP in 2006 and continued to fall as the physical infrastructure for the large oil and gas projects was finalized. During the oil boom years (2005–2014), the average share of capital investments in GDP was 24.10%, which is 7.70 percentage points lower than during the recovery period (31.75%). Furthermore, the post-boom period deterred economic agents from conducting capital investments because of a sharp decline in economic growth in 2015 and 2016. The effect of two national currency devaluations should also be taken into account here.

a. GDP



b. GDP per capita

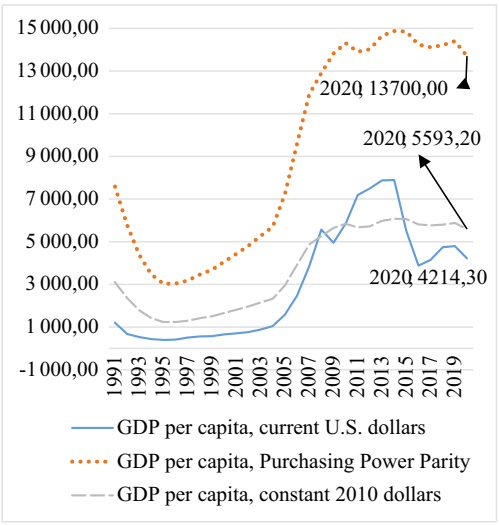
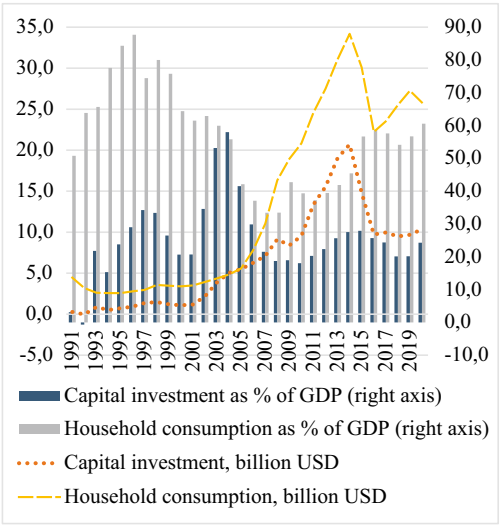


Fig. 2. Gross domestic product (GDP) and GDP per capita in Azerbaijan, 1991–2020

Source: The Global Economy (2021).

a. Capital investments and household consumption



b. CPI and monthly inflation

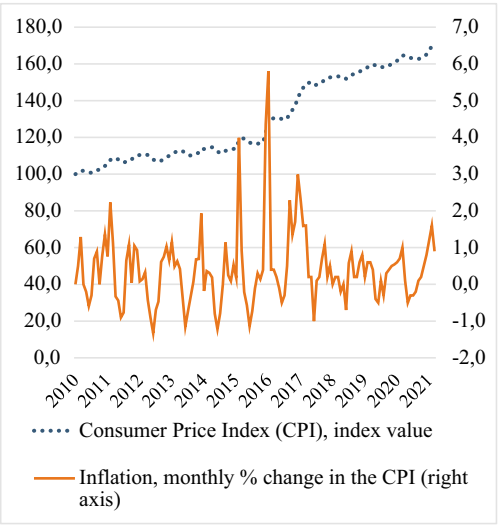


Fig. 3. Capital investments and household consumption (1991–2020) and Consumer Price Index (CPI) and monthly inflation (January 2010–March 2021)

Source: The Global Economy (2021).

Meanwhile, the demand side of the Azerbaijani economy—as measured by household consumption—not surprisingly declined during the recession period (1991–1994) from 4.46 billion USD in 1991 to 2.57 billion USD in both 1994 and 1995; however, the average household consumption was 3.72 billion USD during the recovery phase of the Azerbaijani economy. The upward trend continued, and average household consumption rose to 18.18 billion USD during the oil boom period, when consumers could purchase cheaper imported products due to the overvalued national currency. However, later oil price slumps reversed this trend and resulted in the domestic fall of historically high levels of household consumption, declining from 34.19 billion USD in 2014 to 22.23 billion USD and 23.53 billion USD in 2015 and 2016, respectively. Nevertheless, household consumption then started to increase as the economy began to achieve a stable macroeconomic balance from 2017 to 2019 (see Figure 3, panel a).

During the post-boom period, a sharp variation in the inflation rate occurred; however, the highest monthly inflation (5.8%) occurred at the beginning of 2016 (see Figure 3, panel b). Meanwhile, there were sharp increases in CPI between 2015 and 2016, reaching its highest value in 2021: 167.13 (January), 169.81 (February), and 171.34 (March).

