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Ph.D. DISSERTATION

THE STUDY OF THE DUTCH DISEASE IN AZERBAIJAN AND THE RESOURCE DEPENDENT ECONOMIES

(INPUT-OUTPUT ANALYSIS, LINEAR PROGRAMMING AND TIME SERIES ECONOMETRICS)

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ABBREVIATIONS

FDI: Foreign Direct Investment

GDP: Gross Domestic Product

IMF: International Monetary Fund

OECD: Organization for Economic Co-operation and Development

OPEC: The Organization of the Petroleum Exporting Countries

UN: United Nations

USD: United States Dollars

SOFAZ: State Oil Fund of the Azerbaijan Republic

1. INTRODUCTION- CURING THE DUTCH DISEASE IN AZERBAIJAN

The Azerbaijan economy was one of the transition economies from socialist system to the market economy after the collapse of Soviet Union. In the first place, as the most of the post-Soviet Union member countries, the economy experienced many challenges. However, the existence of the vast natural resources, has been the main fostering factor in the economic development of Azerbaijan. On the other side, the concentration on the resource sector, created the basis to think about the threads and negative results of the dependent economy. In this context, there have been need to analyse and investigate the distribution of the goods and services in the whole sectors of the economy. That is why, the applying of the Input-Output framework to the Azerbaijan economy holds crucial importance in order to diversify the economy.

In spite of the importance of the input-output approach, there have been limited researches by the scholars on the Azerbaijan economy in this direction. The main common limitation of these studies has been the access to the official annual data.

The Azerbaijan economy has common characteristics with the resource dependent countries. Particularly, the recent falls in the world oil prices have challenged the whole economic sectors in Azerbaijan. The current diagnosis of the Azerbaijan economy is not only interesting for scholars, but also all of the citizens in Azerbaijan due to the existing negative impact on their daily live. The literature on the Azerbaijan economy helps to understand the main issues which are related in the current economic results in the country.

Mahmudov (2002) assessed the economic policies and the Dutch diseases symptoms in Kazakhstan and Azerbaijan. Similarly, the author indicates the importance of the fiscal and monetary policies by the policy-makers in Azerbaijan in the early 2000s. Furthermore, the efficient governance of the oil wealth and institutions are the main recommendations for the Azerbaijan economy in the study. Equally important (Auty, 2001) is the fact, that the resource dependent Caspian Basin countries, including Azerbaijan have been reforming their economy in a much more lesser degree, than the resource-poor states of the world.

Ibadoglu (2008) reveals that, the Azerbaijan economy has already infected by the Dutch disease due to the increasing the appreciation of the national currency: Manat, the decreasing of the global competitiveness, the higher allocation of the resources in the resource: oil-gas sector. Weeks (2008) points out that, the appreciation of Manat may have impact on non-resource sectors. The author claims that the decision on the fixed exchange rate policy by the policy makers with eliminating the floating regime has been the right choice. Egert (2009) has also stated that, the appreciation of the national currency, resource-based GDP growth, the higher pressures on the manufacturing sector, the risk of the deindustrialization are the main factors to support to the idea of the existing effects of the Dutch disease in the Azerbaijan economy.

Huseynov (2009) suggests that the policy makers should limit the amount of transfers from the oil wealth to the public expenditure to the economy. Hasanov (2010) discovers that, the relationship between the oil prices and exchange rate of the national currency, public expenditure are positively significant. With this in mind, the author outlines the importance of the development of the non-oil sector and diversification. However, the author does not support the statement of the existence

of the Dutch disease due to only these factors. Interestingly, Hasanov (2013) in another study concludes that the Dutch disease theory has been identifiable in the Azerbaijan economy. The author determines that the spending effect has been observed more than the resource movement effect of the Dutch disease in the Azerbaijan economy due to the higher unemployment issue. That is why, the author attracts the policy makers' attention to the developments of the non-resource tradable sectors in order to prevent further effects of the Dutch disease. Gurbanov, Nugent, and Mikayilov (2017) summarize in their group study that, the increasing public capital expenditure has not achieve to enhance the volume of the non-resource goods.

One of the best relevant studies to this research has been done by Ismayilov and Aliyev (2010). The authors have considered the Norway as 'good' and Nigeria as the 'bad' sample for the Azerbaijan economy. Interestingly, the authors could explain the Norwegian model more detailed, summarized, particularly before and after the resource boom and considered the good governance of the oil wealth as the success indicator. However, the key limitation is that, the authors have not done the comparisons between Norway and Azerbaijan and concluded only general remarks per the Azerbaijan economy.

1.1.   The key problems

The recent development trends in the Azerbaijan economy has directed the author to study the possible signs of the **Dutch Diseases** in Azerbaijan. The Dutch disease is accounted as opposite effects on Dutch production caused by founded the natural gas resources, with resulting the appreciation of the real exchange rate (Corden, 1984).

Logically, analyzing the existence of the mono-economy's (oil-gas-resource dependent economy) characteristics in the Azerbaijan economy can be highlighted as the key study issue and directions in this research.

Apart from that, the inter-sectorial relations between oil-gas and the rest of economic sectors in Azerbaijan can be considered as the key study direction via analyzing the input-output approach.

1.2.   Importance of the study

In addition to the existing studies on the Azerbaijan economy via applying input-output approach, starting from the literature dive in the Dutch Disease can lead us to the crucial results to understand the key important challenges.

Importantly, testing the varied econometric tools helps to ensure to assess the impact of the "infectious" oil sector in the entire Azerbaijan economy.

Last, but not least, this research contributes to the current studies via comparative analysis between Azerbaijan and OPEC-the selected countries' economies.

1.3. Hypothesis Development

The understanding the structure and finding the development concentration of the Azerbaijan economy are key critical research directions for the author. As earlier mentioned by the scholars that the probably the resource sector: oil-gas has key role in the Azerbaijan economy. Apart from the literature review, definitely, the official figures are the key means to understand the Azerbaijan economy.

If we divide the Azerbaijan economy to two subgroups as oil-gas sector (includes all resource related activities) and non-oil-gas sector (the rest of the economy), we can see clear imbalance even from the official number without putting additional research efforts. In such case, the author tries to validate potential root causes for the issues in the recent economic structure and assess possible development opportunities in Azerbaijan.

In the early research activities, the author has deepen their knowledge via studying varied issues in the resource dependent Azerbaijan economy: the volatility in the oil prices and decision making process in the governance (Huseynov, 2016, a); the non-oil-gas sector (Huseynov, 2016, b); the impacted social economic policies by the oil-gas sector revenue (Huseynov, 2017, a); the participation rates of the oil-gas (mining) and non-oil-gas sectors (manufacturing) in the total economic output (Huseynov, 2017, b); the oil-gas rents "infection" in the public spending (Huseynov, 2017, c); the public spending and the economic growth (Huseynov, 2017, d); the banking sector and the volatilities and uncertainties (Huseynov, 2018); the nearest future in terms of the lower oil prices by 2025 (Huseynov, 2019).

Getting inspiration from those studies the author has been keen on looking forward to the future economic challenges of the Azerbaijan economy.

The key research directions are to understand the research dependent economies' structures via grouping input-output tables and comparing that group with the same kind of the table for the Azerbaijan economy (Table 1).

Table 1. The share of the dominant products in the relevant total exports per selected countries

Country	Share of merchandise export, %	Exported Product
Brunei Darussalam	95	Oil
Azerbaijan	95	Oil
Saudi Arabia	89	Oil
Kazakhstan	73	Oil
Colombia	68	Oil
Norway	68	Oil
Russian Federation	67	Oil
Malta	43	Oil
Indonesia	34	Oil
Greece	31	Oil
Australia	30	Oil
Chile	45	Copper ore and Refined copper
Iceland	43	Raw aluminium and related products
Peru	27	Copper

Source 1: Fuel exports (% of merchandise export), 2011,
https://data.worldbank.org/indicator/tx.val.fuel.zs.un
Source 2: Others exports, https://atlas.media.mit.edu/en/

In this direction the author has the following hypotheses:

H1-The Azerbaijan economic structure has more common characteristics with the resource dependent economies and the number of the sectors being in the standard range (13 selected countries) has more share in the whole economy of Azerbaijan.

H2- The oil-gas sector has weaker relation with the entire economy than the selected countries' average level.

H3-The Azerbaijan economic sector in general, consumes smaller part of output from GDP, and require smaller inputs in order to produce total output.

H4-The Azerbaijan economy heavily depends on the import in matter of the non-oil sector related inputs.

H5-The manufacturing sector is far from the optimal level which is needed by the local economy.

H6-If we dive into the statistics, data analysis of the economic experiences by Norway and Nigeria, we will realize that, the Azerbaijan economy has more common feature with Nigeria in comparison with Norway.

2. LITERATURE REVIEW

2.1. Dutch Disease in General

The governance of resource economies is attracting considerable interest in the recent decades. The main fundamental characteristics of these economies are the only one booming sector and affected other sectors. However, the recent developments of these group of countries led to think about the common questions and explain the solutions. W. Max Corden and J. Peter Neary (1982) responded to these questions with developing Dutch disease model. The Authors revealed booming sector causes real appreciation, an increase in relative price of non-traded relative to traded goods. They divided the whole economy to the resource sector: including natural resources, production of any one traded goods and other sectors, particularly agriculture and manufacturing.

The Dutch disease is accounted as opposite effects on Dutch production caused by founded the natural gas resources, with resulting the appreciation of the real exchange rate (Corden, 1984). However, there are many models which explaining the lagging of manufacturing sectors due to the boom in the resource sectors. Considering these cases, promoting the manufacturing exports could be crucial step in preventing any kind of "Disease" (Macedo, 1982). Indeed, the 'Dutch Disease' has no connection with the 'Disease' notion. Further research in this issue shows that any raise in the oil or resource prices can reduce equilibrium price of traditional (non-oil) tradable goods (Edwards and Aoki, 1983).

In the resource dependent economies, the question of how to spend or manage oil money from the export has been key issue. If the government decide to spend all of this money in abroad, it will have no any contribution to the local economic growth (Harberger, 1983). In addition to this question, it has been experienced that, the booming sector attracts the production factors from the other sectors with temporary advantage. That is why, if the governments try to balance the distribution of the production inputs between the booming sector and the rest traditional tradable sectors, it could be one of the solutions to prevent the "Dutch Disease" threat (Jones, Neary and Ruane, 1986).

In the "Dutch Disease" notion, there are some general concerns. Due to the booming sector, the comparative advantage of other traditional tradable sectors may be affected and the situation can cause the reduction in long-term welfare (Krugman, 1987). On the other hand, appreciation of any local currency due to resource dependent economy, may reduce the cost of imports of capital and production inputs and at the result it could be chance for manufactory sector to take advantage (Looney, 1988). So, some tradable sectors, including manufactory sector can increase its results. However, the booming sector has negative impact on agricultural sector: as an exportable sector and manufacturing sector: as an importable sector. More importantly, a government can support these sectors in order to compete with other world market players (Benjamin, Devarajan and Weiner, 1989). The governments in resource dependent economies can apply structural policy with liberating the trade in order to reduce foreign pressure on non-tradable goods (Brahmbhatt, Canuto and Vostroknutova, 2010).

In fact, some scholars try to generalize the "Dutch Disease" term for all resource dependent economies. This kind of experience can be optimistic for some countries or pessimistic for others (Torvik, 2001).

In the modern approach to the "Dutch Disease" there are varied ideas and case studies. Particularly, the governments apply varied methods to neutralize the side effects of the disease. In the first place, the imposing the import limitations per foreign competitive goods can be considered immediate solution. However, the world economic experience shows that, this method can change the situation for the infected economy in the short-run. In spite of the temporary benefit, these kind of limitations cause the negative impacts on the local economies. Comparatively, the world statistics proved that, the more support to the export of the local manufactured goods had more positive impact over the economic development (Bresser-Pereira, 2017). Another idea is that, the distribution of the resource rents can help to diagnose the level of the "Dutch Disease". So, in case of the poor diversification of the rents, it means more symptoms of the Disease (Behzadan, et al., 2017).

The Norwegian economy has been studied by many scholars and the importance of the oil wealth in the general economic development has been emphasized since the 1970s' discoveries. Hansen (1983) observed the regional policy by the government in Norway between 1950s and 1980s. The author concluded that if Norway had been poorer, the country would have more competitive advantage. While the oil rents are getting increase, the rest of Norwegian industries lose their advantages. Under those circumstances, the author believed that Norway will experience challenges after the oil era. For this reason, Hutchison (1994) assumes that, without the existing government programs, the Norwegian economy and manufacturing sector would suffer from the adverse effect from the booming oil industry. Similarly, Holmoy and Heide (2005) indicate that, the Dutch Disease effects may hit the resource reserves in any time regardless the efficient governance. The scholars assume that, the current resource wealth may create challenges in the decision making for the long run utilization by the public.

Notwithstanding, Larsen (2004) examines the ability of Norway to prevent any risks from Resource Curse and the Dutch Disease with the efficient management of the oil-gas rents. In the study it was noted that, Norway not only has passed all its neighbors in the economic development, but also achieved sustainable economic growth in comparison with the other resource dependent economies. However, Larsen (2004) investigates the main reasons of the Norwegian economic achievement as the minimum intervention opportunity by the politicians to the oil revenues for the political campaigns and competitions. As matter of fact, the similarities in the economic development of Scandinavian countries could help to guess where Norway would be as the economy without oil.

Apart from that Norwegian economic performance proves that the resource revenue can be spent to grow (Larsen, 2005). Gylfason (2006) lists the main characteristics of the Norwegian economic development in the study. The author emphasizes the importance and power of the current law which is focused to ensure benefit to the people in Norway. Another mentioned aspect is the fiscal policy which directly, strictly controls the transfers from the Government Pension Fund for any current spending. Equally important, the author indicates the smaller size of the central government than neighbor countries and minimization of the interventions by the politicians as the less access in the decision making process. Not only the existing management but also the strong traditional democracy in Norway has been one of the main secret to make the Norwegian economy stronger than other resource dependent countries and prevent from external factors. Ville and Wicken (2012) consider Norway as the "resource based knowledge economy" due to the inter-relationship within the whole economic sectors.

The main characteristic of the Norwegian economic development is the management of resource revenue. Notably, in 1990 the Norwegian government founded the Petroleum Fund in order to manage the petroleum rents as the transfers to the Fund. However these rents were not stable, even smaller in 1990s than 1980s due to volatility in the world market and challenges in the economy. By all means application of the new fiscal policy allowed the government to spend more without lessening the oil reserves. Another key point in the fiscal policy to apply 4% limitation over the transfers from the Fund which eliminates any current effects due to the volatility in the world market (Holden, 2013). With this in mind the main goal of the government to stabilize the macro-economy with ensuring the balance between the oil wealth and public spending (Mohn, 2016).

In the modern world economies, the Nigerian economy can be assessed as the main sample for the Dutch Disease. Similarly, the Nigerian government established the new revenue management mechanism: Nigerian Sovereign Investment Authority including 3 different Funds: Future Generations Fund (40% of the assets), Nigeria Infrastructure Fund (40% of the assets) and Stabilization Fund (20% of the assets). The Government will invest collected or received financial resources via those specialized Funds (Nigerian Sovereign Investment Authority, 2016). Ogunleye (2008) states that, the efficient management of the oil wealth and diversification can be driver for the economy in Nigeria. The author outlines the corruption, lack of transparency as the main challenges in the study. For this reason, Idemudia (2012) suggests the reforms in law and the active participation of communities. However, Oshionebo (2017) concludes that the governance of Nigerian Sovereign Investment Authority is not independent, vice versa, the main decisions and activities depend on the political powers in Nigeria.

In comparison with Norway, the participation of the politicians is higher which cause crucial challenges. As the result of the crude oil explorations, the controlling of the oil wealth has been main target for political and military regimes. That is why, the diversification of the economy, establishing transparent institutions, governance are the main important factors to eliminate the side effects from Dutch disease and resource curse (Mohammed and Lenshie, 2017).

According to the study by Taiwo, Abayomi, and Damilare (2012) the enhancing the manufacturing sector can be efficient way to diversify the Nigerian economy. On the positive side, Odularu (2008) found the positive effect of the resource production over the economic growth. However, the author acknowledges that, the positive impact is not enough to support the idea of the oil has enhanced the economic development substantially, vice versa case happened due to lack of efficient resource wealth governance and the transparency. Equally, Aliyu (2009) evaluates the relationship between the economic growth and oil prices, exchange rate in Nigeria. The study summarize that the volatility of the oil prices plays important role than the exchange rate over the economic growth. On the contrary, Iwayemi and Fowowe (2011) claim that the negative oil shocks have not affect the main macroeconomic indicators based on their findings. Conversely, Adamu (2017) characterizes the oil rents, public investments as the main driver and the external debts and demographic growth as the obstacle to the Nigerian economy. That is why, the author suggests to the Nigerian government to foster the non-oil sector in order to prevent the side effects of the Dutch disease. Dauda (2017) identifies the unemployment, the social imbalance in the living standards, inefficient the public policy, poor social defense programmers, misusing of the oil wealth as the obstacles for the Nigerian economic growth. Recently, Umoru and Onimawo (2017) have concluded that the volatility of the oil prices directs the GDP growth rate and affects the national currency in Nigeria. Another key point, the development of the non-resource sectors may

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help to diversify the Nigerian economy. Interestingly, the strong positive relationship between the non-resource exports and economic growth in Nigeria over the period of 1985 and 2015, ensure to think about future of the economy positively. That is why, there is need for efficient legal, financial, transparent environment by the government in order to achieve the sustainable non-resource sectors and diversify the whole economy (Kromtit, et al., 2017).

Akpan (2009) developed VAR analysis for the Nigerian economy in order to find the potential impact of the volatility of the oil prices over the macroeconomic indicators. As the result of the study, the author determines the positive impact of the volatility of the prices, on the public spending, real income and concludes that Nigeria has gotten the Dutch Disease due to the mainly the currency appreciation. Consequently, the imported goods are getting expensive to the people, which it might stimulate the export of the non-oil sector. Nevertheless, the Nigerian economy has not experience such development in the non-oil sector. That is why the author strongly recommends to ensure the variety of the revenue sources and efficient aggressive saving from the oil rents.

The strong volatility of the economy has been the main challenge to realize any state economic programs or reforms. In case of the Nigerian economy, the currency depreciation, the increasing prices of the imported products can create many problems for the local consumers (Ike, Okodua and Bagzibagli, 2016). Moreover, the balance between the level of investments and savings is crucial in the management of the oil wealth. In this purpose the Nigerian government should minimize the effects from the oil price shocks and misleading production volume. In the short-run any decision in favor of the large investment projects from current resource revenue or debt sources would be the worst choice for the Nigerian economy (Ncube and Balma, 2017).

Additionally, the fiscal policy in Nigeria has been the factor in order to decide the governance of the oil wealth. Aregbeyen and Fasanya (2017) finds out the strong positive relationship between the world oil prices and public spending trends, planning in Nigeria since the 1970s. Not only this study, but also Apere (2017) proves that the resource revenue has been the main source for the public expenditure in Nigeria since 1981. In other words, the government has spent more in the case of the higher oil prices. As the result, the main symptom of the Dutch disease: resource movement from non-resource sector to the oil industry has been observed and followed by imbalance in the industry, higher unemployment. The author emphasizes that the government went to the cuts in the public spending whenever the oil prices were low.

2.2. Curing of the Dutch Disease in the World

In the recent economic developments in the resource dependent economies have showed some general and specific features of this Disease (Map 1, Table 15). On these grounds, it would be better to investigate the countries which had the same problem. That is why, OPEC (Organization of the Petroleum Exporting Countries) should be considered as a first.

Map 1. The world Countries with the "Dutch disease" experience
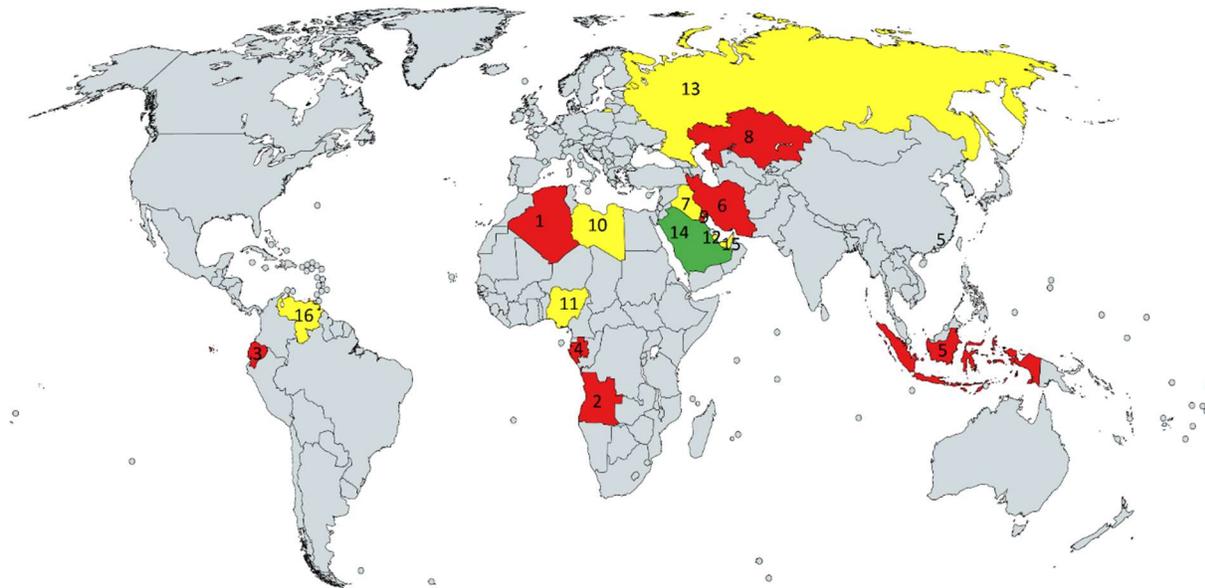
Source. The Author's own edition, based on in-depth analysis of literature

Before diving to the historical milestones of the selected countries, Graph 1-4 can lead us the general idea about the similarities and varieties in terms of the key economic indicators. Graph 1 shows that as the traditional sector agriculture has potential in Nigeria with producing one third of the total output in the economy. The lowest numbers are visible in the Arabic countries.

**Graph 1. Agriculture, forestry, and fishing, value added (% of GDP),
average for the period between 2002 and 2008.**
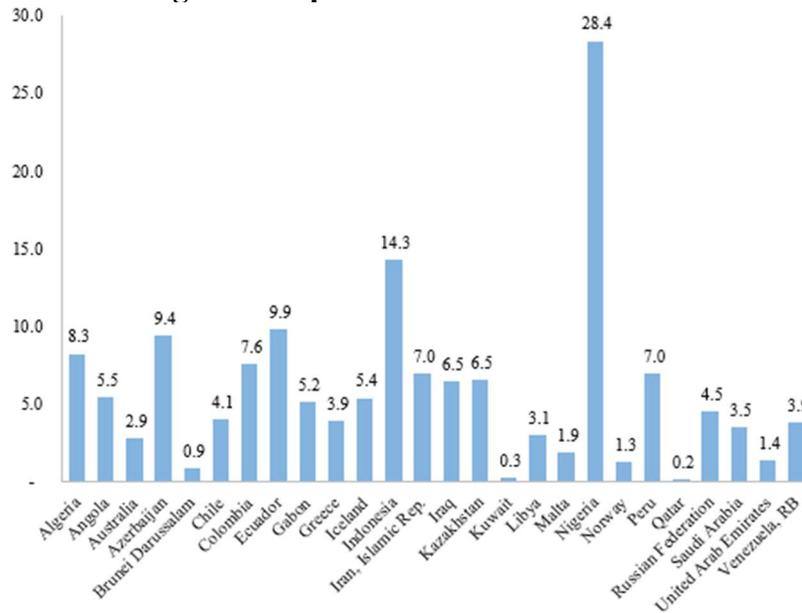
Source: The World Bank, http://data.worldbank.org/indicator(last accessed: 05.05.2020)

**Graph 2. Manufacturing, value added (% of GDP),
average for the period between 2002 and 2008.**
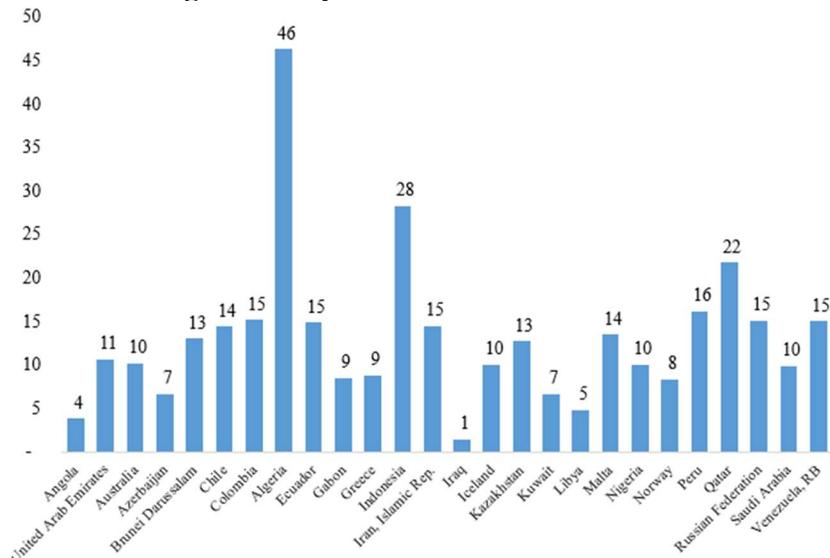
Source: The World Bank, http://data.worldbank.org/indicator(last accessed: 05.05.2020)
Graph 2 presents that, manufacturing sector had important role in the process of the creating the total output of an economy in Algeria and Indonesia. In Iraq, Angola and Libya the relevant indicator of the economy had weaker participation rate in a country's general performance.

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Graph 3. Fuel exports (% of merchandise exports), average for the period between 2000 and 2013.
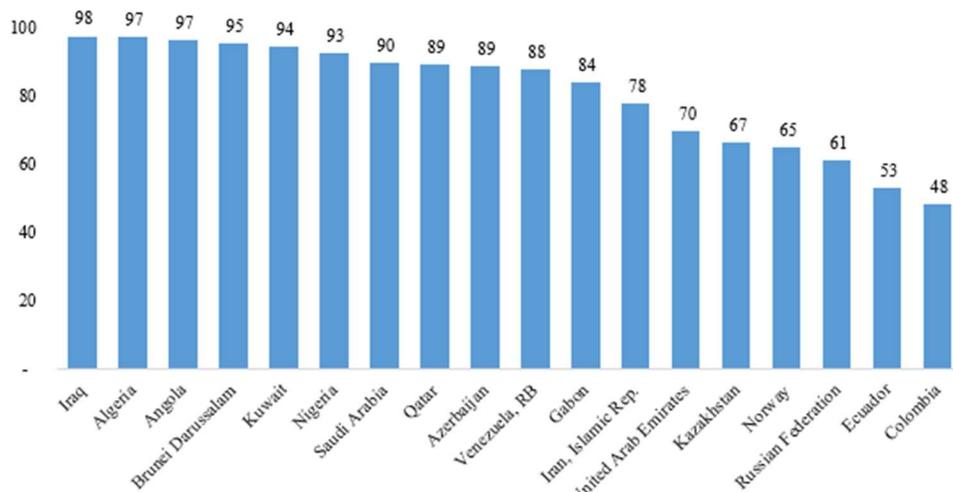
Source: The World Bank, http://data.worldbank.org/indicator (last accessed: 05.05.2020)

Graph 3 reveals the central factor and reason of the key challenges of the resource dependent economies. Not surprisingly, Azerbaijan is in the highest cluster of the countries where the energy products are dominant in the entire export portfolio of an economy with more than 80% of the share. This visualization makes easier to the readers to understand the key criteria in the selection process of the countries by the author.

Graph 4. Oil rents (% of GDP), average for the period between 2004 and 2014.
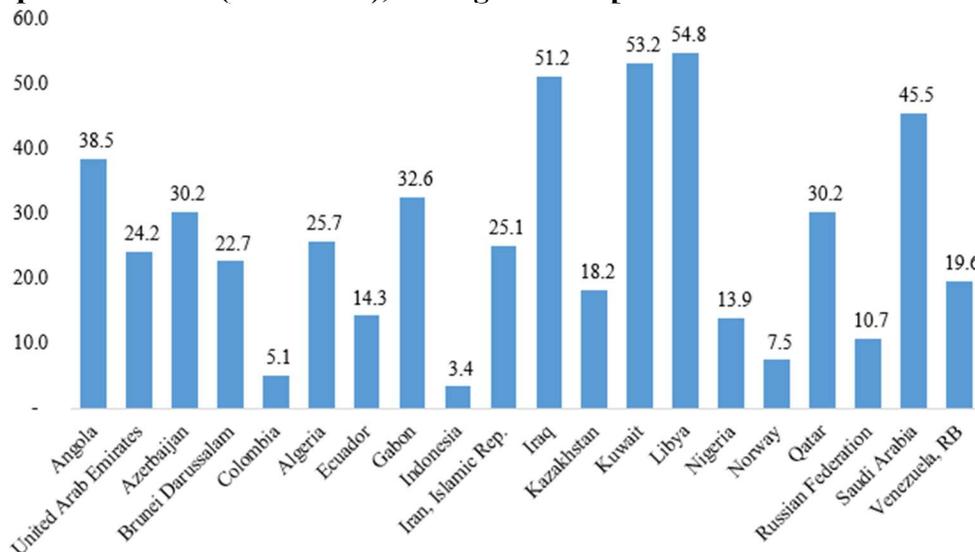
Source: The World Bank, http://data.worldbank.org/indicator(last accessed: 05.05.2020)
Regardless of the negative sides of the being resource dependent economy, the majority of the selected countries are benefiting from the oil exports without huge utilisation of the resources and which brings varied responsibilities in terms of the spending those wealth efficiently and effectively (Graph 4).

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In this part of the study author attempts to show the historical changes in the macroeconomic indicators of the resource dependent economies. The result of this data analysis will lead us to understand the similarities and varieties in the selected economies in terms of the governance, decision-making issues. The author aims to utilise those economic milestones of the resource dependent economies in the understanding process of the small oil-gas exporting state: Azerbaijan, where we may identify whether there have been any sign of the learning from the global "mistakes".

The main idea to dive into the historical data per each countries is to identify the starting point of the Dutch Disease signs from the very beginning via showing the dramatic changes in the recent decades.

Algeria is the member of OPEC since 1969 with the 1.0% share of world crude oil reserves (Graph 25). After 1974, the oil export was more than 90% of all merchandise export at the first time and never been less than this level till nowadays. Subsequently, the most affected sector was manufacturing sector (Table 2).

Table 2. Economic indicators, Algeria

Indicator Name	1973	1974	1980	1986	1990	1998
Agriculture, value added (% of GDP)	7.0	7.4	8.5	10.2	11.4	12.5
Manufacturing, value added (% of GDP)	16.5	9.0	10.6	15.7	11.4	9.9
Oil rents (% of GDP)	12.2	30.4	33.7	6.7	13.7	8.9
Fuel exports (% of merchandise exports)	83.0	92.5	98.4	97.5	96.5	96.2

Source: The World Bank, http://data.worldbank.org/indicator (last accessed: 05.05.2020)

Monetary policy has been so volatile due to the dominant the oil-gas sector. Initially, the Algerian government has selected exchange rate in the first decade since the independence. However, we can see that the devaluation of the dinar was one of the vital tools to protect the economy's competitiveness (Table 3).

Table 3. Official exchange rate (dinar per USD, period average), Algeria

Indicator Name	1960	1974	1986	1990	1998	1999	2000	2009	2010	2011	2012	2014	2015
Exchange rate (Dinar per USD, period average)	4.9	4.2	4.7	9.0	58.7	66.6	75.3	72.6	74.4	72.9	77.5	80.6	100.7

Source: The World Bank, http://data.worldbank.org/indicator/pa.nus.fcrf
(last accessed: 05.05.2020)

Another key thing to remember about the Algerian economy, there had been repressed inflation in 1970s (Standaert, 1989). Algeria has spent oil rents, particularly received during the 1970s, to the industrialisation. On the contrary, the economic results proved that, these attempts had been unsuccessful. Notwithstanding, it was one of the main decisions to turn situation to the economic collapse, in case of oil price falls in 1980s. Subsequently, the Algerian government had to go to the reforms which should solve additional problems such as unemployment (30% of the

workforce) in 1990s. All in all, the best recommendations for the resource dependent Algerian economy, could be to save revenues from the oil-gas export in order to prevent Dutch disease, to promote FDI to the manufacturing sector with attracting the labour force from the rest sectors of the economy (Auty, 2004).

The Algerian economy has experienced the "Dutch Disease" in the last decades: the manufacturing and agricultural sectors have been so weak, Algerian economy has been less diversified, non-oil GDP has been less than oil GDP (Chekouri, Chibi and Benbouziane, 2013).

The sudden the falls in the world oil prices in 1980s had affected the Algerian industrialisation policy badly with the risk of financing the economic activities. In other words, the macroeconomic conditions in that time disclosed the susceptibility of the Algerian economy. That is why, the government decided to open the public companies to the privatization with attracting FDI. Due to political instabilities and declining oil-gas sector, the Algerian government agreed on the Structural Adjustment Plan offered by IMF with the changes in the economic policy (Teulon and Bonet Fernandez, 2014).

Moreover, the all revenues from the oil-gas export did not affected the economic growth significantly. The main factor in the Algerian economic history was the mishandled institutional system (Akacem and Cachanosky, 2015).

There has been positive relation between oil export revenue and economic growth; negative relation between oil revenue volatility and economic growth. It proves how the economy depend on the oil sector. Before the boom in the oil sector, Algeria was one of the key exporter of the agricultural products to the South European countries (Chekouri and Chibi, 2016).

Not only the oil-gas export of Algeria, but also the system of socialism and the difficulties in the economic transition process have played huge role in creating today's unsuccessful and resource dependent economy (Nouibat, 2016).

Angola has been the member of OPEC since 2007. The share of oil-gas sector in the total merchandise exports has been more than 90%. Subsequently, oil rents equals to almost to the half of GDP (Table 4).

Table 4. The share of fuel export, Angola

Indicator Name	1969	1970	1971	1972	1973	1974	1978	1979	1980	1981	1990	1991
Fuel exports (% of merchandise exports)	7.2	13.4	19.9	26.8	31.4	51.6	65.7	71.9	78.0	82.1	93.5	94.8

Source: The World Bank, http://data.worldbank.org/indicator (last accessed: 05.05.2020)

Due to booming oil-gas industry and the appreciation of Kwanza, the agriculture and manufacturing sectors have lost their competitiveness and role in producing the nation's GDP (Table 5,6).

Table 5. Economic indicators, Angola

Indicator Name	1990	1991	1995	1996	1997	1998	1999	2000	2001
Agriculture, value added (% of GDP)	18.4	24.2	7.3	7.0	9.0	13.0	6.3	5.7	8.2
Manufacturing, value added (% of GDP)	5.1	6.3	4.0	3.4	4.4	6.3	3.2	2.9	3.9
Oil rents (% of GDP)	30.3	20.9	52.7	49.5	46.9	29.8	48.6	64.0	51.4

Source: The World Bank, http://data.worldbank.org/indicator (last accessed: 05.05.2020)

In fact, the most of the revenue from oil and diamond have been used for the import of the goods. However, even this circumstance had no crucial impact on the real exchange rate of Kwanza. Accordance with the features of the "Dutch disease" concept, the agriculture sector of the Angolan economy suffered and export these goods fell to almost zero level (Kyle, 2002).

In order to stabilize the national currency, the Angolan central bank applied the new exchange rate policy with purchasing the local currency. Due to huge resource revenue, Kwanza appreciated considerably. That is why the devaluation of the currency was only way to manage the economic situation (Kyle, 2005).

In the case of Angola, the main question is about how to manage or spend the oil revenue, not to save. The government should spend this revenue to establish capital investments and promote FDI. The inflation should be stabilized to the single figure and the banking system should be reorganised. Apart from those, the transparency should be ensured in all direction of the fiscal policy. It is obvious that, the military spending should be cut. Besides that, non-oil sector, private consumption, small enterprises need to be protected and FDI to be promoted (Collier, 2006).

Before the exploration of the oil reserves, the agricultural goods including coffee, sisal, maize, sugar, and cotton, wood were amounted two-thirds the total export. Even in the period of the booming oil-gas sector the economy could not develop and get benefits from the additional revenue due to political instability, civil war, changes the political regimes, corruption, less transparency and higher military expenditure. Notably, the government's efforts to create the environment for privatization of the public companies caused vice effect. The most of those companies were centralized in the some group people's hand (Ferreira, 2006).

Table 6. Official exchange rate (kwanza per USD, period average), Angola

Indicator Name	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Official exchange rate (LCU per USD, period average)	10.0	22.1	43.5	74.6	83.5	87.2	80.4	76.7	75.0	79.3	91.9	93.9	95.5	96.5	98.3	120.1

Source: The World Bank, http://data.worldbank.org/indicator/pa.nus.fcrf (last accessed: 05.05.2020)

Angolan economy has been extremely dependent on oil export in the last decades. The most striking result of this situation are the appreciation of the real exchange rate and centralization of economy in the capital region (Kyle, 2007).

In comparison with other OPEC member countries, the brunt of the oil export on the Ecuadoran economy (OPEC member: 1973-1992 and 2007-now) has been less. So, the share of the merchandise export did not change dramatically. However, due to the booming oil sector, the agricultural products' competiveness was less than previous years. On the contrary, the amount of agricultural raw materials could strength its position in the country's export. All in all we can see

that, the Ecuadorian oil export has been volatile to the changes in the world oil market (Table 7 and Graph 5).

Table 7. Economic indicators, Ecuador

Indicator Name	1972	1973	1974	1983	1994	1998	2004	2008	2014
Agricultural raw materials exports (% of merchandise exports)	2.9	2.1	1.4	0.8	2.5	4.9	5.3	3.6	3.9
Agriculture, value added (% of GDP)	27.2	26.9	25.0	17.4	23.0	18.3	10.4	9.3	9.1
Manufacturing, value added (% of GDP)	17.1	16.4	17.0	18.2	20.8	18.2	13.5	14.2	14.5
Oil rents (% of GDP)	1.5	5.0	10.3	13.0	7.3	4.2	16.5	25.3	13.7
Fuel exports (% of merchandise exports)	18.4	53.2	62.0	73.9	34.6	21.4	54.3	61.7	53.1

Source: The World Bank, http://data.worldbank.org/indicator (last accessed: 05.05.2020)

The economic development in Ecuador is divided to periods: till 2000 and after 2000 (or post dollarization). Not surprisingly, the government could not achieve to protect the whole economy from the negative effects due to focus on the resource sector. However, recently some new limitations have been applied to the import of goods in order to minimize the losses of local production in the manufacture and agriculture sectors (Cori and Monni, 2014).

Graph 5. Exports by product groups, millions of U.S. dollars, Ecuador
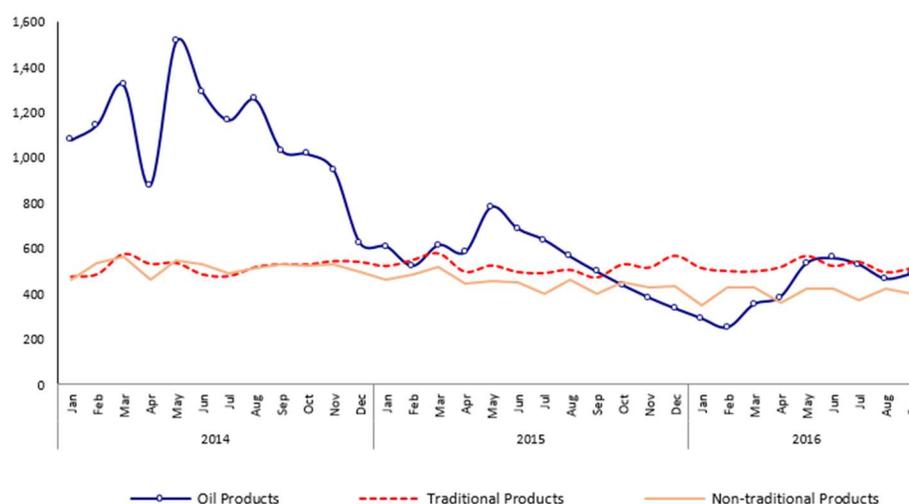
Source: Central Bank of Ecuador, https://www.bce.fin.ec/en/index.php/economic-information (last accessed: 05.05.2020)

Gabon (OPEC member: 1975-1995 and 2016-now) is one of the richest countries with the forest resources in Africa. After getting the independence, the growing oil industry changed the country's economic development direction. Not surprisingly, the booming oil sector had negative impact on the agriculture and other non-mineral traded sectors with losing their competitiveness (Wunder, 2003). The fuel export amounted more than 80% of the total export in the last decades (Table 8).

Table 8. Fuel exports and oil rents, Gabon

Indicator Name	1975	1977	1982	1993	1994	2000	2001	2002	2004	2005	2006	2007	2008	2009
Oil rents (% of GDP)	38.3	35.4	46.6	34.4	37.3	48.0	37.9	35.7	42.0	49.5	50.0	45.7	49.3	36.7
Fuel exports (% of merchandise exports)	82.9	81.1	84.6	89.3	86.6	83.3	83.0	83.8	76.2	84.0	85.6	83.4	89.2	83.1

Source: The World Bank, http://data.worldbank.org/indicator

The country's economy can be definite example to the "Dutch disease" due to the booming sector (Table 9).In the last decades, the percentages of the agriculture and manufacture in GDP decreased or were weak, the local demand to the food was supplied by imports (Zafar, 2004).

Table 9. Economic indicators, Gabon

Indicator Name	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Agriculture, value added (% of GDP)	6.5	5.9	5.1	5.2	5.3	4.5	5.4	4.3	3.7	3.7	3.6	3.9	4.7
Manufacturing, value added (% of GDP)	2.9	3.0	2.5	2.7	2.1	1.9	2.5	2.1	2.4	2.7	3.0	3.1	3.0

Source: The World Bank, http://data.worldbank.org/indicator

The enlarged government role, less diversified industrial products, high level of urbanisation have been the main features of the "Dutch Disease". Naturally, the country's economy needs huge investment to boost social and economic development. In this direction, the Gabonese government should cooperate with international institutions more closely. However the high level involvement of the government in the economy, corruption, business environment are the main challenges to prevent the "Dutch Disease" (Soderling, 2002).

The local currency is the CFA Franc which used by 6 Central African Countries. Due to huge oil export, the exchange rate of the currency has been appreciated. That is why the depreciation of the currency could be the main solution to stabilize the whole economic competitiveness (Graph 6).

Graph 6. Official exchange rate (CFA franc per USD, period average), Central African Countries
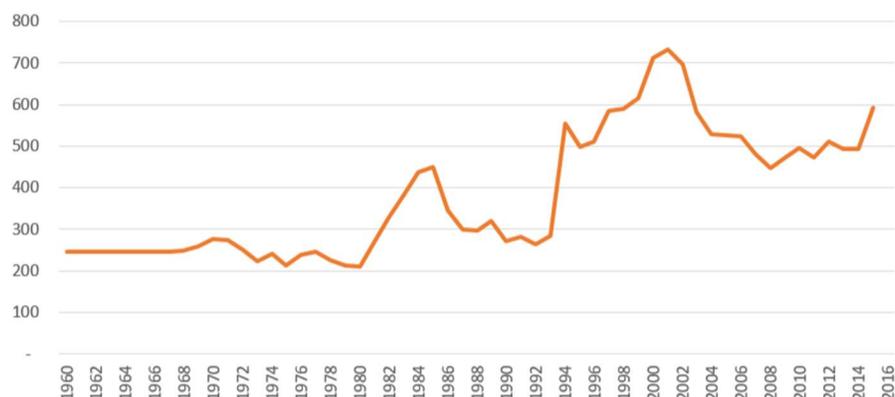
Source: The World Bank, http://data.worldbank.org/indicator/pa.nus.fcrf, (last accessed: 05.05.2020)

Another member country: Indonesia (OPEC member: 1962-2009, 2016-now) has experienced with the same kind of threads when oil exports was starting to boom, notwithstanding, the State Oil Company: Pertamina could achieve to diversify the huge oil revenue to different sectors, including steel industry, real estate, tourism, construction of the fertilizer plant. At the same time, after debt crisis of the Company, the government started to apply strict limitations on the foreign borrowing. So, no one could get any foreign loans without permission by the Central Bank and Ministry of Finance. In spite of this, Indonesian government succeeded to manage huge oil revenues, to balance the state budget with spending to the non-oil sector, to ensure efficient monetary policy in order prevent the "Dutch Disease" (Usui, 1997).