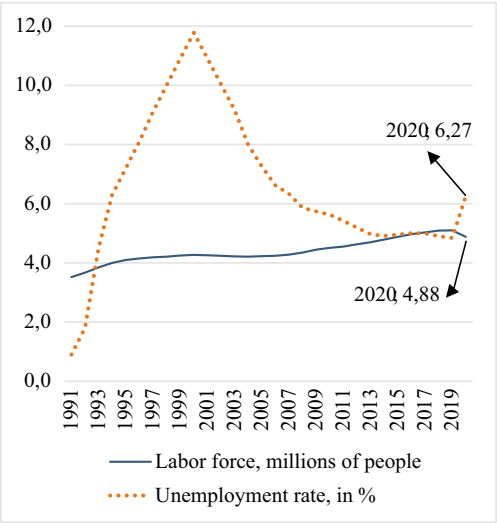
In contrast, compared to the recession period, in the post-boom period there were no huge inflationary pressures. For instance, three years after the collapse of USSR, Azerbaijan's inflation was 1,763.5% in 1994 and 511.8% in 1996 (Aras et al. 2016). This was attributed to import restrictions resulting from economic sanctions imposed by Russia and the war with Armenia. The end of the war and an exclusive focus on the extractive industry in Azerbaijan brought general macroeconomic stability. Hence, overall falls in prices were seen in 1998 and 1999 (e.g., 8.5 percent in 1999) but rose again starting from 2000 due to the relaxing of a tight monetary policy, reaching 12.45% in 2005 due to the oil boom [25].

Hasanov (2011) argued that the oil boom period in Azerbaijan created severe inflationary pressures, as the government's fiscal policy was pro-cyclical [26]. Government expenditure was channeled towards non-tradable sectors and infrastructure projects, and the non-oil deficit was high [26]. Although the national bank adopted a fixed exchange rate policy, the conversion of a foreign currency into the national currency and the high propensity to spend on the part of the government failed to curb the inflationary effects of the oil boom.

Besides economic growth and inflation data, it is useful to analyze the employment dynamics of Azerbaijan. Figure 4, panel a indicates that the unemployment rate rose dramatically after 1991 and after the war, which created one million internally displaced people and refugees [25]; the unemployment rate then reached its peak in 2000 (11.78%). A gradual decline in the unemployment rate and an increase in the labor force improved the country's employment status; however, in 2020, the unemployment rate returned to 2007 levels (6.27 percent) because of COVID-19. Furthermore, Figure 4, panel b shows that the largest employers in Azerbaijan are in the agriculture, fishery and forestry, and services sectors. Starting from 2010, the mining industry employed less than 1% of the labor force, and the manufacturing sector never experienced any upward development beyond the post-boom years (2015–2019). Overall, employment dynamics in Azerbaijan represented expected outcomes aligned with the transition process and the oil boom; however, various factors discussed below greatly affected the employment situation .

During the recovery and transition stages, labor markets failed to provide as many jobs as had been hoped, which in turn triggered migration to countries such as Russia, Turkey,

a. Labor force and unemployment rate



b. Distribution of employment across economic sectors, % of total employment

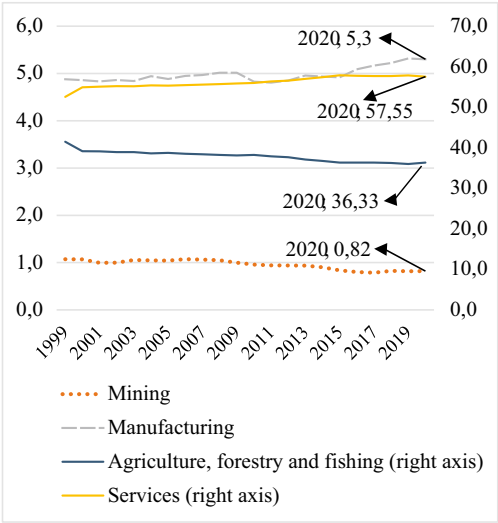
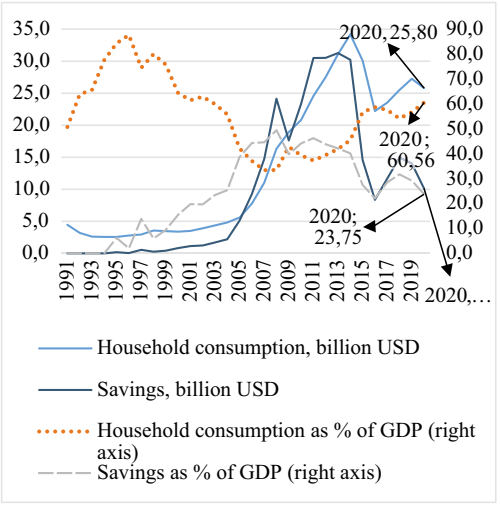


Fig. 4. The overall status of the employment and labor force in Azerbaijan, 1991–2020.