Table 10. Economic indicators, Indonesia

Indicator Name	1970	1974	1975	1980	1982	1988	1989	1990	1995	2000	2008	2009	2010	2011	2012
Agricultural raw materials exports (% of merchandise exports)	34.8	16.5	12.3	14.1	5.8	10.5	9.3	5.0	6.6	3.6	6.4	4.5	6.5	7.5	5.9
Agriculture, value added (% of GDP)	44.9	31.1	30.2	24.0	23.9	22.5	21.7	19.4	17.1	15.6	14.5	15.3	13.9	13.5	13.4
Manufacturing, value added (% of GDP)	10.3	9.2	9.8	13.0	11.9	19.7	19.7	20.7	24.1	27.7	27.8	26.4	22.0	21.8	21.5
Fuel exports (% of merchandise exports)	32.8	70.2	74.9	71.9	82.4	39.5	40.2	44.0	25.4	25.4	29.1	28.4	29.7	34.1	33.6

Source: The World Bank, http://data.worldbank.org/indicator

The percentage of the agricultural products raw material export in the total export and agriculture in GDP fall several times. Apart from that, in some years, the fuel exports was the main products of the external sector. However, in the last years, we can say that, the Indonesian economy has been more diversified and minimize the export concentration risks (Table 10).

**Graph 7. Official exchange rate
(Indonesian rupiah per USD, period average), Indonesia**
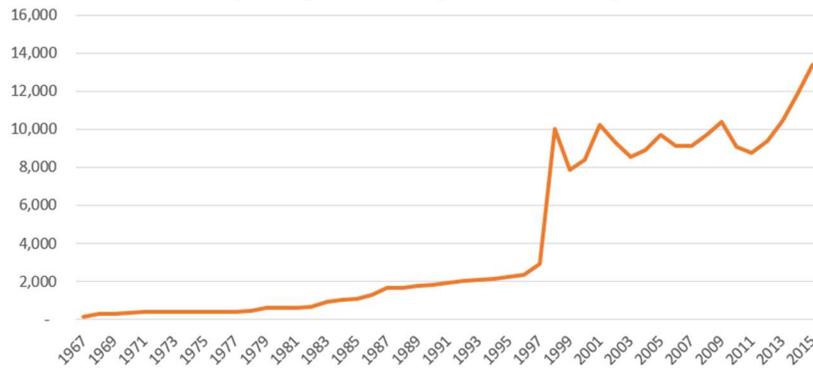
Source: The World Bank,
http://data.worldbank.org/indicator/pa.nus.fcrf, (last accessed: 05.05.2020)

In fact, devaluation is one of the key tool to stabilize the domestic production and enhance the competitiveness of the local goods in the world market. In this context, the Indonesian government went to devaluation in 1978 (Graph 7), and this decision was appropriate and efficient (Usui, 1996).

The Iranian economy (founder member of OPEC and holds 13% of proven OPEC oil reserves, Graph 25) could succeed to protect agricultural and manufactural production and to diversify economic activities due to the oil revenues. The Iranian government applied the new agricultural policy, particularly to protect sugar beet industry, with granting subsidies to the peasants and small producers during the oil export booms (Majd, 1991). By contrast, the Iranian economy has been more sensitive to the oil price changes: any increase in the prices enhanced the exchange rate of the local currency and vice versa (Farzanegan and Markwardt, 2009). The Iranian currency, Rial has been denominated and affected from the oil-gas export. The purchasing power of the currency has fallen dramatically (Malekan, 2010).

Table 11. Economic indicators, Iran

Indicator Name	1963	1964	1974	1975	1976	1977	1997	1998	2000	2002	2003	2004	2005	2006	2010
Agriculture, value added (% of GDP)	23.5	21.9	7.0	6.8	6.6	5.8	9.8	11.6	9.1	7.9	7.5	7.2	6.6	7.2	6.9
Manufacturing, value added (% of GDP)	11.0	11.2	8.8	9.3	9.6	9.5	17.5	16.9	16.7	15.2	15.0	14.5	13.5	13.5	12.0
Fuel exports (% of merchandise exports)	86.6	88.0	97.3	97.0	97.6	99.2	85.7	81.1	88.7	70.1	79.1	78.5	82.6	82.8	70.8

Source: The World Bank, http://data.worldbank.org/indicator

The share of fuel exports in the total export was more than 70% and in some years reached to 97% (1974). Besides that, the manufacture sector could perform better in the producing the Nation's product. Unfortunately, there had been dramatic fall in the share of the agricultural products in GDP (Table 11).

In order to stabilize the inflow of the oil-gas revenue, the Iranian government created the National Development Fund. Initially, the main task of the Fund was how to balance the State Budget. In fact, the government has achieved to transfer only 20-30% of the oil-gas revenue for the future investment purposes. The agricultural, environmental projects, promoting private and business sectors, industry, tourism, creating new workplaces are the main investment priorities for the Fund (National Development Fund of Islamic Republic of Iran, 2016).

Similarly, the recent wars, including 1980-1988 Iran-Iraq, the regime change (2003) and current situation had crucial impact on the Iraq's economy (founder member of OPEC and holds 12% of proven OPEC oil reserves, Graph 25). On the other hand, in any case, as the member country, the oil export has been playing the main role in the economy (Table 12). Abundant resources caused dependent economy in the last decades (Looney, 2004).

Table 12. Economic indicators, Iraq

Indicator Name	1972	1973	1974	1975	1976	2000	2001	2002	2004	2005	2006	2007	2009	2010	2012
Fuel exports (% of merchandise exports)	5.9	6.4	20.3	34.0	33.7	97.1	87.7	95.3	96.0	96.4	99.6	99.7	98.6	99.6	99.7

Source: The World Bank, http://data.worldbank.org/indicator

The recent economic development is divided two periods: before and after the 2003 war. The 1980-1988 Iran-Iraq war almost caused to the economic collapse in the Iraqi economy. Even after occupation of Kuwait, Iraq experienced the worst economic crisis in its history. The government started to print money finance the economic activities. The Iraqi government spent huge part of oil revenues to the inefficient subsidies to compensate state-owned companies' losses. Apart from those, the limitations on the foreign investments were the main challenges for the economic development. Before the war, the most of the labour force was working in the government sector. Furthermore, the after huge oil revenue inflow, in 1979, the government started to invest these resources in order to create the non-oil sector. In the light of the UN sanctions, Iraq was allowed to export the oil only for importing the food. After the 2003 war, the economic and political systems had been changed, and the economy was opened to the FDI. The new government applied floating exchange for Dinar (Foote, et al., 2004).

With the vast of oil reserves, the oil export has been the key goods for the Kuwait (founder member of OPEC and holds 8.4% of proven OPEC oil reserves, Graph 25) Economy in the international trade. As other resource dependent economies, Kuwait has experienced with challenges due to dominant sector. The fuel export has been more than 80% of the total merchandise export, however oil rents has been more sensitive to the price changes in the world market (Graph 8). In fact, Invasion of the Kuwait by Iraq caused also losses to the oil production (Looney, 1991).

Graph 8. Oil exports (% of total export) and oil Revenues (% of GDP), Kuwait

Source: The World Bank, http://data.worldbank.org/indicator
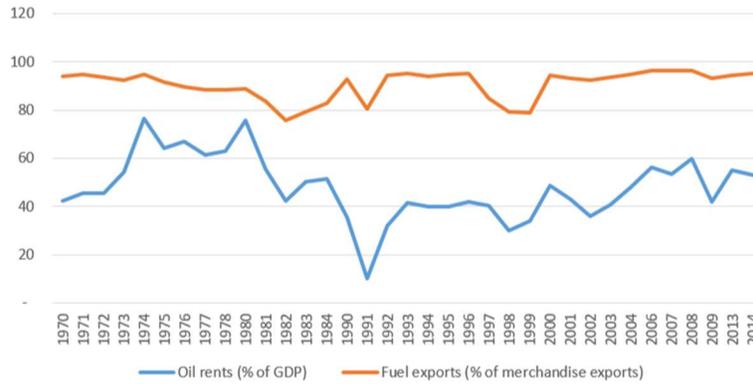
If we investigate the possibility the "Dutch Disease" in the Kuwaiti economy, we will see many factors which contradict each other. So, the increasing revenue from the booming oil export has caused the depreciation of the currency (Al-mulali and Che Sab, 2010).

The Central Bank of Kuwait has been applied fixed exchange rate regime (Graph 9). The main goal of the exchange rate policy is to maintain the stability of the Kuwaiti Dinar in comparisons with the foreign currencies. Apart from that, the Central Bank has changed slightly in order to protect the purchasing power of the national currency.

Kuwait established sovereign wealth fund: Kuwait Investment Agency in 1953 in order to achieve a sustainable investment return on the financial reserves (Kuwait Investment Authority, 2016).

Graph 9. Official exchange rate (Kuwaiti dinar per USD, period average), Kuwait
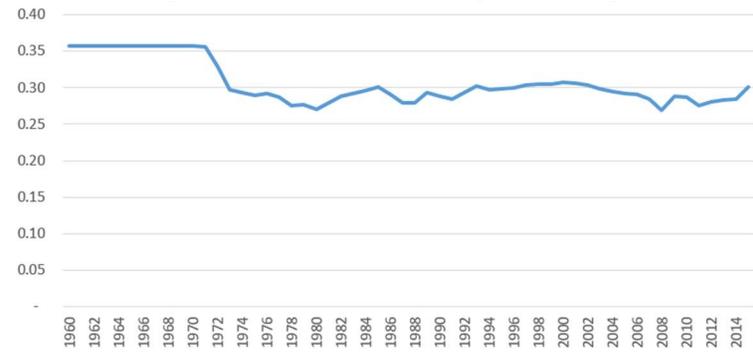
Source: The World Bank, http://data.worldbank.org/indicator/pa.nus.fcrf, (last accessed: 05.05.2020)

On the other side, the shares of the agriculture and manufacture in GDP have been so weak in the last years (Table 13). From this point of view, there are some features of the "Dutch Disease".

Table 13. Economic indicators, Kuwait

Indicator Name	2010	2011	2012	2013	2014
Agriculture, value added (% of GDP)	0.42	0.41	0.33	0.33	0.41
Manufacturing, value added (% of GDP)	5.52	5.20	5.51	5.46	5.38

Source: The World Bank, http://data.worldbank.org/indicator

Libya is the member of OPEC (1962) with holding 4% of oil reserves of the Organisation (Graph 25). In the last decade, the revolution and war were the key factors to affect the Libyan economy. The economy has gotten huge benefits from oil revenue since 1970s. However, the oil shocks had negative impacts on the whole economy with the appreciation of the real exchange rate and losing the competitiveness of the non-oil traded goods (Ali and Harvie, 2012). Certainly, the percentage oil-gas products has been more than 90% of the total merchandise export in the last decades (Graph 10).

Graph 10. Fuel exports (% of total export), Libya

Source: The World Bank, http://data.worldbank.org/indicator
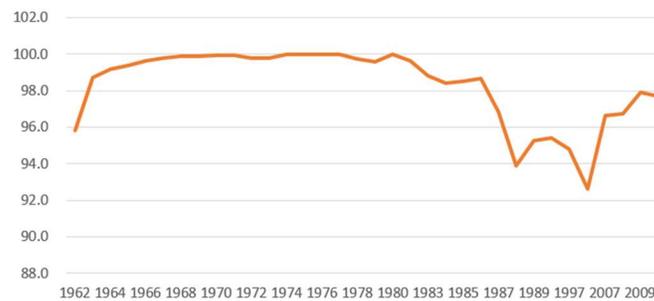
The Libyan Dinar had fixed exchange rate till early 1990s with the small changes as a result of the movements in the exchange rates of the world currencies (Graph 11). The Central Bank applied the new exchange rate regime and went to devaluations of the Libyan Dinar in order to minimize black market, ensure better and free environment for the commercial banks and enhance the country's competitiveness (The Central Bank of Libya, 2016).

Graph 11. Official Exchange rate (Libyan dinar per USD, period average), Libya
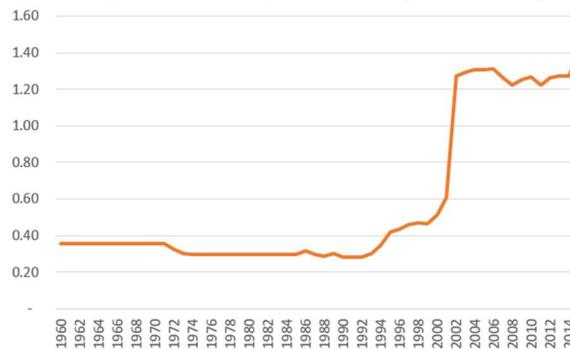
Source: The World Bank, http://data.worldbank.org/indicator/pa.nus.fcrf (last accessed: 05.05.2020)

By all means, the Libyan economy has been affected by the "Dutch Disease" due to the less role in the producing the nation's wealth (Table 14). In this context, non-oil trade sector has lost it's competitiveness. The social public expenditure has been one of the right decision by the Government. The Libyan government should consider the revenue, income, spending, exchange rate, current and technology effects in order to minimize the consequences of the "Dutch disease" (Ali and Harvie, 2013).

Table 14. Economic indicators, Libya

Indicator Name	2002	2003	2004	2005	2006	2007	2008
Agriculture, value added (% of GDP)	5.2	4.3	3.0	2.3	2.0	2.1	1.9
Manufacturing, value added (% of GDP)	3.1	6.3	5.1	4.7	4.5	4.5	4.5

Source: The World Bank, http://data.worldbank.org/indicator (last accessed: 05.05.2020)

The Libyan government established Libyan Investment Agency in 2006 in order to manage the resource revenue efficiently. However, the most part of the assets have been invested in the abroad (Libya Investment Agency, 2016).

Nigeria is the member of OPEC (1971) with holding 3.1% of oil reserves of the Organization (Graph 25). The Nigerian economy is the best case to talk about the 'Dutch Disease' effects and results. So, the huge revenue from the oil export could not contribute to the economic development, on the contrary, the resource dependent economy increased the poverty level of the Nigerian people (Otaha, 2012). Due to booming and leading oil export the manufactural products have lost its competitiveness, particularly after 2000s (Graph 12). On the other hand, Olusi and Olagunju (2005) reveal that the agriculture sector has been as traditional revenue source and the economy has been suffering from the Dutch Disease symptoms in Nigeria.

In fact, the share of the fuel exports has been between 80-100% in the total merchandise export and the oil rent in GDP has been between 20-40% since 1970s. On the contrary, the world oil prices play the key role in organizing the resource revenues. That is why, the resource revenue of the government has fluctuated in the last decades. The recent fall in the world prices has taken the country's economy the same economic level in 1970s.

Graph 12. Fuel exports (% of total export) and oil rents (% of GDP), Nigeria
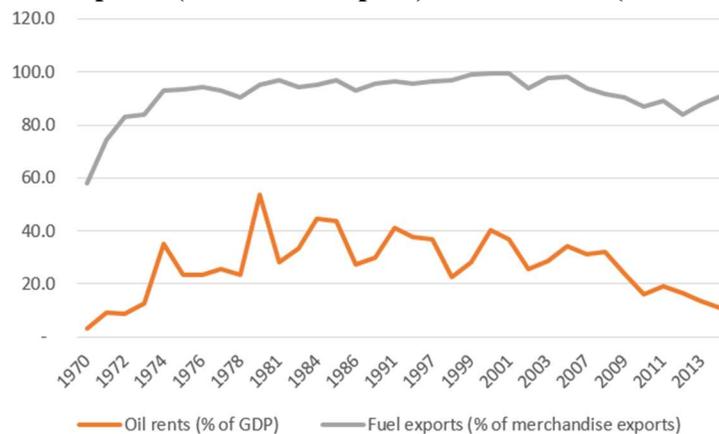
Source: The World Bank, http://data.worldbank.org/indicator (last accessed: 05.05.2020)

The money inflow from the resource export was spent inefficiently to the infrastructural projects. The government applied over intervention to the manufacture sector and it had negative impact on related export (Auty, 1988). Due to booming and leading oil export the manufactural products have lost its competitiveness, particularly after 2000s (Graph 13).

Graph 13. Economic indicators, Nigeria
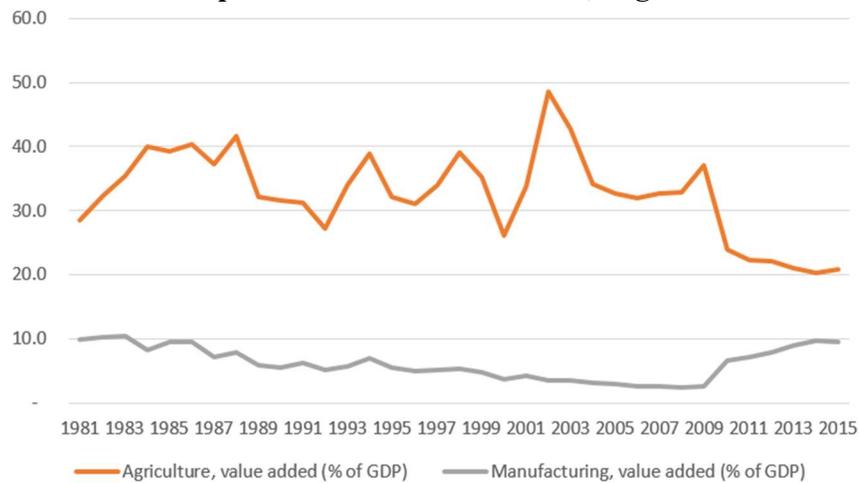
In fact, the oil shock in the world resource market, had huge impact on the Nigerian national currency: Naira (Olomola and Adejumo, 2006). Apart from that, the volatility of oil prices had less impact on the output and inflation rate in Nigeria from 1970 to 2003 (Olomola, 2006). The national currency has been depreciated in the last decade dramatically to the dependent economy (Graph 14).

Graph 14. Official exchange rate (Nigerian naira per USD, period average), Nigeria
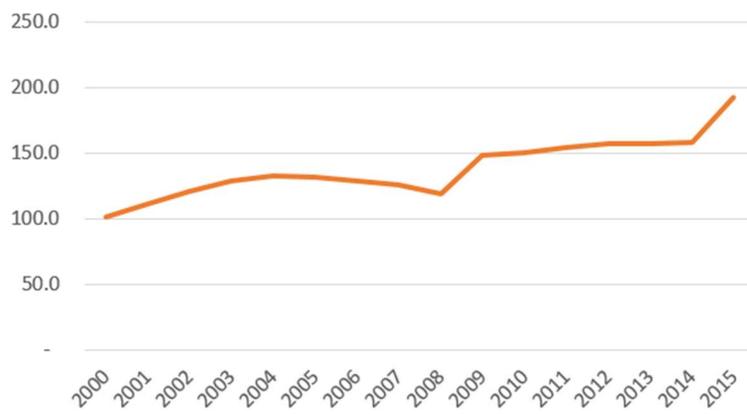
Qatar is the member of OPEC (1961) with holding 2.1% of oil reserves of the Organisation (Graph 25). In comparisons with other the Persian Gulf countries, Qatar has less oil resources. That is why, the Qatari industry has been diversified with the oil revenues since 1970s. At the same time, the Government spent the crucial part of the financial resources to the industrial infrastructure and heavy industry (Looney, 1994).

Graph 15. Fuel exports (% of total export) and oil Rents (% of GDP), Qatar
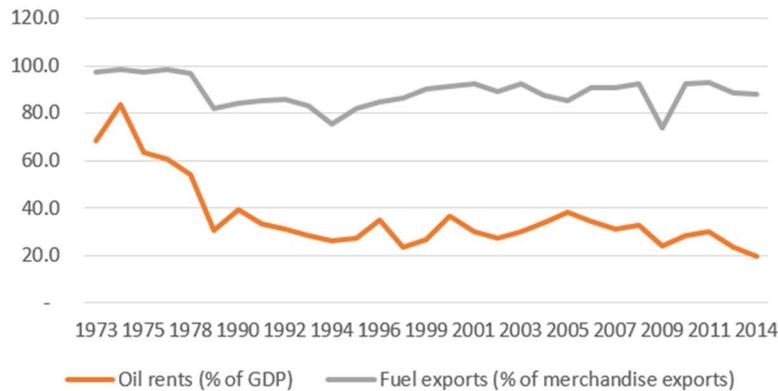
Source: The World Bank, http://data.worldbank.org/indicator (last accessed: 05.05.2020)

According to the World Bank (Graph 15-16), the booming the resource sector had impact on the role of the agriculture sector in the last decade. Not only the export concentration, but also the climate is the other key factor in the agricultural development. On the contrary, the government could succeed to enhance the manufacture sector's performance since 2000. Unfortunately, these efforts have not been enough to reduce the dependence on the oil-gas sector.

Graph 16. Economic indicators, Qatar
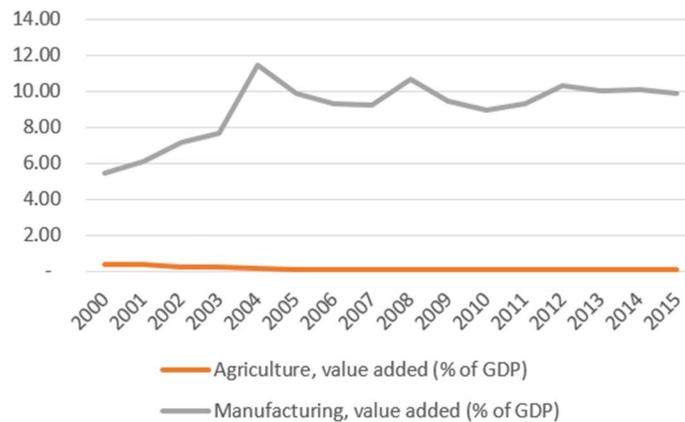
Source: The World Bank, http://data.worldbank.org/indicator (last accessed: 05.05.2020)

Certainly, in the economies which faced with the "Dutch Disease" threats, the exchange rates of the national currencies appreciates (Graph 17). In the Qatari Case, the Qatar Central Bank has applied the fixed exchange rate regime against the USD since 1980s. However, the commercial banks have been allowed to operate with small margins on the exchange rate. The main investment policy of the Central Bank is to achieve stable exchange rate to the USD (Qatar Central Bank, 2016).

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Graph 17. Official exchange rate (Qatari riyal per USD, period average), Qatar
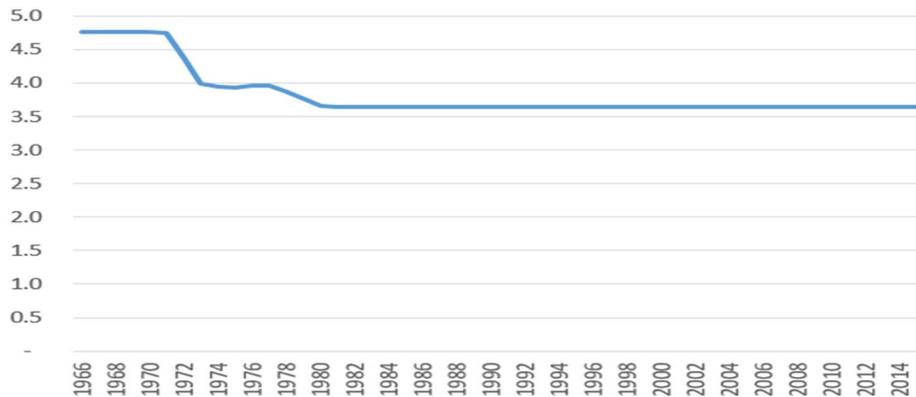
Source: The World Bank, http://data.worldbank.org/indicator/pa.nus.fcrf (last accessed: 05.05.2020)

The Qatari government established Qatar Investment Authority as the reserve fund in 2005. Similarly, the crucial part of the assets have been invested in the abroad, particularly to the listed, unlisted equities, real estates, securities, cash, foreign currencies, the shares of the international companies: Volkswagen, Total and the other directions (Qatar Investment Authority, 2016).

In another resource dependent country: Saudi Arabia (founder county of OPEC with 22% of the proven oil reserves, Graph 25) the diversification and minimize the volatility of the economy have been the main challenge since the booming oil export. In reality, the fuel products have been amounted between 80-99% of the total merchandise export. At the same time, the oil rents peaked in 1974 and 1980 to the 80% of GDP (Graph 18).

Graph 18. Fuel exports (% of total export) and oil Rents (% of GDP), Saudi Arabia
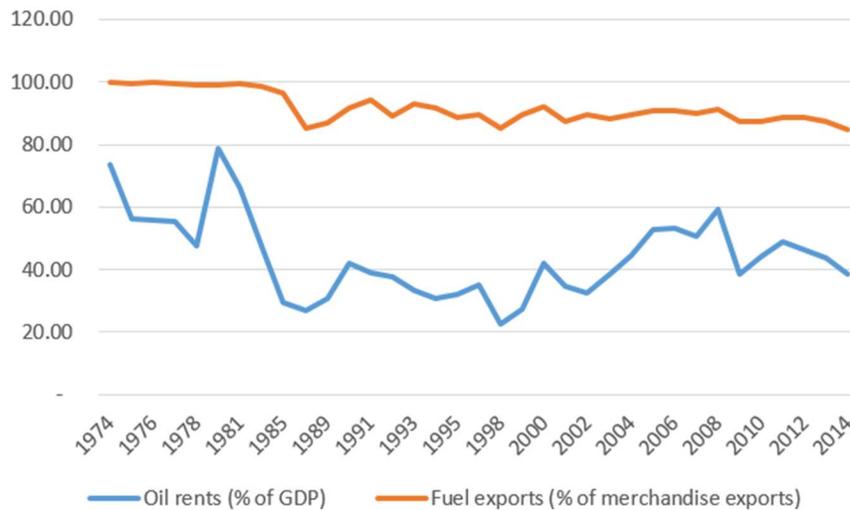
Source: The World Bank, http://data.worldbank.org/indicator (last accessed: 05.05.2020)

The Saudi Arabian government have been adopted the state economic plans: 1970-75 and 1975-1980. In the both plans, the development of the infrastructure, economy and human resources were the main directions (Looney, 1992). Apart from those, industrial development, particularly related to the oil-gas production, has been priority for the Government (Looney, 1988). On the other side, the agricultural and manufactural products lost its share in GDP, while the second one has been enhanced in the comparison (Graph 19).

Graph 19. Economic Indicators, Saudi Arabia

Agriculture, value added (% of GDP)
Manufacturing, value added (% of GDP)
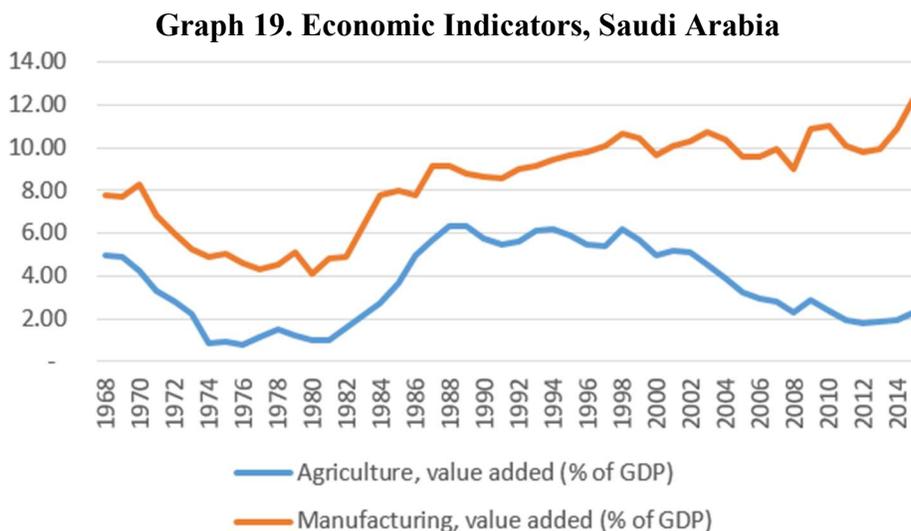
Source: The World Bank, http://data.worldbank.org/indicator (last accessed: 05.05.2020)

After the boom in the oil-gas sector, the national currency has been affected in the last decades. Saudi Arabian Monetary Agency acts as a Central Bank in order to manage foreign exchange reserves, monetary policy and stabilise other financial institutions (Saudi Arabian Monetary Agency, 2016). In 1961, the new banknotes of 1, 5, 10, 50, and 100 were issued. After the appreciation of the currency, SAMA adopted the fixed exchange rate regime (Graph 20).

Graph 20. Official exchange rate (Saudi riyal per USD, period average), Saudi Arabia
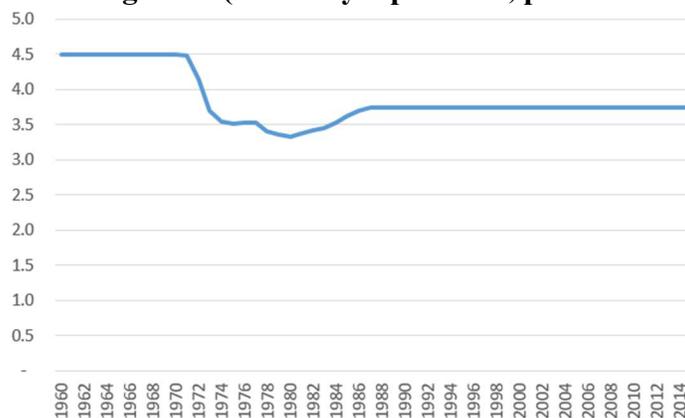
Source: The World Bank, http://data.worldbank.org/indicator/pa.nus.fcrf (last accessed: 05.05.2020)

United Arab Emirates has been the member of OPEC since 1961 with 8.1% of the proven oil reserves (Graph 25). The oil rents have played huge role in the economic development. In the

1970s the oil revenue went up 60% of GDP, while, in the next decades, it changed between 10% and 30% (Graph 21).

It is not clear to prove that, "Dutch Disease" has affected the United Arabian Economy dramatically. However, the government succeed to improve the non-oil sectors, particularly, tourism and trade in the some cities. The manufacturing sector has been more affected sector (Al-Mutawa, A., 1996).

Graph 21. Oil rents (% of GDP), United Arab Emirates
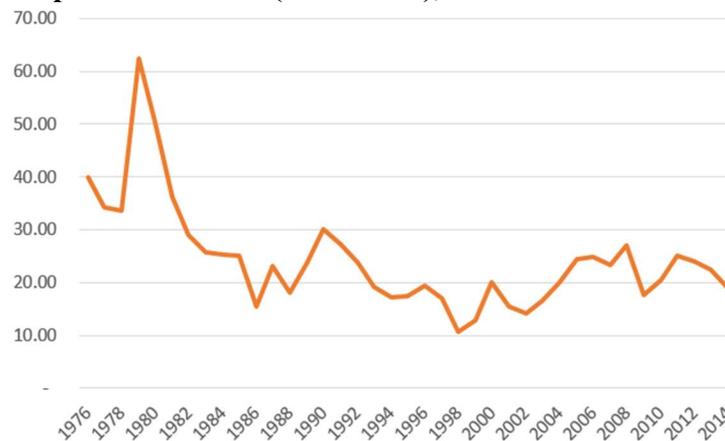
Source: The World Bank, http://data.worldbank.org/indicator (last accessed: 05.05.2020)

The national currency: Dirham has had the fixed exchange rate since 1980 due to the huge financial reserves from the oil export (Graph 22). In fact, this monetary policy ensured the sustainability of the currency and caused a low inflation rate. In spite of this experience, the government should continue diversify the economy with investing to the non-oil sector, including, human resources, financial markets (Elhiraika and Hamed, 2002).

Graph 22. Official exchange rate (Dirham per USD, period average), UAE
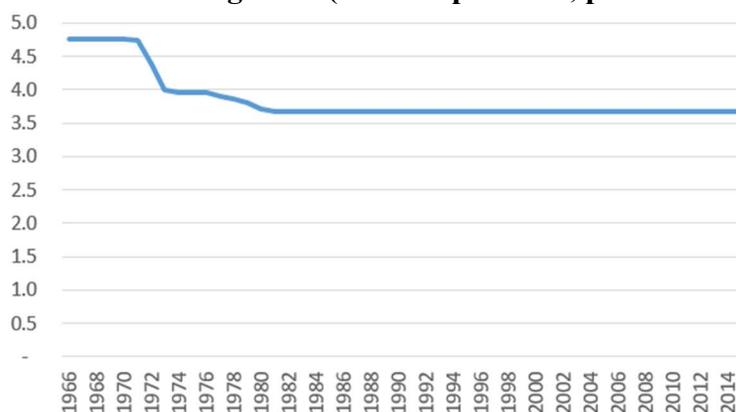
Source: The World Bank, http://data.worldbank.org/indicator/pa.nus.fcrf (last accessed: 05.05.2020)

The Government has established several institutions and funds in order to ensure the sustainable development of the economy. Abu Dhabi Investment Authority (since 1976) has diversified its assets to the equities, the government bonds, credits, real estates, infrastructural projects (Abu Dhabi Investment Authority, 2016).

The Venezuelan economy (member OPEC with the 24.8% of the proven oil reserves, Graph 25) can be good example for the "Dutch Disease" phenomenon. The fuel exports have organised majority of the merchandise export in the last decades. Due to the shocks and booms in the world oil-gas market the amount of the oil rents have fluctuated (Graph 23).

Graph 23. Fuel exports (% of total) and oil Rents (% of GDP), Venezuela
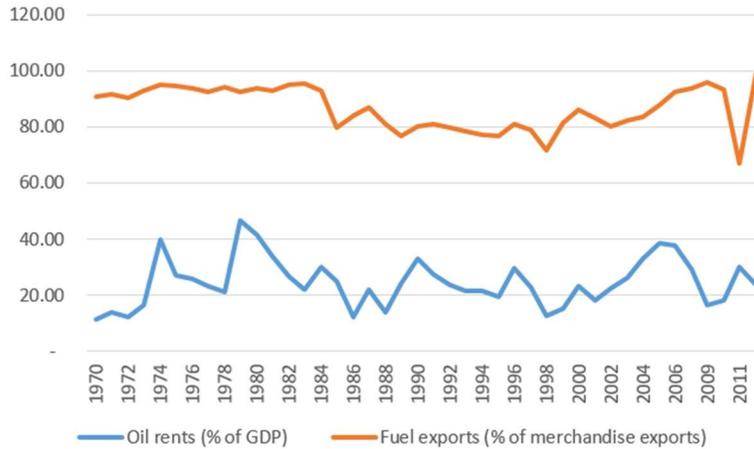
Source: The World Bank, http://data.worldbank.org/indicator (last accessed: 05.05.2020)

The agriculture and manufacture have contributed to the nation's product inefficiently. Their shares have been relatively low in comparison with the resource sector (Graph 24).

Graph 24. Economic indicators, Venezuela
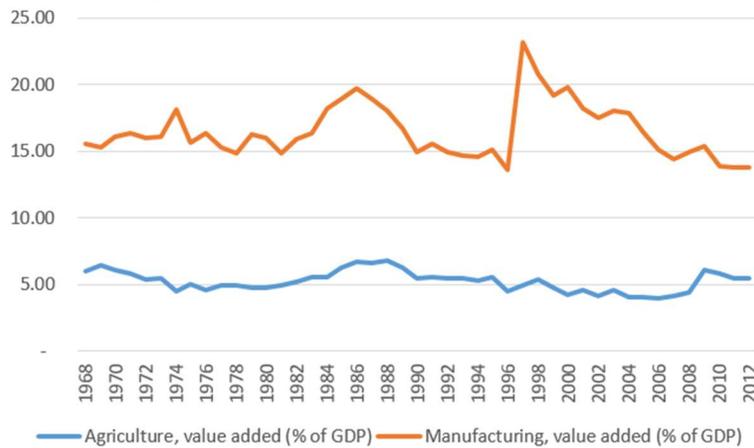
Source: The World Bank, http://data.worldbank.org/indicator (last accessed: 05.05.2020)

The Venezuelan government had several attempts to diversify the economy in the last decades. Interestingly, as a result of the industrialization the huge revenue have been spent on the metal projects. In spite of these efforts, due to the foreign market conditions, and international market players and investors in the country, made the export of the overproduced products. In this context, the government selected the conservative way with applying the limitations to the foreign investments (Auty, 1986).

By all means, there have been many factors which have caused the current situation in the Venezuelan economy. It is obvious that, the strong participation of the government, political regime, foreign policy have influenced to the heart of the economy: resource sector. The inefficient management in the case of boom and boost in the world oil market resulted many challenges for the Venezuelan economy (Hidalgo, 2007).

In 2015, the economic situation in Venezuela has changed dramatically. So, the falling oil prices, the increase in the prices of the imported products, caused the higher inflation. The exchange rate of the national currency went up to the 833 bolivars per USD. The key issue of the recession is that, the local producers had to stop their production due to the lack of the imported inputs (Cerra, 2016).

Not only, OPEC member countries, but also other resource-dependent economies are discussed as the sample of the Dutch Disease.

The real exchange rate of the Kazakhstan national currency: Tenge has been volatile to the changes in the world oil prices due to dependency on the oil export revenue. As a matter of the fact, we can say that, the Kazakhstan economy has suffered from the "Dutch Disease". Moreover, it will not be possibly to prevent this dependence easily in the short-run (Kutan and Wyzan, 2005). Palazuelos, and Fernández (2012) indicate the importance of the participation of the foreign oil companies in the oil sector in Kazakhstan. However, the authors observe that, the government tries to get more benefits from the agreements with the investor via reviewing them.

The fuel exports in Kazakhstan have been more than 50% of the total merchandise export since 2000. Not surprisingly, this figure have passed the 70% level. These fact, motivates to think about the "Dutch Disease". In case of the export concentration, it has been obvious that the world energy prices have affected the oil revenues (World Bank, 2016).

In the same way, the shares of the agricultural and manufactural sectors have been fallen dramatically (World Bank, 2016).

The national currency: Tenge has been depreciated since 2009 due to the falling oil prices (World Bank, 2016). The main motivation for these depreciations were to enhance the competitiveness of the local production, to protect financial reserves (National Bank of Kazakhstan, 2016). Apart from the new exchange rate regime, the Government efforts in how to preserve and invest the resource revenue should be considered. In 2000, the National Fund of the Republic of Kazakhstan (NFRK) started to operate. The ensuring to the social and economic development of the country have been the goals of the Fund (Sovereign Wealth Fund Institute, 2016). In reality the practise showed that, before 2007-2009 financial crisis, the National Fund of the Republic of Kazakhstan was the main survivor for the Kazakhstan economy with reasonable wealth accumulation since the establishment. Regardless the need for vital support by the National Fund of the Republic of Kazakhstan, the government believes that the application of the new regulations of the Fund would

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be crucial to save the wealth for the future generations. Not only the adopting of the regulations, but also good governance and transparency are crucial factors to get better results and achieve the targets (Kalyuzhnova, 2011).

The Russian Economy has crucial part in the world. However, the "Dutch Disease" symptoms have been observed in Russian due the dependence on the resource (particularly oil and gas) export and the lack of economic diversification (Algieri, 2011). The share of fuel exports have been more than 50% of the total merchandise export and reached to 70%. Similarly, due the recent price shock in the world energy market, the oil and natural resource rents have fallen dramatically (World Bank, 2016). The key determinants of the "Dutch Disease": the shares of the agriculture and manufacturing (decreased more than 3 time) in GDP have been less in the recent years (World Bank, 2016).

The Russian Rouble has been depreciated starting from 2013 due to the falling oil prices, international political issues, including the economic sanctions (World Bank, 2016). The real appreciation of the Rouble and deindustrialisation prove that Russian economy has experienced the Dutch Disease" (Dulger, et al. 2013).

The Russian government has established the investment institutions (National Welfare Fund –to support pension policy, reduce inflation and volatility threats from the oil-gas export revenue; Russia Reserve Fund- to support fiscal policy) (Sovereign Wealth Fund Institute, 2016).

Graph 25. OPEC share of world crude oil reserves, 2015
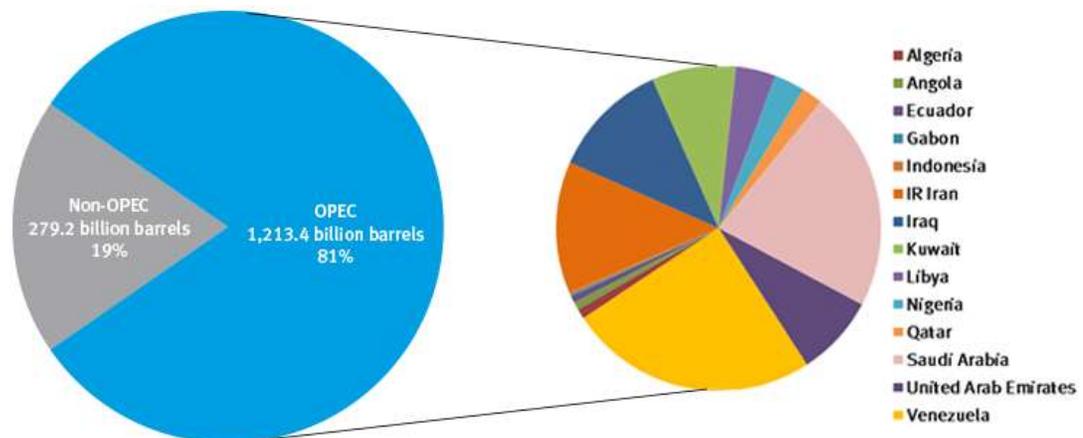
OPEC proven crude oil reserves , at end 2015 *(billion barrels, OPEC share)*

Venezuela	300.88	24.8%	Kuwait	101.50	8.4%	Qatar	25.24	2.1%	Indonesia	3.23	0.3%
Saudi Arabia	266.46	22.0%	United Arab Emirates	97.80	8.1%	Algeria	12.20	1.0%	Gabon	2.00	0.2%
IR Iran	158.40	13.1%	Libya	48.36	4.0%	Angola	9.52	0.8%		
Iraq	142.50	11.7%	Nigeria	37.06	3.1%	Ecuador	8.27	0.7%		

Source. OPEC, https://www.opec.org/opec_web/static_files_project/media/downloads/publications/ASB2016.pdf

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Table 15. The world countries with the "Dutch disease" experience

No	Country Name	Year (Realization of the problem)	Concepts for Therapy	Practical Steps and Actions	Outcomes
1	Algeria	1974	Diversify the economy, enhance the share of manufacturing and agricultural sectors in GDP.	Forced industrialization policy, transition from socialism to free market economy, currency devaluation, establishing of Stabilization Fund in 2000	Oil-gas export is dominant in the export, less share of manufacture sector, there are problems in economic institutions
2	Angola	1974	Protect the export of agricultural goods, including, coffee and others, stabilize the inflation, real exchange rate, promote capital investments, and ensure transparency.	Oil revenue spent on huge military expenditure, public consumption, not for private consumption, new monetary policy applied with purchasing the local currency stabilize the exchange rate, ensured depreciation of Kwanza	The share oil export has been more than 95% in total export, inflation has been high, less transparence and corruption in the spending of the oil revenue, the level of public consumption level has been more than private consumption.
3	Ecuador	1973	To diversify the export, to protect traditional agricultural goods in the foreign trade.	The government changed the currency to the US dollar, increased the social spending.	The economy still depend on the oil and agricultural products export, however, Ecuador could achieved to prevent "Dutch Disease" problem.
4	Gabon	1975	To protect the agriculture and manufacture sectors, stabilize the real exchange rates, reduce poverty level and increase social expenditure.	The government joined to the Economic and Monetary Community of Central Africa with accepting CFA Franc as a main currency, the government created Sovereign Fund, the main investment directions have been the sectors related to the oil industry.	The share of the oil products has been more than 80% of the total export, the share of agricultural and manufactural products has been less than 10% of the GDP, inefficient governance, corruption, less transparent business climate and higher poverty level are the main challenges.
5	Indonesia	1978	To manage oil revenues efficiently, to protect traditional agricultural exports, to boost manufactural production, attract FDI, and stabilize the real exchange rate.	The State Oil Company: Pertamina diversified the oil revenue to the non-oil sectors: including industry, real estate, tourism, construction. The Indonesian government applied to strict limitations on the foreign borrowing and changed the monetary policy with the depreciation of the currency in order to promote non-oil exports and enhance the country's competitiveness.	The country achieved more diversified economy, with strong development in manufacture sector, joined to the G-20 countries, all in all, the Country prevented the "Dutch Disease".
6	Iran	1974	Ensure the export diversification, minimize the dependence of the state budget from the oil-gas export, promote the improvement of private sector, to save and invest the resource revenue	The government has created National Development Fund in order to manage the resource revenue efficiently, has denominated the Iranian currency Rial, Accepted New Economic Development Plan, reestablished the economic relations with western countries after sanctions,	Oil-gas export still is amounted half of the state budget revenue, only 30% of the resource revenue can be saved, the purchase power of the currency has been less, the share of the agricultural products in GDP has decreased dramatically in the last decades, the economic

					growth has been more volatile to any changes in the world prices of oil-gas products.
7	Iraq	1979	The first challenge was to minimize the military expenditure during the wars, to prevent the negative effects of the sanctions, to manage oil revenues properly to foster the economic development	The government had to spend the main part of oil-gas revenue to the military expenditure, due to sanctions, the government spent huge revenue on the subsidies.	It is difficult to summarize the economic results due to political instability in the last decades, however, if we do not take those factors into consideration, the whole economy has been depend on the oil-gas export.
8	Kazakhstan	2000	To stabilize the monetary policy, to ensure export diversification, to enhance the development traditional sectors, including agriculture.	The Central Bank has devaluated the national currency, created the reserve fund.	The share of the non-resource sector has been so weak, due to the energy concentration, the economy has been volatile to the world prices.
9	Kuwait	1970	The challenge has been the management issue of huge oil-gas revenue for the small economy and ensure stable exchange rate of the currency.	The Central Bank applied fixed exchange rate regime, established several institutions and funds in order to reinvest, save and diversify any risks, to ensure the sustainable development of the nation's wealth.	In fact, the agriculture and manufacture sector has been so weak. On the contrary, the national currency has been experienced the depreciation. The revenue from oil-gas sector plays important role in the whole economy.
10	Libya	1970	To diversify the export and minimize the dependence from the oil-gas export, enhance the country's competitiveness.	Starting from 2000s new exchange rate regime have been applied in order to improve banking system, prevent black market, promote non-oil export, Sovereign fund has been established in order to manage and reinvest oil revenue.	The percentage oil-gas products has been more than 90% of the total export, the shares of the agriculture and manufacture sectors have been weak in GDP, the most of the assets of the Fund have been invested in the abroad, the revolution, sanctions, civil war, regime changes have been other key factors to affect the economic development.
11	Nigeria	1974	To manage and reinvest the resource revenue to the country's economic development, to protect the manufacturing sector.	The Government established Nigeria Sovereign Investment Authority including 3 different Funds: Future Generations Fund (40% of the assets), Nigeria Infrastructure Fund (40% of the assets) and Stabilisation Fund (20% of the assets). The national currency has been depreciated.	The share of the fuel exports has been between 80-100% in the total merchandise export and the oil rent in GDP has been between 20-40% since 1970s, the lack of efficient institutional management and transparency, the whole economy suffers from the current economic situation.
12	Qatar	1974	How to manage oil-gas revenue, and stabilize the exchange rate of the national currency.	The Central bank has been adopted the fixed exchange rate regime, the Government established the Sovereign Fund.	Due to the efficient revenue management and the sustainable transfers from the Fund to the economy, Qatari economy has not experienced the more challenges, However, in facts, the dependence on the export revenue of the oil-gas products have been higher in the last decades.

13	Russia	2000	To ensure export diversification and minimize the dependence from the oil-gas export, enhance the country's competitiveness	The Russian ruble has been depreciated starting from 2013. The Russian government has established the investment institutions in order to support pension system, fiscal policy.	The falling oil prices (fuel export reached to 70% of the total), international political issues, the economic sanctions are the main challenges for the economy. The share of the manufacturing sector has decreased due to the deindustrialization
14	Saudi Arabia	1974	To manage oil revenues efficiently, to promote economic and infrastructural development, development, and stabilize the real exchange rate.	The government has established Saudi Arabian Monetary Agency as both Central bank and the investments, Several State Programs were adopted, the fixed exchange has been applied since 1980s	The share of the fuel exports has been between 80-100% in the total merchandise export and the oil rent in GDP has been between 20-80% since 1970s, the mobilization of the local labor forces has been very slow, foreigners are the majority in the labor market, and religious tourism has been growing.
15	United Arab Emirates	1974	To manage and reinvest the resource revenue to the country's economic development, to protect the manufacturing sector.	The government has established Abu Dhabi Investment Authority as the Sovereign Fund and the fixed exchange has been applied since 1980.	The UAE economy has been more diversified in comparison with other resource economies, the Government could achieved to attract FDIs and create the international trade center within the country.
16	Venezuela	1974	To ensure the export diversification with protecting traditional export goods, to enhance the sustainable economic development.	The government adopted floating exchange rate regime, applied limitations to the foreign participants in the economy	The economy experiences the worst case in the history, the exchange rate of the currency in the black market is the several times more than official figures, the inflation is higher, the local production cannot operate.
17	Azerbaijan	2015 February	To ensure the efficient monetary Policy and sustainable balance of payments	1st devaluation of the national currency due to the economic issues in the neighborhood countries	Those actions could not meet the Central Banks expectations and it created the basis for the second intervention
		2015 December	To stabilize the monetary policy due to the falling oil prices	2nd devaluation of the currency and move to the floating exchange rate regime	The national currency still can not "float" independently, the Central Bank needs to intervene frequently
		2016	To stabilize the volume foreign currencies in the turnover	The independent exchange offices have been closed	It caused limitations for the "financial market" which never could able organized efficiently
		2015-2016	To stabilize the banking system in Azerbaijan	About 10 commercial banks' licenses were withdrawn by the Central Bank	Those actions could not meet the Central Banks expectations and could not solve the issue of the overdue loans
		2016	To ensure the sustainable financial sector and market	Foundation of the Chamber of Control on Financial Markets Public Entity	As today there is no any real financial market environment
		2016	To mitigate the resource dependency of the economy	The road map had been accepted.	Most of the accepted targets stayed on the paper with no crucial changes over the economy.

Source: The author's own summarizing

2.3. Concept and application of input-output models in structural planning

The current downturn of the Azerbaijan economy shows that, there have been problem in the connection between all of the researches and practice. This research will have specific features in the implementation. I believe that all of the methodologies (input-output analysis, stochastic, liner programming, compromise programming optimization, and interview with the experts) will support the research goals.

In the modern world, there are varied new approaches due to the movements in the economies. However, these approaches has the historical roots and backgrounds. By all means, the inter-sectorial analysis or input-output model has become crucial tool in order to understand the reasons and relations between the sectors in any economies. In fact, the scope of the application of this model has gotten more popularity among the all sciences.

The input-output or inter-industry analysis covers the flow of goods and services among the elements of any economy to explain and ensure the statistical view of the theoretical knowledge. Interestingly, the simplicity of this model in the application and analysing attracts many scholars. Table 16 describes the fundamentals of the Input-output concept. The horizontal rows of the table exhibit the distribution of the output of the sectors (a-f) among the other directions of an economy. On the other hand, the vertical columns display the distribution of the goods and services from the varied sectors as inputs within the sectors. All in all, the main idea in the input-output analysis is to explain the relationship between the volume of an industry and the range of the inputs consumed. Subsequently, in any input-output tables, it is easy to calculate the coefficients in order to understand the share of other sectors' output per unit of any selected sector (Leontief, 1986).

Table 16. Format of the basic input-output tables

Sectors	a	b	c	d	e	f	Total Gross Output
A	X_{aa}	X_{ab}	X_{ac}	X_{ad}	X_{ae}	X_{af}	
B	X_{ba}	X_{bb}	X_{bc}	X_{bd}	X_{be}	X_{bf}	
C	X_{aa}	X_{cb}	X_{cc}	X_{cd}	X_{ce}	X_{cf}	
D	X_{da}	X_{db}	X_{dc}	X_{dd}	X_{de}	X_{df}	
E	X_{ea}	X_{eb}	X_{ec}	X_{ed}	X_{ee}	X_{ef}	
F	X_{fa}	X_{fb}	X_{fc}	X_{fd}	X_{fe}	X_{ff}	
Total Gross Outlay							

Source. Leontief, W., 1986. Input-output economics

In the world economies, the government officials are more interested in to prepare these kind of input-output tables in order to make efficient decisions. For this purpose, there are several databases for the world countries. Comparatively, the classification of the sectors and formats of the tables from these sources are different from each-other.

According to the database of OECD countries, input-output tables show not only final, intermediate goods, services, but also, the sale and purchase relationships between producers and consumers. Table 17 illustrates the *industry x industry* approach for OECD member countries.

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Table 17. Format of OECD harmonized national input-output, symmetric industry-by-industry input-output table at basic price.

	Intermediate demand			Final expenditure			Output (bp)
	Sector 1	...	Sector 34	Domestic demand	Cross-border exports	Direct purchases	
Sector 1 (domestic)							
...							
Sector 34 (domestic)						Expenditure by non-residents	
Sector 1 (imports, bp)							
...		Imports of intermediate products		Imports of final products	Re-imports and Re-exports	Direct purchases by residents	
Sector 34 (imports, bp)							
Taxes less subsidies on intermediate and final products							
Total intermediate / final expenditure (pu)							
Value added (bp)							
of which, Labour compensation							
of which, other value added							
Output (bp)							

(pu): purchasers' prices
(bp): basic price

Source: OECD, http://www.OECD.org/trade/input-outputtables.htm

The input-output framework has been applying in the European countries since 1990s. As the result of the application of the framework, it helps to the national policy makers to establish their systematic and expanded view of the economy. The supply, use and symmetric input-output tables are three main types of the framework. In addition, the supply and use tables ensure the supply of goods and services mainly derived from domestic production, imports, and the consumption of goods and services. Accordingly, these tables allow us to able to establish symmetric input-output tables which are the fundamentals of input-output analysis. To illustrate, the symmetric input-output tables can be formed on the basis of industries or products (Eurostat, 2008).

2.4. The Current Situation in the Azerbaijan Economy

If we think about or have a quick look to the Azerbaijan economy, we will realize how the resource, oil-gas sector has had impact. The author attempted to check the macroeconomic indicators in the in the last decades in order to understand all of these impacts.

Graph 26. GDP, millions of manat, 2005-2015

GDP, current prices   GDP, constant prices
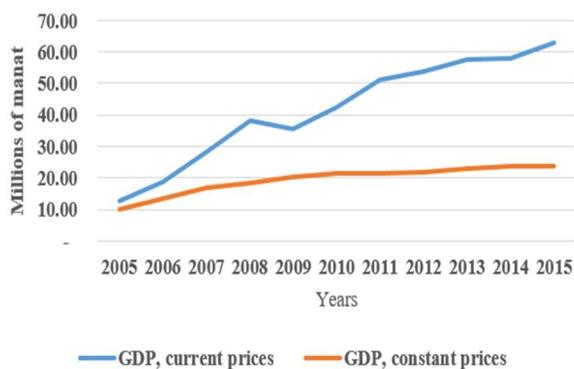
Graph 27. GDP growth in % change, 2005-2015
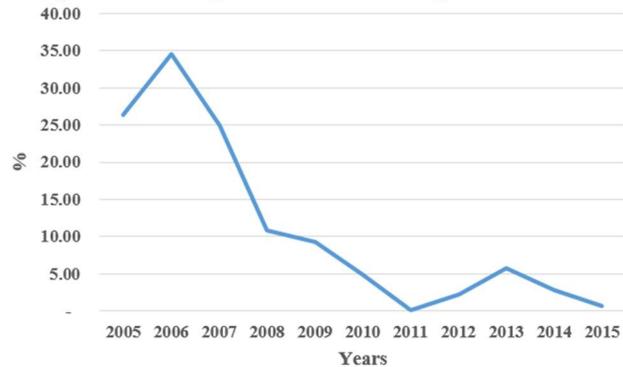
Graph 28. General government Total Expenditure, % of GDP constant prices, 2005-2015
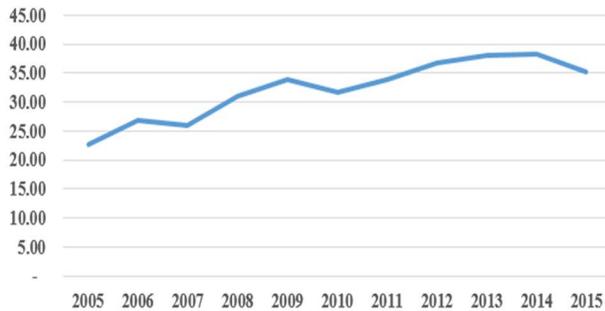
Graph 29. General government total expenditure, in millions manat, 2005-2015
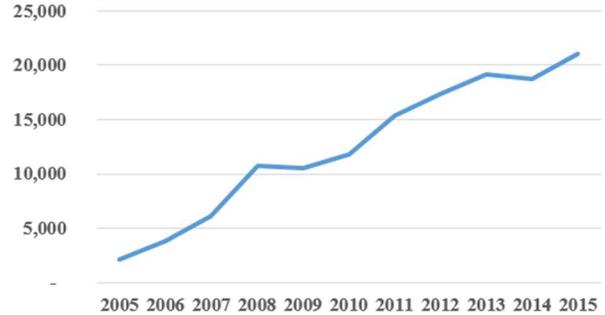
Source: IMF, World Economic Outlook Database, 2015,
https://www.imf.org/external/pubs/ft/weo/2015/01/weodata/weoselser.aspx?c=912&t=1 (last accessed: 05.05.2020)

In the recent decades, the Azerbaijan economy has been expanding due to the boom in the oil-gas sector. That is why, since 2005 the total output of the economy has started to grow, but with single sector basis. The author remembers that, the official decision makers of Azerbaijan were particularly outlining that the economy is on the top list in the world with holding one of the highest GDP growth rates mainly caused by the first part of the oil-rent flow to the country. However, these statements were not able to be followed when the growth started to decline. Another point was that, most of this rent were directed to the public expenditure hoping to keep high growth rate for a long time. However, it did work as expected. Particularly, the declining oil prices in the time of the world economic crisis in 2008 sent the negative signals to the economy. All of the macroeconomic figures by the official bodies of the government show the clear dependence of the economy from the oil-gas sector in Azerbaijan, regardless how efficiently those data have been recorded. Without any additional investigations, these facts help to understand the root causes of the unbalanced economy. Not only the other economic sectors, but also the social defense sector has been far from the priorities. It is clear that, as the oil-gas resources are non-renewable, that is why the rents coming from the resource production are also limited. In this case, the efficient management of the finances by the governance is the key principle to get the success in the economic results (Huseynov, 2015, and Graph 26-29).

Graph 30. General government commodity revenue, % of GDP, constant prices, 2003-2013
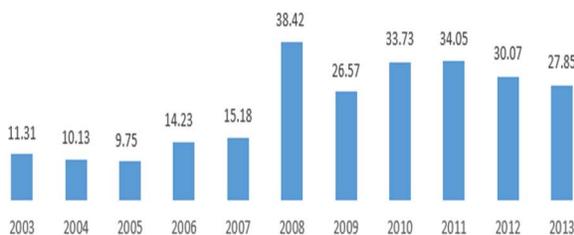
Graph 31. General government state budget balance % of GDP, and debt to GDP ratio, constant prices, 2003-2013

Source: IMF, http://data.imf.org/?sk=7CB6619C-CF87-48DC-9443-2973E161ABEB&sId=1420495322854 (last accessed: 05.05.2020)

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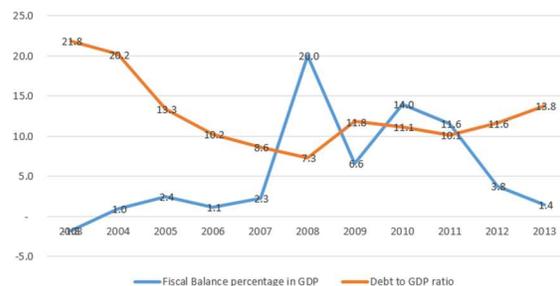
Graph 32. Official available currency in USD, January 2015- January 2016
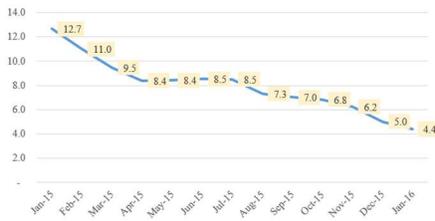
Source: Central Bank of Azerbaijan,

http://en.cbar.az/infoblocks/money_reserve_usd 31.01.2016

Graph 33. Consolidated budget revenues of 2015 & 2016
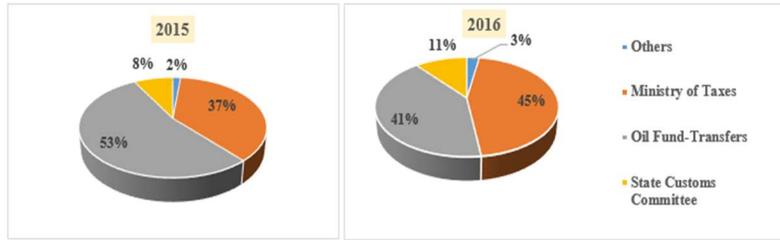
Source: Ministry of Finance of the Republic of Azerbaijan, key Budget Analysis of 2015&2016

a, http://maliyye.gov.az/sites/default/files/2015_teqdimat_t%20(3).pdf

b, http://www.maliyye.gov.az/sites/default/files/2016_budce_teqdimati.pdf

It is clear from the numbers above, the resource revenue as percentage of GDP has been one third of the total government income since 2007 (Graph 30-33). Definitely, for this massive increase has direct connection with the exported energy products. This period could be called the best time for the Azerbaijan economy in terms of the cash reserves. However, such close relations have always cost in the economy as well. That is why, in a just one year the official currency reserves of the Central bank has decreased by three times. Obviously, the resource dependency not only impacted financial terms, but also made the total economy more passive to produce any products internally via importing cheaper goods, and intermediate raw materials, equipment. However, the passiveness has no only this root causes. Basically, the local business is keen to be involved into the foreign trade and contribute to the local economy. The issue is the existence of the varied artificial obstacles, challenges in the customs, monopoly and the shadow economy. That is why ensuring the transparency, protecting fair competitions in the business, investigating any kind of the irregularities, punishing the free riders in the economy should be the key priorities for the governance in Azerbaijan (Huseynov, 2016, a , and Graph 30-33).

Graph 34. Growth rate of GDP, as percentage of the previous year
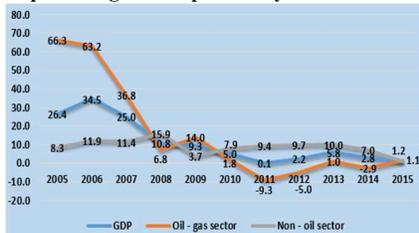
Source: The State Statistical Committee of the Republic of Azerbaijan,

http://www.stat.gov.az/source/system_nat_accounts/indexen.php

Graph 35. World average crude oil price, per barrel, USD
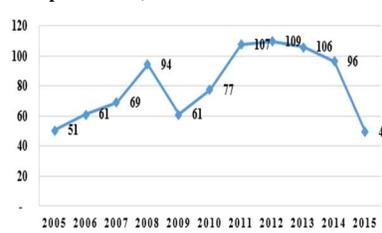
Source: OPEC,

http://www.opec.org/opec_web/en/data_graphs/40.htm

Graph 36. Sectorial structure of industry, relative to gross total, percentage

Source: The State Statistical Committee of the Republic of Azerbaijan,

http://www.stat.gov.az/source/industry/indexen.php

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Graph 37. Cotton production, 1,000 ton
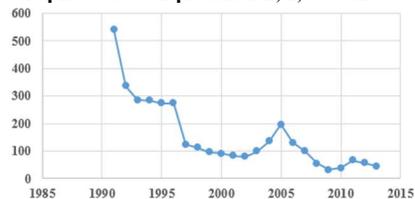
Graph 38. Grape production, 1,000 ton
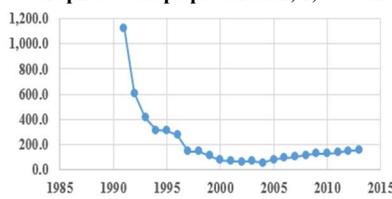
Graph 39. Tea production, 1,000 ton

Source: The State Statistical Committee of the Republic of Azerbaijan,
http://www.stat.gov.az/source/agriculture/indexen.php
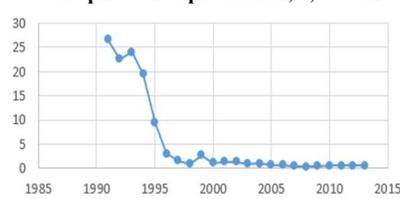
In terms of the trends in the global energy markets, the total economic outputs have been so sensitive (Graph 34-39). It is obvious that, the oil-gas production is key locomotive for the entire economic output of Azerbaijan. The economy could able to see historical ups and downs of the prices. This could be considered as the emergent signal for the country. Unfortunately, as the economic structure, the mining sector has been key shareholder in Azerbaijan. If we consider the rest of the economy as non-gas sector, we can see how the economy is smaller than one dependent sector. This seems like imbalanced boat in the ocean. If you cannot balance your position, it means that the accident is not so far. As the Dutch disease motion, after the recent literature walk, we know that how the traditional economic sectors are vital for any country. Unfortunately, as one of the key heart of the economy, the agriculture sector has shown dramatic declining trend. In this stage, the author's doubts over the sustainable economic development in Azerbaijan is increasing. It seems that the real economic picture is far from the declared economic achievements (Huseynov, 2016, (b) and Graph 34-39).

Graph 40. The Structure of exports by product: mineral fuels, minerals oils and related products, share in export, in percent
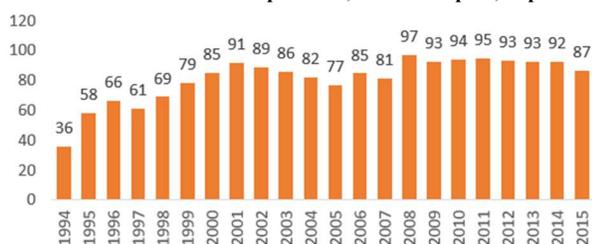
Graph 41. Exported mineral fuels, minerals oils and their products, in Billions of USD

Source: The State Statistical Committee of the Republic of Azerbaijan, http://www.stat.gov.az/source/trade/indexen.php
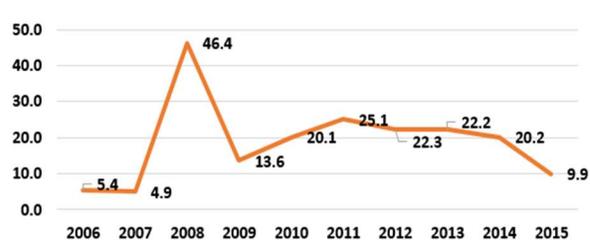
Graph 42. Share of employees by economic regions, percent of the total.
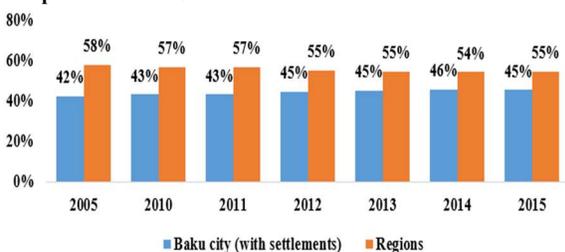
Graph 43. Average amount of fixed monthly pensions

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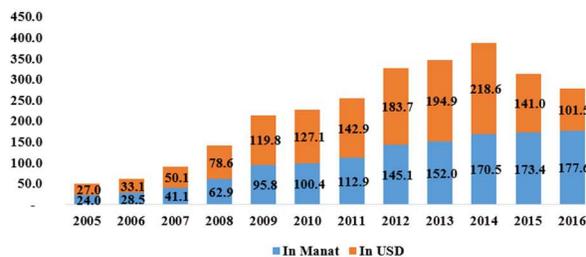
Graph 44. Social benefits allocated by government for unemployed, total social allowances, per capita, USD
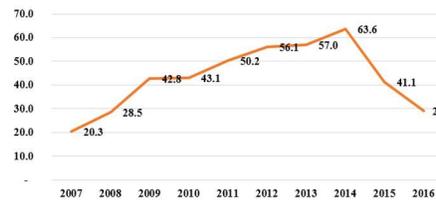
Graph 45. Addressed public social aid granted, amount of monthly addressed public social aid per capita, USD
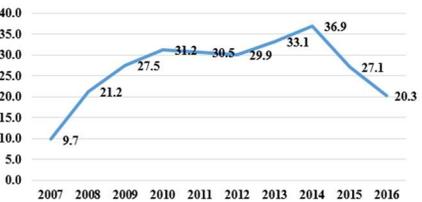
Graph 46. Departures from the country for permanent residence, thousands of person
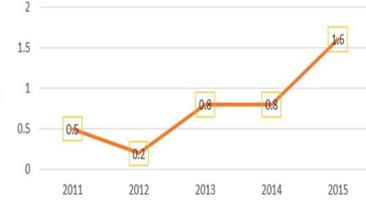
Economic histories raises well-being of the people as the key goal for the any governance. Unfortunately, the recent trend in the world energy markets put the daily lives into the many challenges for the people. On the other hand, we see that, in the time of the higher energy prices in the world market could not change any crucial things for the citizens. Keeping this in mind that, we can judge that, the social protection policy has not been in the list of the top key performance indicators. As the result of that, the labor forces move to the capital of the country in order live and earn better, which causes another imbalance in the economy. Increasing unemployment level and lack of the sufficient financial support by the central government are the key features of the current labor market. Any increase over the minimum payments in the labor market should be calculated and made sense check with the real incomes before putting into force. All in all, skilled human resources are the key drivers for the sustainable economic development (Huseynov, 2017, (a) and Graph 40-46).

Graph 48. The structure of use of directed investments directed to main capital of industry (by kinds of economic activity), relative to gross total, at percentage

Graph 47. Investments directed to main capital of industry, as % of total
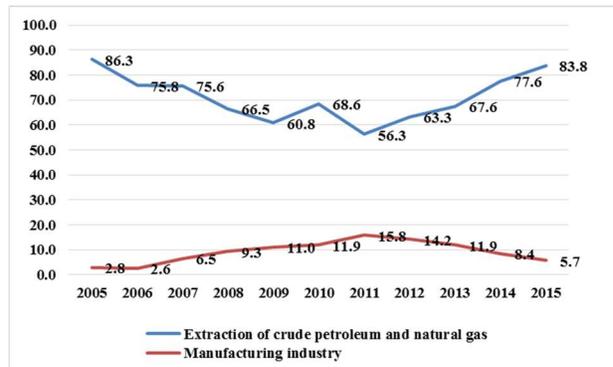
The share of the investments mainly were directed to the resource sector in the last decade. Naturally, the development of the mining sector has been faster than the rest of the economy. Geographically, energy production facilities are located next to the capital region, where half of the entire country's business operates. The share of the manufacturing sector in the total output has been smaller. Logically, promoting the foreign direct investments and motivating the local business to create the goods or services in the country can foster the development of the non-oil gas sector (Huseynov, 2017, (b) and Graph 47-48).

Graph 49. Revenues and expenditures of the state budget, in billions USD
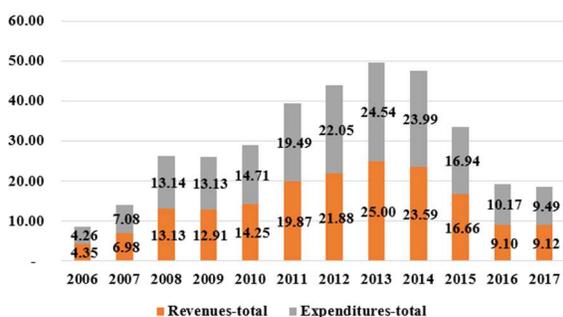
Graph 50. The Transfers from the State Oil Fund of the Republic of Azerbaijan
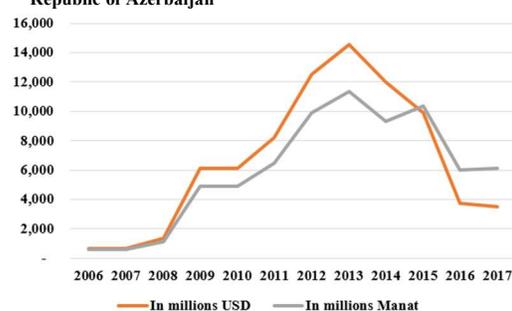
Graph 51. The transfers from SOFAZ, percent of the total revenue
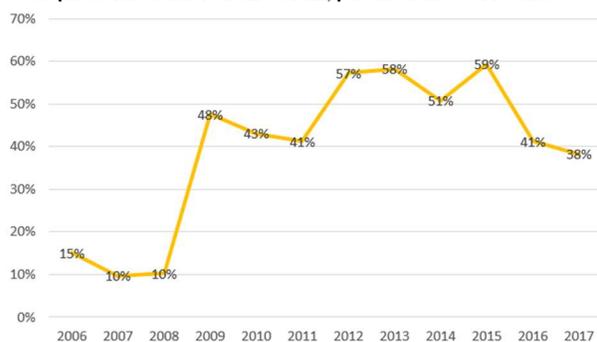
Graph 52. The Government expenditure on agriculture
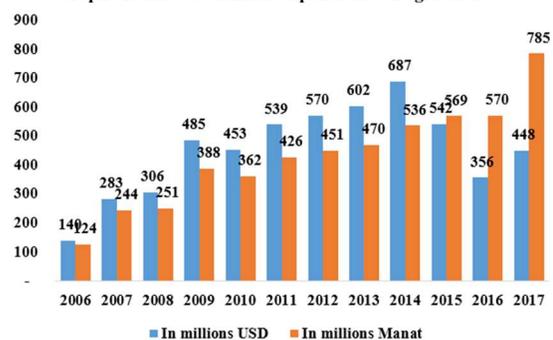
Source: The state Statistical Committee of the Republic of Azerbaijan, http://www.stat.gov.az/source/finance/indexen.php
The Ministry of Finance of the Republic of Azerbaijan, http://www.maliyye.gov.az

Unfortunately, as other resource dependent economies, the government pumped the oil-rents directly to the economy without limitations, particularly, it is obvious that, the state budget saw its maximum capacity in 2012-2013. In parallel, the further analysis made us believed that, the relationship between the oil rents and public spending is positive and linear. It is important to highlight the most striking relationship in the infrastructural spending. On the other side, regardless decreasing oil transfers, the government has focused to the agricultural output, which does not promise any immediate impact in the short-run. Interestingly, the recent changes in the fiscal policies are hoped to change the current situation via switching from the resource era to the real business model. However, putting more burden to the taxpayers' shoulders and increasing the tax revenues does not seem the most efficient solution (Huseynov, 2017, c). That is why the decision makers need to handle economic reforms in the fiscal policy, stay far from the inefficient infrastructural spending and concentrate on the economic, social affairs (Huseynov, 2017, (d) and Graph 49-52).

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Graph 53. The Structure of the loans by credit institutions, billions of manat

Public Banks Private Banks Non-Bank Credit Organisations

Graph 54. The Structure of the deposits by currencies, billions

In National Currency, total In Foreign Currencies, total

Source: The Central Bank of the Republic of Azerbaijan, http://en.cbar.az/lpages/statistics/
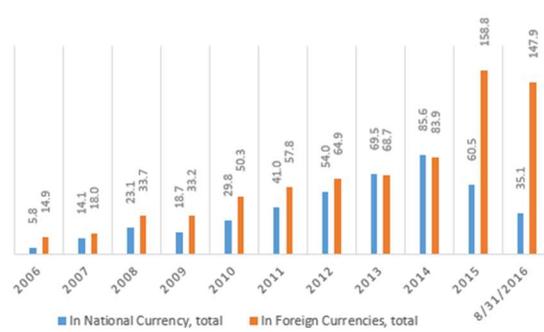
Graph 55. The overdue loans of the total, as % of total (by 31st of Oct. in 2016)
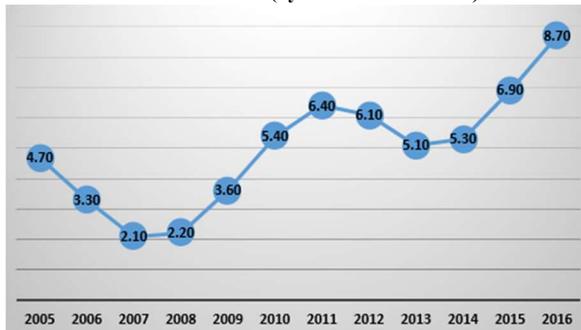
Graph 56. The Sectorial breakdown of the loans, as % of the total (by 31st of Oct. in 2016)

Trade and services Households

Source: The Central Bank of the Republic of Azerbaijan, http://www.cbar.az/assets/3579/Bulleten-2016_oktyabr.pdf
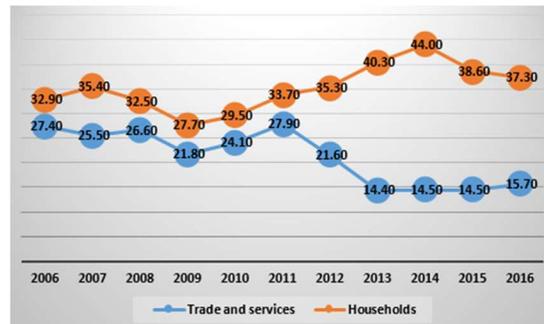
Graph 57. The Official average exchange rates of manat, 2006-2014 / 2015-2016
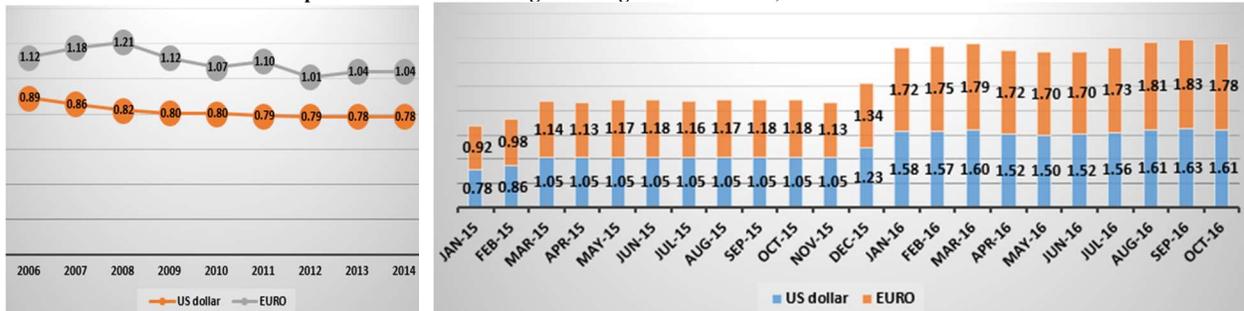
US dollar EURO

US dollar EURO

Source: The Central Bank of the Republic of Azerbaijan, http://www.cbar.az/assets/3587/Bulleten-2016_oktyabr.pdf

Graph 58. Official foreign reserves, billions of US dollars (by 31st of Oct. in 2016)
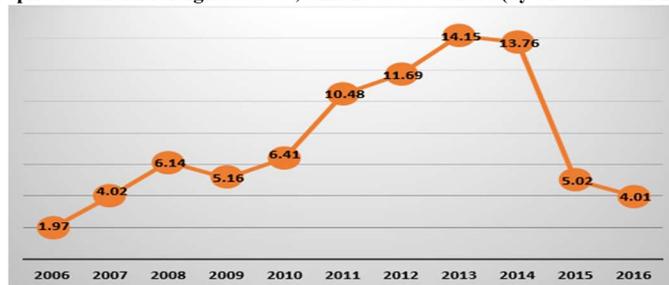
Source: The Central Bank of the Republic of Azerbaijan, http://www.cbar.az/assets/3572/Bulleten-2016_oktyabr.pdf

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The participation of the commercial banks has been expanded. The major part of the local credits have been given to the households in the last decade. The banking sector has started experience it's the lowest level in the last decade. Not surprisingly, the falling oil-rents are one of the main reasons. The depreciation of the national currency has been starting since 2015, which caused many challenges to the loan takers to bay back to the creditors. As the result of these process, several commercial banks went to the bankruptcy or announced as bankruptcies by the central organisation. The common solution would be to grant access for the foreign investors to the banking system, reorganising and developing financial institutions, the transparency and protecting the rights should be ensured via improving financial regulations and laws in Azerbaijan (Huseynov, 2018 and Graph 53-58).

2.5. Gap to be studied for the Azerbaijan Economy

In this study the author aims to draw general structure of the Azerbaijan economy via input-output approach, to find the optimum output level for the economic sectors in the Azerbaijan economy, to learn from the world economies which have passed the same milestones, to identify the roots causes and challenges in the Azerbaijan economy, to develop recommendations for the further studies and policy implications for Azerbaijan.

This study is one of the limited researches done by the scholars on the Azerbaijan economy. The key element of the making this research to be different, are covering theoretical and practical tools. Starting with the theoretical knowledge on the resource dependent economies and identifying common aspects over the Azerbaijan economy create the base for the study. Applying global comparative analysis of the input-output and linear programming between Azerbaijan and the selected countries makes this study the contributive to the recent relevant literature.

3. METHODOLOGY AND DATA

3.1. Expert interviews

The author assess the open research questions via offline interviews with the scholars who are experts in the world resource dependent economies. Seemingly, the number of questions helps to cover the major common debates in the selected countries. **Interestingly, the most of the respondents' research works are studied in the literature section. Due to consolidated approach in terms of the summarizing of the responses, the each scholars' ideas are not mentioned individually.**

The main goal by the author taking the interviews was not only to understand common issues in the resource dependent economies, but also try to get attempt to understand the economic experiences of the selected countries via hearing directly from the relevant scholars to support the literature dive. Apart from that, the given answers by the respondents show close mutual understanding with the relevant official statistical numbers.

Apart from that, the author has arranged public interviews with leading economic experts, scholars from public organizations, independent institutes and universities. The key raised questions were about the recent reform initiatives by the government in Azerbaijan.

The below list highlights key the scholars and experts who had direct contributions (the full list is not listed due to the consolidation limitations):

- Dr. Vugar Bayramov, Chairman of the CESD, MP in the Parliament of Azerbaijan
- Dr. Elchin Suleymanov, Baku Engineering University,
- Dr. Orkhan Baghirov, Expert Advisor, SAM,
- Dr. Khatai Aliyev, Baku Engineering University,
- Ilham Ali Yusif, British Council Azerbaijan,
- Surkay Novruzov, NPC Agro Consulting and Engineering,
- Dr. Jeyhun Mikayilov, King Abdullah Petroleum Studies and Research Center,
- Dr. Mehdi Adibpour, Islamic Azad University
- Prof. Yelena Kalyuzhnova, Henley Business School, University of Reading, Former Economic Adviser to the President of Kazakhstan

3.2. Construction and Re-Construction of I/O Tables

The author has taken Input Output data from OECD database as 2011 for 13 selected countries (5 of them are OECD member states) where there is at least one dominant product in their export with holding more than 1/3 share of the total exports (Leontief, 1986). Unfortunately, the author could not able to get the relevant Input-Output tables for the rest resource dependent economies (particularly other OPEC member countries) that noted in the literature due to the lack of the official statistics and no satisfactory return to the quarries of the author by the official offices.

After selecting the countries, the author has extracted the available Leontief inverse matrixes as 2011. The recent years are so available from the OECD database. However, the same information

was available for only 2011 by the official statistic office of Azerbaijan. That is why, from the timing perspective taking the same year's data into consideration would be more accurate.

As the next step, the author has put all of the 13 inverse matrixes together (Table 18). Then, the author has calculated the mean per each of 36 sectors (Table 19). There was a need to calculate the variances between countries matrixes and the mean matrix (Table 20). As the next step, the author calculates the squares of the variances (Table 21). The author has summed up the relevant columns of the square matrix (Table 22). And finally, in order to find the standard deviation, the author has calculated the square root of the sum of square of the variances between the matrix of mean of the coefficients and Leontief inverse matrixes (Table 23). After finding the standard deviation, the author has calculated the borders of the standard deviations (Table 24-25). The author has consolidated the 81 sectors of the Azerbaijan economy in align with the 36 sectors of the selected countries' data (Table 33).