Source: The Global Economy (2021); State Statistical Committee of the Republic of Azerbaijan (2021).

a. Household consumption and savings



b. Capital investments and foreign direct investment (FDI)

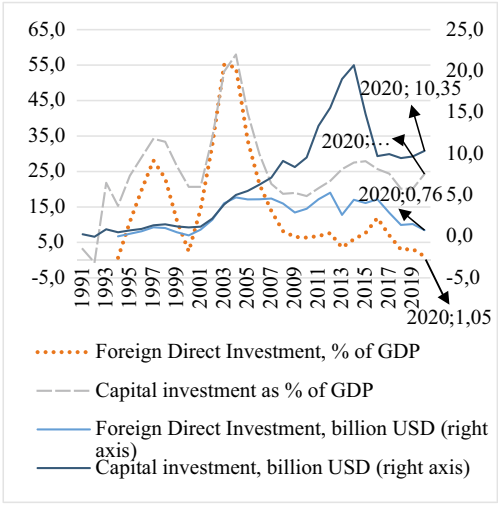


Fig. 5. Consumption, savings, and investments in Azerbaijan (1991–2020)

Source: The Global Economy (2021).

and Iran [25]. While unemployment is a multifaceted problem in Azerbaijan, one of the main issues related to the employment of a highly skilled labor force was the gap between universities and local firms. As Sadirkhanov (2009) remarked, obsolete teaching methods, inefficient internship programs, and low teaching salaries atributed to the dwindling supply of highly skilled specialists and their integration into labor markets [27]. Similarly, Onder's (2013) analysis on rural workers and members of the labor force with only a secondary education revealed that Azerbaijan's high growth rates did not translate into productive employment and high salaries [28]. Also, institutional gaps and associated problems that led to unemployment in Azerbaijan increased the informal sector's—i.e., casual workers—share of the economy [29].

It should be noted that Azerbaijan had one of the highest youth unemployment rates among former Soviet countries, along with higher wage growth and low productivity improvements [30]. Also, the Azerbaijani economy experienced rapid economic growth but without any significant benefits via the newly created jobs in the economy [30].

CONSUMPION AND SAVINGS DYNAMICS

A dramatic increase in household consumption occurred during the oil boom period (see Figure 5, panel a). The peak value of household consumption (34.19 billion USD) coincided with the last year of this period (i.e., 2014). However, as measured in terms of the percentage share of GDP, household consumption increased as the overall GDP shrank in 2014–2105 due to a crash in international commodity markets.

Figure 5, panel a also tells us that savings dramatically improved during the first years of the oil boom (from 2.2. billion USD in 2002 to 24.15 billion USD in 2008) but slowed when oil revenue peaked in 2011, as measured by SOFAZ revenue. Meanwhile, savings (as measured by share of GDP) reached 49.44% in 2007, which was very high compared to 1996 levels (2.01%). Nevertheless, as the oil boom neared its end in 2014, savings also decreased, and they bottomed out around 22.08% in 2016 and 29.22% in 2019.

The last years of the recovery period showed significant levels of FDI, as measured in terms of the percentage share of GDP (see Figure 5, panel b). In 2002, FDI reached 2.02 billion USD, which corresponded to 32.47% of the GDP; from 2003 to 2008, FDI reached 4.38 billion USD per year for the same period, which accounted for 31.12% of the GDP. FDI peaked during the second half of the oil boom period but dramatically declined during the post-boom period. For instance, FDI inflows of 1.4 and 1.5 billion USD were observed for 2018 and 2019, respectively, which only accounted for 2.98% and 3.13% of the GDP.

Capital investments also flourished during the oil boom period, increasing from 0.41 billion USD per year between 1991 and 1994 to 1.90 billion USD per year during the recovery period and 11.46 billion USD per year during the oil boom period (see Figure 5, panel b). Like other economic indicators, capital investments decreased during the post-boom period, totalling 9.48 and 9.68 billion USD in 2018 and 2019, respectively. In addition, as measured in terms of the percentage share of GDP, capital investments were high from 2002 to 2004.