Table 18. Leontief inverse matrixes (A matrix), selected countries

Countries	Sectors	S1	Sn	S36
C1	S1	a 1 1	a 1 n	a 1 36
C1	Sn	a n 1	a n n	a n 36
C1	S36	a 36 1	a 36 n	a 36 36
Cn	S1	a 1 1	a 1 n	a 1 36
Cn	Sn	a n 1	a n n	a n 36
Cn	S36	a 36 1	a 36 n	a 36 36
C13	S1	a 1 1	a 1 n	a 1 36
C13	Sn	a n 1	a n n	a n 36
C13	S36	a 36 1	a 36 n	a 36 36

Source: Authors own analysis based on the Input-Output tables

Table 19. Mean of the coefficients of Leontief inverse matrixes (B matrix), selected countries

Sectors	S1	Sn	S36
S1	m 1 1	m 1 n	m 1 36
Sn	m n 1	m n n	m n 36
S36	m 36 1	m 36 n	m 36 36

Source: Authors own analysis based on the Input-Output tables

Table 20. Variances between the matrix of mean of the coefficients and Leontief inverse matrixes (A matrix-B matrix), selected countries

Countries	Sectors	S1	Sn	S36
C1	S1	v 1 1	v 1 n	v 1 36
C1	Sn	v n 1	v n n	v n 36
C1	S36	v 36 1	v 36 n	v 36 36
Cn	S1	v 1 1	v 1 n	v 1 36
Cn	Sn	v n 1	v n n	v n 36
Cn	S36	v 36 1	v 36 n	v 36 36
C13	S1	v 1 1	v 1 n	v 1 36
C13	Sn	v n 1	v n n	v n 36
C13	S36	v 36 1	v 36 n	v 36 36

Source: Authors own analysis based on the Input-Output tables

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Table 21. Square of the variances between the matrix of mean of the coefficients and Leontief inverse matrixes (A matrix-B matrix), selected countries

Countries	Sectors	S1	Sn	S36
C1	S1	(v 1 1)²	(v 1 n)²	(v 1 36)²
C1	Sn	(v n 1)²	(v n n)²	(v n 36)²
C1	S36	(v 36 1)²	(v 36 n)²	(v 36 36)²
Cn	S1	(v 1 1)²	(v 1 n)²	(v 1 36)²
Cn	Sn	(v n 1)²	(v n n)²	(v n 36)²
Cn	S36	(v 36 1)²	(v 36 n)²	(v 36 36)²
C13	S1	(v 1 1)²	(v 1 n)²	(v 1 36)²
C13	Sn	(v n 1)²	(v n n)²	(v n 36)²
C13	S36	(v 36 1)²	(v 36 n)²	(v 36 36)²

Source: Authors own analysis based on the Input-Output tables

Table 22. Sum of square of the variances between the matrix of mean of the coefficients and Leontief inverse matrixes (A matrix-B matrix), selected countries

Sectors	S1	Sn	S36
S1	Σ(v 1 1)²	Σ (v 1 n)²	Σ (v 1 36)²
Sn	Σ (v n 1)²	Σ (v n n)²	Σ (v n 36)²
S36	Σ (v 36 1)²	Σ (v 36 n)²	Σ (v 36 36)²

Source: Authors own analysis based on the Input-Output tables

Table 23. Standard deviation sum of square of the variances between the matrix of mean of the coefficients and Leontief inverse matrixes (A matrix-B matrix), selected countries

Sectors	S1	Sn	S36
S1	√Σ(v 1 1)²	√Σ (v 1 n)²	√Σ (v 1 36)²
Sn	√Σ (v n 1)²	√Σ (v n n)²	√Σ (v n 36)²
S36	√Σ (v 36 1)²	√Σ (v 36 n)²	√Σ (v 36 36)²

Source: Authors own analysis based on the Input-Output tables

Table 24. Up border of standard deviation sum of square of the variances between the matrix of mean of the coefficients and Leontief inverse matrixes (A matrix-B matrix), selected countries

Sectors	S1	Sn	S36
S1	(√Σ(v 1 1)²)+ m 1 1	(√Σ (v 1 n)²)+ m 1 n	(√Σ (v 1 36)²)+ m 1 36
Sn	(√Σ (v n 1)²)+ m n 1	(√Σ (v n n)²)+ m n n	(√Σ (v n 36)²)+ m n 36
S36	(√Σ (v 36 1)²)+ m 36 1	(√Σ (v 36 n)²)+ m 36 n	(√Σ (v 36 36)²)+ m 36 36

Source: Authors own analysis based on the Input-Output tables

Table 25. Down border of standard deviation sum of square of the variances between the matrix of mean of the coefficients and Leontief inverse matrixes (A matrix-B matrix), selected countries

Sectors	S1	Sn	S36
S1	m 1 1-($\sqrt{\Sigma}$ (v 1 1)^2)	m 1 n- ($\sqrt{\Sigma}$ (v 1 n)^2)	m 1 36- ($\sqrt{\Sigma}$ (v 1 36)^2)
Sn	m n 1- ($\sqrt{\Sigma}$ (v n 1)^2)	m n n - ($\sqrt{\Sigma}$ (v n n)^2)	m n 36- ($\sqrt{\Sigma}$ (v n 36)^2)
S36	m 36 1- ($\sqrt{\Sigma}$ (v 36 1)^2)	m 36 n- ($\sqrt{\Sigma}$ (v 36 n)^2)	m 36 36- ($\sqrt{\Sigma}$ (v 36 36)^2)

Source: Authors own analysis based on the Input-Output tables

Table 26. Inverse matrix sample based on the Input Output table of Azerbaijan (C)

Sectors	S1	S2	S3
S1	b_{11}	b_{12}	b_{13}
S2	b_{21}	b_{22}	b_{23}
S3	b_{31}	b_{32}	b_{33}

Source: Author's own analysis based on the Input-Output tables

As a sample, in order to find the consolidated coefficient (agriculture, forestry and fishing) of the inverse matrix for Azerbaijan, the author has used the formula below (Table 26):

$$n_{11} = (Sum\ (b_{11}, b_{12}, b_{13}, b_{21}, b_{22}, b_{23}, b_{31}, b_{32}, b_{33})\ *2)/\ Sum\ of\ numbers\ of\ columns\ and\ rows\ (C\ matrix)$$

Finally the author checks whether the inverse matrix coefficients (n) for Azerbaijan is in the range of the standard deviation of the selected countries (Table 27).

Table 27. Inverse matrix for Azerbaijan and borders of standard deviation sum of square of the variances between the matrix of mean of the coefficients and Leontief inverse matrixes (A matrix-B matrix), selected countries

Sectors	S1	Sn	S36
S1	(m 1 1-($\sqrt{\Sigma}$(v 1 1)^2)) > n 1 1 > (($\sqrt{\Sigma}$(v 1 1)^2)+ m 1 1)	(m 1 n-($\sqrt{\Sigma}$(v 1 n)^2)) > n 1 n > (($\sqrt{\Sigma}$(v 1 n)^2)+ m 1 n)	(m 1 36-($\sqrt{\Sigma}$(v 1 36)^2)) > n 1 36 > (($\sqrt{\Sigma}$(v 1 36)^2)+ m 1 36)
Sn	(m n 1-($\sqrt{\Sigma}$(v n 1)^2)) > n n 1 > (($\sqrt{\Sigma}$(v n 1)^2)+ m n 1)	(m n n -($\sqrt{\Sigma}$(v n n)^2)) > n n n > (($\sqrt{\Sigma}$(v n n)^2)+ m n n)	(m n 36-($\sqrt{\Sigma}$(v n 36)^2)) > n n 36 > (($\sqrt{\Sigma}$(v n 36)^2)+ m n 36)
S36	(m 36 1-($\sqrt{\Sigma}$(v 36 1)^2)) > n 36 1 > (($\sqrt{\Sigma}$(v 36 1)^2)+m 36 1)	(m 36 n-($\sqrt{\Sigma}$(v 36 n)^2)) > n 36 n > (($\sqrt{\Sigma}$(v 36 n)^2)+ m 36 n)	(m 36 36-($\sqrt{\Sigma}$(v 36 36)^2)) > n 36 36 > (($\sqrt{\Sigma}$(v 36 36)^2)+ m 36 36)

Source: Authors own analysis based on the Input-Output tables

So, if the coefficient (n) of the consolidated inverse matrix based on the Azerbaijan input output table was in the range noted as true (T) and false (F) vice versa. Apart from that, the author has compared the coefficient (n) of the consolidated inverse matrix based on the Azerbaijan input output table with the mean of the coefficients (m) of Leontief inverse matrixes (B matrix), selected countries, in which percentage n is greater or smaller than m.

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3.3. Linear Programming – Optimization

First of all, the author had to calculate the coefficients of the inverse matrix based on the input output table for the Azerbaijan Economy (Sousa, 2016). For this purpose the author has calculated the coefficients for all 81 sectors (Table 28-29):

Table 28. Input-output table for the Azerbaijan economy

Sectors	S1	Sn	S81
S1	z 1 1	z 1 n	z 1 81
Sn	z n 1	z n n	z n 81
S81	z 81 1	z 81 n	z 81 81
Total Output	o1	On	o81

Source: Authors own analysis based on the Input-Output tables

Table 29. The coefficients based on the input-output m for the Azerbaijan economy (L matrix)

Sectors	S1	Sn	S81
S1	z 1 1 / o1	z 1 n / on	z 1 81 / o81
Sn	z n 1 / o1	z n n / on	z n 81 / o81
S81	z 81 1 / o1	z 81 n / on	z 81 81 / o81

Source: Authors own analysis based on the Input-Output tables

After finding the coefficients the author noted down the I (identity) matrix which contains only ones in the diagonal cells, the rest of them equals to zeros (Table 30).

Table 30. I matrix

Sectors	S1	Sn	S81
S1	1	0	0
Sn	0	1	0
S81	0	0	1

Sousa, T., 2016. Energy Analysis: Input-Output. Instituto Superior Tecnico, https://fenix.tecnico.ulisboa.pt/downloadFile/848204501355053/Lecture%2005.pptx

As the one of the final steps, the author has calculated I – L matrixes (Leontief, 1986, Table 31).

Table 31. I matrix – L matrix

Sectors	S1	Sn	S81
S1	1 – (z 1 1 / o1)	0 – (z 1 1 / o1)	0 – (z 1 1 / o1)
Sn	0 – (z 1 1 / o1)	1 – (z 1 1 / o1)	0 – (z 1 1 / o1)
S81	0 – (z 1 1 / o1)	0 – (z 1 1 / o1)	1 – (z 1 1 / o1)

Source: Authors own analysis based on the Input-Output tables

And finally, the author has applied the formula of the MINVERSE to find the inverse matrix in the Microsoft excel (Leontief, 1986, Table 32).

$$n_{nn} \{ =MINVERSE \text{ ('I matrix – L matrix'!} S_{11} : S_{81\,81}) \}$$

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In the literature and official figures for Azerbaijan, there are crucial factors that explains how the economy depends on its own resource sector. In addition to these, as of one the varied analysis of the author has solved 81 functions in order to reach three goals via optimization goals.

In order to solve optimization problem the author needed to construct the linear programming model and to define goal functions per each sectors of the Azerbaijan economy. In other words, author has calculated the model via taking single output structure per each sectors as maximization goal function with all constraints that show the consumption for all of the sectors (J. He, 2004).

Table 32. The coefficients of the inverse matrix based on the input-output table for the Azerbaijan economy

Sectors	S1	Sn	S81	Total intermediate consumption
S1	n 1 1	n 1 n	n 1 81	c1
Sn	n n 1	n n n	n n 81	cn
S81	n 81 1	n 81 n	n 81 81	c81
Total Output	o1	on	o81	

Source: Authors own analysis based on the Input-Output tables

As noted above, the author defines three main goals as below:

1. output maximization
2. workplace maximization
3. export diversification

As an example, we can see the linear programming model for the first sector (S1) of the Azerbaijan economy in the below formula which has been solved in the same way for all 81 sector via applying Lindo 6.1 software (Lewis, 2008).

$$\text{Max } (o_1)\ n_{11}*x_1 + \ldots + n_{n1}\ x_n + \ldots + n_{811}*x_{81}$$

$$\text{ST } n_{11}*x_1 + \ldots + n_{1n}\ x_n + \ldots + n_{181}*x_{81} <= c_1$$

$$\ldots$$

$$n_{n1}*x_1 + \ldots + n_{nn}\ x_n + \ldots + n_{n81}*x_{81} <= c_n$$

$$\ldots$$

$$n_{811}*x_1 + \ldots + n_{81n}\ x_n + \ldots + n_{8181}*x_{81} <= c_{81}$$

$$x_1 \ldots x_n \ldots x_{81} >= 0$$

After finding the optimum-maximum output (m_n) per each sector, the author could calculate the relevant optimum level of labor force.

Employment Multiplier (thousands, number of employees) = total Optimum Output Value per sector (thousands of manat) / Compensation of employees (thousands of manat)

As the last goal, the author has calculated the trade balance and divided to the total output per each sector. With this approach the author can identify the relation between the export-import and the local production, the possibility to diversify the export level per the sector.

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3.4. Data Collection and Analysis

The author has taken Input Output data from OECD database as 2011 for 13 selected countries (5 of them are OECD member states) where there is at least one dominant product in their export with holding more than 1/3 share of the total exports (Table 33).

Table 33: The share of the dominant products in the relevant total exports per selected countries

Country	Share of merchandise export	Exported Product
Brunei Darussalam	95	Oil
Azerbaijan	95	Oil
Saudi Arabia	89	Oil
Kazakhstan	73	Oil
Colombia	68	Oil
Norway	68	Oil
Russian Federation	67	Oil
Malta	43	Oil
Indonesia	34	Oil
Greece	31	Oil
Australia	30	Oil
Chile	45	Copper ore and Refined copper
Iceland	43	Raw aluminium and related products
Peru	27	Copper

Source 1: Fuel exports (% of merchandise export), 2011
https://data.worldbank.org/indicator/tx.val.fuel.zs.un
Source 2: Other exports, https://atlas.media.mit.edu/en/

The author has started by reviewing the relevant literatures on the selected countries. As the results of the outlook on the studies, the relevance of the selected countries per Azerbaijan have been assessed. To find the direction of the Azerbaijan economy, the relevant data analysis has been conducted. Comparatively, the main economic indicators and their relationship have been analyzed via correlations (Rodgers, Nicewander, 2012).

3.5. International comparative analysis: The way between Norway and Nigeria

In addition to the group of the selected resource dependent economies, the author attempts to have separate parallel analysis via 3 country analysis including Azerbaijan. **The main idea is for this initiate is to support the understanding of the current position of the Azerbaijan economy.**

In this particular country comparison study, the selection of the countries is not random. The first country: Norway has five decades experience as the resource dependent economy. In the light of this experience, Norwegian economic development milestone is extensively investigated and recommended to the resource dependent economies by scholars. Consequently, those countries which suffered from the recent shocks in the world oil markets, have started to learn from Norway in order to ensure sustainable economic growth. Regardless the current Norwegian economic position and achievement, it has specific features which cannot applicable to other countries immediately. That is why, further research is recommended before application of any experiences.

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The second country: Nigeria has the same period of experience with Norway as the oil dependent economy. However, the Nigerian economy has been affected from the shocks in the world oil market due to the inefficient revenue management. Apart from that there are other factors which will be investigated in the studies. The Nigeria experienced with the oil discoveries almost in the same years with Norway. On the contrary to Norway, the economy challenged to manage oil rents in the short and long run. That is why, the author has taken Nigeria as the "worst" scenario or sample for the Azerbaijan economy.

Comparatively, Azerbaijan doesn't have the same years of experience with the selected countries. In other words, Azerbaijan was not independent before 1991 and it is the main challenge to track and compare the statistics with Norway and Nigeria since 1970s. Nonetheless, the last 3 decades economic performance of Azerbaijan allows to diagnose. A key limitation of the recent research on the Azerbaijan economy is focused on the economic results and performance of the governance. This study introduces the whole historical picture of the Azerbaijan economy in order to understand the main roots of the challenges.

4. RESULTS AND DISCUSSIONS

4.1. Results of Input-Output analysis of the Azerbaijan Economy

The author has calculated means and standard deviations. Then summarized 81 available sectors of the official available Input Output table for Azerbaijan to the relevant 36 sectors of the selected countries' data. As the result, we can go for further investigations; whether the Azerbaijan numbers are in the range of standard deviation of the selected countries' data and how the Azerbaijan data is far from the selected countries' mean (Table 34-35, Graph 59-60). Apart from the author shows those analysis in two graphs per each of the 35 sectors (excluding 36th sector).

Table 34. Sum of Leontief inverse matrixes

Sector Number	Sector name	Sum of Columns -the total output needed for each unit of final demand of the relevant sector		Sum of Rows- the total output needed from the relevant sector for each unit of final demand of the whole economy	
		The Selected Countries' Average	Azerbaijan	The Selected Countries' Average	Azerbaijan
S1	Agriculture, forestry and fishing	2.0401	1.6595	2.0985	1.7174
S2	Mining and extraction of energy producing products	1.8175	1.0504	3.3698	2.0130
S3	Mining and quarrying of non-energy producing products	1.8761	1.9800	2.5019	1.9011
S4	Mining support service activities	1.8478	1.6171	1.3750	1.3463
S5	Food products, beverages and tobacco	2.4045	2.5932	1.8849	1.4707
S6	Textiles, wearing apparel, leather and related products	2.2721	2.3236	1.7435	1.5267
S7	Wood and of products of wood and cork (except furniture)	2.2878	2.3312	1.3468	1.8359
S8	Paper products and printing	2.3566	2.3839	1.6800	1.7529
S9	Coke and refined petroleum products	2.3436	1.5637	2.5765	2.7022
S10	Chemicals and pharmaceutical products	2.3395	2.0207	2.3906	2.0010
S11	Rubber and plastics products	2.4608	2.1478	1.6602	2.9277
S12	Other non-metallic mineral products	2.3334	1.8423	1.4292	1.7922
S13	Manufacture of basic metals	2.3631	1.5645	3.0910	2.3737
S14	Fabricated metal products, except machinery and equipment	2.3995	1.6999	1.6993	1.2943
S15	Computer, electronic and optical products	2.4315	1.9538	1.3874	1.9803
S16	Electrical equipment	2.4835	2.5743	1.4653	3.2216
S17	Machinery and equipment n.e.c.	2.2405	2.0022	1.4658	1.9281
S18	Motor vehicles, trailers and semi-trailers	2.2715	1.5157	1.3317	1.5877
S19	Other transport equipment	2.4502	1.3913	1.7394	1.4102
S20	Other manufacturing; repair and installation of machinery and equipment	2.2238	2.2237	1.3913	1.9242
S21	Electricity, gas, water supply, sewerage, waste and remediation services	2.1131	2.0712	2.8121	1.8261
S22	Construction	2.2706	1.6462	1.6155	2.7262
S23	Wholesale and retail trade; repair of motor vehicles	1.7758	1.3771	5.4214	2.7381
S24	Transportation and storage	2.1979	2.1067	3.2592	2.2003
S25	Accommodation and food services	2.0485	1.5812	1.3321	1.3187
S26	Publishing, audio-visual and broadcasting activities	2.1755	1.7914	1.3415	1.0945
S27	Telecommunications	1.9442	1.2668	1.8632	1.3696
S28	IT and other information services	1.8242	1.8836	1.4059	1.3138
S29	Financial and insurance activities	2.0956	1.5341	6.0499	1.8370
S30	Real estate activities	1.4240	1.5806	1.8805	2.6666
S31	Other business sector services	1.8739	1.8486	4.2448	1.7995
S32	Public administration and defence; compulsory social security	1.7365	1.5684	1.0636	1.0466
S33	Education	1.4688	1.1622	1.0378	1.0266
S34	Human health and social work	1.6768	1.7553	1.5530	1.0472
S35	Arts, entertainment, recreation and other service activities	2.0429	1.6643	1.4027	1.1018
S36	Private households with employed persons	1.0000	1.6040	1.0000	1.0609

Source: Authors own analysis based on the Input-Output tables

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Graph 59. Leontief inverse matrixes - sum of columns -the total output needed for each unit of final demand of the relevant sector
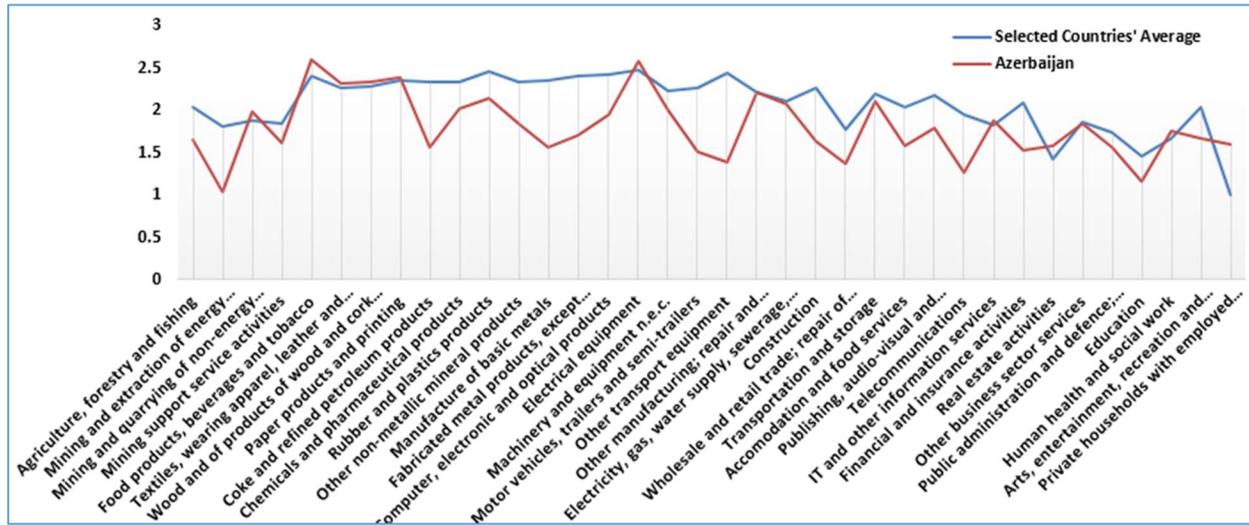
Source: Authors own analysis based on the Input-Output tables

Graph 60. Leontief inverse matrixes - sum of rows- the total output needed from the relevant sector for each unit of final demand of the whole economy

Source: Authors own analysis based on the Input-Output tables

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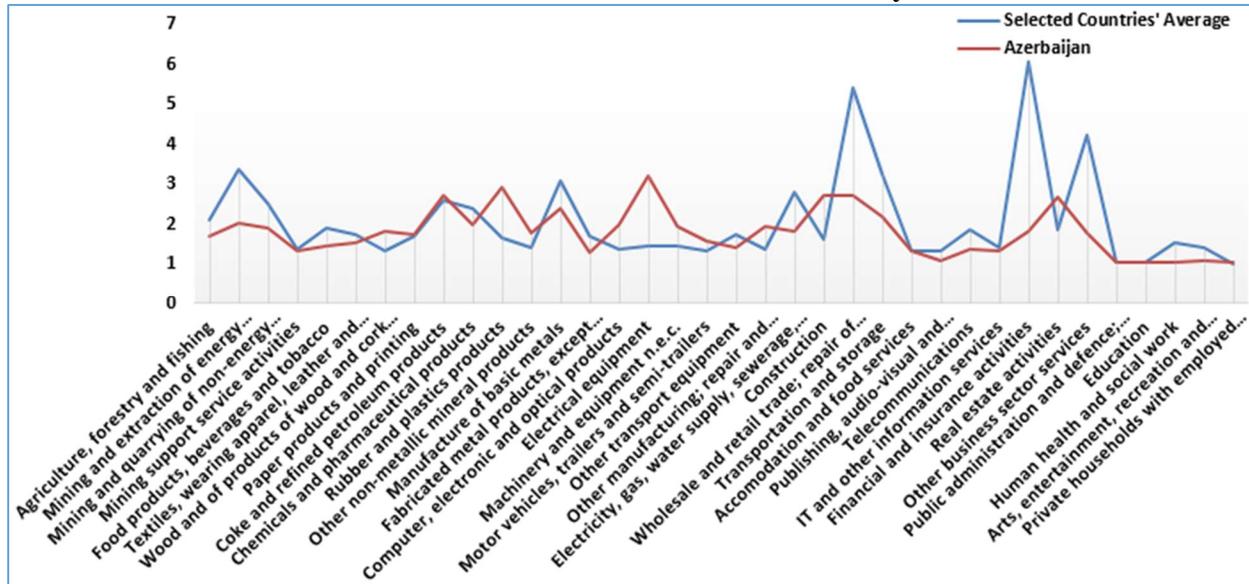
Agriculture, forestry and fishing- Sector 1 (crop and animal production; hunting and related service activities; forestry and logging; fishing and aquaculture) relations with other sectors

In Azerbaijan economy input rates from the sector of agriculture, forestry, fishing (crop and animal production; hunting and related service activities; forestry and logging; fishing and aquaculture) to others are in the selected countries' standard range per only 5 sectors and in the 4 sectors (particularly in textiles, wearing apparel, leather and related products; chemicals and pharmaceutical products) these figures are more than the selected countries' average. On the other hand, in the 30 sectors this measure is not in the selected countries' standard range and in the 31 sectors (particularly in manufacture of basic metals; electrical equipment; wholesale and retail trade, repair of motor vehicles) the rates are under the selected countries' average (Appendix X, XI). Similarly in the Azerbaijan economy for each unit of final demand consumes less agricultural unit (1.7174 vs 2.0985) than the selected countries (Table 34). It means, in the Azerbaijan economy, the sector of agriculture has weaker sales relations with the rest of the economic sectors in comparison with the selected countries'.

In Azerbaijan economy input rates from other sectors to the sector of agriculture, forestry, fishing (crop and animal production; hunting and related service activities; forestry and logging; fishing and aquaculture) are in the range of the selected countries' per 24 sectors and in the 13 sectors (particularly in electrical equipment; motor vehicles, trailers and semi-trailers; construction) these figures are more than the selected countries' average. On the other hand, in the 11 sectors this measure is not in the selected countries' standard range and in the 22 sectors (particularly in mining support service activities; financial and insurance activities; arts, entertainment, recreation and other service activities) the rates are under the selected countries' average (Appendix X, XI). All in all, Azerbaijan economy consumes less input (1.6595 vs 2.0401) for each unit of final demand of the agriculture, forestry, fishing sector than the selected countries (Table 34). In summary, in the Azerbaijan economy, the sector of agriculture has closer purchasing relations with the rest of the economic sectors in comparison with the selected countries. It is clear that, the agriculture sector mainly purchases means of production as the inputs from others.

Mining and extraction of energy producing products - Sector 2 (mining of coal and lignite; extraction of crude petroleum and natural gas) relations with other sectors

In Azerbaijan economy input rates from the sector of mining and extraction of energy producing products (mining of coal and lignite; extraction of crude petroleum and natural gas) to others are in the selected countries' standard range per only 15 sectors and in the 1 sector (human health and social work) this figure is more than the selected countries' average. On the other hand, in the 20 sectors this measure is not in the selected countries' standard range and in the 33 sectors (particularly in mining support service activities; other transport equipment) the rates are under the selected countries' average (Appendix X, XI). Similarly in the Azerbaijan economy for each unit of final demand consumes less mining and extraction of energy producing products (2.0130 vs 3.3698) than the selected countries' (Table 34). It means, in the Azerbaijan economy the sector of extraction of energy producing products has weaker sales relations with the rest of the economic sectors in comparison with the selected countries. In Azerbaijan economy input rates from other

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sectors to the sector of mining and extraction of energy producing products (mining of coal and lignite; extraction of crude petroleum and natural gas) are in the range of the selected countries' per 18 sectors. On the other hand, in the 17 sectors this measure is not in the selected countries' standard range and in the all of the sectors (particularly in publishing, audio-visual and broadcasting activities; financial and insurance activities; other business sector services; human health and social work) the rates are under the selected countries' average (Appendix X, XI). The Azerbaijan economy consumes less input (1.0504 vs 1.8175) for each unit of final demand of the mining and extraction of energy producing products than the selected countries' (Table 34). All in all, in the Azerbaijan economy, almost all of the sectors receive less mining inputs and the mining sector consumes less inputs than the selected countries. **This fact means, the oil-gas production sector has the weaker connection with the entire economy of Azerbaijan.** Not surprisingly, the major part of this production goes to export, which makes the economy so dependent.

Mining and quarrying of non-energy producing products - Sector 3 (mining of metal ores; other mining and quarrying) relations with other sectors

In Azerbaijan economy input rates from the sector of mining and quarrying of non-energy producing products (mining of metal ores; other mining and quarrying) to others are in the the selected countries' standard range per only 34 sectors and in the 7 sectors (mining and quarrying of non-energy producing products; electricity, gas, water supply, sewerage, waste and remediation services; transportation and storage; real estate activities) these figures are more than the selected countries' average. On the other hand, in 1 sector (IT and other information services) this measure is not in the selected countries' standard range and in the 28 sectors (particularly in mining and extraction of energy producing products; coke and refined petroleum products; chemicals and pharmaceutical products; motor vehicles, trailers and semi-trailers) the rates are under the selected countries' average (Appendix X, XI). Similarly in the Azerbaijan economy for each unit of final demand consumes less mining and quarrying of non-energy producing products (1.9011 vs 2.5019) than the selected countries' (Table 34). It means, in the Azerbaijan economy the sector of mining and quarrying of non-energy producing products has weaker sales relations with the rest of the economic sectors in comparison with the selected countries.

In Azerbaijan economy input rates from other sectors to the sector of mining and quarrying of non-energy producing products (mining of metal ores; other mining and quarrying) are in the range of the selected countries per 22 sectors and in the 14 sectors (particularly in mining support service activities; other non-metallic mineral products; electrical equipment; machinery and equipment n.e.c.; motor vehicles, trailers and semi-trailers) these figures are more than the selected countries' average. On the other hand, in the 13 sectors this measure is not in the selected countries' standard range and in the 21 sectors (particularly in agriculture, forestry and fishing; publishing, audio-visual and broadcasting activities; human health and social work; arts, entertainment, recreation and other service activities) the rates are under the selected countries' average (Appendix X, XI). All in all, Azerbaijan economy consumes more input (1.98 vs 1.8761) for each unit of final demand of the mining and quarrying of non-energy producing products than the selected countries (Table 34).

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Mining support service activities – Sector 4 (mining support service activities) relations with other sectors

In Azerbaijan economy input rates from the sector of mining support service activities to others are in the selected countries' standard range per only 33 sectors and in the 4 sectors (particularly in mining and quarrying of non-energy producing products; mining support service activities; other non-metallic mineral products) these figures are more than the selected countries' average. On the other hand, in the 2 sectors this measure is not in the selected countries' standard range and in the 31 sectors (particularly in agriculture, forestry and fishing; manufacture of basic metals) the rates are under the selected countries' average (Appendix X, XI). Similarly in the Azerbaijan economy for each unit of final demand consumes less mining support services (1.3463 vs 1.3750) than the selected countries' (Table 34). It means, in the Azerbaijan economy the sector of mining support service activities has weaker sales relations with the rest of the economic sectors in comparison with the selected countries.

In Azerbaijan economy input rates from other sectors to the sector of mining support service activities are in the range of the selected countries per 24 sectors and in the 13 sectors (particularly in wood and of products of wood and cork (except furniture); electrical equipment; machinery and equipment n.e.c.; motor vehicles, trailers and semi-trailers; construction; real estate activities) these figures are more than the selected countries' average. On the other hand, in the 11 sectors this measure is not in the selected countries' standard range and in the 22 sectors (particularly in agriculture, forestry and fishing; publishing, audio-visual and broadcasting activities; financial and insurance activities; human health and social work) the rates are under the selected countries' average (Appendix X, XI). All in all, Azerbaijan economy consumes less input (1.6171 vs 1.8478) for each unit of final demand of the mining support services than the selected countries (Table 34).

Food products, beverages and tobacco – Sector 5 (manufacture of food products; manufacture of beverages; manufacture of tobacco products) relations with other sectors

In Azerbaijan economy input rates from the sector of food products, beverages and tobacco (manufacture of food products; manufacture of beverages; manufacture of tobacco products) to others are in the selected countries' standard range per only 7 sectors and in the 1 sector (food products, beverages and tobacco) these figures are more than the selected countries' average. On the other hand, in the 28 sectors this measure is not in the selected countries' standard range and in the 34 sectors (particularly in wood and of products of wood and cork (except furniture); chemicals and pharmaceutical products; other transport equipment) the rates are under the selected countries' average (Appendix X, XI). Similarly in the Azerbaijan economy for each unit of final demand consumes less food products, beverages and tobacco unit (1.4707 vs 1.8849) than the selected countries (Table 34).

In Azerbaijan economy input rates from other sectors to the sector of food products, beverages and tobacco (manufacture of food products; manufacture of beverages; manufacture of tobacco

products) are in the range of the selected countries' per 19 sectors and in the 17 sectors (particularly in paper products and printing; other non-metallic mineral products; computer, electronic and optical products; electrical equipment; motor vehicles, trailers and semi-trailers) these figures are more than the selected countries' average. On the other hand, in the 16 sectors this measure is not in the selected countries' standard range and in the 18 sectors (particularly in publishing, audio-visual and broadcasting activities; human health and social work; arts, entertainment, recreation and other service activities) the rates are under the selected countries' average (Appendix X, XI). All in all, Azerbaijan economy consumes more input (2.5932 vs 2.4045) for each unit of final demand of the food products, beverages and tobacco sector than the selected countries (Table 34) which means, the efficiency of the food production is under expectations.

Textiles, wearing apparel, leather and related products- Sector 6 (manufacture of textiles; manufacture of wearing apparel; manufacture of leather and related products) relations with other sectors

In Azerbaijan economy input rates from the sector of textiles, wearing apparel, leather and related products (manufacture of textiles; manufacture of wearing apparel; manufacture of leather and related products) to others are in the selected countries' standard range per only 30 sectors and in the 3 sectors (textiles, wearing apparel, leather and related products; chemicals and pharmaceutical products; other business sector services) these figures are more than the selected countries' average. On the other hand, in the 5 sectors this measure is not in the selected countries' standard range and in the 32 sectors (particularly in wood and of products of wood and cork (except furniture); rubber and plastics products; other manufacturing; repair and installation of machinery and equipment; wholesale and retail trade; repair of motor vehicles) the rates are under the selected countries' average (Appendix X, XI). Similarly in the Azerbaijan economy for each unit of final demand consumes less textiles, wearing apparel, leather and related products unit (1.5267 vs 1.7435) than the selected countries (Table 34).

In Azerbaijan economy input rates from other sectors to the sector of textiles, wearing apparel, leather and related products (manufacture of textiles; manufacture of wearing apparel; manufacture of leather and related products) are in the range of the selected countries per 18 sectors and in the 18 sectors (particularly in agriculture, forestry and fishing; rubber and plastics products; computer, electronic and optical products; electrical equipment; motor vehicles, trailers and semi-trailers; construction) these figures are more than the selected countries' average. On the other hand, in the 17 sectors this measure is not in the selected countries' standard range and in the 17 sectors (particularly in food products, beverages and tobacco; publishing, audio-visual and broadcasting activities; human health and social work; arts, entertainment, recreation and other service activities) the rates are under the selected countries' average (Appendix X, XI). All in all, Azerbaijan economy consumes more input (2.3236 vs 2.7221) for each unit of final demand of the textiles, wearing apparel, leather and related products sector than the selected countries (Table 34).

Wood and of products of wood and cork (except furniture) -Sector 7 (manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials) relations with other sectors

In Azerbaijan economy input rates from the sector of wood and of products of wood and cork - except furniture (manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials) to others are in the selected countries' standard range per only 28 sectors and in the 15 sectors (particularly in mining support service activities; financial and insurance activities; other business sector services) these figures are more than the selected countries' average. On the other hand, in the 7 sectors this measure is not in the selected countries' standard range and in the 20 sectors (particularly in fabricated metal products, except machinery and equipment; electrical equipment; telecommunications) the rates are under the selected countries' average (Appendix X, XI). Similarly in the Azerbaijan economy for each unit of final demand consumes more wood and of products of wood and cork unit (1.8359 vs 1.3468) than the selected countries' (Table 34) mainly enhancing need by the oil-gas sector.

In Azerbaijan economy input rates from other sectors to the sector of wood and of products of wood and cork -except furniture (manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials) are in the range of the selected countries' per 18 sectors and in the 9 sectors (particularly in rubber and plastics products; computer, electronic and optical products; electrical equipment; other manufacturing; repair and installation of machinery and equipment; real estate activities) these figures are more than the selected countries' average. On the other hand, in the 17 sectors this measure is not in the selected countries' standard range and in the 26 sectors (particularly in agriculture, forestry and fishing; food products, beverages and tobacco; textiles, wearing apparel, leather and related products; human health and social work; arts, entertainment, recreation and other service activities) the rates are under the selected countries' average (Appendix X, XI). All in all, Azerbaijan economy consumes more input (2.3312 vs 2.2878) for each unit of final demand of the wood and of products of wood and cork sector than the selected countries' (Table 34).

Paper products and printing- Sector 8 (manufacture of paper and paper products; printing and reproduction of recorded media) relations with other sectors

In Azerbaijan economy input rates from the sector of paper products and printing (manufacture of paper and paper products; printing and reproduction of recorded media) to others are in the selected countries' standard range per only 12 sectors and in the 7 sectors (food products, beverages and tobacco; transportation and storage; financial and insurance activities) these figures are more than the selected countries' average. On the other hand, in the 23 sectors this measure is not in the selected countries' standard range and in the 28 sectors (particularly in mining and extraction of energy producing products; coke and refined petroleum products; manufacture of basic metals; motor vehicles, trailers and semi-trailers; other transport equipment) the rates are under the selected countries' average (Appendix X, XI). Similarly in the Azerbaijan economy for each unit of final demand consumes more paper products and printing unit (1.7529 vs 1.6800) than the selected countries (Table 34).

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In Azerbaijan economy input rates from other sectors to the sector of paper products and printing (manufacture of paper and paper products; printing and reproduction of recorded media) are in the range of the selected countries per 17 sectors and in the 12 sectors (particularly in rubber and plastics products; computer, electronic and optical products; electrical equipment; motor vehicles, trailers and semi-trailers; construction;, real estate activities) these figures are more than the selected countries' average. On the other hand, in the 18 sectors this measure is not in the selected countries' standard range and in the 23 sectors (particularly in agriculture, forestry and fishing; publishing, audio-visual and broadcasting activities; human health and social work; arts, entertainment, recreation and other service activities) the rates are under the selected countries' average (Appendix X, XI). All in all, Azerbaijan economy consumes more input (2.3839 vs 2.3566) for each unit of final demand of the paper products and printing sector than the selected countries (Table 34).

Coke and refined petroleum products- Sector 9 (manufacture of coke and refined petroleum products) relations with other sectors

In Azerbaijan economy input rates from the sector of coke and refined petroleum products (manufacture of coke and refined petroleum products) to others are in the selected countries' standard range per only 31 sectors and in the 14 sectors (real estate activities; human health and social work) these figures are more than the selected countries' average. On the other hand, in the 4 sectors this measure is not in the selected countries' standard range and in the 21 sectors (particularly in mining and extraction of energy producing products; other transport equipment; education) the rates are under the selected countries' average (Appendix X, XI). Similarly in the Azerbaijan economy for each unit of final demand consumes more coke and refined petroleum products unit (2.7022 vs 2.5765) than the selected countries (Table 34) due to the being resource dependant country.

In Azerbaijan economy input rates from other sectors to the sector of coke and refined petroleum products (manufacture of coke and refined petroleum products) are in the range of the selected countries' per 20 sectors and in the 2 sectors (coke and refined petroleum products; construction) these figures are more than the selected countries' average. On the other hand, in the 15 sectors this measure is not in the selected countries' standard range and in the 33 sectors (particularly in agriculture, forestry and fishing; publishing, audio-visual and broadcasting activities; financial and insurance activities; human health and social work; arts, entertainment, recreation and other service activities) the rates are under the selected countries' average (Appendix X, XI). All in all, Azerbaijan economy consumes less input (1.5637 vs 2.3436) for each unit of final demand of the coke and refined petroleum products sector than the selected countries (Table 34) due to low demand from the less developed refine facilities.

Chemicals and pharmaceutical products- Sector 10 (manufacture of chemicals and chemical products; manufacture of basic pharmaceutical products and pharmaceutical preparations) relations with other sectors

In Azerbaijan economy input rates from the sector of chemicals and pharmaceutical products (manufacture of chemicals and chemical products; manufacture of basic pharmaceutical products and pharmaceutical preparations) to others are in the selected countries' standard range per only 18 sectors and in the 6 sectors (motor vehicles, trailers and semi-trailers; other business sector services) these figures are more than the selected countries' average. On the other hand, in the 17 sectors this measure is not in the selected countries' standard range and in the 29 sectors (particularly in mining and extraction of energy producing products; coke and refined petroleum products) the rates are under the selected countries' average (Appendix X, XI). Similarly in the Azerbaijan economy for each unit of final demand consumes less chemicals and pharmaceutical products unit (2.0010 vs 2.3906) than the selected countries (Table 34).

In Azerbaijan economy input rates from other sectors to the sector of chemicals and pharmaceutical products (manufacture of chemicals and chemical products; manufacture of basic pharmaceutical products and pharmaceutical preparations) are in the range of the selected countries per 20 sectors and in the 12 sectors (particularly in agriculture, forestry and fishing; textiles, wearing apparel, leather and related products; construction) these figures are more than the selected countries' average. On the other hand, in the 15 sectors this measure is not in the selected countries' standard range and in the 23 sectors (particularly in mining and quarrying of non-energy producing products; food products, beverages and tobacco; other business sector services; human health and social work; arts, entertainment, recreation and other service activities) the rates are under the selected countries' average (Appendix X, XI). All in all, Azerbaijan economy consumes less input (2.0207 vs 2.3395) for each unit of final demand of the chemicals and pharmaceutical products sector than the selected countries (Table 34).

Rubber and plastics products- Sector 11 (Manufacture of rubber and plastic products) relations with other sectors

In Azerbaijan economy input rates from the sector of rubber and plastics products (manufacture of rubber and plastic products) to others are in the selected countries' standard range per only 14 sectors and in the 20 sectors (food products, beverages and tobacco; textiles, wearing apparel, leather and related products; wood and of products of wood and cork (except furniture); paper products and printing; other manufacturing; repair and installation of machinery and equipment; financial and insurance activities) these figures are more than the selected countries' average. On the other hand, in the 21 sectors this measure is not in the selected countries' standard range and in the 15 sectors (particularly in mining and extraction of energy producing products; coke and refined petroleum products; motor vehicles, trailers and semi-trailers) the rates are under the selected countries' average (Appendix X, XI). Similarly in the Azerbaijan economy for each unit of final demand consumes more rubber and plastics products unit (2.9277 vs 1.6602) than the selected countries (Table 34).

In Azerbaijan economy input rates from other sectors to the sector of rubber and plastics products (manufacture of rubber and plastic products) are in the range of the selected countries per 14 sectors and in the 11 sectors (particularly in computer, electronic and optical products; electrical equipment; construction; real estate activities; public administration and defence; compulsory

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social security) these figures are more than the selected countries' average. On the other hand, in the 21 sectors this measure is not in the selected countries' standard range and in the 24 sectors (particularly in agriculture, forestry and fishing; textiles, wearing apparel, leather and related products; publishing, audio-visual and broadcasting activities; other business sector services; human health and social work; arts, entertainment, recreation and other service activities) the rates are under the selected countries' average (Appendix X, XI). All in all, Azerbaijan economy consumes less input (2.1478 vs 2.4608) for each unit of final demand of the rubber and plastics products than the selected countries (Table 34).

Other non-metallic mineral products – Sector 12 (manufacture of other non-metallic mineral products) relations with other sectors

In Azerbaijan economy input rates from the sector of other non-metallic mineral products (manufacture of other non-metallic mineral products) to others are in the selected countries' standard range per only 18 sectors and in the 24 sectors (agriculture, forestry and fishing; mining and quarrying of non-energy producing products; food products, beverages and tobacco; computer, electronic and optical products; electricity, gas, water supply, sewerage, waste and remediation services; financial and insurance activities) these figures are more than the selected countries' average. On the other hand, in the 17 sectors this measure is not in the selected countries' standard range and in the 11 sectors (particularly in mining and extraction of energy producing products; motor vehicles, trailers and semi-trailers) the rates are under the selected countries' average (Appendix X, XI). Similarly in the Azerbaijan economy for each unit of final demand consumes more other non-metallic mineral products unit (1.7922 vs 1.4292) than the selected countries (Table 34).

In Azerbaijan economy input rates from other sectors to the sector of other non-metallic mineral products (manufacture of other non-metallic mineral products) are in the range of the selected countries per 17 sectors and in the 8 sectors (particularly in mining support service activities; computer, electronic and optical products; electrical equipment; motor vehicles, trailers and semi-trailers) these figures are more than the selected countries' average. On the other hand, in the 18 sectors this measure is not in the selected countries' standard range and in the 27 sectors (particularly in agriculture, forestry and fishing; publishing, audio-visual and broadcasting activities; other business sector services; human health and social work; arts, entertainment, recreation and other service activities) the rates are under the selected countries' average (Appendix X, XI). All in all, Azerbaijan economy consumes less input (1.8423 vs 2.3334) for each unit of final demand of the other non-metallic mineral products sector than the selected countries (Table 34).

Manufacture of basic metals- Sector 13 (manufacture of basic metals) relations with other sectors

In Azerbaijan economy input rates from the sector of manufacture of basic metals (manufacture of basic metals) to others are in the selected countries' standard range per only 23 sectors and in the 16 sectors (electricity, gas, water supply, sewerage, waste and remediation services; it and other

information services; financial and insurance activities; real estate activities) these figures are more than the selected countries' average. On the other hand, in the 12 sectors this measure is not in the selected countries' standard range and in the 19 sectors (particularly in mining and extraction of energy producing products; motor vehicles, trailers and semi-trailers; other transport equipment) the rates are under the selected countries' average (Appendix X, XI). Similarly in the Azerbaijan economy for each unit of final demand consumes less manufacture of basic metals unit (2.3737 vs 3.0910) than the selected countries (Table 34).

In Azerbaijan economy input rates from other sectors to the sector of manufacture of basic metals (manufacture of basic metals) are in the range of the selected countries' per 22 sectors and in the 3 sectors (other non-metallic mineral products; electrical equipment; motor vehicles, trailers and semi-trailers) these figures are more than the selected countries' average. On the other hand, in the 13 sectors this measure is not in the selected countries' standard range and in the 32 sectors (particularly in agriculture, forestry and fishing; publishing, audio-visual and broadcasting activities; financial and insurance activities; other business sector services; human health and social work; arts, entertainment, recreation and other service activities) the rates are under the selected countries' average (Appendix X, XI). All in all, Azerbaijan economy consumes less input (1.5645 vs 2.3631) for each unit of final demand of the manufacture of basic metals sector than the selected countries (Table 34).

Fabricated metal products, except machinery and equipment- Sector 14 (manufacture of fabricated metal products, except machinery and equipment) relations with other sectors

In Azerbaijan economy input rates from the sector of fabricated metal products, except machinery and equipment (manufacture of fabricated metal products, except machinery and equipment) to others are in the selected countries' standard range per only 21 sectors and in the 3 sectors (IT and other information services; real estate activities; other business sector services) these figures are more than the selected countries' average. On the other hand, in the 14 sectors this measure is not in the selected countries' standard range and in the 32 sectors (particularly in mining and extraction of energy producing products; coke and refined petroleum products; manufacture of basic metals) the rates are under the selected countries' average (Appendix X, XI). Similarly in the Azerbaijan economy for each unit of final demand consumes less fabricated metal products, except machinery and equipment unit (1.2943 vs 1.6993) than the selected countries (Table 34).

In Azerbaijan economy input rates from other sectors to the sector of fabricated metal products, except machinery and equipment (manufacture of fabricated metal products, except machinery and equipment) are in the range of the selected countries per 17 sectors and in the 7 sectors (particularly in rubber and plastics products; machinery and equipment n.e.c.; motor vehicles, trailers and semi-trailers; construction) these figures are more than the selected countries' average. On the other hand, in the 18 sectors this measure is not in the selected countries' standard range and in the 28 sectors (particularly in food products, beverages and tobacco; publishing, audio-visual and broadcasting activities; human health and social work; arts, entertainment, recreation and other service activities) the rates are under the selected countries' average (Appendix X, XI). All in all, Azerbaijan economy consumes less input (1.6999 vs 2.3995) for each unit of final demand of the

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fabricated metal products, except machinery and equipment sector than the selected countries (Table 34).

Computer, electronic and optical products- Sector 15 (manufacture of computer, electronic and optical products) relations with other sectors

In Azerbaijan economy input rates from the sector of computer, electronic and optical products (manufacture of computer, electronic and optical products) to others are in the selected countries' standard range per only 13 sectors and in the 27 sectors (transportation and storage; publishing, audio-visual and broadcasting activities; real estate activities) these figures are more than the selected countries' average. On the other hand, in the 22 sectors this measure is not in the selected countries' standard range and in the 8 sectors (particularly in mining and extraction of energy producing products; motor vehicles, trailers and semi-trailers; other transport equipment) the rates are under the selected countries' average (Appendix X, XI). Similarly in the Azerbaijan economy for each unit of final demand consumes more computer, electronic and optical products unit (1.9803 vs 1.3874) than the selected countries (Table 34).

In Azerbaijan economy input rates from other sectors to the sector of computer, electronic and optical products (manufacture of computer, electronic and optical products) are in the range of the selected countries' per 20 sectors and in the 5 sectors (particularly in other non-metallic mineral products; electrical equipment) these figures are more than the selected countries' average. On the other hand, in the 15 sectors this measure is not in the selected countries' standard range and in the 30 sectors (particularly in agriculture, forestry and fishing; food products, beverages and tobacco; publishing, audio-visual and broadcasting activities; financial and insurance activities; arts, entertainment, recreation and other service activities) the rates are under the selected countries' average (Appendix X, XI). All in all, Azerbaijan economy consumes less input (1.9538 vs 2.4315) for each unit of final demand of the computer, electronic and optical products unit sector than the selected countries (Table 34).

Electrical equipment - Sector 16 (manufacture of electrical equipment) relations with other sectors

In Azerbaijan economy input rates from the sector of electrical equipment (manufacture of electrical equipment) to others are in the selected countries' standard range per only 11 sectors and in the 32 sectors (wood and of products of wood and cork (except furniture); IT and other information services; financial and insurance activities; real estate activities) these figures are more than the selected countries' average. On the other hand, in the 24 sectors this measure is not in the selected countries' standard range and in the 3 sectors (mining and extraction of energy producing products; coke and refined petroleum products; other transport equipment) the rates are under the selected countries' average (Appendix X, XI). Similarly in the Azerbaijan economy for each unit of final demand consumes more electrical equipment unit (3.2216 vs 1.4653) than the selected countries (Table 34).

In Azerbaijan economy input rates from other sectors to the sector of electrical equipment (manufacture of electrical equipment) are in the range of the selected countries' per 14 sectors and in the 4 sectors (computer, electronic and optical products; electrical equipment; construction; real estate activities) these figures are more than the selected countries' average. On the other hand, in the 21 sectors this measure is not in the selected countries' standard range and in the 31 sectors (particularly in agriculture, forestry and fishing; food products, beverages and tobacco; publishing, audio-visual and broadcasting activities; financial and insurance activities; human health and social work; arts, entertainment, recreation and other service activities) the rates are under the selected countries' average (Appendix X, XI). All in all, Azerbaijan economy consumes more input (2.5743 vs 2.4835) for each unit of final demand of the sector of electrical equipment than the selected countries (Table 34).

Machinery and equipment n.e.c. – Sector 17 (manufacture of machinery and equipment n.e.c.) relations with other sectors

In Azerbaijan economy input rates from the sector of machinery and equipment n.e.c. (manufacture of machinery and equipment n.e.c.) to others are in the selected countries' standard range per only 16 sectors and in the 26 sectors (particularly in mining support service activities; transportation and storage; IT and other information services; financial and insurance activities; public administration and defence; compulsory social security) these figures are more than the selected countries' average. On the other hand, in the 19 sectors this measure is not in the selected countries' standard range and in the 9 sectors (particularly in mining and extraction of energy producing products; coke and refined petroleum products; manufacture of basic metals) the rates are under the selected countries' average (Appendix X, XI). Similarly in the Azerbaijan economy for each unit of final demand consumes more machinery and equipment unit (1.9281 vs 1.4658) than the selected countries (Table 34).

In Azerbaijan economy input rates from other sectors to the sector of machinery and equipment n.e.c. (manufacture of machinery and equipment n.e.c.) are in the range of the selected countries' per 19 sectors and in the 6 sectors (particularly in motor vehicles, trailers and semi-trailers; other manufacturing; repair and installation of machinery and equipment; wholesale and retail trade, repair of motor vehicles) these figures are more than the selected countries' average. On the other hand, in the 16 sectors this measure is not in the selected countries' standard range and in the 29 sectors (particularly in agriculture, forestry and fishing; publishing, audio-visual and broadcasting activities; human health and social work; arts, entertainment, recreation and other service activities) the rates are under the selected countries' average (Appendix X, XI). All in all, Azerbaijan economy consumes less input (2.0022 vs 2.2405) for each unit of final demand of the machinery and equipment sector than the selected countries' (Table 34).

Motor vehicles, trailers and semi-trailers- Sector 18 (manufacture of motor vehicles, trailers and semi-trailers) relations with other sectors

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In Azerbaijan economy input rates from the sector of motor vehicles, trailers and semi-trailers (manufacture of motor vehicles, trailers and semi-trailers) to others are in the selected countries' standard range per only 13 sectors and in the 29 sectors (particularly in mining and quarrying of non-energy producing products; machinery and equipment n.e.c.; electricity, gas, water supply, sewerage, waste and remediation services; IT and other information services; real estate activities; other business sector services; human health and social work) these figures are more than the selected countries' average. On the other hand, in the 22 sectors this measure is not in the selected countries' standard range and in the 6 sectors (particularly in mining and extraction of energy producing products; electrical equipment; other transport equipment) the rates are under the selected countries' average (Appendix X, XI). Similarly in the Azerbaijan economy for each unit of final demand consumes more motor vehicles, trailers and semi-trailers unit (1.5877 vs 1.3317) than the selected countries (Table 34).

In Azerbaijan economy input rates from other sectors to the sector of motor vehicles, trailers and semi-trailers (manufacture of motor vehicles, trailers and semi-trailers) are in the range of the selected countries' per 14 sectors and in the 5 sectors (particularly in chemicals and pharmaceutical products; other manufacturing; repair and installation of machinery and equipment; education) these figures are more than the selected countries' average. On the other hand, in the 21 sectors this measure is not in the selected countries' standard range and in the 30 sectors (particularly in textiles, wearing apparel, leather and related products; publishing, audio-visual and broadcasting activities; telecommunications; financial and insurance activities; human health and social work; arts, entertainment, recreation and other service activities) the rates are under the selected countries' average (Appendix X, XI). All in all, Azerbaijan economy consumes less input (1.5157 vs 2.2715) for each unit of final demand of the motor vehicles, trailers and semi-trailers sector than the selected countries (Table 34) due to the lack of production facilities of motor vehicles, trailers and semi-trailers.

Other transport equipment - Sector 19 (manufacture of other transport equipment) relations with other sectors

In Azerbaijan economy input rates from the sector of other transport equipment (manufacture of other transport equipment) to others are in the selected countries' standard range per only all sectors and in the 10 sectors (particularly in textiles, wearing apparel, leather and related products; paper products and printing; wholesale and retail trade; repair of motor vehicles; financial and insurance activities) these figures are more than the selected countries' average. On the other hand, in the 25 sectors (particularly in mining and extraction of energy producing products; coke and refined petroleum products; electrical equipment; public administration and defence; compulsory social security) the rates are under the selected countries' average (Appendix X, XI). Similarly in the Azerbaijan economy for each unit of final demand consumes less other transport equipment unit (1.4102 vs 1.7394) than the selected countries (Table 34).

In Azerbaijan economy input rates from other sectors to the sector of other transport equipment (manufacture of other transport equipment) are in the range of the selected countries per 19 sectors and in the 2 sectors (other non-metallic mineral products; machinery and equipment n.e.c.) these

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figures are more than the selected countries' average. On the other hand, in the 16 sectors this measure is not in the selected countries' standard range and in the 33 sectors (particularly in food products, beverages and tobacco; publishing, audio-visual and broadcasting activities; it and other information services; financial and insurance activities; other business sector services; arts, entertainment, recreation and other service activities) the rates are under the selected countries' average (Appendix X, XI). All in all, Azerbaijan economy consumes less input (1.3913 vs 2.4502) for each unit of final demand of the other transport equipment sector than the selected countries (Table 34).

Other manufacturing; repair and installation of machinery and equipment- Sector 20 (manufacture of furniture; other manufacturing; repair and installation of machinery and equipment) relations with other sectors

In Azerbaijan economy input rates from the sector of other manufacturing; repair and installation of machinery and equipment (manufacture of furniture; other manufacturing; repair and installation of machinery and equipment) to others are in the selected countries' standard range per only 21 sectors and in the 21 sectors (particularly in wood and of products of wood and cork (except furniture); motor vehicles, trailers and semi-trailers; financial and insurance activities; other business sector services; arts, entertainment, recreation and other service activities) these figures are more than the selected countries' average. On the other hand, in the 14 sectors this measure is not in the selected countries' standard range and in the 14 sectors (particularly in mining and extraction of energy producing products; coke and refined petroleum products; manufacture of basic metals; telecommunications) the rates are under the selected countries' average (Appendix X, XI). Similarly in the Azerbaijan economy for each unit of final demand consumes more repair and installation of machinery and equipment unit (1.9242 vs 1.3913) than the selected countries (Table 34).

In Azerbaijan economy input rates from other sectors to the sector of other manufacturing; repair and installation of machinery and equipment (manufacture of furniture; other manufacturing; repair and installation of machinery and equipment) are in the range of the selected countries per 21 sectors and in the 13 sectors (particularly in rubber and plastics products; electrical equipment; education) these figures are more than the selected countries' average. On the other hand, in the 14 sectors this measure is not in the selected countries' standard range and in the 22 sectors (particularly in agriculture, forestry and fishing; textiles, wearing apparel, leather and related products; arts, entertainment, recreation and other service activities) the rates are under the selected countries' average (Appendix X, XI). All in all, Azerbaijan economy consumes less input (2.2237 vs 2.2238) for each unit of final demand of the repair and installation of machinery and equipment sector than the selected countries' (Table 34).

Electricity, gas, water supply, sewerage, waste and remediation services- Sector 21 (Electricity, gas, steam and air conditioning supply; water collection, treatment and supply; sewerage; waste collection, treatment and disposal activities; materials recovery; remediation activities and other waste management services) relations with other sectors

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In Azerbaijan economy input rates from the sector of electricity, gas, water supply, sewerage, waste and remediation services (electricity, gas, steam and air conditioning supply; water collection, treatment and supply; sewerage; waste collection, treatment and disposal activities; materials recovery; remediation activities and other waste management services) to others are in the selected countries' standard range per only 20 sectors and in the 3 sectors (agriculture, forestry and fishing; food products, beverages and tobacco; financial and insurance activities) these figures are more than the selected countries' average. On the other hand, in the 15 sectors this measure is not in the selected countries' standard range and in the 32 sectors (particularly in mining and extraction of energy producing products; coke and refined petroleum products; motor vehicles, trailers and semi-trailers; wholesale and retail trade; repair of motor vehicles; telecommunications) the rates are under the selected countries' average (Appendix X, XI). Similarly in the Azerbaijan economy for each unit of final demand consumes less electricity, gas, water supply, sewerage, waste and remediation services unit (1.8261 vs 2.8121) than the selected countries (Table 34).

In Azerbaijan economy input rates from other sectors to the sector of electricity, gas, water supply, sewerage, waste and remediation services (electricity, gas, steam and air conditioning supply; water collection, treatment and supply; sewerage; waste collection, treatment and disposal activities; materials recovery; remediation activities and other waste management services) are in the range of the selected countries per 20 sectors and in the 15 sectors (particularly in rubber and plastics products; other non-metallic mineral products; manufacture of basic metals; computer, electronic and optical products; electrical equipment; machinery and equipment n.e.c.; motor vehicles, trailers and semi-trailers; construction; real estate activities) these figures are more than the selected countries' average. On the other hand, in the 15 sectors this measure is not in the selected countries' standard range and in the 20 sectors (particularly in agriculture, forestry and fishing; food products, beverages and tobacco; financial and insurance activities; human health and social work; arts, entertainment, recreation and other service activities) the rates are under the selected countries' average (Appendix X, XI). All in all, Azerbaijan economy consumes less input (2.0712 vs 2.1131) for each unit of final demand of the electricity, gas, water supply, sewerage, waste and remediation services sector than the selected countries (Table 34).

Construction- Sector 22 (construction of buildings) relations with other sectors

In Azerbaijan economy input rates from the sector of construction (construction of buildings) to others are in the selected countries' standard range per only 14 sectors and in the 27 sectors (particularly in electricity, gas, water supply, sewerage, waste and remediation services; accommodation and food services; IT and other information services; financial and insurance activities; public administration and defence; compulsory social security; human health and social work; arts, entertainment, recreation and other service activities; mining support service activities; education) these figures are more than the selected countries' average. On the other hand, in the 21 sectors this measure is not in the selected countries' standard range and in the 8 sectors (particularly in mining and extraction of energy producing products; mining and quarrying of non-energy producing products; manufacture of basic metals; other transport equipment) the rates are under the selected countries' average (Appendix X, XI). Similarly in the Azerbaijan economy for each unit of final demand consumes more construction unit (2.7262 vs 1.6155) than the selected countries (Table 34).

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In Azerbaijan economy input rates from other sectors to the sector of construction (construction of buildings) are in the range of the selected countries' per 21 sectors and in the 6 sectors (particularly in motor vehicles, trailers and semi-trailers; computer, electronic and optical products; construction; real estate activities) these figures are more than the selected countries' average. On the other hand, in the 14 sectors this measure is not in the selected countries' standard range and in the 29 sectors (particularly in agriculture, forestry and fishing; food products, beverages and tobacco; textiles, wearing apparel, leather and related products; publishing, audio-visual and broadcasting activities; human health and social work; arts, entertainment, recreation and other service activities) the rates are under the selected countries' average (Appendix X, XI). All in all, Azerbaijan economy consumes less input (1.6462 vs 2.2706) for each unit of final demand of the construction sector than the selected countries (Table 34).

Wholesale and retail trade; repair of motor vehicles- Sector 23 (wholesale and retail trade and repair of motor vehicles and motorcycles) relations with other sectors

In Azerbaijan economy input rates from the sector of wholesale and retail trade; repair of motor vehicles (wholesale and retail trade and repair of motor vehicles and motorcycles) to others are in the selected countries' standard range per only 6 sectors and in the 2 sectors (machinery and equipment n.e.c.; mining and quarrying of non-energy producing products) these figures are more than the selected countries' average. On the other hand, in the 29 sectors this measure is not in the selected countries' standard range and in the 33 sectors (particularly in mining and extraction of energy producing products; motor vehicles, trailers and semi-trailers; other transport equipment; telecommunications; education) the rates are under the selected countries' average (Appendix X, XI). Similarly in the Azerbaijan economy for each unit of final demand consumes less wholesale, retail trade, repair of motor vehicles unit (2.7381 vs 5.4214) than the selected countries (Table 34).

In Azerbaijan economy input rates from other sectors to the sector of wholesale and retail trade; repair of motor vehicles (wholesale and retail trade and repair of motor vehicles and motorcycles) are in the range of the selected countries per 20 sectors and in the 6 sectors (particularly in coke and refined petroleum products; computer, electronic and optical products; electrical equipment; other transport equipment; construction) these figures are more than the selected countries' average. On the other hand, in the 15 sectors this measure is not in the selected countries' standard range and in the 29 sectors (particularly in agriculture, forestry and fishing; textiles, wearing apparel, leather and related products; electricity, gas, water supply, sewerage, waste and remediation services;, publishing, audio-visual and broadcasting activities; human health and social work; arts, entertainment, recreation and other service activities) the rates are under the selected countries' average (Appendix X, XI). All in all, Azerbaijan economy consumes less input (1.3771 vs 1.7758) for each unit of final demand of the wholesale, retail trade, repair of motor vehicles sector than the selected countries (Table 34).

Transportation and storage - Sector 24 (land transport and transport via pipelines; water transport; air transport; warehousing and support activities for transportation; postal and courier activities) relations with other sectors

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In Azerbaijan economy input rates from the sector of transportation and storage (land transport and transport via pipelines; water transport; air transport; warehousing and support activities for transportation; postal and courier activities) to others are in the selected countries' standard range per only 9 sectors and in the 6 sectors (agriculture, forestry and fishing; mining and quarrying of non-energy producing products; food products, beverages and tobacco; textiles, wearing apparel, leather and related products; electricity, gas, water supply, sewerage, waste and remediation services;, human health and social work) these figures are more than the selected countries' average. On the other hand, in the 26 sectors this measure is not in the selected countries' standard range and in the 29 sectors (particularly in mining and extraction of energy producing products; other transport equipment; wholesale and retail trade; repair of motor vehicles; telecommunications; education) the rates are under the selected countries' average (Appendix X, XI). Similarly in the Azerbaijan economy for each unit of final demand consumes less transportation and storage unit (2.2003 vs 3.2592) than the selected countries (Table 34).

In Azerbaijan economy input rates from other sectors to the sector of transportation and storage (land transport and transport via pipelines; water transport; air transport; warehousing and support activities for transportation; postal and courier activities) are in the range of the selected countries' per 19 sectors and in the 17 sectors (particularly in paper products and printing; computer, electronic and optical products; electrical equipment; machinery and equipment n.e.c.; motor vehicles, trailers and semi-trailers) these figures are more than the selected countries' average. On the other hand, in the 16 sectors this measure is not in the selected countries' standard range and in the 18 sectors (particularly in agriculture, forestry and fishing; financial and insurance activities; human health and social work; arts, entertainment, recreation and other service activities) the rates are under the selected countries' average (Appendix X, XI). All in all, Azerbaijan economy consumes less input (2.1067 vs 2.1979) for each unit of final demand of the transportation and storage sector than the selected countries (Table 34).

Accommodation and food services- Sector 25 (accommodation; food and beverage service activities) relations with other sectors

In Azerbaijan economy input rates from the sector of accommodation and food services (accommodation; food and beverage service activities) to others are in the selected countries' standard range per only 22 sectors and in the 8 sectors (particularly in agriculture, forestry and fishing; other manufacturing; repair and installation of machinery and equipment; other business sector services; arts, entertainment, recreation and other service activities) these figures are more than the selected countries' average. On the other hand, in the 13 sectors this measure is not in the selected countries' standard range and in the 27 sectors (particularly in mining and extraction of energy producing products; other transport equipment; fabricated metal products, except machinery and equipment; motor vehicles, trailers and semi-trailers; education) the rates are under the selected countries' average (Appendix X, XI). Similarly in the Azerbaijan economy for each unit of final demand consumes less accommodation and food services unit (1.3187 vs 1.3321) than the selected countries (Table 34).

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In Azerbaijan economy input rates from other sectors to the sector of accommodation and food services (accommodation; food and beverage service activities) are in the range of the selected countries per 19 sectors and in the 11 sectors (particularly in computer, electronic and optical products; electrical equipment; motor vehicles, trailers and semi-trailers; construction) these figures are more than the selected countries' average. On the other hand, in the 16 sectors this measure is not in the selected countries' standard range and in the 24 sectors (particularly in textiles, wearing apparel, leather and related products; publishing, audio-visual and broadcasting activities; financial and insurance activities; other business sector services; human health and social work; arts, entertainment, recreation and other service activities) the rates are under the selected countries' average (Appendix X, XI). All in all, Azerbaijan economy consumes less input (1.5812 vs 2.0485) for each unit of final demand of the accommodation and food services sector than the selected countries (Table 34).

Publishing, audio-visual and broadcasting activities- Sector 26 (publishing activities; motion picture, video and television programme production, sound recording and music publishing activities; programming and broadcasting activities) relations with other sectors

In Azerbaijan economy input rates from the sector of publishing, audio-visual and broadcasting activities (publishing activities; motion picture, video and television programme production, sound recording and music publishing activities; programming and broadcasting activities) to others are in the selected countries' standard range per only 14 sectors. On the other hand, in the 21 sectors this measure is not in the selected countries' standard range and in the all sectors (particularly in mining and extraction of energy producing products; coke and refined petroleum products; motor vehicles, trailers and semi-trailers; other transport equipment; wholesale and retail trade; repair of motor vehicles; telecommunications) the rates are under the selected countries' average (Appendix X, XI). Similarly in the Azerbaijan economy for each unit of final demand consumes less publishing, audio-visual and broadcasting activities unit (1.0945 vs 1.3415) than the selected countries (Table 34).

In Azerbaijan economy input rates from other sectors to the sector of publishing, audio-visual and broadcasting activities (publishing activities; motion picture, video and television programme production, sound recording and music publishing activities; programming and broadcasting activities) are in the range of the selected countries per 17 sectors and in the 12 sectors (particularly in rubber and plastics products; computer, electronic and optical products; electrical equipment; motor vehicles, trailers and semi-trailers; other manufacturing, repair and installation of machinery and equipment) these figures are more than the selected countries' average. On the other hand, in the 18 sectors this measure is not in the selected countries' standard range and in the 23 sectors (particularly in agriculture, forestry and fishing; textiles, wearing apparel, leather and related products; financial and insurance activities; wholesale and retail trade, repair of motor vehicles) the rates are under the selected countries' average (Appendix X, XI). All in all, Azerbaijan economy consumes less input (1.7914 vs 2.1755) for each unit of final demand of the publishing, audio-visual and broadcasting activities sector than the selected countries (Table 34).

Telecommunications - Sector 27 (telecommunications) relations
with other sectors

In Azerbaijan economy input rates from the sector of telecommunications (telecommunications) to others are in the selected countries' standard range per only 13 sectors and in the 2 sectors (accommodation and food services; real estate activities) these figures are more than the selected countries' average. On the other hand, in the 22 sectors this measure is not in the selected countries' standard range and in the 33 sectors (particularly in mining and extraction of energy producing products; coke and refined petroleum products; motor vehicles, trailers and semi-trailers; other transport equipment) the rates are under the selected countries' average (Appendix X, XI). Similarly in the Azerbaijan economy for each unit of final demand consumes less telecommunications unit (1.3696 vs 1.8632) than the selected countries (Table 34).

In Azerbaijan economy input rates from other sectors to the sector of telecommunications (telecommunications) are in the range of the selected countries' per 22 sectors and in the 3 sectors (electrical equipment; machinery and equipment n.e.c.; motor vehicles, trailers and semi-trailers) these figures are more than the selected countries' average. On the other hand, in the 13 sectors this measure is not in the selected countries' standard range and in the 32 sectors (particularly in agriculture, forestry and fishing; food products, beverages and tobacco; textiles, wearing apparel, leather and related products; electricity, gas, water supply, sewerage, waste and remediation services;, wholesale and retail trade; repair of motor vehicles; transportation and storage; publishing, audio-visual and broadcasting activities; human health and social work) the rates are under the selected countries' average (Appendix X, XI). All in all, Azerbaijan economy consumes less input (1.2668 vs 1.9442) for each unit of final demand of the telecommunications sector than the selected countries (Table 34).

IT and other information services- Sector 28 (computer programming, consultancy and related activities; information service activities) relations with other sectors

In Azerbaijan economy input rates from the sector of IT and other information services (computer programming, consultancy and related activities; information service activities) to others are in the selected countries' standard range per only 27 sectors and in the 6 sectors (particularly in publishing, audio-visual and broadcasting activities; financial and insurance activities; other business sector services) these figures are more than the selected countries' average. On the other hand, in the 8 sectors this measure is not in the selected countries' standard range and in the 29 sectors (particularly in mining and extraction of energy producing products; coke and refined petroleum products; manufacture of basic metals; fabricated metal products, except machinery and equipment; computer, electronic and optical products; other transport equipment) the rates are under the selected countries' average (Appendix X, XI). Similarly in the Azerbaijan economy for each unit of final demand consumes less IT and other information services unit (1.3138 vs 1.4059) than the selected countries (Table 34).

In Azerbaijan economy input rates from other sectors to the sector of IT and other information services (computer programming, consultancy and related activities; information service

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activities) are in the range of the selected countries per 18 sectors and in the 16 sectors (particularly in other non-metallic mineral products; manufacture of basic metals; electrical equipment; machinery and equipment n.e.c.; motor vehicles, trailers and semi-trailers; construction) these figures are more than the selected countries' average. On the other hand, in the 17 sectors this measure is not in the selected countries' standard range and in the 19 sectors (particularly in agriculture, forestry and fishing; publishing, audio-visual and broadcasting activities; financial and insurance activities; human health and social work; arts, entertainment, recreation and other service activities) the rates are under the selected countries' average (Appendix X, XI). All in all, Azerbaijan economy consumes more input (1.8836 vs 1.8242) for each unit of final demand of the IT and other information services sector than the selected countries (Table 34).

Financial and insurance activities- Sector 29 (financial service activities, except insurance and pension funding; insurance, reinsurance and pension funding, except compulsory social security; Activities auxiliary to financial services and insurance activities) relations with other sectors

In Azerbaijan economy input rates from the sector of financial and insurance activities (financial service activities, except insurance and pension funding; insurance, reinsurance and pension funding, except compulsory social security; Activities auxiliary to financial services and insurance activities) to others are in the selected countries' standard range per only 34 sectors. On the other hand, in the 1 sector (motor vehicles, trailers and semi-trailers) this measure is not in the selected countries' standard range and in the all sectors (particularly in mining and extraction of energy producing products; coke and refined petroleum products; manufacture of basic metals; fabricated metal products, except machinery and equipment; computer, electronic and optical products; electrical equipment; other transport equipment; real estate activities) the rates are under the selected countries' average (Appendix X, XI). Similarly in the Azerbaijan economy for each unit of final demand consumes less financial and insurance activities unit (1.8370 vs 6.0499) than the selected countries (Table 34).

In Azerbaijan economy input rates from other sectors to the sector of financial and insurance activities (financial service activities, except insurance and pension funding; insurance, reinsurance and pension funding, except compulsory social security; Activities auxiliary to financial services and insurance activities) are in the range of the selected countries per 15 sectors and in the 17 sectors (particularly in wood and of products of wood and cork (except furniture); rubber and plastics products; computer, electronic and optical products; electrical equipment; machinery and equipment n.e.c.; motor vehicles, trailers and semi-trailers; other manufacturing; repair and installation of machinery and equipment; construction) these figures are more than the selected countries' average. On the other hand, in the 20 sectors this measure is not in the selected countries' standard range and in the 18 sectors (particularly in agriculture, forestry and fishing; textiles, wearing apparel, leather and related products; publishing, audio-visual and broadcasting activities; human health and social work) the rates are under the selected countries' average (Appendix X, XI). All in all, Azerbaijan economy consumes less input (1.5341 vs 2.0956) for each unit of final demand of the financial and insurance activities sector than the selected countries (Table 34).

Real estate activities- Sector 30 (real estate activities) relations with other sectors

In Azerbaijan economy input rates from the sector of real estate activities (real estate activities) to others are in the selected countries' standard range per only 17 sectors and in the 24 sectors (particularly in mining support service activities; wood and of products of wood and cork (except furniture); paper products and printing; rubber and plastics products; electricity, gas, water supply, sewerage, waste and remediation services; financial and insurance activities) these figures are more than the selected countries' average. On the other hand, in the 18 sectors this measure is not in the selected countries' standard range and in the 11 sectors (particularly in mining and extraction of energy producing products; coke and refined petroleum products; telecommunications; education) the rates are under the selected countries' average (Appendix X, XI). Similarly in the Azerbaijan economy for each unit of final demand consumes more real estate activities unit (2.6666 vs 1.8805) than the selected countries (Table 34).

In Azerbaijan economy input rates from other sectors to the sector of real estate activities (real estate activities) are in the range of the selected countries' per 25 sectors and in the 14 sectors (particularly in coke and refined petroleum products; manufacture of basic metals; computer, electronic and optical products; electrical equipment; motor vehicles, trailers and semi-trailers) these figures are more than the selected countries' average. On the other hand, in the 10 sectors this measure is not in the selected countries' standard range and in the 21 sectors (particularly in agriculture, forestry and fishing; publishing, audio-visual and broadcasting activities; financial and insurance activities; human health and social work; arts, entertainment, recreation and other service activities) the rates are under the selected countries' average (Appendix X, XI). All in all, Azerbaijan economy consumes more input (1.5806 vs 1.4240) for each unit of final demand of the real estate activities sector than the selected countries (Table 34).

Other business sector services - Sector 31 relations with other sectors

In Azerbaijan economy input rates from the sector of other business services to the rest sectors are in the selected countries' standard range per only 6 sectors. On the other hand, in the 29 sectors this measure is not in the selected countries' standard range and in the all sectors (particularly in mining and extraction of energy producing products; coke and refined petroleum products; manufacture of basic metals; other transport equipment) the rates are under the selected countries' average (Appendix X, XI). Similarly in the Azerbaijan economy for each unit of final demand consumes less other business sector services unit (1.7995 vs 4.2448) than the selected countries (Table 34).

In Azerbaijan economy input rates from other sectors to the sector of other business sector services are in the range of the selected countries' per 19 sectors and in the 19 sectors (particularly in wood and of products of wood and cork (except furniture); computer, electronic and optical products; electrical equipment; motor vehicles, trailers and semi-trailers; other manufacturing; repair and installation of machinery and equipment; construction;, it and other information services) these figures are more than the selected countries' average. On the other hand, in the 16 sectors this

measure is not in the selected countries' standard range and in the 16 sectors (particularly in other transport equipment; wholesale and retail trade; repair of motor vehicles; publishing, audio-visual and broadcasting activities; human health and social work; arts, entertainment, recreation and other service activities) the rates are under the selected countries' average (Appendix X, XI). All in all, Azerbaijan economy consumes less input (1.8486 vs 1.8739) for each unit of final demand of the other business sector services sector than the selected countries (Table 34).

Public administration and defence; compulsory social security- Sector 32 (public administration and defence; compulsory social security) relations with other sectors

In Azerbaijan economy input rates from the sector of public administration and defence; compulsory social security to others are in the selected countries' standard range per only 25 sectors and in the 6 sectors (particularly in rubber and plastics products; education; arts, entertainment, recreation and other service activities) these figures are more than the selected countries' average. On the other hand, in the 10 sectors this measure is not in the selected countries' standard range and in the 29 sectors (particularly in mining and extraction of energy producing products; motor vehicles, trailers and semi-trailers; wholesale and retail trade; repair of motor vehicles; other transport equipment) the rates are under the selected countries' average (Appendix X, XI). Similarly in the Azerbaijan economy for each unit of final demand consumes less public administration and defence unit (1.0466 vs 1.0636) than the selected countries (Table 34).

In Azerbaijan economy input rates from other sectors to the sector of public administration and defence; compulsory social security are in the range of the selected countries' per 17 sectors and in the 12 sectors (particularly in wood and of products of wood and cork (except furniture); computer, electronic and optical products; electrical equipment; machinery and equipment n.e.c.; motor vehicles, trailers and semi-trailers; construction) these figures are more than the selected countries' average. On the other hand, in the 18 sectors this measure is not in the selected countries' standard range and in the 23 sectors (particularly in agriculture, forestry and fishing; textiles, wearing apparel, leather and related products; human health and social work; arts, entertainment, recreation and other service activities) the rates are under the selected countries' average (Appendix X, XI). All in all, Azerbaijan economy consumes less input (1.5684 vs 1.7365) for each unit of final demand of the public administration and defence sector than the selected countries (Table 34).

Education- Sector 33 (education) relations with other sectors

In Azerbaijan economy input rates from the sector of education to others are in the selected countries' standard range per only 30 sectors and in the 7 sectors (particularly in motor vehicles, trailers and semi-trailers; other manufacturing; repair and installation of machinery and equipment; public administration and defence; compulsory social security; human health and social work) these figures are more than the selected countries' average. On the other hand, in the 5 sectors this measure is not in the selected countries' standard range and in the 28 sectors (particularly in mining and extraction of energy producing products; wood and of products of wood and cork (except

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furniture); chemicals and pharmaceutical products; electrical equipment) the rates are under the selected countries' average (Appendix X, XI). Similarly in the Azerbaijan economy for each unit of final demand consumes less education unit (1.0266 vs 1.0378) than the selected countries (Table 34).

In Azerbaijan economy input rates from other sectors to the sector of education are in the range of the selected countries per 21 sectors and in the 8 sectors (particularly in motor vehicles, trailers and semi-trailers; construction; public administration and defence; compulsory social security) these figures are more than the selected countries' average. On the other hand, in the 14 sectors this measure is not in the selected countries' standard range and in the 27 sectors (particularly in agriculture, forestry and fishing; textiles, wearing apparel, leather and related products; publishing, audio-visual and broadcasting activities; financial and insurance activities; other business sector services; arts, entertainment, recreation and other service activities) the rates are under the selected countries' average (Appendix X, XI). All in all, Azerbaijan economy consumes less input (1.1622 vs 1.4688) for each unit of final demand of the education sector than the selected countries (Table 34).

Human health and social work- Sector 34 (human health activities; residential care activities; social work activities without accommodation) relations with other sectors

In Azerbaijan economy input rates from the sector of human health and social work (human health activities; residential care activities; social work activities without accommodation) to others are in the selected countries' standard range per only 30 sectors. On the other hand, in the 5 sectors this measure is not in the selected countries' standard range and in the all sectors (particularly in mining and extraction of energy producing products; wood and of products of wood and cork (except furniture); chemicals and pharmaceutical products; machinery and equipment n.e.c.; construction;, wholesale and retail trade, repair of motor vehicles) the rates are under the selected countries' average (Appendix X, XI). Similarly in the Azerbaijan economy for each unit of final demand consumes less human health and social work unit (1.0472 vs 1.5530) than the selected countries' (Table 34).

In Azerbaijan economy input rates from other sectors to the sector of human health and social work (human health activities; residential care activities; social work activities without accommodation) are in the range of the selected countries per 21 sectors and in the 20 sectors (particularly in mining and extraction of energy producing products; coke and refined petroleum products; computer, electronic and optical products; electrical equipment; motor vehicles, trailers and semi-trailers; construction) these figures are more than the selected countries' average. On the other hand, in the 14 sectors this measure is not in the selected countries' standard range and in the 15 sectors (particularly in publishing, audio-visual and broadcasting activities; telecommunications; it and other information services; financial and insurance activities; other business sector services; arts, entertainment, recreation and other service activities) the rates are under the selected countries' average (Appendix X, XI). All in all, Azerbaijan economy consumes more input (1.7553 vs 1.6768) for each unit of final demand of the human health and social work sector than the selected countries (Table 34).

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Arts, entertainment, recreation and other service activities- Sector 35 relations with other sectors

In Azerbaijan economy input rates from the sector of arts, entertainment, recreation and other service activities to others are in the selected countries' standard range per only 9 sectors and in the 1 sector (arts, entertainment, recreation and other service activities) this figure is more than the selected countries' average. On the other hand, in the 26 sectors this measure is not in the selected countries' standard range and in the 34 sectors (particularly in agriculture, forestry and fishing; wood and of products of wood and cork (except furniture); manufacture of basic metals; fabricated metal products, except machinery and equipment; computer, electronic and optical products; electrical equipment; motor vehicles, trailers and semi-trailers; other transport equipment; construction) the rates are under the selected countries' average (Appendix X, XI). Similarly in the Azerbaijan economy for each unit of final demand consumes less arts, entertainment, recreation and other service activities unit (1.1018 vs 1.4027) than the selected countries (Table 34).

In Azerbaijan economy input rates from other sectors to the sector of arts, entertainment, recreation and other service activities are in the range of the selected countries per 23 sectors and in the 12 sectors (particularly in agriculture, forestry and fishing; machinery and equipment n.e.c.; motor vehicles, trailers and semi-trailers; other manufacturing; repair and installation of machinery and equipment; construction;, accommodation and food services; public administration and defence; compulsory social security) these figures are more than the selected countries' average. On the other hand, in the 12 sectors this measure is not in the selected countries' standard range and in the 23 sectors (particularly in publishing, audio-visual and broadcasting activities; financial and insurance activities; textiles, wearing apparel, leather and related products; it and other information services; education) the rates are under the selected countries' average (Appendix X, XI). All in all, Azerbaijan economy consumes less input (1.6643 vs 2.0429) for each unit of final demand of the arts, entertainment, recreation and other service activities sector than the selected countries (Table 34).

Table 35: The summary of the sectors

Azerbaijan Sectors	Azerbaijan Sector No	The Selected Countries' Sectors	The Selected Countries' Sector No
Crop and animal production, hunting and related service activities	1	Agriculture, forestry and fishing	1
Forestry and logging	2		
Fishing and aquaculture	3		
Mining of coal and lignite	4	Mining and extraction of energy producing products	2
Extraction of crude petroleum and natural gas	5		
Mining of metal ores	6	Mining and quarrying of non-energy producing products	3
Other mining and quarrying	7		
Mining support service activities	8	Mining support service activities	4
Manufacture of food products	9	Food products, beverages and tobacco	5
Manufacture of beverages	10		
Manufacture of tobacco products	11		
Manufacture of textiles	12	Textiles, wearing apparel, leather and related products	6
Manufacture of wearing apparel	13		
Manufacture of leather and related products	14		
Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials	15	Wood and of products of wood and cork (except furniture)	7
Manufacture of paper and paper products	16	Paper products and printing	8
Printing and reproduction of recorded media	17		
Manufacture of coke and refined petroleum products	18	Coke and refined petroleum products	9
Manufacture of chemicals and chemical products	19	Chemicals and pharmaceutical products	10
Manufacture of basic pharmaceutical products and pharmaceutical preparations	20		
Manufacture of rubber and plastic products	21	Rubber and plastics products	11
Manufacture of other non-metallic mineral products	22	Other non-metallic mineral products	12
Manufacture of basic metals	23	Manufacture of basic metals	13
Manufacture of fabricated metal products, except machinery and equipment	24	Fabricated metal products, except machinery and equipment	14
Manufacture of computer, electronic and optical products	25	Computer, electronic and optical products	15
Manufacture of electrical equipment	26	Electrical equipment	16
Manufacture of machineryand equipment n.e.c.	27	Machinery and equipment n.e.c.	17
Manufacture of motor vehicles, trailers and semi-trailers	28	Motor vehicles, trailers and semi-trailers	18
Manufacture of other transport equipment	29	Other transport equipment	19
Manufacture of furniture	30	Other manufacturing; repair and installation of machinery and equipment	20
Other manufacturing	31		
Repair and installation of machinery and equipment	32		
Electricity, gas, steam and air conditioning supply	33	Electricity, gas, water supply, sewerage, waste and remediation services	21
Water collection, treatment and supply	34		
Sewerage	35		
Waste collection, treatment and disposal activities; materials recovery	36		
Remediation activities and other waste management services	37		
Construction of buildings	38	Construction	22
Wholesale and retail trade and repair of motor vehicles and motorcycles	39	Wholesale and retail trade; repair of motor vehicles	23
Land transport and transport via pipelines	40	Transportation and storage	24
Water transport	41		
Air transport	42		
Warehousing and support activities for transportation	43		
Postal and courier activities	44		
Accommodation	45	Accommodation and food services	25
Food and beverage service activities	46		
Publishing activities	47	Publishing, audio-visual and broadcasting activities	26
Motion picture, video and television programme production, sound recording and music publishing activities	48		

Programming and broadcasting activities	49		
Telecommunications	50	Telecommunications	27
Computer programming, consultancy and related activities	51	IT and other information services	28
Information service activities	52		
Financial service activities, except insurance and pension funding	53	Financial and insurance activities	29
Insurance, reinsurance and pension funding, except compulsorysocial security	54		
Activities auxiliary to financial services and insurance activities	55		
Real estate activities	56	Real estate activities	30
Legal and accounting activities	57	Other business sector services	31
Activities of head offices; management consultancy activities	58		
Architectural and engineering activities; technical testing and analysis	59		
Scientific research and development	60		
Advertising and market research	61		
Other professional, scientific and technical activities	62		
Veterinary activities	63		
Rental and leasing activities	64		
Employment activities	65		
Travel agency, tour operator reservation service and related activities	66		
Security and investigation activities	67		
Services to buildings and landscape activities	68		
Office administrative, office support and other business support activities	69		
Public administration and defence; compulsory social security	70	Public administration and defence; compulsory social security	32
Education	71	Education	33
Human health activities	72	Human health and social work	34
Residential care activities	73		
Social work activities without accommodation	74		
Creative, arts and entertainment activities	75	Arts, entertainment, recreation and other service activities	35
Libraries, archives, museums and other cultural activities	76		
Gambling and betting activities	77		
Sports activities and amusement and recreation activities	78		
Activities of membership organisations	79		
Repair of computers and personal and household goods	80	Private households with employed persons	36
Other personal service activities	81		

Source: The authors own summary based on OECD and The State Statistical Committee of the Republic of Azerbaijan data

4.2. Interviews' outcomes

The first question asks whether the country has managed to utilize the resource wealth in the most efficient way or not. Responses are quite varied, however there is common belief. In the countries where there are deep economic issues, the respondents believe that, they could not manage efficiently. The main points are the current low social development indicators, the living standards. The most interesting answer is related to the term of efficient: the efficiency could be assessed based on the relativeness. So, for different benefit groups efficiency rate can be observed from 5% till 90%. In the short and long terms it is almost impossible to change the current picture in the efficient management of the resource revenue. Alternatively, in case of the countries with leading positive experience, cannot be considered perfect scenario, which motivate always to reach maximum benefit to all.

The second question tries to find the decision making in the dealing with the resource money, whether to spend, invest and reserve in a country or abroad. The importance of the learning other resource dependent economies' experience who have done well, emphasized in the return. Other scholars believe that, saving or investing the resource revenues (minimum half) abroad can be

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considered as one of the efficient ways. And the current local expenditures within a resource dependent would mainly be financed via the return rates of the investments in abroad. On the contrast views, the scholars appreciate the utilization of the resource rents in a country mainly in order to rebuild economy and the foster the economic development with minimum investment abroad. However, in case of the investing out of a country, the return revenues need to be reinvested locally again.

The next question completes the second one logically. So, the author is keen to know the efficient place to keep the resource reserves for the future generations: in a country or abroad. Interestingly, some respondents believe the only way to handle the reserves to the future to invest the rents in the local economic development and education. It is clear that the countries where there is need to the capital, the utilizing and keeping rents internally can be considered the efficient decision. However, in practice to apply this, is not easy job and not successful usually. That is why, the main part of the reserves would be allocated in abroad in order to prevent any internal risks caused by miss-governance, economic conditions and ensure global transparent environment.