FISCAL STATUS AND BANKING SECTOR DYNAMICS

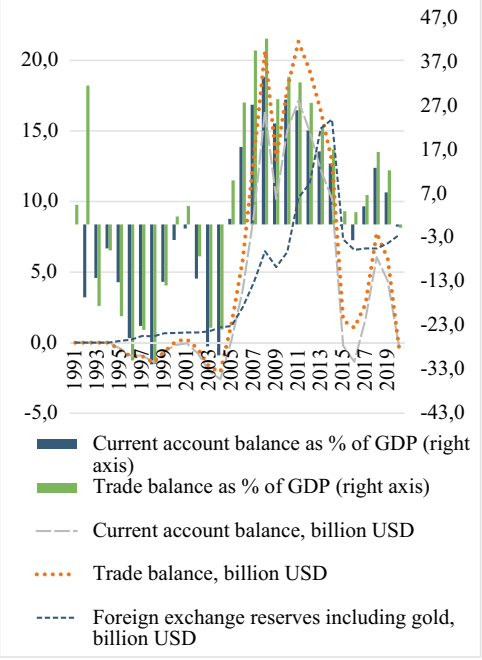
From Figure 6, panel a, it can be seen that Azerbaijan's trade balance and current account balance were negative until the oil boom period. The oil boom period led to high levels of trade balance and current account balance, as measured in terms of the percentage share of GDP. For instance, trade balance increased

from -23.93% of GDP in 2003 to a historic high of 42.31% in 2008. Similarly, the oil boom boosted the current account balance, which increased from an average of -1% from 1995 to 2004 to 11% from 2005 to 2014. Following the oil boom, foreign exchange reserves also increased by 770.34% in 2015 compared to 2011. Reserves continued to increase up to the post-boom phase, then dramatically decreased as the trade balance and the current account both shrank.

The oil boom also boosted government spending from the year 2005, as measured in billions of USD (see Figure 6, panel b). However, the fiscal balance fluctuated and never displayed any clear trends or signs of stability. Lastly, although the oil boom decreased national debt (as measured in terms of the percentage of GDP), oil price slumps increased the debt to 22.51%, which is comparable to levels in 1999–2000.

Next, banking data of the Azerbaijani economy reflect the financial system of the country based on the identified historical development periods (recession, recovery, etc). While bank credits (expressed as a percentage of bank deposits) showed an unequivocally positive trend until the post-boom period in Azerbaijan, bank return on assets dramatically decreased from 3.07% in 2003 and 4.08% in 2007 to -1.05% in 2010 (see Figure 7, panel a). Figure 7, panel a also shows that interest rates rose in 2009, which means that there was a correlation between return on assets and bank credits.

a. Current account, trade balance, and exchange reserves



b. Fiscal balance, government spending, and government debt

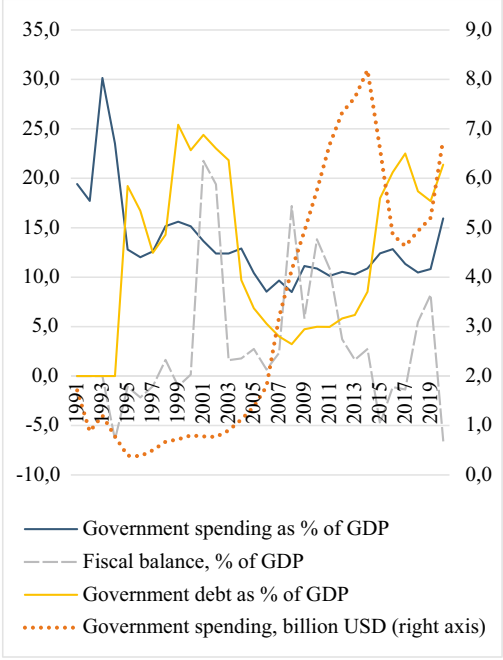
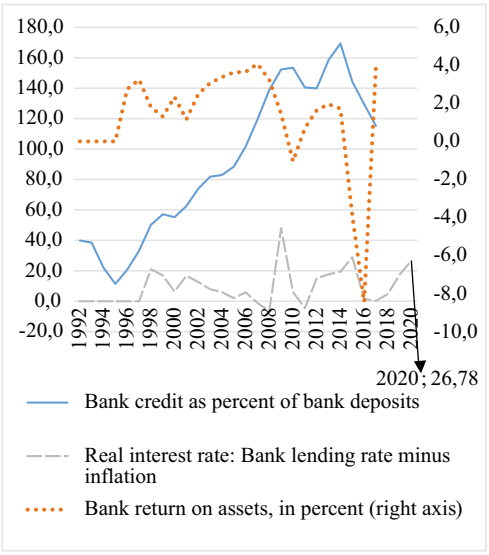


Fig. 6. Key trade and fiscal dynamics of the Azerbaijani economy (1991–2020)

Source: The Global Economy (2021).

a. Bank credits, interest rate, and return on assetsb. Fiscal balance, government spending, and government debt



b. Cost, information, regulatory capital-to-risk, and non-interest income-to-total income data