The countries previous experience in the utilization of the resource rents have been evaluated differently by the respondents. The scholars mentioned that reinvestments the industrial, business, education sectors, all in all productive sectors are more efficient decisions by the government. The transparency and the efficiency of the internal usage of the rents are highlighted as the key factors by the scholars. Without noticing those two factors there is no meaning to talk further about the each country's experience. Other valuable thoughts are importance of the advance determination of the benefit groups before any investment decisions and the keep the resource-rent far from the political interests to prevent the misusing of them.

Based on the scholars' returns, the author summarizes that, the traditional sectors, like agriculture, tourism, manufacturing, petrochemical industries were leading part of the resource dependent countries' economies can foster the total output in the relevant states. On the other hand, communications, IT, infrastructure have been considered as the key directions for the countries.

In the question whether, the resource dependent economies' past historical experience can be considered as a sample for the Dutch disease, opinions are more close each other. The countries where the resource sector challenges are leading, are likely to be considered as a good example. However, the key mutual return by the scholar is that, every country has own pass and it is hard to judge or say any specific country should be called as one infected by these diseases. And in addition to characterizing the experiences, the scholars believe that the dependence or addiction from the resource sector should be minimized in all manners in order to ensure independent environment for the rest of the economic sectors in an economy.

Regardless the current economic challenges in the resource economies, the scholars believe that, the delivered monetary policies by the government have been efficient including stabilizing currency regimes, inflation levels. However there have been also challenges and passive expansionary monetary policies in some countries.

Apart from that, the scholars support the implementation of the limitation or control over the resource rent transfers to the public spending. In case of direct infection the rents to the public expenditure can lead varied issues, particularly in the high volatility in the world energy markets.

Additionally, the respondents emphasize the importance of the traditional sectors role in the total export via elimination resource-based goods and services. As the final idea of the interviews, whether these resource-rich countries can learn from each-other in the managing oil-gas rents, the scholars believe that, the countries can learn from their unsuccessful experiences in order to tackle the relevant challenges.

The author has collected interesting responces from the scholars in Azerbaijan on the country's economy. The content of the interviews had been summarized and shared via social media tool to the audience: Nijat meets Experts in Baku: The Economic Situation in Azerbaijan (https://www.youtube.com/watch?v=eyCbgoMHXV0)

Here are the key asked points and summary of the feedbacks:

The current situation in the Azerbaijan economy and crucial changes in the recent years – The national currency has been volatile in the neighbor oil exporting countries, Russian Federation, Kazakhstan, Azerbaijan and the government has applied floating currency regime in Azerbaijan. Decision makers in the central banking system of Azerbaijan could not find out the real market price of the national currency. The Azerbaijan economy has been mono product-oil exporting country particularly since 2014. The economic reforms by the government are highlighted by another scholar as the positive sign in the current volatile environment. On the other response inefficient usage of the financial reserves of the Central Bank of Azerbaijan is mentioned particularly. Closing down of the commercial banks by the Azerbaijan government cannot be the real solution in the current issues due to their weak participation in the banking system.

As the key recent reform/action package (Road Map) by the government in Azerbaijan is evaluated by the scholars too: Generally respondents' and author believed and noted that this reform package might be considered as the good sign of the reforms and initiatives. Definitely, only time will show how this reforms will work. However, since the document accepted, there is still no crucial changes in the matter of the economic development.

The new approach in terms of the fiscal policy in the new document can lead better results as hope. Any direct subsidizing connection between public expenditure and non-oil gas growth in the total output should not be strong. Attracting new foreign direct investment should be set as priority in the government's agenda. Non-oil sector should be focused more while it holds the main part of the employment in Azerbaijan.

Taxation in the Azerbaijan economy, any increase in the rates by the government whether are expected and welcomed is asked: Stable approach in the taxation by the governors is crucial for the private sector. Any increase in the rates can lead mistrust between tax payers and the government. Transfers from the oil rents will be again crucial part of the public spending. The volume of the public spending are highly correlated with the state revenue. In the higher budget the government has been spending to the main infrastructural projects. In the smaller budget the government will not go to the higher spending, hope there will be no need to increase any tax revenue via increasing the tax rates. In worst scenario any increase in the tax rates should not be dramatic and should not demotivate the active players in the economy.

The human resources policy in Azerbaijan: The bridges between institutions, employers, employees, job seekers should be focused to minimize the issues on the agenda. The approach to the general employment issues should be reformulated and enhanced.

The government's approach to the agriculture in Azerbaijan: The innovation in the agriculture should be focused to reach to the goals via active communication between the authorities and the producers.

4.3. Results of Optimization - Goals

In the first goal, the author has compared optimal maximum output (solved via linear programming tool) with the given output value per 80 sectors. As the result of this cluster, the author groups the sectors in two directions (Table 36-37):

The first group: production is over optimum value-66 sectors are in this group. It is clear that, extraction of crude petroleum and natural gas sector has one of the greatest portion of the over optimum level. The main reason might be existence of the resource dependent economy in Azerbaijan. Apart from that, the author highlights the construction and public administration, defense sector as the overproducing areas. For those two, the reason might be huge government expenditure in infrastructure and public authorities and military.

The second group: production is under optimum value-14 sectors are in this group. This group shows quite interesting results. So, as the key driver of the economy, manufacture sector performs less efficiently, particularly transportation means and pharmaceutical industries. Not surprisingly, it has connection with the poor developed scientific and technical activities.

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Table 36. Goal 1 - economic sectorial view in compare with optimal maximum output, the first group

Production is over optimum value	
Crop and animal production, hunting and related service activities	Electricity, gas, steam and air conditioning supply
Forestry and logging	Publishing activities
Fishing and aquaculture	Motion picture, video and television programme production, sound recording and music publishing activities
Extraction of crude petroleum and natural gas	Programming and broadcasting activities
Mining of metal ores	Telecommunications
Mining support service activities	Computer programming, consultancy and related activities
Manufacture of food products	Information service activities
Manufacture of beverages	Financial service activities, except insurance and pension funding
Manufacture of tobacco products	Insurance, reinsurance and pension funding, except compulsorysocial security
Manufacture of textiles	Activities auxiliary to financial services and insurance activities
Manufacture of wearing apparel	Real estate activities
Manufacture of leather and related products	Legal and accounting activities
Printing and reproduction of recorded media	Activities of head offices; management consultancy activities
Food and beverage service activities	Advertising and market research
Manufacture of chemicals and chemical products	Veterinary activities
Manufacture of other non-metallic mineral products	Rental and leasing activities
Manufacture of basic metals	Employment activities
Manufacture of fabricated metal products, except machinery and equipment	Travel agency, tour operator reservation service and related activities
Manufacture of furniture	Security and investigation activities
Repair and installation of machinery and equipment	Services to buildings and landscape activities
Manufacture of coke and refined petroleum products	Office administrative, office support and other business support activities
Water collection, treatment and supply	Wholesale and retail trade and repair of motor vehicles and motorcycles
Sewerage	Education
Waste collection, treatment and disposal activities; materials recovery	Human health activities
Remediation activities and other waste management services	Residential care activities
Construction of buildings	Social work activities without accommodation
Public administration and defence; compulsory social security	Creative, arts and entertainment activities
Land transport and transport via pipelines	Libraries, archives, museums and other cultural activities
Water transport	Gambling and betting activities
Air transport	Sports activities and amusement and recreation activities
Warehousing and support activities for transportation	Activities of membership organisations
Postal and courier activities	Repair of computers and personal and household goods
Accommodation	Other personal service activities

Source: The authors own analysis based on OECD and The State Statistical Committee of the Republic of Azerbaijan data

**Table 37. Goal 1 - economic sectorial view in comparison
with optimal maximum output, the second group**

Production is under optimum value
Other mining and quarrying
Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials
Manufacture of paper and paper products
Manufacture of basic pharmaceutical products and pharmaceutical preparations
Manufacture of rubber and plastic products
Manufacture of computer, electronic and optical products
Manufacture of electrical equipment
Manufacture of machinery and equipment n.e.c.
Manufacture of motor vehicles, trailers and semi-trailers
Manufacture of other transport equipment
Other manufacturing
Architectural and engineering activities; technical testing and analysis
Scientific research and development
Other professional, scientific and technical activities

Source: The authors own analysis based on OECD and The State Statistical Committee of the Republic of Azerbaijan data

In the second goal, the author has calculated employment multiplier (via dividing optimal maximum output to the given compensation of employees) per 80 sectors. As the result of this cluster, the author groups the sectors in three directions. In total Azerbaijan economy has the capacity to increase the number of workplace more than 2 million.

The first group: employment is over optimum value-34 sectors are in this group (+174 thousands of workforce units). The first clusters shows that, just only in 6 areas of 34 sectors (manufacture of leather and related products; tobacco products; beverages; food products; fishing and aquaculture; crop and animal production, hunting and related service activities) has over employment with more than 100 thousands workplaces.

The second group: employment is under optimum value-33 sectors are in this group (-93 thousands of workforce units are needed). The major areas are warehousing and support activities for transportation; media services; manufacture of fabricated metal products; manufacture of basic metals; repair and installation of machinery and equipment.

The third group: employment is far under optimum value-13 sectors are in this group (2mln 356 thousands of workforce units are needed). Not surprisingly the major part of human recourses are needed in the manufacture of pharmaceutical products; products of wood and cork; plastic products; paper products; motor vehicles, trailers and semi-trailers; other transport equipment; machinery and equipment n.e.c.; computer, electronic and optical products; electrical equipment; other mining and quarrying. It is clear that, those sectors need more investment in all manners.

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Table 38. Goal 2 - employment view per economic sectors in compare with optimal maximum output

Employment is far under optimum value	Employment is over optimum value	Employment is under optimum value
Other mining and quarrying	Crop and animal production, hunting and related service activities	Mining of metal ores
Mining support service activities	Forestry and logging	Printing and reproduction of recorded media
Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials	Fishing and aquaculture	Manufacture of chemicals and chemical products
Manufacture of paper and paper products	Extraction of crude petroleum and natural gas	Manufacture of other non-metallic mineral products
Manufacture of basic pharmaceutical products and pharmaceutical preparations	Manufacture of food products	Manufacture of basic metals
Manufacture of rubber and plastic products	Manufacture of beverages	Manufacture of fabricated metal products, except machinery and equipment
Manufacture of computer, electronic and optical products	Manufacture of tobacco products	Manufacture of furniture
Manufacture of electrical equipment	Manufacture of textiles	Repair and installation of machinery and equipment
Manufacture of machinery and equipment n.e.c.	Manufacture of wearing apparel	Sewerage
Manufacture of motor vehicles, trailers and semi-trailers	Manufacture of leather and related products	Waste collection, treatment and disposal activities; materials recovery
Manufacture of other transport equipment	Food and beverage service activities	Remediation activities and other waste management services
Other manufacturing	Manufacture of coke and refined petroleum products	Land transport and transport via pipelines
Other professional, scientific and technical activities	Water collection, treatment and supply	Warehousing and support activities for transportation
	Construction of buildings	Postal and courier activities
	Public administration and defense; compulsory social security	Publishing activities
	Water transport	Motion picture, video and television program production, sound recording and music publishing activities
	Air transport	Computer programming, consultancy and related activities
	Accommodation	Information service activities
	Electricity, gas, steam and air conditioning supply	Financial service activities, except insurance and pension funding
	Programming and broadcasting activities	Insurance, reinsurance and pension funding, except compulsory social security
	Telecommunications	Activities auxiliary to financial services and insurance activities
	Legal and accounting activities	Real estate activities
	Travel agency, tour operator reservation service and related activities	Activities of head offices; management consultancy activities
	Security and investigation activities	Architectural and engineering activities; technical testing and analysis
	Wholesale and retail trade and repair of motor vehicles and motorcycles	Scientific research and development
	Education	Advertising and market research
	Human health activities	Veterinary activities
	Residential care activities	Rental and leasing activities
	Social work activities without accommodation	Employment activities
	Libraries, archives, museums and other cultural activities	Services to buildings and landscape activities
	Gambling and betting activities	Office administrative, office support and other business support activities
	Sports activities and amusement and recreation activities	Creative, arts and entertainment activities
	Repair of computers and personal and household goods	Activities of membership organizations
	Other personal service activities	

Source: The authors own analysis based on OECD and The State Statistical Committee of the Republic of Azerbaijan data

In the third goal, the author has calculated the share of the given trade balance as the part of the solved optimum output level. In comparison with the first and second goals, the third goal is connected with them as well. Only 7 sectors have the capacity to increase the export level due to the over optimum production value with the positive share in the trade balance. The major two sectors are the resource sector: extraction of crude petroleum, natural gas and food and beverage

service activities. The major sectors (more than 20, mainly manufacture sectors) imports in crucial percentage of products due to poor development of manufacture sector in Azerbaijan.

4.4. Results of Optimization – By Economic Sectors

The relative approach to the sectorial structure of the Azerbaijan economy shows us interesting results (Appendix V):

The sector of crop and animal production, hunting and related service activities produces 4 times more output and employs 90% more workers than optimum level. So, it means, as the main driver of the agriculture sector in Azerbaijan, the sector of crop and animal production, hunting and related activities needs to concentrate on the efficient production via applying innovative technologies in order to motivate additional labor force to move to the sectors and to ensure the sustainable output level respectively. The trade balance is -2% of the total output per the sector of crop and animal production, hunting and related service activities and that supports our result on over production.

The sector of forestry and logging produces 8 times more output and employs 18% more workers than optimum level. So, it means, as one of the main driver of the agriculture sector in Azerbaijan, the sector of forestry and logging needs to take care of the protection of the environment. The trade balance is 0% of the total output per the sector of forestry and logging and that supports our result on over production.

The sector of fishing and aquaculture produces 27 times more output and employs 10 times more workers than optimum level. So, it means, as the main driver of the agriculture sector in Azerbaijan, the sector of fishing and aquaculture needs to concentrate on the efficient production via applying innovative technologies in order to motivate additional labor force to move to the sectors and to ensure the sustainable output level respectively. The trade balance is 0% of the total output per the sector of fishing and aquaculture and that supports our result on over production.

The sector of extraction of crude petroleum and natural gas produces 22 times more output and employs 14% more workers than optimum level. It is clear that, Azerbaijan has the resource dependent economy with huge number of energy resource, which is why there is high level over production. However, in such high level production, the labor force is relatively low. The possible reasons for that might be the application of the advance technologies and existence of the pipeline transportation. The trade balance is 95% of the total output per the sector of extraction of crude petroleum and natural gas and that supports our result on over production and existence of the resource dependency.

The sector of mining of metal ores produces 56% more output and employs 36% less workers than optimum level. So, it means, as the main driver of the mining and construction sectors in Azerbaijan, the sector of mining of metal ores concentrates on the efficient production via applying innovative technologies via attracting additional labor force. The trade balance is 1% of the total output per the sector of mining of metal ores and that supports our result on over production.

The sector of other mining and quarrying produces 13% less output and employs 42% less workers than optimum level. So, it means, as the main driver of the mining sector in Azerbaijan, the sector of other mining and quarrying needs to concentrate on the establishment of the local production facilities via applying innovative technologies in order to attract additional labor force and to ensure the sustainable output level respectively. The trade balance is -43% of the total current output per the sector of other mining and quarrying and that supports our result on under production and less efficiencies.

The sector of mining support service activities produces 8% more output and employs 42% less workers than optimum level. So, it means, as the main driver of the resource sector in Azerbaijan, the sector of mining support service activities needs to attract more labor force. The trade balance is -8% of the total output per the sector of mining support service activities and that show that the sector still imports the production means from abroad.

The sector of manufacture of food products produces 4.3 times more output and employs 3 times more workers than optimum level. The trade balance is -25% of the total current output per the sector of manufacture of food products produces and that means the manufacture of food still depends on the import. The sector of manufacture of beverages produces 20 times more output and employs 12 times more workers than optimum level. The sector of manufacture of tobacco products produces 3.5 times more output and employs 2.7 times more workers than optimum level. However, the trade balance is -874% of the total current output per the sector of manufacture of tobacco products and that means the economy heavily depends on the import due to the huge internal demand. The sector of food and beverage service activities produces 22 times more output and employs 3.37 times more workers than optimum level.

The sector of manufacture of textiles produces 2.9 times more output and employs 40% more workers than optimum level. However, the trade balance is -8% of the total current output per the sector of manufacture of textiles and that means the production capacity still can meet the local demand totally. The sector of manufacture of wearing apparel produces 33% more output and employs 7% more workers than optimum level. Not surprisingly the trade balance is -65% of the total current output per the sector of manufacture of wearing apparel and that means the local wearing market depends on the import. The sector of manufacture of leather and related products produces 3.1 times more output and employs 2.1 times more workers than optimum level. The trade balance is -12% of the total output per the sector of manufacture of leather and related products.

The sector of manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials produces 76% less output and employs 83% less workers than optimum level. So, it means, either the sector of wood needs to concentrate on the efficient production via applying innovative technologies in order to motivate additional labor force to move to the sectors and to ensure the sustainable output level respectively, or expansion of this sector conflicts with the environment protection policies, or the available raw materials are not sufficient for the local economy. Not surprisingly, the trade balance is -1495% of the total current output (15 times) per the sector of wood and that supports our result on under production.

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The sector of manufacture of paper and paper products produces 34% less output and employs 51% less workers than optimum level. The trade balance is -259% of the total current output per the sector of paper and paper products. The sector of printing and reproduction of recorded media produces 6% more output and employs 44% less workers than optimum level. The trade balance is -60% of the total output per the sector of printing and reproduction of recorded media and that supports our result on over production. The sector of manufacture of furniture produces 38% more output than optimum level and employs optimal level labor force. The trade balance is -132% of the total current output per the sector of manufacture of furniture and it can be considered quite efficient and balanced manufactural direction.

The sector of manufacture of chemicals and chemical products produces 78% more output and employs 8% less workers than optimum level. So, it means, as the main driver of the manufacture sector in Azerbaijan, the sector of manufacture of chemicals and chemical products needs to attract additional labor force in order to ensure the sustainable output level. The trade balance is -171% of the total current output per the sector of manufacture of chemicals and chemical products and that means regardless overproduction, still import has crucial impact to meet the local demand.

The sector of Manufacture of basic pharmaceutical products and pharmaceutical preparations produces 97% less output and employs 98% less workers than optimum level. So, it means, as the main driver of the health sector in Azerbaijan, the sector of pharmacy needs to concentrate on the efficient production via applying innovative technologies in order to attract additional labor force The trade balance is -90 times of the total output per the sector of pharmaceutical products and pharmaceutical preparations and that supports our result on under production, where the country needs to take immediate actions to reduce the dependency of the import.

The sector of manufacture of rubber and plastic products produces 41% less output and employs 60% less workers than optimum level. So, it means, as the main driver of the manufacture sector in Azerbaijan, the sector of manufacture of rubber and plastic products needs to utilize the raw materials from the oil-gas industry and attract more labor force in order to increase the total output. The trade balance is -209% of the total output per the sector of manufacture of rubber and plastic products and that supports our result on under production.

The sector of manufacture of other non-metallic mineral products produces 33% more output and employs 16% less workers than optimum level. The trade balance is -90% of the total current output per the sector of manufacture of other non-metallic mineral products and that shows the dependency on the import. The sector of manufacture of basic metals produces 17% more output and employs 39% less workers than optimum level. So, it means, as the main driver of the agriculture sector in Azerbaijan, the sector of manufacture of basic metals needs to concentrate on the efficient production via applying innovative technologies in order to attract additional labor force and to ensure the sustainable output level respectively. The trade balance is -208% of the total output per the sector of manufacture of basic metals and that means there is dependency on the import. The sector of manufacture of fabricated metal products, except machinery and equipment produces 27% more output and employs 36% less workers than optimum level. The

trade balance is -292% of the total output per the sector of manufacture of fabricated metal products and that there is huge dependency on the import as well.

The sector of manufacture of computer, electronic and optical products produces 53% less output and employs 74% less workers than optimum level. So, it means, as the main driver of the technological sector in Azerbaijan, the sector of manufacture of computer, electronic and optical products classified as the far under optimal level, that means there is need to concentrate on the innovations and the research development. The trade balance is -6 times of the total current output per the sector of manufacture of computer, electronic and optical products and that supports our results on under production. The sector of manufacture of electrical equipment produces 26% less output and employs 44% less workers than optimum level. The trade balance is -4 times of the total current output per the sector of manufacture of electrical equipment and that shows the huge dependency on the import.

The sector of manufacture of machinery and equipment n.e.c produces 59% less output and employs 72% less workers than optimum level. So, it means, as the main driver of the manufacture sector in Azerbaijan, the sector of manufacture of machinery needs to concentrate on the efficient production via applying innovative technologies in order to motivate additional labor force to move to the sectors and to ensure the sustainable output level respectively. The trade balance is 10 times of the total current output per the sector of manufacture of machinery and that supports our result on far under production level.

The sector of manufacture of motor vehicles, trailers and semi-trailers produces 98% less output and employs 99% less workers than optimum level. So, it means, as the main driver of the auto-car industry in Azerbaijan, the sector of manufacture of motor vehicles, trailers and semi-trailers is far than optimal level and there is need immediate actions to establish the production facilities via applying innovative technologies. The trade balance is -154 time of the total current output per the sector of manufacture of motor vehicles, trailers and semi-trailers and that heavily supports our result on the under production. Similarly the sector of manufacture of other transport equipment produces 94% less output and employs 98% less workers than optimum level. The trade balance is -88 times of the total current output per the sector of manufacture of other transport equipment and that supports our result on the under production.

The sector of other manufacturing produces 92% less output and employs 96% less workers than optimum level. The trade balance is -16 times of the total current output per the sector of other manufacturing and that shows that the rest of the manufactural sections are heavily depends on the import.

The sector of manufacture of coke and refined petroleum products produces 2.44 times more output and employs 43% more workers than optimum level. The trade balance is 5% of the total current output per the sector of manufacture of coke and refined petroleum products and that supports our result on over production where the export is leading.

The sector of water collection, treatment and supply produces 2.3 times more output and employs 54% more workers than optimum level. So, it means, as the main driver of the agriculture sector in Azerbaijan, the sector of water collection, treatment and supply can meet the local demand. The sector of sewerage produces 31% more output and employs 28% less workers than optimum level. Similarly the sector of waste collection, treatment and disposal activities; materials recovery produces 2 times more output and employs 57% less workers than optimum level. The sector of remediation activities and other waste management services produces 4% more output and employs 52 % less workers than optimum level. So, generally it seems that, the protection level of environment by the Azerbaijan is satisfactory.

The sector of construction of buildings produces 4.4 times more output and employs 2.3 times more workers than optimum level. So, it means, as the main driver of the construction sector in Azerbaijan, the sector of construction of buildings provides more activities than optimal level. The sector of public administration and defense; compulsory social security produces 113 times more output and employs 49 times more workers than optimum level. So, it means, as the main driver of the public sector in Azerbaijan, the sector of public administration and defense; compulsory social security needs to concentrate on the efficient governance via applying reforms and redundancies.

The sector of land transport and transport via pipelines produces 2.13 times more output and employs 65% less workers than optimum level. On the other hand, the sector of water transport produces 2.46 times more output and employs 1.86 times more workers than optimum level. Based on the results of the land and water transportation, the total output seems over optimal level which may positive impact over the trade. The sector of air transport produces 46 times more output and employs 21 times more workers than optimum level. The trade balance is -14% of the total current output per the sector of air transport and that supports our result on over production. Regardless over production, the results shows that, the import is still leading in the trade relations.

The sector of accommodation produces 3 times more output and employs 67% more workers than optimum level. So, it means, as the main driver of the tourism sector in Azerbaijan, the sector of accommodation has the potential to affect the Azerbaijan economy.

The sector of electricity, gas, steam and air conditioning supply produces 2.6 times more output and employs 9% more workers than optimum level. So, it means the local demand to basic utilizes can be provided in the Azerbaijan economy. The trade balance is 2% of the total output per the sector of electricity, gas, steam and air conditioning supply and that supports our result on the over production.

The sector of publishing activities produces 17% more output and employs 37 % less workers than optimum level. So, it means, as the main driver of the education and media sectors in Azerbaijan, the sector of publishing activities needs to concentrate on the attraction of sustainable labor force in order to ensure the efficient output. Similarly the sector of motion picture, video and television program production, sound recording and music publishing activities produces just 6% more output and employs 55% less workers than optimum level. The sector of programming and

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broadcasting activities produces 4.06 times more output and employs 7% more workers than optimum level. The sector of telecommunications produces 7.3 times more output and employs 2.2 times more workers than optimum level.

The sector of computer programming, consultancy and related activities produces 39% more output and employs 22% less workers than optimum level. Similarly the sector of information service activities produces 25% more output and employs 53% times less workers than optimum level. Regardless the over production, both sectors needs to ensure and motivate sustainable relevant skilled labor force.

The sector of financial service activities, except insurance and pension funding produces 17% more output and employs 69% less workers than optimum level. On the other hand, the sector of insurance, reinsurance and pension funding, except compulsory social security produces 48% times more output and employs 80% less workers than optimum level. The sector of activities auxiliary to financial services and insurance activities produces 36% more output and employs 50% less workers than optimum level. The limited development of the financial sector and lack of public trust can be one of the possible reasons to the low level employment.

The sector of architectural and engineering activities; technical testing and analysis produces 53% less output and employs 77% less workers than optimum level. This result shows the crucial issue in the construction sector in Azerbaijan due varied issues in the construction of the living houses. It means that, there are need immediate actions to be done by the governance to promote the business in this direction. Not surprisingly the trade balance is -180% of the total current output per the sector of architectural and engineering activities; technical testing and analysis and that supports our result on the under production.

The sector of scientific research and development produces 65% less output and employs 98% less workers than optimum level. Similarly the sector of other professional, scientific and technical activities produces 93% less output than optimum level and employs almost 0% workers of the optimal level. So, this result is the crucial SOS signal for the economy. As the main driver of the innovations in Azerbaijan, both of the sectors need to concentrate on the efficient production via applying innovative technologies, learning the trend in the world in order to motivate additional labor force to apply for jobs in the research oriented. The trade balance is -268% of the total output per the sector of scientific research and development and that supports our result on the under production.

4.5.   Where is Azerbaijan between Norway and Nigeria?

In the data analysis section the author compares the main economic indicators of the selected countries. Although, per Azerbaijan, the data is the available from 1990s and there is missing information in some years per Nigeria from 1970s.

The fuel exports per Nigeria has been more than 80% (reaching to 100% in 2000) of the merchandise exports since the 1970s except per years where the information is missing. On the other hand, resource export has been over 40% by 2000, and more than 60% by 2014 respectively.

Similar to Nigeria, the oil-gas products have been dominant in the total merchandise export in Azerbaijan with more than 80% (Graph 61, A).

The GDP growth in Norway has been stable and mainly positive since 1960s. Conversely, economic growth in Nigeria and Azerbaijan has changes rapidly. Starting from mid of 2000s Azerbaijan has simulated the same tendency with the Nigerian economic performance (Graph 61, B).

Not-surprisingly, GNP per capita of Norway is far from Nigeria and Azerbaijan However, Azerbaijan has slightly more number than Nigeria (Graph 61, C). Equally important, the share of agriculture in the economies has shown descending trend. At the same time, Azerbaijan is more close to Nigeria with the dramatic fall since 1990s (Graph 61, D).

In all countries, the industry has contributed the gross product with fluctuations in the different years. In spite of that, the industry in Norway has performed more stable position. Not only dramatic changes but also peak level of the participation of the industry in the Azerbaijan economy does not support that, Azerbaijan is industrialized country. Despite, this involvement is related to the dominant of oil-gas sector in the economy (Graph 61, E).

First thing to remember on the Norwegian economy is the wealth management. As an illustration, the Norway has able to keep the growing trend since the decades. Unlike Norway and Nigeria, Azerbaijan recently has utilized their reserves inefficiently regardless the getting the maximum level in their history (Graph 61, D).

Graph 61. Norway, Nigeria, Azerbaijan in numbers
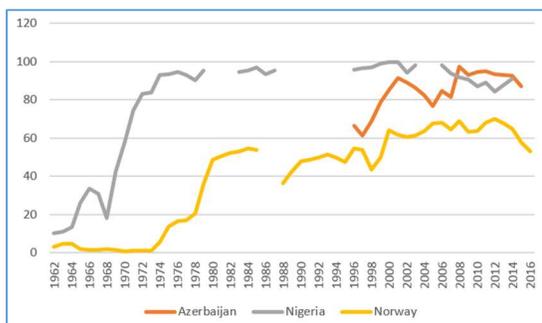
A: Fuel exports (% of merchandise exports)   **B: GDP growth (annual %)**
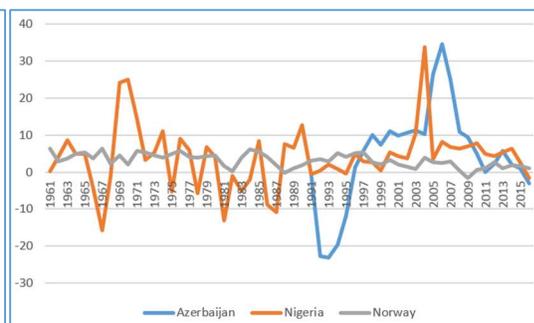
C: GNI per capita, Atlas method (current USD)   **D: Agriculture, value added (% of GDP)**
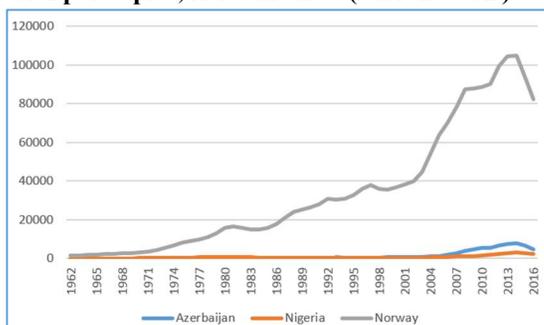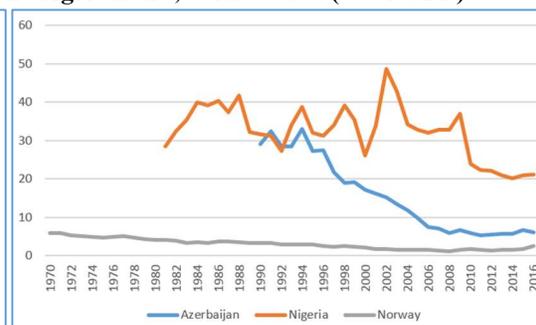
E: Industry, value added (% of GDP)
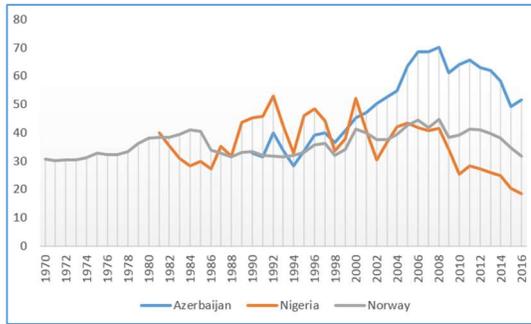
F: Total reserves (includes gold, current mln. USD)

Source: The World Bank, http://data.worldbank.org/indicator
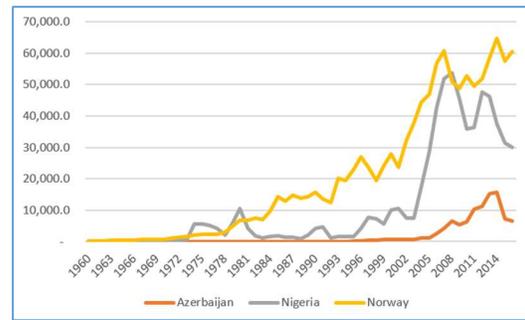
Not only data analysis, but also, the outcomes over the selected variables per the countries are significant and clearly summarized over tables and charts below. The results show that the oil rents and total reserves in the selected countries have positive perfect linear relationship within the mentioned periods. In particular, the association per Norway has been more stable and sustainable since the 1970s. Similarly, per Nigeria and Azerbaijan the relevant relationship is higher and strong (Table 39). These results have been clearly visualized via scatter plots in Graph 62, making sure the linear association. Nevertheless, the correlations between the selected public spending and the oil rents conclude the negative strong line (weak per environment protection) with a negative slope per Norway (Table 40, Graph 63). In contrast, there is evident positive-strong linear association between the selected public expenditures and the oil rents in Nigeria since 1977 (Table 41, Graph 64). Correspondingly, the relevant association between the selected expenditures and the oil rents in Azerbaijan has been large-strong and linear (Table 42, Graph 65).

Table 39. Correlation between oil rents and total reserves

Country	From	To	Pearson Correlation
Norway	1971	2015	0.91
Nigeria	1972	2015	0.89
Azerbaijan	1993	2015	0.87

Source: The author's own analysis based on data

Graph 62. Correlation between oil rents and total reserves

Norway   Nigeria   Azerbaijan

Source: The author's own analysis based on data

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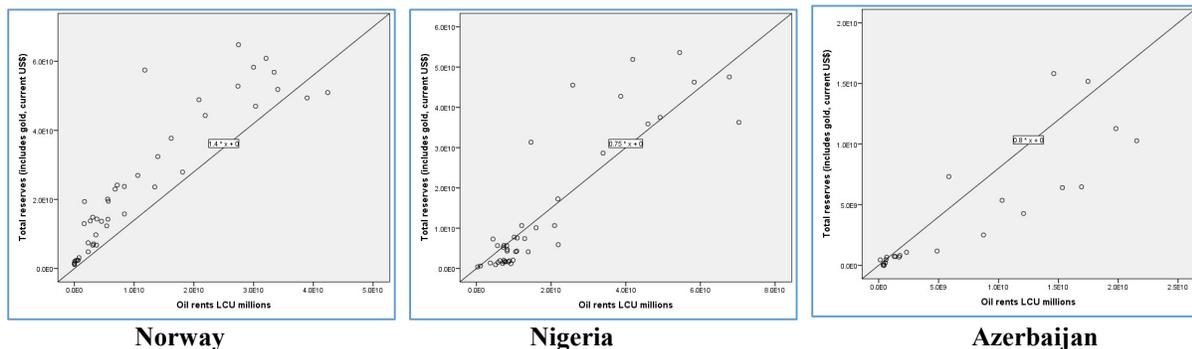
Table 40. Norway - correlation between oil rents and expenditures, 1995-2015

Name of Variable 2	Pearson Correlation
Expenditure on environment protection	(0.48)
Expenditure on public order amp; safety	(0.71)
Expenditure on economic affairs	(0.82)
Expenditure on defense	(0.83)
Expenditure on education	(0.90)

Source: The author's own analysis based on data

Table 41. Nigeria - correlation between oil rents and expenditures on:

From	To	Name of Variable 2	Pearson Correlation
1977	2007	Transport and Communication	0.77
1977	2007	Agriculture	0.66
1977	2012	Total capital expenditure	0.87
1977	2007	Defense	0.80
1977	2007	Health	0.94
1977	2007	Education	0.95
1977	2012	Total current expenditure	0.94

Source: The author's own analysis based on data

Table 42. Azerbaijan - correlation between oil rents and expenditure on (2000-2015):

Name of Variable 2	Pearson Correlation
Court authority, law enforcement agencies	0.74
Legislation, executive and governmental authorities	0.74
Culture, art, information, physical training and activities not included in other categories	0.74
Social protection and security	0.75
Health Care	0.76
Other expenditures	0.77
Education	0.80
Science	0.81
National economy	0.85

Source: The author's own analysis based on data

Graph 63. Norway -correlation between oil rents and total government expenditure 1995-2015

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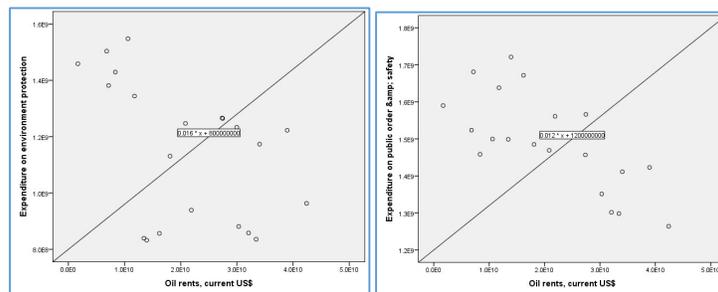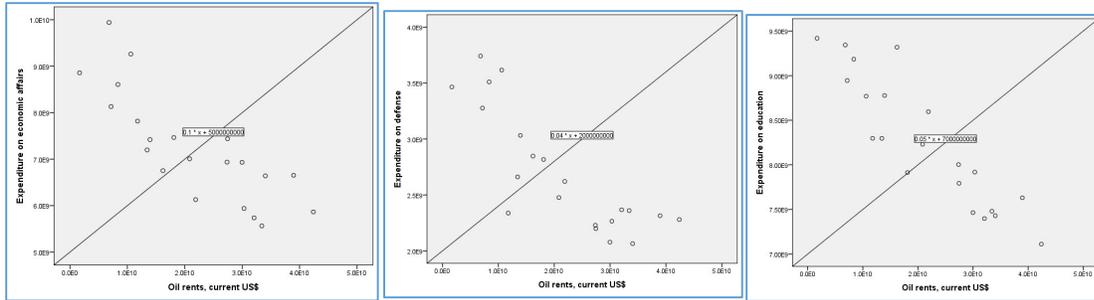
Source: The author's own analysis based on data

Graph 64. Nigeria correlation between oil rents and expenditures
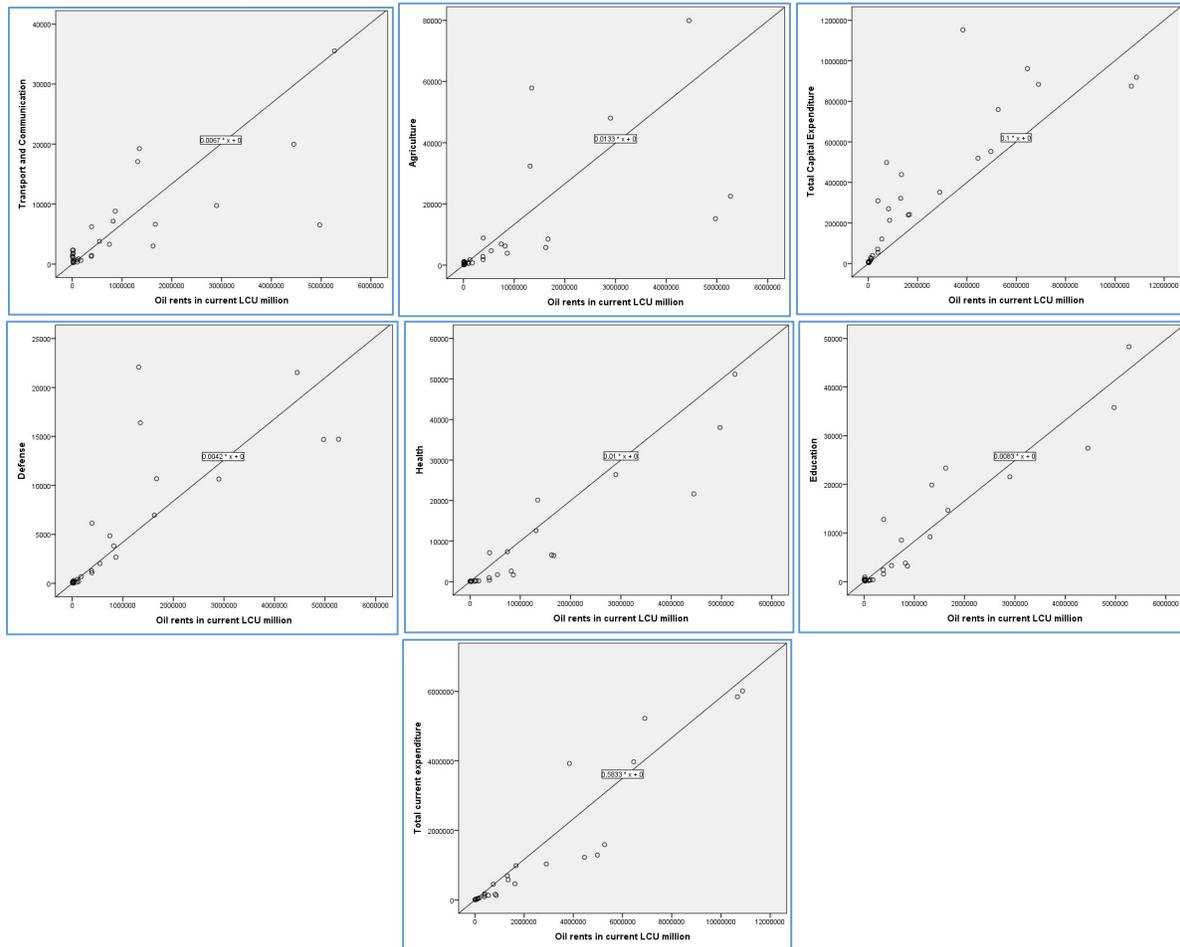
Source: The author's own analysis based on data

Graph 65. Azerbaijan - correlation between oil rents and expenditure
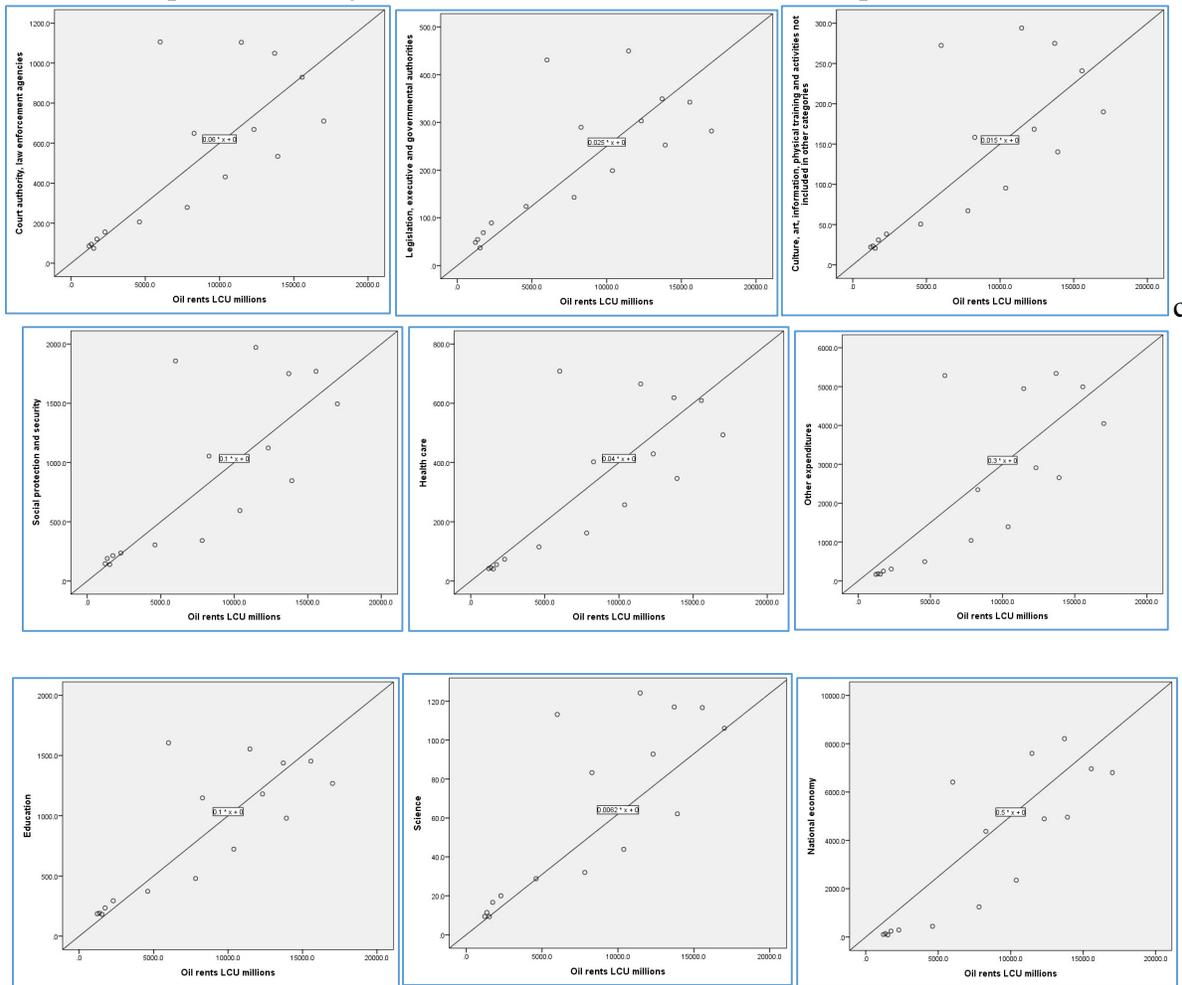
Source: The author's own analysis based on data

4.6. Hypotheses Analysis

As the key expectations, validating hypothesizes help to observe and judge author's approach:

H1-The Azerbaijan economic structure has more common characteristics with the resource dependent economies. The author has calculated the coefficients of the inverse matrix for the Azerbaijan economy, grouped the sectors, and compared with the selected countries' standard range. So it means that, the major part of the sectors of the Azerbaijan economy have the similar relations with the entire economy as the resource dependent economies have. This finding supports the hypothesis.

H2-The oil-gas sector has weaker relation with the entire economy than the selected countries' average level. Based on the delivered comparison, the author realized that in the Azerbaijan economy the resource sector could not manage to ensure close relationship with the rest of the sectors. That means the economy of Azerbaijan cannot utilize the energy resources and

letting the raw products go for export not for local production. This finding supports the hypothesis.

H3-The Azerbaijan economic sector in general, consumes smaller output from each other, and requires smaller inputs in order to produce total output. Based on the delivered comparison, the author noted that, in generally the Azerbaijan economy consumes less input than the selected resource dependent economies. This finding supports the hypothesis.

H4-The Azerbaijan economy heavily depends on the import in matter of the non-oil sector related inputs. The official input-output table for the Azerbaijan economy, and the comparison between the optimum production level and trade balance shows that the dependency from the non-oil inputs are higher. This finding supports the hypothesis.

H5-The manufacturing sector is far from the optimal level which is needed by the local economy. The results of the optimizations prove that the Azerbaijan economy needs more investment to reconstruct the all kind of manufacturing sectors. This finding supports the hypothesis.

H6-If we dive into the statistics, data analysis of the economic experiences by Norway and Nigeria, we will realize that, the Azerbaijan economy has more common feature with Nigeria in comparison with Norway. The research results clear identifies that, the governances in both Nigeria and Azerbaijan have taken similar actions and pumped the oil rents directly to the public spending. Not only the numbers and data analysis, but the literature review for Nigeria and Azerbaijan confirms the hypothesis positively. This finding supports the hypothesis.

4.7. New Results

This research: input-output approach is one of the few works done in this direction. The most of the researches were based on the local approach, the changes in the economy. However, finding the optimum output level, organizing parallels with the similar resource dependent economies help us to understand how is the Azerbaijan economy developed, what are the common challenges that experienced by other countries, where there are the opportunities to grow, what are the risks.

Notably, in all of the selected countries the oil rents are strongly associated which means resource money has been as the main driver in the cumulating the reserves. To emphasize, this is the key feature to put these countries in one group. However, another key results, the potential relationships between the oil rents and public spending have shown completely different view. So, this association has been negative in Norway in the last decade based on the selected spending directions where the correlations are significant. Indeed, it is not sufficient judge whole fiscal policy in Norway from inspiring these results. On the other hand, it provides crucial insights how the increasing resource money has been far from the current spending in Norway.

Comparatively, based on the results per Nigeria and Azerbaijan, these economies have passed common economic milestones. In the first place, the oil rents have been directly infected to the total public spending in the both countries. Not only data, but also literature on the Nigerian and Azerbaijan economies supports this study and results. Unlikely the research by Ismayilov and Aliyev (2010), the author determines that, Azerbaijan has been tend to the Nigerian experience.

This research particularly raises the issues in the manufacturing sector in Azerbaijan and the resource dependent economies. Obviously as the key driver of the economy, the poor level local production and the dependence from the import makes the Azerbaijan economy limited and limits its ranges. The author finding in the employment in the Azerbaijan economy rejects the official statements by the governance. The study shows that there is need and capacity to open more than two millions workplaces in the economy. This indicators conflict with all public official announcements that there have been ensured additional workplaces in the number of millions in Azerbaijan.

The final results of the optimizations indicates that there is need to create more than 2 million workplaces, which means indirectly, there is serious employment in Azerbaijan.

The following findings clearly demonstrates the current economic characteristics by sectorial split in comparison with the selected countries:

The agriculture sector mainly sales the inputs to others where there is same kind of agricultural activities. In other word, the Azerbaijan economy consumes less agricultural inputs than the selected countries due to weak inter-sectorial relations in the economy.

The input from mining and chemical products has less sales to the agriculture sector in Azerbaijan. All in all, in the Azerbaijan economy the agriculture sector consumes less inputs than the selected countries, as the result it can cause less efficient and less diversified production.

The mining and quarrying of non-energy producing products sector mainly sales the inputs to itself and to the infrastructural sectors as metal pipes, cables and others. Another interesting point is that, the weak development the production of the transportation means can be showed the reason for the low input to this direction.

The sector of mining support service activities mainly sales the inputs to the mining related sectors. In other word, the Azerbaijan economy consumes less inputs of mining support service activities than the selected countries due to weak inter-sectorial relations in the economy.

The sector of mining support service activities mainly purchases means of transportation, equipment and construction materials as the inputs from others. This is related with the leading onshore and offshore oil-gas production activities.

The key point is that in the Azerbaijan economy the cash is the main driver in the daily payments. It is clear that the sector of paper products and printing has crucial roles in the financial and insurance activities in Azerbaijan.

The Azerbaijan economy has the risk to cause plastic pollution to the environment.

It is clear that, the sector of manufacture of basic metals mainly sales the inputs to infrastructural sectors where it's input are key tool for them. Apart from that, the sector of the financial services gets more input from the sector of manufacture of basic metals due to the higher cash turnover in Azerbaijan.

The Azerbaijan economy receives more inputs of computer, electronic and optical products than the selected countries' average, which means the digitalization in the governance is in good progress.

The Azerbaijan economy receives more inputs of electrical equipment than the selected countries' average which means the usage scale of the electronics is wider. The sector of electrical equipment needs to be developed more efficiently.

The sector of mining and extraction of energy producing products consumes less utilities, which can be considered the efficient from production point of view. However, in the lower waste collection means the higher threat to the environment in Azerbaijan.

The main part of the construction inputs are directed to the infrastructural sectors, public administration which are the public expenditure items in the public spending. Not surprisingly, the mining support service activities absorb on of the higher input from the construction sector due to the leading oil-gas productions.

In the Azerbaijan economy:

- the sector of wholesale, retail trade, repair of motor vehicles has weaker sales relations with the rest of the economic sectors in comparison with the selected countries due lack of production facilities.
- the sector of transportation and storage has weaker sales relations with the rest of the economic sectors in comparison with the selected countries. It is clear that, the sector of transportation and storage mainly sales the inputs agricultural and food related activities. Additionally, the sector of transportation and storage has less participation in the mining and extraction of energy producing activities.
- the sector of accommodation and food services has weaker sales relations with the rest of the economic sectors in comparison with the selected countries. Interestingly, the oil-gas sector and education gets less the accommodation facilities services which is the crucial issue for the sustainable wellbeing of the workers and ensuring the qualitative education to the young people.
- the sector of publishing, audio-visual and broadcasting activities has so weak sales relations with the rest of the economic sectors in comparison with the selected countries. Not surprisingly, this support the current development level of the movie and publishing industries in Azerbaijan.
- the sector of telecommunications has weaker sales relations with the rest of the economic sectors in comparison with the selected countries, which means there is huge need to apply innovations in Azerbaijan.
- the sector of IT and other information services has weaker sales relations with the rest of the economic sectors in comparison with the selected countries. This result shows that, the oil-gas sector needs more investment from technological perspectives in order to improve efficiencies.
- the sector of financial and insurance activities has so weaker sales relations with the rest of the economic sectors in comparison with the selected countries, particularly, the insurance.
- the sector of other business services has weaker sales relations with the rest of the economic sectors in comparison with the selected countries which is the key obstacle for the development of the economy and business in Azerbaijan.

- the sector of education has weaker sales relations with the rest of the economic sectors in comparison with the selected countries. It is clear that, the education sector mainly sales the inputs to the public sector.
- the sector of human health and social work has weaker sales relations with the rest of the economic sectors in comparison with the selected countries.
- the sector of arts, entertainment, recreation and other service activities has weaker sales relations with the rest of the economic sectors in comparison with the selected countries.
- the sector of machinery and equipment has stronger sales relations with the rest of the economic sectors in comparison with the selected countries. Interestingly, the mining support service activities and public defence are in the list of sectors which get major of the machinery and equipment sector's sales as the inputs. The main reason for those, can be the existence of the resource dependence and the military needs.

5. CONCLUSIONS AND SUGGESTIONS

5.1. Suggestions for the Decision Makers and Future Studies

The author has had attempt to investigate the recent decades' economic experience of Azerbaijan particularly after the boom in the oil-gas sector. Obviously, without complex research approach it would be difficult to understand the key challenges for the economy. This complex approach has started from deep literature dive via understanding scholars' works for Azerbaijan and other resource dependent economies and ended with constructing optimization model. Apart from that, the author highlights the key actions by the governance in Azerbaijan and their outcomes.

All mentioned factors and the economic situation in 2016 persuaded the government to accept the reform package that called Road Map. Definitely, the efficiency and implementation of the Road Map is another discussion's topic. The author would like to walk through some points over the document. The feedback is that, the document has more generalist approach in case of the development areas. Particularly the reasoning part of the document has to be highlighted. The document can be considered one of the key acknowledgment by the government in the last decades. In the document only external factors had been mentioned, which seems limited approach to the key issues. Interestingly, in the short-run showing the eastern European countries as target-model countries via making parallels and learning their experience for the Azerbaijan economy seems controversial. Because in the past the Azerbaijan economy only were compared with the leading economies in the world due to the higher GDP growth rate. The current economic situation persuaded the government to be more realistic.

Another key point: learning and implementing the Norwegian experience in the Azerbaijan economy. Particularly in the applying the limitations on the transfers from the oil rents to the fiscal policies. Recent years shows that, even in case of the wishes to apply this kind of implementations, it is so hard to realize these steps due to the nature of the mono-economy or resource dependent economy of Azerbaijan. On the other hand the required financial resources are not specified clearly. It seems that there is still high intention to utilize the public revenue on these reforms initiates which can cause imbalance in the entire economy and lack of the development of the rest sectors in Azerbaijan.

The author opens the crucial door to the future research directions for the Azerbaijan economy and resource dependent economies. There is a big hope that, the scholars who have the common research interests will benefit from these research results. On the other hand this study might be guidance in order to prevent any recurring inefficient decisions by the relevant governance members. And last but not least the author will cover the current economic challenges via applying and testing the new econometric models.

6. SUMMARY

In summary, the author has focused on the learning the resource dependent economies, the Azerbaijan economy, and making parallels between them. Generally, after the long research, the author believes that the Azerbaijan economy has not gotten the unique experience in comparison with the similar countries. However, without doubt there are many factors which require the further research. Definitely those factors have the connections out of the economic terms, such as good governance issues. Regardless the mentioned limitations, and issues, the author claims that, this work can be considered one of the limited research's on the Azerbaijan economy.

In brief, the author has summed upped the following ideas via testing the hypothesis:

- the major part of the sectors of the Azerbaijan economy have the similar relations with the entire economy as the resource dependent economies;
- the economy of Azerbaijan cannot utilize the energy resources and letting the raw products go for export not for local production;
- the Azerbaijan economy consumes less input than the selected resource dependent economies;
- for the Azerbaijan economy the dependency from the non-oil inputs are higher
- the Azerbaijan economy needs more investment to reconstruct the all kind of manufacturing sectors

The research results clear identifies that, the governances in both Nigeria and Azerbaijan have taken similar actions and pumped the oil rents directly to the public spending. Not only the numbers and data analysis, but the literature review for Nigeria and Azerbaijan confirms the hypothesis positively.

This research has shown that where Azerbaijan is in the comparison with the selected countries via investigating the relevant literature and data. All literature reviews, data analysis are considered, the institutions, good governance, transparency play the main role in the economies in order to ensure the sustainable management of the oil rents.

The author has deep confidence over the understanding the Azerbaijan economy which is visible from the results of research. In the last five years, the author has spent crucial amount of time in

order to realize the root cause of the economics issues in the Azerbaijan economy. Particularly, the input-output approach helped to find out the level of the interconnections between sectors of the economy. Another approach, finding out the position of the Azerbaijan economy via making parallels with the selected countries, helped to diagnose the economic structure and the circumstances in Azerbaijan. The author is sure that, this research has to be considered as the key recommendation package in terms of the implementing economic reforms in Azerbaijan.

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APPENDIX I

Source: Input-Output tables, The State Statistical Committee of the Republic of Azerbaijan, 2011

Column headers (x1–x38):

Code	Sector
x1	Crop and animal production, hunting and related service activities
x2	Forestry and logging
x3	Fishing and aquaculture
x4	Mining of coal and lignite
x5	Extraction of crude petroleum and natural gas
x6	Mining of metal ores
x7	Other mining and quarrying
x8	Mining support service activities
x9	Manufacture of food products
x10	Manufacture of beverages
x11	Manufacture of tobacco products
x12	Manufacture of textiles
x13	Manufacture of wearing apparel
x14	Manufacture of leather and related products
x15	Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials
x16	Manufacture of paper and paper products
x17	Printing and reproduction of recorded media
x18	Manufacture of coke and refined petroleum products
x19	Manufacture of chemicals and chemical products
x20	Manufacture of basic pharmaceutical products and pharmaceutical preparations
x21	Manufacture of rubber and plastic products
x22	Manufacture of other non-metallic mineral products
x23	Manufacture of basic metals
x24	Manufacture of fabricated metal products, except machinery and equipment
x25	Manufacture of computer, electronic and optical products
x26	Manufacture of electrical equipment
x27	Manufacture of machinery and equipment n.e.c.
x28	Manufacture of motor vehicles, trailers and semi-trailers
x29	Manufacture of other transport equipment
x30	Manufacture of furniture
x31	Other manufacturing
x32	Repair and installation of machinery and equipment
x33	Electricity, gas, steam and air conditioning supply
x34	Water collection, treatment and supply
x35	Sewerage
x36	Waste collection, treatment and disposal activities; materials recovery
x37	Remediation activities and other waste management services
x38	Construction of buildings

Row labels (line codes x1–x81):

x1 Crop and animal production, hunting and related service activities
x2 Forestry and logging
x3 Fishing and aquaculture
x4 Mining of coal and lignite
x5 Extraction of crude petroleum and natural gas
x6 Mining of metal ores
x7 Other mining and quarrying
x8 Mining support service activities
x9 Manufacture of food products
x10 Manufacture of beverages
x11 Manufacture of tobacco products
x12 Manufacture of textiles
x13 Manufacture of wearing apparel
x14 Manufacture of leather and related products
x15 Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials
x16 Manufacture of paper and paper products
x17 Printing and reproduction of recorded media
x18 Manufacture of coke and refined petroleum products
x19 Manufacture of chemicals and chemical products
x20 Manufacture of basic pharmaceutical products and pharmaceutical preparations
x21 Manufacture of rubber and plastic products
x22 Manufacture of other non-metallic mineral products
x23 Manufacture of basic metals
x24 Manufacture of fabricated metal products, except machinery and equipment
x25 Manufacture of computer, electronic and optical products
x26 Manufacture of electrical equipment
x27 Manufacture of machinery and equipment n.e.c.
x28 Manufacture of motor vehicles, trailers and semi-trailers
x29 Manufacture of other transport equipment
x30 Manufacture of furniture
x31 Other manufacturing
x32 Repair and installation of machinery and equipment
x33 Electricity, gas, steam and air conditioning supply
x34 Water collection, treatment and supply
x35 Sewerage
x36 Waste collection, treatment and disposal activities; materials recovery
x37 Remediation activities and other waste management services
x38 Construction of buildings
x39 Wholesale and retail trade and repair of motor vehicles and motorcycles
x40 Land transport and transport via pipelines
x41 Water transport
x42 Air transport
x43 Warehousing and support activities for transportation
x44 Postal and courier activities
x45 Accommodation
x46 Food and beverage service activities
x47 Publishing activities
x48 Motion picture, video and television programme production, sound recording and music publishing activities
x49 Programming and broadcasting activities
x50 Telecommunications
x51 Computer programming, consultancy and related activities
x52 Information service activities
x53 Financial service activities, except insurance and pension funding
x54 Insurance, reinsurance and pension funding, except compulsory social security
x55 Activities auxiliary to financial services and insurance activities
x56 Real estate activities
x57 Legal and accounting activities
x58 Activities of head offices; management consultancy activities
x59 Architectural and engineering activities; technical testing and analysis
x60 Scientific research and development
x61 Advertising and market research
x62 Other professional, scientific and technical activities
x63 Veterinary activities
x64 Rental and leasing activities
x65 Employment activities
x66 Travel agency, tour operator reservation service and related activities
x67 Security and investigation activities
x68 Services to buildings and landscape activities
x69 Office administrative, office support and other business support activities
x70 Public administration and defence; compulsory social security
x71 Education
x72 Human health activities
x73 Residential care activities
x74 Social work activities without accommodation
x75 Creative, arts and entertainment activities
x76 Libraries, archives, museums and other cultural activities
x77 Gambling and betting activities
x78 Sports activities and amusement and recreation activities
x79 Activities of membership organisations
x80 Repair of computers and personal and household goods
x81 Other personal service activities

Net taxes on goods and services used in the production
Total
CIF/FOB
Compensation of employees
Social contributions
Net profit
Taxes on production
Consumption of fixed capital
Value added (home prices)
Output, total (home prices)

Wholesale and retail trade and repair of motor vehicles and motorcycles	Land transport and transport via pipelines	Water transport	Air transport	Warehousing and support activities for transportation	Postal and courier activities	Accommodation	Food and beverage service activities	Publishing activities	Motion picture, video and television programme production, sound recording and music publishing activities	Programming and broadcasting activities	Telecommunications	Computer programming, consultancy and related activities	Information service activities	Financial service activities, except insurance and pension funding	Insurance, reinsurance and pension funding, except compulsory social security	Activities auxiliary to financial services and insurance activities	Real estate activities	Legal and accounting activities	Activities of head offices; management consultancy activities	Architectural and engineering activities; technical testing and analysis	Scientific research and development	Advertising and market research	Other professional, scientific and technical activities	Veterinary activities	Rental and leasing activities	Employment activities	Travel agency, tour operator reservation service and related activities	Security and investigation activities	Services to buildings and landscape activities	Office administrative, office support and other business support activities	Public administration and defence; compulsory social security	Education	Human health activities	Residential care activities	Social work activities without accommodation	Creative, arts and entertainment activities	Libraries, archives, museums and other cultural activities	Gambling and betting activities	Sports activities and amusement and recreation activities	Activities of membership organisations	Repair of computers and personal and household goods	Other personal service activities
x39	x40	x41	x42	x43	x44	x45	x46	x47	x48	x49	x50	x51	x52	x53	x54	x55	x56	x57	x58	x59	x60	x61	x62	x63	x64	x65	x66	x67	x68	x69	x70	x71	x72	x73	x74	x75	x76	x77	x78	x79	x80	x81

Total intermediate consumption	Actual final consumption expenditures of households	Expenditures of government institutions providing services	Expenditures of non-profit institutions providing services for households	Gross fixed capital formation	Changes in inventories (+,-)	Net acquisition of valuables	Export	Consumer prices have been used in	Import	CIF/FOB	Basic prices of domestic goods and services used in
1,534,677	3,088,119	191,499	-	2,551	254	-	423,577	5,240,676	498,572	-	4,742,105
1,765	7,554	-	-	-	-	-	-	9,319	-	-	9,319
7,319	183,380	-	-	-	-	-	-	190,699	926	-	189,773
1,541	-	-	-	-	-	-	-	1,541	1,541	-	0
1,195,437	-	-	-	-	2,563	-	24,858,372	26,056,372	18	-	26,056,354
73,291	-	-	-	-	10	-	6,907	80,208	5,842	-	74,366
118,554	-	-	-	-	99	-	7,545	126,198	42,950	-	83,248
731,724	-	-	-	-	450	-	1,926	734,100	53,762	-	680,338
693,234	1,998,616	-	-	-	2,144	-	84,148	2,778,142	615,207	-	2,162,935
9,513	175,955	-	-	-	187	-	9,011	194,665	15,982	-	178,683
9,642	212,476	-	-	-	173	-	9,197	231,487	208,677	-	22,811
22,675	31,840	-	-	-	2,105	-	34,822	91,443	39,135	-	52,307
35,442	28,036	-	-	-	88	-	4,327	67,893	29,324	-	38,568
9,968	12,207	-	-	-	117	-	7,548	29,840	9,878	-	19,962
112,432	117,341	-	-	-	34	-	654	230,393	215,990	-	14,403
64,993	35,163	-	-	-	19	-	9,981	110,156	82,227	-	27,929
47,986	18,917	6,003	-	-	113	-	434	73,228	27,724	-	45,504
1,248,651	450,273	-	-	-	1,313	-	852,216	2,552,454	68,615	-	2,483,839
180,064	331,231	-	-	-	734	-	138,142	650,170	461,190	-	188,979
82,145	76,666	5,726	-	-	9	-	45,936	210,482	208,619	-	1,864
229,108	15,686	-	-	-	59	-	1,841	246,576	167,267	-	79,310
424,397	117,894	-	-	-	29	-	3,645	545,965	261,264	-	284,701
588,961	-	-	-	-	14,181	-	106,753	709,894	514,273	-	195,621
105,754	7,275	-	-	254,422	120	-	5,269	372,839	279,094	-	93,745
217,760	106,294	-	-	194,918	171	-	12,086	531,229	458,702	-	72,527
436,880	162,681	-	-	280,329	152	-	24,600	904,643	733,062	-	171,581
421,446	-	-	-	1,348,342	96	-	19,416	1,789,300	1,632,636	-	156,664
202,616	61,901	-	-	322,584	133	-	2,073	589,307	585,533	-	3,774
209,290	10,133	4,998	-	694,809	-	-	3,079	922,308	912,037	-	10,271
56,307	21,399	-	-	28,538	55	-	2,660	108,850	63,169	-	45,681
66,141	9,684	2,485	-	7,855	2	-	1,270	87,434	82,555	-	4,879
93,538	-	-	-	-	448	-	-	93,986	-	-	93,986
634,448	809,120	-	-	-	312	-	119,014	1,562,269	6,454	-	1,555,815
61,960	53,034	-	-	-	11	-	-	115,006	-	-	115,006
29,685	6,244	-	-	-	24	-	-	35,953	-	-	35,953
16,755	12,136	-	-	-	1	-	-	28,891	-	-	28,891
4,418	-	-	-	-	0	-	-	4,418	-	-	4,418
2,536,456	374,835	13,407	-	6,537,249	9,812	-	89,054	9,560,814	405,678	-	9,155,136
954,153	3,853,119	17,434	-	28,366	6,021	-	134,937	4,994,030	-	-	4,994,030
1,272,626	1,113,330	66,874	-	72,010	1,745	-	779,396	3,305,981	781,456	86,045	2,610,570
47,845	53,394	-	-	-	-	-	13,773	115,012	2,694	297	112,615
13,470	550,708	-	-	-	29	-	554,206	1,118,355	629,590	69,323	558,088
336,280	23,646	-	-	-	205	-	-	360,130	-	-	360,130
3,560	-	816	-	-	17	-	-	4,393	-	-	4,393
156,532	291,463	-	-	-	3,981	-	301,611	753,587	347,407	-	406,180
37,578	608,697	-	-	-	4	-	191,471	837,749	153,823	-	683,926
16,480	-	-	-	-	0	-	-	16,480	-	-	16,480
2,874	-	-	-	-	1	-	-	2,872	-	-	2,872
9,333	24,479	-	-	-	17	-	-	33,829	-	-	33,829
194,114	949,672	-	-	-	79	-	55,033	1,198,898	59,549	-	1,139,349
34,518	-	-	-	-	1	-	-	34,517	-	-	34,517
46,030	-	-	-	-	120	-	-	45,911	-	-	45,911
722,125	52,261	-	-	-	0	-	471	774,857	11,596	-	763,261
151,259	39,672	-	-	-	-	-	-	190,931	-	-	190,931
381	-	-	-	-	-	-	-	381	-	-	381
681,130	479,919	232,342	-	-	37	-	-	1,393,428	-	-	1,393,428
5,938	36,601	-	-	-	2	-	-	42,541	-	-	42,541
67,049	-	-	-	-	0	-	-	67,048	-	-	67,048
898,319	-	-	-	-	207	-	280,188	1,178,714	858,168	-	320,546
401,022	-	82,546	7,982	-	8	-	-	491,542	357,879	-	133,664
420,512	-	-	-	-	165	-	-	420,347	-	-	420,347
628,264	2,213	-	-	-	-	-	14,042	644,520	628,455	-	16,065
116	-	16,066	-	-	-	-	-	16,182	-	-	16,182
82,286	984	-	-	-	2	-	-	83,268	-	-	83,268
88,974	-	-	-	-	-	-	-	88,974	-	-	88,974
5,203	98,958	-	-	-	1	-	92,282	196,443	101,121	-	95,322
75,634	-	-	-	-	27	-	-	75,661	-	-	75,661
6,589	-	-	-	-	38	-	-	6,550	-	-	6,550
87,178	-	-	-	-	154	-	-	87,332	-	-	87,332
24,357	-	2,132,618	-	-	-	-	85,361	2,242,336	77,916	-	2,164,420
26,432	207,133	1,503,664	111,588	-	-	-	-	1,848,817	-	-	1,848,817
11,595	168,475	622,823	51,465	-	41	-	-	854,317	-	-	854,317
27,229	34,011	64,073	-	-	-	-	-	125,313	-	-	125,313
1,426	99,190	104,747	-	-	-	-	-	205,363	-	-	205,363
2,154	2,099	1,838	1,260	-	9	-	-	7,361	-	-	7,361
3,450	178,410	67,113	-	-	-	-	-	248,973	-	-	248,973
44	33,439	12,345	-	-	-	-	-	45,827	-	-	45,827
24,751	145,687	62,973	-	-	180	-	-	233,591	-	-	233,591
30,341	-	-	-	9,586	6	-	-	39,921	-	-	39,921
9,330	28,307	-	-	-	49	-	-	37,588	-	-	37,588
45,679	518,550	-	-	-	57	-	-	564,172	-	-	564,172
1,164,151	1,085,512	62,282	7,120	736,961	-	-	-	3,056,025	-	-	3,056,025
-	-	-	-	-	-	-	-	-	155,665	155,665	0
21,335,282	19,216,017	5,274,671	189,000	10,508,934	47,037	-	29,388,275	85,959,216	12,541,890	0	73,417,326

6,293,100
1,467,942
38,581,292
277,010
2,406,675
49,026,019
70,361,301

APPENDIX II

Coefficients based on Input - output tables in 2011, thsd.manat, Azerbaijan

	x1	x2	x3	x4	x5	x6	x7	x8	x9	x10	x11	x12	x13	x14	x15	x16	x17	x18	x19	x20	x21	x22	x23	x24	x25	x26	x27	x28	x29	x30	x31	x32
x1	0.236	0.000	0.025	-	-	-	-	-	0.160	0.067	0.150	0.187	-	-	-	-	-	-	-	0.219	-	-	-	-	-	-	-	-	-	-	-	-
x2	0.000	0.004	0.000	-	-	-	-	-	0.000	-	-	-	-	-	0.003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
x3	0.000	-	0.008	-	-	-	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
x4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.005	-	-	-	-	-	-	-	-	-	-	-
x5	-	-	-	-	0.000	-	-	0.000	-	-	-	-	-	-	-	-	0.354	0.028	-	-	-	-	-	-	-	-	-	-	-	-	-	-
x6	-	-	-	-	-	0.258	-	-	-	-	-	-	-	-	- 0.000	-	-	-	-	-	0.001	-	0.267	0.020	-	-	-	-	-	-	-	-
x7	0.000	0.001	0.000	-	0.000	-	0.035	0.001	0.000	0.000	-	-	-	-	-	-	-	0.000	0.001	-	0.000	0.055	0.000	-	-	-	-	-	-	-	0.000	0.001
x8	-	-	-	-	0.025	-	0.163	0.109	-	-	-	-	-	-	-	-	-	0.001	-	-	0.006	-	-	-	-	-	-	-	-	-	-	-
x9	0.001	0.000	0.064	-	0.001	-	0.001	-	0.259	0.006	-	-	-	-	-	-	0.000	-	-	-	0.000	0.000	0.000	-	0.000	-	-	0.006	-	0.001	-	-
x10	-	-	-	-	0.000	-	-	-	0.000	0.013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
x11	-	-	-	-	-	-	-	-	-	-	0.300	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
x12	0.000	-	0.003	-	0.000	-	-	-	0.000	-	0.001	0.119	0.356	0.009	-	-	0.000	-	-	-	-	-	-	0.001	-	-	-	-	-	-	0.000	-
x13	0.000	0.000	0.000	-	0.001	0.001	0.000	0.000	0.002	0.000	-	0.000	0.023	-	-	-	-	0.000	0.002	0.086	0.001	0.001	0.001	0.007	0.000	-	0.000	0.002	0.005	0.001	0.000	0.000
x14	0.000	-	-	-	0.000	-	-	-	0.000	0.000	-	-	0.002	0.060	0.323	-	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-
x15	0.000	0.000	-	-	0.000	-	0.000	0.002	0.000	0.000	-	-	-	-	0.388	-	0.001	-	0.003	-	0.003	0.000	0.000	0.000	0.000	0.001	-	0.001	-	0.001	0.067	-
x16	0.000	0.001	0.002	-	0.000	0.000	0.002	0.000	0.004	0.043	0.106	0.000	0.003	0.021	0.002	0.242	0.253	0.000	0.001	0.000	0.002	0.002	0.000	0.002	0.001	0.000	0.000	-	0.000	0.002	0.008	0.000
x17	0.000	0.000	0.003	-	0.000	-	0.000	0.000	0.000	0.000	0.001	0.000	-	0.000	0.001	0.000	0.038	-	0.000	-	0.000	0.000	0.000	0.000	-	0.000	0.001	-	0.000	0.000	-	0.000
x18	0.029	0.026	0.048	-	0.003	0.004	0.035	0.012	0.007	0.004	0.004	0.001	0.006	0.002	0.007	-	0.027	0.137	0.156	0.001	0.008	0.022	0.001	0.019	0.005	0.000	0.002	0.001	0.002	0.010	0.001	0.003
x19	0.004	0.012	0.000	-	0.001	0.004	0.017	0.009	0.001	0.009	-	0.000	0.013	0.052	0.011	-	0.007	0.003	0.107	0.048	0.072	0.038	0.030	0.058	0.038	0.009	0.002	0.126	-	0.032	0.023	-
x20	0.000	-	0.014	-	0.000	-	-	-	0.000	-	-	-	-	-	-	-	-	0.000	0.000	0.108	- 0.000	-	-	-	-	-	-	-	-	0.000	0.001	-
x21	0.002	-	-	-	0.000	-	0.001	0.002	0.004	0.155	-	-	0.011	0.052	0.041	0.205	0.018	-	0.020	-	0.330	0.010	0.003	0.016	0.017	0.003	0.000	-	0.015	0.057	0.185	0.000
x22	0.002	0.009	0.000	-	0.000	0.003	0.093	0.004	0.003	0.141	-	0.002	-	-	0.002	0.000	0.000	0.006	- 0.000	0.009	0.179	0.005	0.004	0.049	0.000	0.001	-	0.018	0.000	0.007	0.000	
x23	0.001	-	0.001	-	0.001	0.005	0.006	0.023	0.000	-	-	0.002	0.001	-	0.003	-	0.001	0.002	0.003	-	0.017	0.009	0.059	0.192	0.060	0.101	0.095	-	0.002	0.001	0.007	0.018
x24	0.001	0.004	-	-	0.001	-	-	0.002	0.000	0.003	-	-	0.000	-	0.002	-	0.000	0.000	0.005	-	0.003	0.002	0.001	0.003	0.016	0.007	0.040	-	0.029	0.000	0.001	0.015
x25	0.000	0.000	0.001	-	0.000	-	0.000	0.001	0.003	0.000	-	-	0.000	-	-	-	0.004	0.000	0.000	0.000	- 0.000	0.000	0.000	0.000	0.001	0.171	0.068	0.002	-	-	0.000	0.002
x26	0.004	0.000	0.012	-	0.000	-	0.014	0.008	0.001	0.001	-	-	0.001	-	0.012	-	0.001	0.001	0.000	-	0.003	0.008	0.002	0.004	0.080	0.414	0.016	-	-	0.000	0.040	0.033
x27	0.008	0.001	0.007	-	0.000	-	0.063	0.077	0.006	0.002	-	0.003	0.028	-	0.000	-	0.002	0.000	0.001	-	0.012	0.009	-	0.029	0.009	0.005	0.012	-	0.037	0.035	0.001	0.025
x28	0.004	0.002	0.010	-	0.000	-	-	0.002	0.001	0.002	0.002	0.001	-	-	0.011	0.000	0.000	-	0.000	0.005	0.000	-	0.000	-	0.184	-	-	-	-	-	-	-
x29	0.003	0.020	0.030	-	0.001	0.000	0.000	0.002	0.001	0.000	-	-	0.002	0.005	-	0.006	-	0.011	-	0.000	-	0.000	0.003	0.000	-	0.001	-	0.015	-	0.092	-	0.002	0.005
x30	0.000	-	0.003	-	0.000	0.000	0.000	0.001	0.000	0.000	-	0.000	0.001	-	0.004	-	0.001	-	0.000	0.002	0.001	-	0.000	-	0.002	-	0.000	-	0.009	0.303	0.002	0.000
x31	0.000	0.000	-	-	0.002	0.000	0.000	0.004	0.000	0.005	-	-	0.001	-	0.118	-	0.003	-	0.007	-	0.000	0.000	0.001	0.004	0.001	0.003	0.001	-	0.001	0.000	0.000	0.017
x32	0.001	0.000	0.000	-	0.001	0.011	0.013	0.005	0.001	0.001	0.022	0.011	0.023	-	-	0.013	0.000	0.001	-	0.001	0.002	-	0.021	0.014	0.000	0.018	0.371	-	-	0.000	-	0.010
x33	0.041	0.001	0.031	-	0.001	0.039	0.040	0.005	0.027	0.016	0.004	0.008	0.013	0.018	0.017	0.137	0.007	0.011	0.033	0.011	0.031	0.102	0.037	0.025	0.007	0.018	0.011	0.002	0.005	0.012	0.013	0.003
x34	0.002	0.003	0.004	-	0.000	-	0.001	0.001	0.001	0.011	0.001	0.000	0.001	0.002	0.005	0.018	0.001	0.000	0.005	0.001	0.000	0.001	0.001	0.003	0.001	0.000	0.001	0.000	0.007	0.000	0.001	0.001
x35	0.001	0.000	0.002	-	0.001	-	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	-	-	0.000	0.000	0.001	-	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.000	-	-	0.000	0.000
x36	0.000	0.000	-	-	0.000	-	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	-	0.000	0.003	-	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	-	-	0.000	0.000	0.000	
x37	0.001	-	-	-	0.000	-	0.000	0.000	0.000	0.000	-	-	-	0.000	-	-	-	-	0.000	-	-	-	-	-	0.000	-	0.000	0.000	-	-	-	-
x38	0.018	0.021	0.018	-	0.004	-	0.001	0.024	0.002	0.007	-	0.001	0.000	0.007	0.001	-	0.022	0.010	0.024	-	0.007	0.001	0.003	0.027	0.001	0.002	0.003	-	-	0.014	0.021	0.009
x39	0.025	0.004	0.015	-	0.000	0.024	0.047	0.003	0.090	0.016	0.023	0.024	0.035	0.025	0.006	0.012	0.012	0.013	0.019	0.033	0.015	0.017	0.028	0.012	0.009	0.011	0.247	0.004	0.003	0.063	0.008	0.003
x40	0.063	0.010	0.038	-	0.004	0.061	0.039	0.074	0.108	0.030	0.060	0.061	0.069	0.062	0.015	0.032	0.031	0.038	0.050	0.083	0.035	0.045	0.073	0.025	0.023	0.026	0.011	0.011	0.008	0.044	0.021	0.002
x41	0.000	-	0.001	-	0.000	-	0.000	0.001	-	0.003	-	-	-	-	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.004
x42	0.000	-	-	-	0.000	-	0.000	0.000	0.000	0.001	-	-	-	0.003	-	-	0.000	-	-	-	-	0.001	0.000	-	0.001	0.001	-	-	-	0.000	-	-
x43	0.001	0.007	-	-	0.000	-	0.064	0.001	0.004	0.007	-	0.000	0.050	0.009	-	-	0.001	-	0.001	-	0.002	0.003	0.000	0.001	0.000	-	-	0.000	-	0.018	0.001	0.000
x44	0.000	0.000	0.000	-	0.000	-	0.000	0.000	0.000	0.000	- 0.000	0.000	0.000	-	0.000	- 0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	-	0.000	0.000	0.000
x45	0.001	0.002	0.012	-	0.000	0.000	0.003	0.002	0.000	0.001	-	0.001	-	0.005	-	-	0.001	0.000	0.000	-	0.002	0.003	0.000	0.000	0.001	0.000	-	-	0.000	0.010	0.001	0.001
x46	0.000	0.001	0.002	-	0.000	-	0.000	0.000	0.000	0.000	-	0.000	0.002	0.001	-	-	0.000	0.000	-	-	0.001	0.001	0.000	0.000	0.000	0.000	0.000	-	0.000	0.003	-	0.001
x47	0.000	0.000	0.000	-	0.000	-	0.000	0.000	0.000	0.000	-	0.000	-	0.001	0.001	-	0.001	0.000	0.000	-	0.000	0.000	0.000	-	-	0.000	0.000	-	-	-	-	0.000
x48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.006	-	-	-	-	-	-	-	-	-	-	-	-
x49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
x50	0.000	0.001	0.004	-	0.000	-	0.001	0.000	0.000	0.001	0.002	0.001	0.001	0.002	0.005	0.001	0.000	0.000	0.001	0.005	0.000	0.000	0.000	0.003	0.001	0.001	0.001	-	-	0.006	0.000	0.000
x51	0.000	-	0.000	-	0.000	-	-	0.001	0.000	0.000	-	-	0.000	0.000	-	-	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	-	0.000	-	-	0.000	-	0.002
x52	0.000	0.000	0.000	-	0.000	-	-	-	-	-	-	0.002	-	-	-	-	0.000	-	0.004	-	-	0.000	-	-	0.000	-	-	-	-	-	-	-
x53	0.002	0.001	0.001	-	0.000	- 0.000	0.002	0.002	0.022	0.011	0.006	0.042	0.014	0.067	0.006	0.004	0.003	0.003	0.001	0.004	0.045	0.070	0.002	0.003	0.003	0.000	0.014	0.000	0.000	0.004	0.001	0.004
x54	0.005	0.000	0.001	-	0.000	-	0.002	0.003	0.006	0.007	0.004	0.000	0.003	0.007	0.008	0.041	0.001	0.000	0.002	0.031	0.004	0.002	0.000	0.004	0.001	0.001	0.001	-	0.000	0.004	0.000	0.007
x55	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
x56	0.000	0.017	0.000	-	0.000	-	0.017	0.020	0.009	0.010	0.007	0.007	0.081	0.002	0.035	0.037	0.030	0.001	0.025	0.015	0.066	0.009	0.003	0.001	0.004	0.078	0.003	-	0.012	0.005	0.029	0.005
x57	0.000	0.000	-	-	0.000	-	0.000	0.000	0.000	-	-	-	-	-	-	-	0.000	0.000	-	-	0.000	0.000	-	0.000	-	0.000	0.000	-	-	-	0.000	0.000
x58	-	-	-	-	-	-	-	0.017	0.000	0.000	-	-	0.001	-	-	-	0.018	-	-	-	-	-	-	-	0.000	-	-	-	-	-	-	-
x59	0.000	-	-	-	0.000	-	-	0.000	0.000	0.001	-	-	-	-	-	-	-	0.006	0.002	-	-	0.000	-	-	0.015	-	-	-	-	-	0.068	0.006
x60	0.005	-	0.002	-	0.001	-	0.000	0.071	0.001	0.000	-	-	-	0.002	-	-	-	-	0.003	0.012	0.000	0.003	-	-	0.009	-	0.000	-	-	-	-	0.057
x61	0.000	-	-	-	0.000	-	0.002	0.000	0.002	0.033	-	0.000	0.003	0.006	0.001	-	0.001	0.000	0.001	-	0.002	0.001	0.000	0.000	0.000	0.000	0.000	0.000	-	0.022	-	0.001
x62	0.000	-	0.001	-	0.001	-	0.000	0.041	0.004	0.000	-	-	-	-	0.004	-	-	-	-	-	-	0.000	0.000	0.004	0.000	-	0.000	-	-	-	-	0.336
x63	0.000	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
x64	0.000	0.004	0.000	-	0.000	-	0.001	0.002	0.001	0.001	-	0.000	-	0.001	-	-	0.004	0.000	0.000	-	0.001	0.000	0.000	-	0.001	0.000	-	-	0.005	0.002	0.004	
x65	0.000	0.001	-	-	0.000	-	-	-	0.000	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	0.007	-	0.005	-	-	-	-	-	-
x66	0.000	-	-	-	0.000	-	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.000	-	-	-	-	-	-	-
x67	-	-	-	-	0.000	-	0.003	0.001	0.000	0.055	0.004	-	-	-	-	-	0.006	0.000	-	-	0.013	-	0.001	0.006	0.000	0.006	-	-	-	-	-	-
x68	0.000	0.001	-	-	0.000	-	-	0.000	-	0.000	-	0.000	-	-	-	-	0.000	-	0.000	-	-	-	-	-	0.000	-	-	-	-	-	-	-
x69	0.000	-	-	-	0.000	-	0.001	-	0.000	0.000	-	-	-	-	-	-	-	-	-	-	0.000	-	-	-	0.000	-	-	-	-	-	0.001	-
x70	-	0.000	-	-	0.000	-	-	-	0.000	0.000	-	-	0.003	-	-	-	0.001	-	-	-	0.002	-	-	0.000	0.001	0.000	0.001	-	-	-	-	-
x71	0.000	-	-	-	0.000	-	-	0.000	0.000	-	-	-	-	-	-	-	0.000	-	-	-	-	-	-	-	-	0.000	-	-	-	-	-	-
x72	0.001	- 0.000	- 0.000	-	0.000	-	0.000	0.000	0.000	-	-	-	-	-	-	-	0.000	0.001	- 0.000	- 0.000	0.000	0.000	0.000	0.000	0.000	-	-	0.003	-	-	-
x73	0.000	0.000	0.001	-	0.000	-	0.000	0.000	0.000	-	0.001	-	-	-	-	-	0.000	-	-	-	0.001	0.000	0.000	0.000	-	-	-	-	0.002	0.001	-
x74	0.000	0.000	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.001	-	-	-	-	-	-	-
x75	-	-	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
x76	0.000	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
x77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
x78	0.000	-	-	-	-	-	0.000	-	-	-	-	-	-	-	-	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-
x79	0.000	-	-	-	0.000	-	0.003	0.000	0.000	-	-	0.000	-	-	-	-	0.000	-	-	-	0.000	-	-	-	-	0.000	0.000	-	-	-	-	0.000
x80	0.000	-	-	-	-	-	0.000	0.000	0.000	-	-	0.000	-	-	0.001	-	0.000	0.000	-	-	0.000	0.000	-	-	0.000	-	0.000	-	-	0.001	0.000	0.000
x81	0.000	0.000	0.001	-	0.000	-	-	0.000	0.001	0.000	-	-	-	-	-	-	0.003	-	0.005	-	-	0.000	-	0.000	-	0.000	0.000	-	0.000	0.001	0.003	-