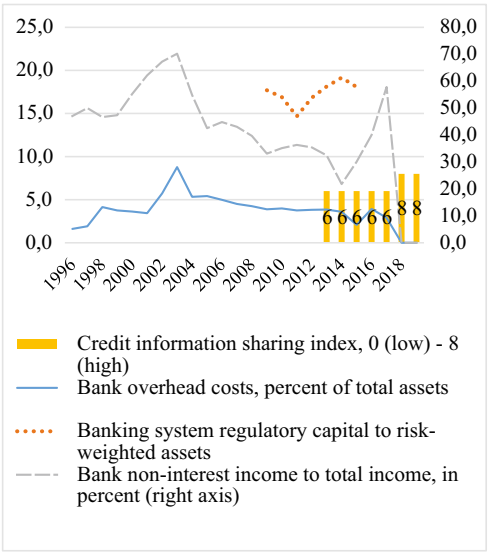


Fig. 7. Banking indicators in Azerbaijan (1992 –2020)

Source: The Global Economy (2021); Trading Economics (2021).

Even though the post-boom period illustrates a lagging behind in the financial development of the Azerbaijani economy, the global financial crisis also had a detrimential effect on the above-stated banking indicators.

Within the banking sector, the post-boom period shows that there was a greater transparency as measured by the credit information sharing index, which increased from 6 between 2013 and 2016 to 8 in 2017 and 2018 (see Figure 7, panel b). While information concerning regulatory capital-to-risk-weighted assets in the banking system is limited, it can be seen from Figure 7, panel b that this ratio increased from 14.67% in 2011 to 19.16% in 2014. Furthermore, bank overhead costs, as measured in terms of the percentage share of total assets, have experienced a gradual downward trend since 2003, but the bank non-interest income to total income (in percentage terms) experienced a notable increase in 2017.

AZERBAIJAN'S ROLE IN THE WORLD ECONOMY

After the collapse of the USSR, all 15 former Soviet countries became part of the world economy by participating in value chains, pursuing globalization, and benefiting from new partnerships. In Azerbaijan's case, the country's share of global GDP has rapidly risen since 2005 (0.08% between 2008 and 2014) but slowed after 2014 to 0.04% in 2016 and 2017 (see Figure 8, panel a). Azerbaijan's share of world exports and imports reflected the same patterns as other domestic indicators, which means it rose during the oil boom period and fell after the commodities boom in 2014–2015.

Figure 8, panel b provides information about Azerbaijan's share of the world FDI and its oil reserves. The years before the oil boom were associated with sharp changes in the abov-mentioned indicators. For example,

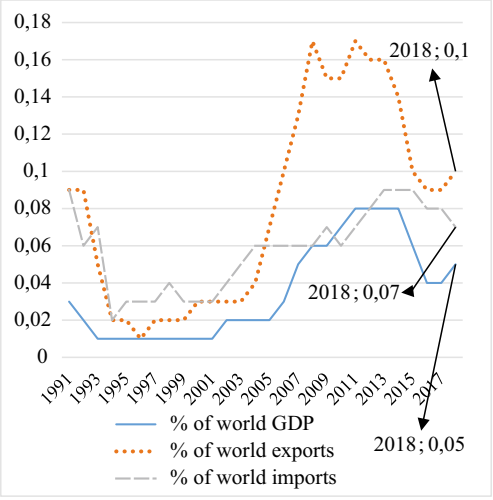
while Azerbaijan's share of world FDI was only 0.01% in 1994, this figure rose to 0.21% in 1997 and skyrocketed to 0.55% in 2003 after the completion of oil and gas projects, then gradually feel in more recent years (0.13% in both 2017 and 2018). Meanwhile, Azerbaijan's share of world the oil reserves continued to decrease despite discoveries of new oil and natural gas fields in the Caspian Sea (see Figure 8, panel b under "percentage of world oil reserves").

STRUCTURE OF THE AZERBAIJANI ECONOMY

In the last part we provided a macroeconomic overview of the Azerbaijani economy and demonstrated how macroeconomic dynamic processes were shaped by their developmental stages. The oil boom period naturally boosted GDP, GDP per capita, investments, consumption, and trade. Therefore, energy resources and oil revenue have played a decisive role in Azerbaijan's economic decisions, integration projects, and foreign affairs for a long time [31]. Nevertheless, concerns about the country's lopsided economic structure have also been voiced, as Azerbaijan is expected to approach the end of the active oil extraction period, provisionally in 2024 [32]. Hence, there is an urgent need to focus on the structural aspects of the Azerbaijani economy.

Azerbaijan has not only experienced rapid recovery but also several economic challenges have emerged owing to the colossal oil revenue and booming oil production and exports. Since the former Soviet countries essentially started from the bottom, their economic policy decisions have shaped their structural developments. For instance, Figure 9, panel a shows that Azerbaijan had higher-than-average oil rents (21.34% within a 27-year timeframe) from 2000 to 2012 among the 15 post-Soviet countries between 1990 and 2017. The global financial crisis in 2008 and sharp commodity price dips in 2014 influenced the role of oil

a. Azerbaijan's participation in world gross domestic product (GDP), exports, and imports



b. Azerbaijan's share of foreign direct investment (FDI) and world oil reserves

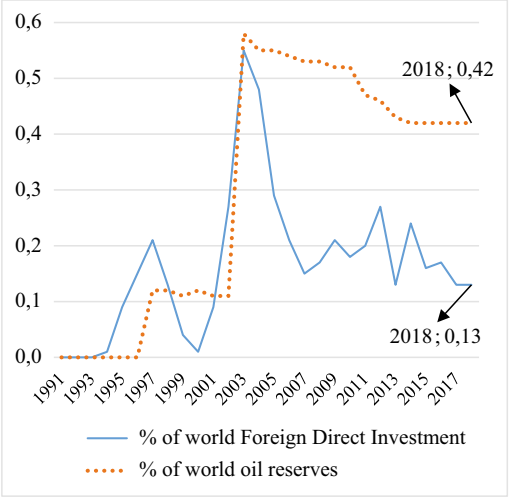


Fig. 8. Azerbaijan's role in the world economy (1991–2018)

Source: The Global Economy (2021).

a. Azerbaijan's oil rents, as measured by share of GDP compared to 15 post-Soviet countries and average in Azerbaijan, in % terms (1990–2019)

b. Decomposition of real GDP value added using the chain-linking method, in % terms (2005–2019)

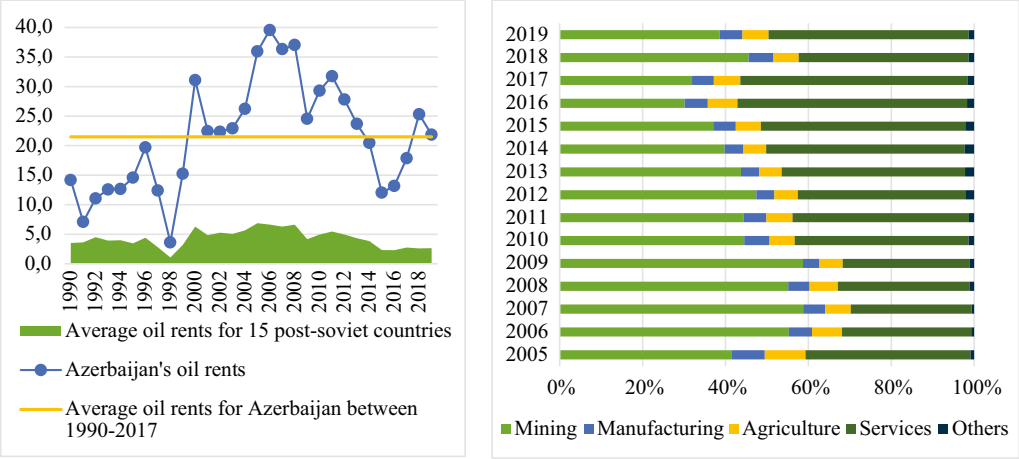


Fig. 9. Oil rents and disaggregation of the real gross domestic product (GDP) in the Azerbaijani economy

Source: World Bank; SSCRA, and the author's own calculations.

rents in both Azerbaijan and other post-Soviet countries. Azerbaijan's oil rents have declined below the country average since 2014; however, they started to increase again in 2016, indicating that they have a strong role in the national economy because of increasing oil prices and the country's ongoing dependency on the oil industry. Meanwhile, Figure 9, panel b tells us that the mining sector dominated real GDP, while the manufacturing and agriculture sector shrank compared to the early 1990s and 2000s. In addition, the service sector increased its share in real GDP value added, achieving 50.3% in 2017 of overall real GDP value added, while manufacturing was 4.8% and agriculture accounted for 5.8% in the same year. Due to the crowding-out effects of the mining sector, the manufacturing and agriculture sectors exhibited low levels of value added in the national economy, but the turbocharged service sector was a natural outcome of the government's spending of the mineral revenue. Thus, Jin and Zhang's (2018) assessment of Azerbaijan's service sector as strong and stable should be interpreted as the multiplicative effect of the oil industry on the rest of the economy, which the service sector was able to absorb [33].

Although Azerbaijan is well known for its rich oil and gas resources, it also has abundant reserves of iron, non-ferrous metals, bauxite, copper, mercury, gold, and other minerals such as iodine-bromine, sodium, and sodium-magnesium [34]. Domestic production is strongly oil- and gas-oriented, and the non-oil branches of the economy usually are viewed in much the same way as other mining activities such as gold and copper extraction, and petroleum production. All the necessary modernization processes have been addressed to improve the production possibilities of the petroleum sector as a part of the manufacturing sector [35]. Therefore, extractive industry-led industrialization and economic recovery was a natural choice for the government. However, does this mean that non-resource sectors, especially

manufacturing and agriculture, have been neglected by the government during the oil boom and post-boom periods?

Huseynov (2017) discussed a variety of approaches to account for the poor diversification of the Azerbaijani economy [36]. The author remarked on the positions of scholars who argued that the collapse of the USSR played a key role in the degeneration of non-oil sectors and this severely damaged the economic and administrative capacity of Azerbaijan. However, other post-Soviet countries such as Uzbekistan, Russia, and Estonia achieved significant diversification despite their post-Soviet status. Moreover, as Huseynov (2017) argued, the main reason why the national economy had low diversification was linked to oil revenue, which made traditional sectors less attractive [36].

The diversification issue in Azerbaijan remains one of the most addressed research topics and it centers around an unfavorable economic structure, namely oil sector-based economic growth and development. Azerbaijan has the highest reliance on mineral exports of all Caspian basin countries, at least according to the Herfindahl-Hirschmann Index (Product HHI) [37]. As Huseynov (2017) argued, since the fourth development cycle began in 2015, the Azerbaijani government has taken steps to diversify the country's economic structure, develop backward regions, and boost the non-oil tradable sector. However, productivity levels in these sectors remain low [36].

In some cases, the manufacturing sector may not grow even if the country has a booming sector such as oil and gas. Interestingly, Russia has not suffered from the Dutch disease, as there has been industrial growth despite an appreciation of the ruble [37]. Although the Russian economy was de-industrialized after the collapse of the Soviet Union, it recovered and became industrialized during the oil boom. Output increased despite declining manufacturing employment, suggesting productivity gains and lower costs. By contrast, manufacturing production in Azerbaijan is costly and poor productivity has failed to spur on non-oil sectors to help them catch up with their performance in the Soviet era. This has led to the flow of FDI exclusively towards booming sectors, undercutting the economic environment necessary for non-oil manufacturing. Although various policy decisions have been made and industrial assembly lines have been opened in recent years, a high dependence on oil prices and large transfers from the state oil fund have created fiscal and monetary challenges that hinder long-term growth.

Overall, Figure 10 panel a indicates that with the value added of the industry sector there was an increasing trend starting from 1997 (1.12 billion USD) but a decreasing trend from 2014 (40.31 billion USD). However, if divided into extractive and manufacturing industries, the Azerbaijani economy had a 4.95% share in value added per year during the oil boom period (2005–2014), while the extractive industry had 55.41% with peak values of 61.18% in 2007, and 60.81% in 2008 shares in value added (see Figure 10, panel b).

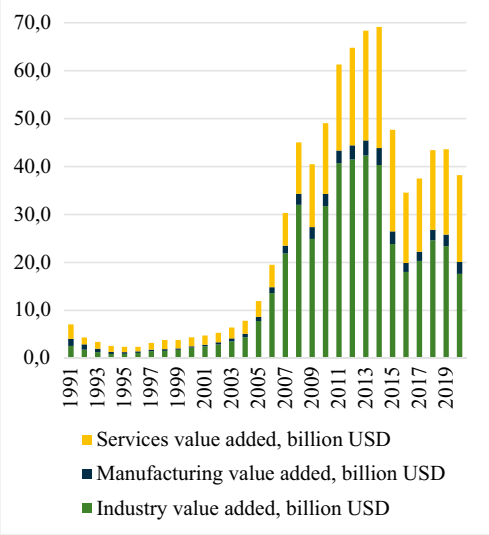
As regards manufacturing, the contribution of the agricultural sector to overall value added also continued to decline. Accordingly, agriculture accounted for 29 % and 17.53% of value added during the recession and recovery periods, respectively, but this figure decreased to 6.01% during the oil boom period.

CONCLUSION

Calculations show that compared to the period of the restoration of independence, over the course of the last 30 years physical volume index of Azerbaijan's economy increased on average by up to 5 times measured by its GDP at current prices. It is essential to identify the factors that caused this growth and their

sources. According to calculations of the IMF (IMF 2007), during 1996–2006 the following proportions were noted in the average growth rate (11.4%) in Azerbaijan; capital - 7.1%, labour - 0.2%, and technological productivity factor - 4.1% [38]. Recent studies provided almost the same picture about the driving forces behind the growth in the Azerbaijani economy. Although the GDP per capita growth was 8.4 percent between 1995 and 2015, 87.2 percent of the growth happened because of capital accumulation, 7.3 percent by the labor force, and only 5.5 percent by total factor productivity [39]. Apparently, the economic growth rate due to the accumulation of capital was much higher in Azerbaijan and in the period 2006–2010 when this trend was even stronger. Nevertheless, the labour productivity and contribution of the labour factor to the economy are also viewed as important factors when analyzing the sources of economic growth. As has been noted in the latest country memorandum of the World Bank, "the existing problems led to low productivity in Azerbaijan compared to several neighboring countries; in particular, the certain growth in the overall productivity of the economy recorded in recent years is largely explained by the growth of the oil sector. Indeed, rich oil and gas resources of Azerbaijan have played a significant role in achieving good results over the past 30 years. Considering the fact that increasing oil revenues play a special role in the formation of the long-term fiscal policy in Azerbaijan, it can be stated that one of the priority tasks of the government is the optimal management of revenues. The experiences of other countries facing similar problems tells us that there

a. Value added, in billions of USD



b. Value added, as a percentage of gross domestic product (GDP)

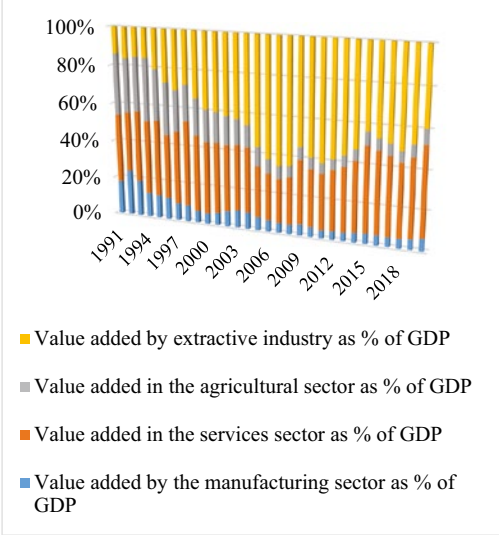


Figure 10, panel a shows Azerbaijan's value added in billions of USD, while panel b shows the sectoral distribution of value added in percentage terms. Since 2007, the role of the service sector has increased in terms of value added.

Notes: Data for the service sector was not available for 2017 and 2019.

is no standard approach or recipe for a wonder solution. For this reason, it is not straightforward to determine what the right fiscal policy should be at present and how successful it is expected to be.

Our retrospective analysis of the past 30 years of the history of Azerbaijan's economy indicates that unless economic reforms and structural changes are speeded up and economic liberalization and diversification are ensured, the sustainability gain in the economic sphere could be in danger.

This study systematically described the five developmental stages of the Azerbaijani economy: 1991–1994 (recession); 1995–2003 (recovery); 2004–2006 (peak); 2007–2014 (oil boom); 2015–2020 (post-boom). A retrospective assessment of the transition to a market economy during the 30 years of Azerbaijan's independence indicates that the transition period is not yet over, and economic growth and development are both volatile. This volatility originating from the oil dependency issue brings to mind the Dutch Disease and Natural Resource Curse. Meanwhile, it is worth mentioning that the oil industry was and is the key industry for the government. Non-oil industrial sectors lag due to the government's insufficient developmental programs. Further studies should focus on qualitative assessments that examine the institutional, political, social, and management aspects of the Azerbaijani economy.

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ИНФОРМАЦИЯ ОБ АВТОРЕ / INFORMATION ABOUT THE AUTHOR

Губад Ибадоглу, Старший приглашенный научный сотрудник, Лондонская школа экономических и политических наук, Лондон, Великобритания; WC2A 2AE, Хоутон-стрит, Лондон, Великобритания;
g.ibadoghlu@lse.ac.uk

Ибрагим М. Нифтиев, Докторант, Сегедский Университет, Институт финансов и международных экономических отношений, Сегед, Венгрия; 6720, Дугоникс, д. 13. Сегед, Венгрия;
niftiyev@eco.u-szeged.hu

Gubad Ibadoghlu, Senior Visiting Fellow, London School of Economics and Political Science (LSE), London, The United Kingdom; Houghton Street, London, WC2A 2AE, The United Kingdom;
g.ibadoghlu@lse.ac.uk

Ibrahim M. Niftiyev, PhD Candidate, University of Szeged, Institute of Finance and International Economic Relations, Szeged, Hungary; bld. 13, Dugonics tér, Szeged, 6720, Hungary;
niftiyev@eco.u-szeged.hu