Source: Authors own analysis based on the Input-Output tables, The State Statistical Committee of the Republic of Azerbaijan, 2011, https://www.stat.gov.az/source/system_nat_accounts/?lang=en

x33	x34	x35	x36	x37	x38	x39	x40	x41	x42	x43	x44	x45	x46	x47	x48	x49	x50	x51	x52	x53	x54	x55	x56	x57	x58	x59	x60	x61	x62	x63	x64
-	-	0.000	-	-	-	-	0.000	-	-	-	-	0.001	0.008	-	-	-	-	-	-	-	-	-	-	-	-	-	0.000	-	-	-	-
-	-	-	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	0.000	0.008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.199	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	0.000	0.000	-	0.010	-	0.000	-	-	0.000	-	-	-	-	-	-	0.000	-	-	-	0.000	-	0.000	-	-	0.001	-	-	-	-	-
0.000	-	-	-	-	0.000	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.000	-	0.000	0.000	-	0.000	0.000	0.000	-	-	0.000	-	0.140	0.015	-	0.001	-	-	-	-	0.000	-	-	0.000	-	0.000	0.000	0.000	0.000	-	0.000	-
-	-	-	-	-	-	0.000	-	-	-	-	-	0.008	0.004	-	0.003	-	-	-	-	-	-	-	-	-	-	-	-	0.000	0.000	-	-
-	-	-	-	-	-	0.000	0.004	0.000	0.000	-	-	0.003	0.001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0.000	-	-	-	-	0.000	-	0.000	-	-	0.000	0.001	0.000	-	-	0.000	-	-	-	-	-	-	-	0.000	-	-	0.000	0.000	-	-	0.000	-
0.000	0.000	0.002	0.001	0.000	0.000	0.000	0.000	-	0.001	0.000	0.000	-	0.000	-	-	-	0.000	-	-	0.000	-	-	0.000	-	0.003	0.000	0.000	-	0.000	-	-
0.000	0.000	0.000	0.000	-	0.000	-	-	-	-	0.000	-	-	-	-	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	0.000	-	0.000	-	-
0.000	-	0.001	-	-	0.009	0.000	0.000	-	-	0.002	0.000	-	-	-	-	-	-	-	-	0.000	-	-	0.000	0.000	0.000	0.005	-	-	-	-	-
0.000	0.000	0.002	0.000	-	0.000	0.000	0.000	0.000	0.002	0.000	0.019	0.001	0.000	0.039	-	0.002	0.000	0.004	0.001	0.000	0.002	0.029	0.000	0.000	0.000	0.006	0.001	0.001	0.001	0.000	0.000
0.000	0.000	0.001	0.000	-	0.000	0.000	0.000	0.000	0.019	0.000	0.007	0.001	0.000	0.121	0.001	0.001	0.001	0.007	0.001	0.000	0.001	0.014	0.000	0.001	0.001	0.000	0.000	0.004	0.000	0.000	0.000
0.003	0.049	0.017	0.001	0.075	0.013	0.037	0.037	0.172	0.139	0.028	0.007	0.020	0.001	0.003	0.016	0.002	0.002	0.001	0.008	0.007	0.001	-	0.018	0.012	0.007	0.005	0.001	0.000	-	0.000	0.019
0.001	0.004	0.008	-	0.000	0.006	0.000	-	-	-	0.001	-	0.004	0.000	-	-	-	0.000	0.000	-	-	0.000	-	0.000	0.000	-	0.005	0.002	0.000	-	0.000	-
0.000	0.001	0.000	-	-	0.000	0.000	0.000	-	0.000	-	-	0.000	-	-	-	-	-	-	-	-	-	-	0.000	-	-	0.001	0.000	-	0.002	0.000	-
0.005	0.008	0.005	0.001	-	0.010	0.000	0.001	-	-	0.000	0.000	0.000	-	-	-	0.000	0.000	-	-	-	-	-	0.000	-	-	0.001	0.000	0.035	-	0.000	-
0.000	0.002	0.001	0.003	-	0.033	0.000	0.000	-	-	0.001	-	0.000	0.000	-	-	0.000	0.000	-	0.001	-	0.000	-	0.000	-	-	0.006	-	0.000	-	0.000	-
0.002	0.070	0.002	0.001	-	0.047	0.000	0.001	-	-	0.001	-	-	-	-	-	0.000	0.000	-	0.001	-	-	-	0.000	-	-	0.002	0.000	-	-	0.000	-
0.001	0.007	0.000	-	-	0.005	0.001	0.001	-	-	0.001	-	0.000	-	-	-	0.000	0.001	-	-	-	-	-	0.000	-	0.000	0.025	0.000	0.000	-	0.000	-
0.007	0.002	0.001	0.001	-	0.001	0.000	0.000	0.000	-	0.003	0.014	0.006	0.000	0.008	0.096	0.019	0.007	0.013	0.004	0.000	0.001	0.006	0.081	0.015	0.001	0.002	0.001	0.000	0.000	0.000	0.001
0.011	0.017	0.002	0.003	-	0.006	0.015	0.001	0.046	0.005	0.002	0.005	0.001	0.001	0.002	0.005	0.006	0.004	0.002	0.119	0.000	0.000	0.002	0.097	-	0.000	0.001	0.000	0.000	0.000	0.000	0.000
0.005	0.030	0.002	0.029	0.005	0.007	0.001	0.003	0.211	0.001	0.056	0.004	0.001	0.001	0.009	0.000	0.003	0.003	0.087	0.002	0.000	0.000	0.019	0.000	-	0.005	0.015	0.002	0.000	0.000	0.000	-
0.000	0.003	0.009	0.000	0.006	0.001	0.010	0.014	0.000	0.002	0.036	0.001	0.001	0.003	0.001	0.001	0.001	0.000	-	0.000	0.000	0.002	-	0.005	-	0.000	0.013	0.001	0.000	-	0.000	0.030
0.003	0.000	0.002	-	-	0.001	0.010	0.005	0.055	0.051	0.085	0.000	0.000	0.001	-	-	0.002	0.001	0.002	-	0.000	0.000	0.011	0.000	-	-	0.003	0.000	-	0.000	0.000	0.000
0.000	0.000	0.002	0.001	-	0.000	0.000	0.000	0.000	0.001	0.000	0.003	0.011	0.001	0.006	0.028	0.002	0.000	0.002	-	0.002	0.001	0.014	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	-
0.000	0.000	0.000	0.000	-	0.002	0.000	0.000	0.003	-	0.000	0.000	0.000	0.000	0.000	-	0.000	0.001	0.000	0.000	0.000	-	-	0.000	-	-	0.000	0.000	0.000	-	0.000	0.000
0.004	0.039	0.006	0.002	0.001	0.001	0.000	0.005	0.033	-	0.001	0.008	0.000	0.001	0.000	0.001	0.000	0.001	0.004	0.007	0.001	0.000	0.005	0.000	-	-	0.002	0.000	0.000	0.000	0.000	0.003
0.023	0.144	0.020	0.014	0.056	0.005	0.001	0.012	0.002	0.001	0.001	0.003	0.035	0.011	0.003	0.002	0.008	0.005	0.004	0.006	0.001	0.001	0.036	0.010	0.003	0.004	0.003	0.003	0.001	0.001	0.000	0.001
0.000	0.091	0.001	0.006	0.002	0.000	0.001	0.001	0.000	-	0.000	0.000	0.001	0.001	0.000	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.003	0.001	0.001	0.000	0.001	0.001	0.000	0.000	0.000	0.000
0.000	0.006	0.003	-	-	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	-	0.000	0.000	0.000	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	-	0.000	-
0.000	0.001	0.159	0.013	0.162	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	-	0.002	0.000	0.000	0.000	0.000	0.000	-	0.000	-
0.000	0.000	0.015	0.001	0.002	0.000	0.000	0.000	-	-	0.000	0.000	0.000	0.000	0.000	-	-	0.000	-	-	0.000	-	-	0.000	-	-	0.000	0.000	0.000	-	0.000	0.003
0.012	0.139	0.152	0.103	0.005	0.158	0.008	0.002	0.002	0.048	0.011	0.013	0.027	0.030	0.015	-	0.001	0.008	0.011	0.010	0.069	0.006	0.008	0.025	0.002	0.153	0.019	0.002	0.006	0.000	0.000	0.003
0.001	0.007	0.004	0.001	0.121	0.006	0.067	0.007	0.019	0.031	0.059	0.016	0.017	0.021	0.008	0.005	0.001	0.001	0.002	0.053	0.003	0.000	0.002	0.005	0.001	0.001	0.006	0.000	0.002	0.007	0.000	0.002
0.005	0.010	0.006	0.003	0.018	0.017	0.011	0.026	0.038	0.038	0.010	0.006	0.042	0.009	0.020	0.012	0.002	0.001	0.004	0.008	0.002	0.001	0.006	0.013	0.004	0.003	0.011	0.001	0.004	0.000	0.000	0.004
0.000	0.007	-	-	-	0.003	-	0.000	0.016	-	-	-	0.000	-	-	-	0.000	0.000	0.000	0.000	-	0.000	-	-	-	-	0.002	-	-	-	0.000	0.000
0.000	-	-	0.000	-	0.000	0.000	0.000	0.000	0.014	0.000	-	0.003	0.000	0.000	0.000	0.000	0.000	0.000	-	0.000	0.000	-	0.000	0.000	-	0.000	0.000	-	0.000	0.000
0.091	0.016	0.000	0.002	-	0.008	0.005	0.015	0.014	-	0.011	0.003	0.003	0.001	-	-	0.001	0.003	-	-	0.000	0.000	-	0.000	-	0.006	0.000	0.000	0.013	-	0.000	-
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.270	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.001	0.002	0.000	0.000	0.003	0.001	0.002	0.001	0.003	0.007	0.002	0.004	0.068	0.002	0.002	0.000	0.000	0.001	0.014	0.012	0.001	0.002	0.000	0.002	0.001	0.002	0.017	0.003	0.002	-	0.000	0.002
0.000	0.000	0.000	0.000	-	0.000	0.001	0.000	0.000	0.001	0.002	0.001	0.016	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.001	0.000	0.000	0.003	0.004	0.000	0.000	0.000	0.000	0.001
0.000	0.000	0.000	0.007	-	0.000	0.000	0.000	0.000	0.014	0.000	0.002	0.000	0.000	0.010	-	0.000	0.000	0.002	0.000	0.000	0.001	0.000	0.000	0.000	-	0.001	0.000	0.000	0.001	0.000	0.000
-	-	-	-	-	-	-	-	-	-	-	-	0.000	-	-	0.005	0.011	-	-	-	-	-	-	0.000	-	-	-	-	0.000	-	0.000	-
-	-	-	-	-	-	-	-	-	-	0.000	-	0.001	-	-	0.090	0.068	0.000	-	-	-	-	-	0.000	-	-	-	0.000	-	0.000	-	-
0.001	0.002	0.001	0.000	0.000	0.000	0.003	0.001	0.000	0.001	0.001	0.008	0.018	0.001	0.024	0.016	0.017	0.095	0.021	0.031	0.014	0.001	0.001	0.013	0.001	0.003	0.003	0.001	0.000	0.000	0.000	0.007
0.000	0.000	0.000	0.000	-	0.000	0.000	0.000	-	0.000	0.000	0.002	0.001	0.000	0.002	0.000	0.000	0.002	0.002	0.030	0.000	0.000	0.018	0.004	0.159	0.000	0.004	0.000	0.000	-	0.000	0.007
0.000	-	-	-	-	0.000	0.001	0.000	-	-	0.000	0.022	0.004	0.001	0.113	-	0.000	0.002	0.119	0.018	0.000	0.002	0.092	0.005	0.002	0.006	0.002	0.000	0.001	0.000	0.000	-
0.002	0.003	0.002	0.002	0.000	0.010	0.035	0.003	0.005	-	0.001	0.003	0.010	0.006	0.007	-	0.003	0.002	0.002	0.002	0.008	0.071	0.071	0.004	0.001	0.010	0.008	0.002	0.342	0.000	0.000	0.034
0.002	0.003	0.000	0.002	0.004	0.005	0.004	0.002	0.006	-	0.001	0.001	0.004	0.001	0.001	-	0.002	0.002	0.013	0.002	0.005	0.001	0.001	0.000	0.000	0.001	0.004	0.000	0.001	0.000	0.000	0.009
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0.005	0.001	0.093	0.016	0.002	0.010	0.025	0.013	0.009	0.075	0.009	0.013	0.031	0.006	0.046	0.019	0.015	0.007	0.053	0.005	0.108	0.018	0.008	0.008	0.005	0.002	0.030	0.001	0.004	0.000	0.000	0.067
0.000	0.000	0.000	-	-	0.000	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.001	0.000	-	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000
0.000	-	-	-	-	0.001	0.002	0.001	-	-	0.013	-	0.002	0.000	-	0.015	0.005	0.011	0.058	0.001	0.000	-	-	0.000	0.002	-	0.000	0.000	-	-	-	-
0.031	0.003	0.000	-	-	0.077	0.000	0.002	-	-	0.001	-	0.001	-	-	-	0.040	0.001	0.039	-	-	-	-	0.000	0.139	0.000	0.190	0.024	0.056	-	-	-
0.000	0.000	-	-	-	0.019	-	0.000	-	-	-	-	-	0.000	0.040	-	-	0.023	-	0.004	0.000	-	-	-	-	0.042	0.006	0.001	-	0.000	-
0.000	0.000	0.001	-	-	0.000	0.060	0.000	0.000	0.004	0.001	0.000	0.006	0.003	0.004	0.004	0.000	0.021	0.049	0.079	0.000	0.007	0.016	0.001	0.006	0.000	0.001	0.002	0.001	0.005	-	0.000	0.001
0.000	0.000	0.011	-	-	0.033	0.000	0.001	0.115	-	0.004	0.027	0.000	0.010	0.041	0.001	0.009	0.050	0.003	0.013	0.001	-	0.009	0.080	0.019	0.002	0.016	0.000	0.004	0.003	0.000	0.002
-	-	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.000	-	-	-	-	0.000	-	-	-	-
0.000	0.000	0.000	-	-	0.002	0.004	0.001	0.001	0.001	0.001	0.002	0.007	0.001	0.005	0.020	0.004	0.003	0.001	0.000	0.010	0.000	0.000	0.001	0.001	0.000	0.001	0.000	0.001	0.000	0.000	0.008
-	-	-	-	-	0.003	-	-	-	-	-	-	0.001	-	-	-	-	-	-	0.015	-	-	-	-	-	-	0.007	-	-	-	-	-
-	-	-	-	-	0.000	0.000	0.000	-	0.002	0.000	-	0.001	-	-	-	-	-	-	-	0.000	-	-	0.000	-	-	0.000	-	0.000	-	0.000	-
0.002	-	0.017	-	-	0.000	0.001	0.000	-	-	0.004	0.004	0.000	0.000	-	-	-	0.002	-	0.017	0.005	-	-	0.001	0.003	0.012	-	-	-	-	-	-
0.000	0.000	0.000	0.000	-	0.000	0.000	0.000	-	-	0.000	0.000	0.001	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	-	-	0.001	-	-	0.000	-	0.000	-	-	-
0.000	-	-	-	-	0.000	0.011	0.001	-	-	0.000	0.007	0.000	0.000	-	-	0.001	0.000	-	0.000	0.001	0.000	-	0.005	0.001	0.012	-	0.004	0.000	-	0.001
0.002	0.000	-	-	-	0.000	0.000	0.000	0.000	-	-	0.003	0.001	0.000	0.001	-	0.000	0.000	0.001	-	0.002	0.004	-	0.000	0.001	-	0.005	0.001	0.000	-	-	0.000
0.000	-	-	-	-	0.000	0.000	-	0.000	0.002	0.000	-	-	0.000	-	-	-	0.000	-	0.001	0.000	0.001	-	-	0.000	0.000	0.000	0.001	0.000	-	0.000	-
0.000	-	0.001	-	-	0.000	0.000	0.000	-	-	0.001	0.000	-	0.000	-	-	0.000	0.000	-	0.000	-	-	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	-
0.000	-	0.000	-	-	0.000	0.000	0.002	-	0.000	0.001	0.002	0.000	0.000	0.001	0.003	0.004	0.001	0.000	0.001	0.001	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	-	0.000	-
0.000	-	0.000	-	-	-	-	-	-	-	-	-	-	-	-	0.008	-	-	-	-	-	-	-	0.000	-	-	-	0.000	-	0.000	-
-	-	-	-	-	-	-	-	-	-	-	-	0.000	0.000	-	-	-	0.002	0.000	-	-	-	-	-	-	-	-	0.000	0.000	-	-
-	-	-	-	-	0.000	-	-	-	-	-	-	0.000	-	-	-	-	-	-	-	0.000	-	-	-	-	0.000	-	0.000	0.000	-	0.000	-
-	-	-	-	-	0.000	-	0.000	-	-	-	-	0.002	-	-	-	-	-	0.000	-	0.011	-	-	-	-	0.000	0.000	0.000	0.000	-	-	-
0.000	0.000	-	-	-	0.000	0.000	0.000	-	0.004	0.001	0.000	0.000	-	0.000	0.067	0.003	0.011	0.003	0.000	0.000	-	0.001	0.000	0.001	0.001	0.000	0.000	0.000	-	0.000	0.003
0.000	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.002	0.001	0.000	0.000	0.000	0.002	0.000	0.000	0.003	0.000	0.000	0.000	0.007	0.001	0.001	0.000	0.001	0.002	0.000	-	0.000	0.000
-	0.001	-	-	0.000	0.001	0.000	0.000	-	-	0.000	0.006	0.009	0.001	0.006	-	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.000	0.000	-	-	0.000	-	0.000	0.000	0.003

x65	x66	x67	x68	x69	x70	x71	x72	x73	x74	x75	x76	x77	x78	x79	x80	x81
-	0.000	-	0.001	0.000	0.000	0.000	0.000	-	-	-	0.124	-	0.000	0.000	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	0.000	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	0.000	-	-	-	-	-	-	-	-	0.000	-	0.003
-	-	-	-	-	0.000	-	-	-	-	-	-	-	-	-	-	-
-	0.002	-	0.000	0.007	0.002	0.001	0.016	0.015	0.002	0.000	0.000	-	0.003	0.005	-	0.000
-	0.000	-	0.000	0.000	-	0.000	0.000	-	0.000	0.000	-	-	0.000	0.001	-	0.000
-	-	-	-	-	-	-	-	-	-	-	-	-	0.000	0.000	-	-
-	0.000	-	-	-	0.000	0.000	0.001	-	0.000	0.003	-	-	-	0.000	-	-
-	-	0.053	0.001	0.000	0.001	0.000	0.000	0.017	-	-	0.000	-	0.004	0.000	-	0.000
-	-	-	-	-	0.000	-	0.000	-	-	0.000	-	-	0.000	-	-	-
-	-	-	0.000	0.003	0.000	-	0.000	-	-	0.000	0.000	-	-	-	-	0.005
0.016	0.001	0.002	0.001	0.006	0.003	0.000	0.001	0.010	0.000	0.002	0.001	0.000	0.000	0.004	0.002	0.001
0.001	0.000	-	0.002	0.048	0.002	0.007	0.002	0.003	0.000	0.003	0.000	-	0.003	0.002	0.000	0.000
0.021	0.000	0.036	0.010	0.007	0.003	0.001	0.006	0.258	0.000	0.000	0.001	0.000	0.002	0.004	0.000	0.001
-	0.000	-	0.038	0.000	0.000	0.000	0.002	0.002	0.000	0.003	-	0.000	0.000	-	-	0.010
-	-	-	0.059	0.001	0.002	0.000	0.079	0.037	0.000	-	0.000	-	0.000	0.001	-	0.000
-	-	0.001	0.000	0.000	0.000	-	0.000	-	-	0.000	-	-	0.000	-	-	0.012
-	0.001	-	0.000	0.002	0.000	-	0.000	-	-	0.001	0.000	-	0.000	0.002	-	0.010
-	0.001	0.005	0.005	0.000	-	-	0.000	-	-	-	-	-	0.000	-	-	0.019
-	-	0.003	0.000	0.000	0.000	0.001	0.000	-	-	-	0.002	-	0.000	0.000	0.000	0.010
-	0.010	0.030	0.003	0.001	0.005	0.002	0.012	0.009	0.000	0.006	0.003	0.011	0.009	0.003	0.020	0.005
-	0.006	0.001	0.027	0.001	0.002	0.000	0.003	-	0.000	0.002	0.000	0.000	0.001	0.000	0.007	0.003
-	0.000	0.005	0.003	0.001	0.054	0.002	0.005	-	-	0.001	0.015	0.000	0.002	0.012	0.108	0.002
-	-	0.007	0.156	0.001	0.000	0.001	0.013	0.029	-	-	0.000	-	0.000	0.006	-	0.000
-	0.000	0.001	0.002	-	0.004	0.000	0.001	-	-	0.000	0.000	-	-	0.001	-	0.001
0.043	0.002	0.035	0.010	0.000	0.004	0.005	0.001	0.007	0.000	0.017	0.000	0.001	0.004	0.002	0.002	0.001
-	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.033	0.000	-	0.000	0.000	0.000	0.000
-	0.000	0.000	0.003	0.000	0.000	0.000	0.000	-	-	-	-	0.001	0.000	0.005	0.000	0.000
0.000	0.010	0.002	0.004	0.003	0.005	0.006	0.022	0.067	0.000	0.004	0.002	0.000	0.006	0.004	0.002	0.001
0.000	0.001	0.003	0.001	0.000	0.001	0.002	0.008	0.002	0.000	0.003	0.021	0.000	0.001	0.000	0.000	0.000
-	0.000	0.001	0.000	0.000	0.000	0.001	0.002	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	0.000
-	0.000	0.000	0.000	0.001	0.000	0.000	0.001	-	0.000	0.001	0.000	-	0.000	0.000	0.000	0.000
-	0.000	-	0.002	0.000	0.000	0.000	0.000	-	-	0.000	-	-	0.000	0.000	-	0.000
-	0.000	0.006	0.012	0.002	0.147	0.037	0.122	-	0.003	0.070	0.020	0.028	0.004	0.009	0.004	0.111
0.004	0.001	0.020	0.003	0.006	0.003	0.002	0.004	0.028	0.000	0.002	0.011	0.000	0.001	0.003	0.018	0.004
0.011	0.004	0.021	0.008	0.011	0.002	0.003	0.008	0.070	0.001	0.004	0.028	0.001	0.004	0.004	0.005	0.005
-	-	-	-	-	0.002	-	0.000	-	-	-	-	-	-	-	-	-
-	0.000	0.002	0.001	0.001	0.000	0.000	0.000	-	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000
-	0.003	0.013	0.018	0.001	0.000	0.001	0.001	-	-	-	-	0.001	-	0.001	-	0.001
-	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
-	0.019	0.077	0.008	0.003	0.007	0.006	0.010	-	0.000	0.001	0.000	0.011	0.128	0.008	0.003	0.001
-	0.004	0.007	0.001	0.001	0.001	0.003	0.002	-	0.000	0.082	0.000	0.000	0.013	0.004	0.001	0.001
-	0.000	0.003	0.000	0.006	0.001	0.001	0.000	-	0.000	0.001	0.001	0.000	0.000	0.001	0.000	0.000
-	-	-	-	-	0.001	-	0.000	-	-	-	-	-	-	-	-	0.000
-	-	-	-	0.000	0.000	-	0.000	-	-	-	-	-	-	-	-	0.010
-	0.006	0.015	0.003	0.011	0.002	0.002	0.002	0.002	0.000	0.000	0.000	0.003	0.001	0.003	0.000	0.003
-	0.002	0.000	0.006	0.017	0.004	0.001	0.000	-	0.000	0.000	0.000	0.003	0.000	0.000	0.003	0.001
-	0.003	-	0.001	0.096	0.002	0.000	0.000	-	0.000	-	-	0.000	0.000	0.000	0.000	0.000
0.000	0.032	0.008	0.002	0.018	0.058	0.002	0.015	0.005	0.000	0.000	0.000	0.001	0.003	0.010	0.014	0.004
-	0.012	0.014	0.001	0.005	0.002	0.003	0.002	0.000	0.000	0.000	0.000	0.001	0.005	0.002	0.015	0.001
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000
-	0.066	0.126	0.011	0.002	0.029	0.008	0.007	0.037	0.003	0.004	0.006	0.014	0.028	0.001	0.004	0.052
-	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000
-	0.001	0.010	-	0.012	0.001	0.000	0.001	-	-	-	-	0.180	-	0.000	0.000	0.000
-	-	-	-	0.110	0.000	-	-	-	-	-	-	-	-	-	0.104	0.004
-	-	-	-	0.000	0.022	0.007	0.013	-	-	-	-	-	-	0.087	-	0.002
0.001	0.016	0.029	-	0.019	0.001	0.001	0.001	0.015	0.000	-	-	0.031	0.014	0.001	0.001	0.004
0.000	0.011	-	0.004	0.000	0.016	0.000	0.003	-	-	0.000	-	-	0.006	0.047	0.000	0.003
-	-	-	-	-	-	-	0.000	-	-	-	-	-	-	-	-	-
0.010	0.005	0.009	0.000	0.003	0.001	0.001	0.000	0.000	0.000	0.002	0.001	0.000	0.003	0.005	0.000	0.003
-	-	-	-	-	0.003	0.023	-	0.001	-	0.001	-	-	-	0.009	-	-
-	0.017	-	-	0.001	-	-	0.000	-	-	-	-	-	0.001	0.000	-	0.001
-	-	0.112	-	-	0.004	0.000	0.005	-	-	-	-	-	0.000	-	0.000	-
-	0.000	0.001	0.000	0.000	0.001	0.000	0.001	-	0.000	0.000	-	0.000	0.000	-	-	0.000
-	0.004	0.092	-	0.000	0.000	0.000	0.001	-	0.000	-	0.044	-	-	0.000	-	0.002
-	-	0.001	0.000	0.000	0.001	0.005	0.001	-	0.000	-	0.000	-	0.000	0.017	-	0.000
-	-	-	0.000	0.000	0.003	0.006	0.004	-	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-
0.000	-	0.001	0.001	0.000	0.000	0.000	0.005	-	0.000	-	-	0.003	0.001	-	-	0.000
-	0.000	0.014	0.000	0.000	0.000	0.003	0.003	0.001	0.003	-	0.000	-	0.014	0.013	-	0.000
-	-	-	-	-	0.000	-	-	0.001	0.000	0.000	0.000	-	0.001	0.001	-	-
-	-	-	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	-	0.002	0.015	-	-	-
-	-	-	0.000	0.000	0.001	0.001	-	0.000	-	-	0.002	-	0.000	0.005	-	-
-	-	-	-	-	-	0.000	-	-	-	-	-	0.000	-	-	-	-
-	0.001	0.003	-	-	0.000	0.000	-	0.000	0.000	0.000	-	0.226	0.011	0.020	-	-
-	0.001	0.006	0.000	0.000	0.000	0.000	0.000	0.001	0.000	-	-	0.002	0.000	-	-	-
-	0.002	0.004	0.000	0.000	0.000	0.000	0.003	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
-	-	0.004	0.000	0.000	0.008	0.000	0.009	-	0.000	-	0.001	0.000	0.000	0.000	-	0.000

APPENDIX III

I-A matrix based on Input - output tables in 2011

	x1	x2	x3	x4	x5	x6	x7	x8	x9	x10	x11	x12	x13	x14	x15	x16	x17	x18	x19	x20	x21	x22	x23	x24	x25	x26	x27	x28	x29	x30	x31	x32	x33	x34	x35	x36	x37
x1	0.764	- 0.000	- 0.025	-	-	-	-	-	- 0.160	- 0.067	- 0.150	- 0.187	-	-	-	-	-	-	-	- 0.219	-	-	-	-	-	-	-	-	-	-	-	-	- 0.000	-	-	-	-
x2	- 0.000	0.996	- 0.000	-	-	-	-	-	- 0.000	-	-	-	-	-	- 0.003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
x3	- 0.000	-	0.992	-	-	-	-	-	- 0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
x4	-	-	-	1.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	- 0.005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
x5	-	-	-	-	1.000	-	-	- 0.000	-	-	-	-	-	-	-	-	-	- 0.354	- 0.028	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	- 0.199	-	-
x6	-	-	-	-	-	0.742	-	-	-	-	-	-	-	-	0.000	-	-	-	-	-	- 0.001	-	- 0.267	- 0.020	-	-	-	-	-	-	-	-	-	-	-	-	-
x7	- 0.000	- 0.001	- 0.000	-	- 0.000	-	0.965	- 0.001	- 0.000	- 0.000	-	-	-	-	-	-	-	- 0.000	- 0.001	-	- 0.000	- 0.055	- 0.000	-	-	-	-	-	-	-	-	- 0.000	- 0.001	-	- 0.000	- 0.000	-
x8	-	-	-	-	- 0.025	-	- 0.163	0.891	-	-	-	-	-	-	-	-	-	- 0.001	-	-	- 0.000	- 0.006	-	-	-	-	-	-	-	-	-	- 0.000	-	-	-	-	-
x9	- 0.001	- 0.000	- 0.064	-	- 0.001	-	- 0.001	-	0.741	- 0.006	-	-	-	-	-	- 0.000	-	-	-	-	- 0.000	- 0.000	- 0.000	-	- 0.000	-	-	- 0.006	-	- 0.001	-	-	- 0.000	- 0.000	-
x10	-	-	-	-	- 0.000	-	-	-	- 0.000	0.987	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
x11	-	-	-	-	-	-	-	-	-	-	0.700	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
x12	- 0.000	-	- 0.003	-	- 0.000	-	-	-	- 0.000	-	- 0.001	0.881	- 0.356	- 0.009	-	-	- 0.000	-	-	-	-	-	- 0.001	-	-	-	-	-	-	- 0.000	-	- 0.000	-	-	-	-	-
x13	- 0.000	- 0.000	- 0.000	-	- 0.001	- 0.001	- 0.000	- 0.000	- 0.002	- 0.000	-	- 0.000	0.977	-	-	-	-	- 0.000	- 0.002	- 0.086	- 0.001	- 0.001	- 0.001	- 0.007	- 0.000	-	- 0.000	- 0.002	- 0.005	- 0.001	- 0.000	- 0.000	- 0.000	-	-	-	-
x14	- 0.000	- 0.000	- 0.000	-	-	-	- 0.000	- 0.000	-	-	-	- 0.002	- 0.060	0.677	-	-	-	-	- 0.000	-	-	-	-	-	-	-	-	-	-	-	-	- 0.000	- 0.000	- 0.000	-	-	-
x15	- 0.000	- 0.000	-	-	- 0.000	-	- 0.000	- 0.002	- 0.000	- 0.000	-	-	-	-	0.612	-	- 0.001	-	- 0.003	- 0.000	- 0.003	- 0.000	- 0.000	- 0.000	- 0.001	-	- 0.001	-	- 0.001	- 0.067	-	- 0.000	-	-	- 0.001	- 0.000	-
x16	- 0.000	- 0.001	- 0.002	-	- 0.000	- 0.000	- 0.002	- 0.000	- 0.004	- 0.043	- 0.106	- 0.000	- 0.003	- 0.021	- 0.002	0.758	- 0.253	- 0.000	- 0.001	- 0.000	- 0.002	- 0.002	- 0.000	- 0.002	- 0.001	- 0.000	- 0.000	- 0.000	- 0.002	- 0.008	- 0.000	- 0.000	- 0.001	- 0.000	-	-
x17	- 0.000	- 0.000	- 0.003	-	- 0.000	-	- 0.000	- 0.000	- 0.000	- 0.000	- 0.001	- 0.000	-	- 0.000	- 0.001	- 0.000	0.962	-	- 0.000	-	- 0.000	- 0.000	- 0.000	- 0.000	-	- 0.000	- 0.001	-	- 0.000	- 0.000	- 0.000	- 0.000	- 0.001	- 0.000	-
x18	- 0.029	- 0.026	- 0.048	-	- 0.003	- 0.004	- 0.035	- 0.012	- 0.007	- 0.004	- 0.004	- 0.001	- 0.006	- 0.002	- 0.007	-	- 0.027	0.863	- 0.156	- 0.001	- 0.008	- 0.022	- 0.001	- 0.019	- 0.005	- 0.000	- 0.002	- 0.002	- 0.010	- 0.001	- 0.003	- 0.049	- 0.017	- 0.001	- 0.075
x19	- 0.004	- 0.012	- 0.000	-	- 0.001	- 0.004	- 0.017	- 0.009	- 0.001	- 0.009	-	- 0.000	- 0.013	- 0.052	- 0.011	-	- 0.007	- 0.003	0.893	- 0.048	- 0.072	- 0.038	- 0.030	- 0.058	- 0.038	- 0.009	- 0.002	- 0.126	-	- 0.032	- 0.023	-	- 0.001	- 0.004	- 0.008	- 0.010	-
x20	-	-	- 0.014	-	- 0.000	-	-	-	- 0.000	-	-	-	-	-	-	-	-	- 0.000	0.892	- 0.000	-	-	-	-	-	-	-	-	- 0.001	-	- 0.000	- 0.001	- 0.000	-	-	-	-
x21	- 0.002	-	- 0.000	-	- 0.000	-	- 0.001	- 0.002	- 0.004	- 0.155	-	- 0.011	- 0.052	- 0.041	- 0.205	- 0.018	-	- 0.020	-	0.670	- 0.010	- 0.003	- 0.016	- 0.017	- 0.003	- 0.000	-	- 0.015	- 0.057	- 0.185	- 0.000	- 0.005	- 0.008	- 0.005	- 0.001
x22	- 0.002	- 0.009	- 0.000	-	- 0.000	- 0.003	- 0.093	- 0.004	- 0.003	- 0.141	-	- 0.002	-	-	- 0.002	- 0.000	- 0.000	- 0.006	0.000	- 0.009	0.821	- 0.005	- 0.004	- 0.049	- 0.000	- 0.001	-	- 0.018	- 0.000	- 0.007	- 0.000	- 0.000	- 0.002	- 0.001	- 0.003	-
x23	- 0.001	-	- 0.001	-	- 0.001	- 0.005	- 0.006	- 0.023	-	-	-	- 0.002	- 0.001	-	- 0.003	-	- 0.001	- 0.002	- 0.003	-	- 0.017	- 0.009	0.941	- 0.192	- 0.060	- 0.101	- 0.095	- 0.002	- 0.001	- 0.007	- 0.018	- 0.002	- 0.070	- 0.002	- 0.001	-
x24	- 0.001	- 0.004	-	-	- 0.001	-	- 0.002	- 0.000	- 0.003	-	-	- 0.000	-	-	- 0.002	-	- 0.000	- 0.000	- 0.005	-	- 0.003	- 0.002	- 0.001	0.997	- 0.016	- 0.007	- 0.040	-	- 0.029	- 0.001	- 0.001	- 0.015	- 0.001	-	-	-
x25	- 0.000	- 0.000	- 0.001	-	- 0.000	-	- 0.001	- 0.003	- 0.000	-	-	- 0.000	-	-	- 0.004	- 0.000	- 0.000	- 0.000	- 0.000	0.000	- 0.000	- 0.000	- 0.000	- 0.001	0.829	- 0.068	- 0.002	-	-	- 0.000	- 0.040	- 0.033	- 0.011	- 0.017	- 0.002	- 0.003
x26	- 0.004	- 0.000	- 0.012	-	- 0.000	-	- 0.014	- 0.008	- 0.001	- 0.001	-	- 0.001	-	- 0.012	-	- 0.001	- 0.001	- 0.000	-	- 0.003	- 0.008	- 0.002	- 0.004	- 0.080	0.586	- 0.016	-	-	- 0.000	- 0.040	- 0.033	- 0.011	- 0.017	- 0.002	- 0.003
x27	- 0.008	- 0.001	- 0.007	-	- 0.000	-	- 0.063	- 0.077	- 0.006	- 0.002	-	- 0.003	- 0.028	-	- 0.000	-	- 0.002	- 0.000	- 0.001	-	- 0.012	- 0.009	-	- 0.029	- 0.009	- 0.005	0.988	-	- 0.037	- 0.035	- 0.001	- 0.025	- 0.005	- 0.030	- 0.002	- 0.029	- 0.005
x28	- 0.004	- 0.002	- 0.010	-	- 0.000	-	- 0.002	- 0.001	- 0.001	- 0.002	- 0.002	- 0.001	-	-	- 0.011	- 0.000	- 0.000	-	- 0.000	-	- 0.000	- 0.005	- 0.000	-	- 0.000	-	- 0.184	1.000	-	- 0.000	- 0.003	- 0.009	- 0.000	- 0.006
x29	- 0.003	- 0.020	- 0.030	-	- 0.001	- 0.000	- 0.000	- 0.002	- 0.001	- 0.000	-	- 0.002	- 0.005	-	- 0.006	-	- 0.011	-	- 0.000	-	- 0.000	- 0.003	- 0.000	-	- 0.001	-	- 0.015	-	0.908	-	- 0.002	- 0.005	- 0.003	- 0.000	- 0.002	-
x30	- 0.000	-	- 0.003	-	- 0.000	-	- 0.000	- 0.001	- 0.000	- 0.000	-	- 0.000	- 0.001	-	- 0.004	-	- 0.001	-	- 0.000	- 0.002	- 0.001	-	- 0.000	-	- 0.002	-	- 0.000	-	- 0.009	0.697	- 0.002	- 0.002	- 0.001	-
x31	- 0.000	- 0.000	-	-	- 0.002	- 0.000	- 0.000	- 0.004	- 0.000	- 0.005	-	-	- 0.001	-	- 0.118	-	- 0.003	-	- 0.007	-	- 0.000	- 0.000	- 0.001	- 0.004	- 0.001	- 0.003	- 0.001	-	- 0.001	- 0.000	1.000	- 0.017	- 0.000	- 0.000	- 0.000
x32	- 0.001	- 0.000	- 0.000	-	- 0.001	- 0.011	- 0.013	- 0.001	- 0.001	- 0.001	- 0.022	- 0.011	- 0.023	-	-	- 0.013	- 0.000	- 0.001	-	- 0.001	- 0.001	- 0.002	-	- 0.021	- 0.014	- 0.000	- 0.018	- 0.371	-	- 0.039	- 0.006	0.990	- 0.039	- 0.006	- 0.002	- 0.001
x33	- 0.041	- 0.001	- 0.031	-	- 0.001	- 0.039	- 0.040	- 0.005	- 0.027	- 0.016	- 0.004	- 0.008	- 0.013	- 0.018	- 0.017	- 0.137	- 0.007	- 0.011	- 0.033	- 0.011	- 0.031	- 0.102	- 0.037	- 0.025	- 0.007	- 0.018	- 0.011	- 0.002	- 0.005	- 0.012	- 0.013	- 0.003	0.977	- 0.144	- 0.020	- 0.014	- 0.056
x34	- 0.002	- 0.003	- 0.004	-	- 0.000	-	- 0.001	- 0.001	- 0.001	- 0.011	- 0.001	- 0.000	- 0.001	- 0.002	- 0.005	- 0.018	- 0.001	- 0.000	- 0.005	- 0.001	- 0.000	- 0.001	- 0.000	- 0.003	- 0.001	- 0.000	- 0.001	- 0.000	- 0.007	- 0.000	- 0.001	- 0.001	- 0.000	0.909	- 0.001	- 0.006	- 0.002
x35	- 0.001	- 0.000	- 0.002	-	- 0.001	-	- 0.000	- 0.000	- 0.000	- 0.001	- 0.000	- 0.000	- 0.000	- 0.000	- 0.000	-	- 0.000	-	- 0.000	- 0.000	- 0.001	-	- 0.000	- 0.003	- 0.000	- 0.000	- 0.000	-	- 0.000	- 0.000	- 0.000	- 0.000	- 0.006	0.997	-	-
x36	- 0.000	- 0.000	-	-	- 0.000	-	- 0.000	- 0.000	- 0.000	- 0.000	- 0.001	- 0.000	- 0.000	- 0.000	- 0.000	-	- 0.000	- 0.003	-	- 0.000	- 0.000	- 0.000	-	- 0.000	- 0.001	- 0.000	- 0.000	-	-	- 0.000	- 0.000	- 0.000	- 0.001	- 0.159	0.987	- 0.162
x37	- 0.001	-	-	-	- 0.000	-	- 0.000	- 0.000	- 0.000	- 0.000	-	-	-	- 0.000	-	-	- 0.000	-	- 0.000	-	-	- 0.000	-	-	- 0.000	-	- 0.000	-	-	- 0.000	- 0.015	- 0.001	0.998
x38	- 0.018	- 0.021	- 0.018	-	- 0.004	-	- 0.001	- 0.024	- 0.002	- 0.007	-	- 0.001	- 0.000	- 0.007	- 0.001	-	- 0.022	- 0.010	- 0.024	-	- 0.007	- 0.001	- 0.003	- 0.027	- 0.001	- 0.002	- 0.003	-	-	- 0.014	- 0.001	- 0.009	- 0.012	- 0.139	- 0.152	- 0.103	- 0.025
x39	- 0.025	- 0.004	- 0.015	-	- 0.000	- 0.024	- 0.047	- 0.003	- 0.090	- 0.016	- 0.023	- 0.024	- 0.035	- 0.025	- 0.006	- 0.012	- 0.012	- 0.013	- 0.019	- 0.033	- 0.015	- 0.017	- 0.028	- 0.012	- 0.009	- 0.011	- 0.247	- 0.004	- 0.003	- 0.063	- 0.008	- 0.003	- 0.001	- 0.007	- 0.004	- 0.001	- 0.121
x40	- 0.063	- 0.010	- 0.038	-	- 0.004	- 0.061	- 0.039	- 0.074	- 0.108	- 0.030	- 0.060	- 0.061	- 0.069	- 0.062	- 0.015	- 0.032	- 0.031	- 0.038	- 0.050	- 0.083	- 0.035	- 0.045	- 0.073	- 0.025	- 0.023	- 0.026	- 0.011	- 0.011	- 0.008	- 0.044	- 0.021	-	- 0.010	- 0.006	- 0.003	- 0.018
x41	- 0.000	-	- 0.001	-	- 0.000	-	- 0.000	- 0.001	-	- 0.003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	- 0.004	- 0.000	-	-	-
x42	- 0.000	-	-	-	- 0.000	-	- 0.000	- 0.000	- 0.000	- 0.001	-	-	- 0.003	-	- 0.000	-	-	-	-	-	- 0.001	- 0.000	-	- 0.001	- 0.001	-	- 0.000	-	- 0.000	-	-	- 0.000	-	-
x43	- 0.001	- 0.007	-	-	- 0.000	-	- 0.064	- 0.001	- 0.004	- 0.007	-	- 0.000	- 0.050	- 0.009	-	-	- 0.001	-	- 0.001	-	- 0.002	- 0.003	- 0.000	- 0.001	- 0.000	-	- 0.018	- 0.001	- 0.000	- 0.091	- 0.016	- 0.000	- 0.002	-
x44	- 0.000	- 0.000	- 0.000	-	- 0.000	-	- 0.000	- 0.000	- 0.000	- 0.000	0.000	- 0.000	- 0.000	0.000	0.000	0.000	- 0.000	- 0.000	- 0.000	- 0.001	- 0.000	- 0.000	- 0.000	- 0.000	- 0.000	-	- 0.000	-	- 0.000	- 0.000	- 0.000	-	-	-
x45	- 0.001	- 0.002	- 0.012	-	- 0.000	- 0.000	- 0.003	- 0.002	- 0.000	- 0.001	-	- 0.001	-	- 0.005	-	- 0.001	- 0.000	- 0.000	-	- 0.002	- 0.003	- 0.000	- 0.001	- 0.000	- 0.001	-	- 0.000	- 0.010	- 0.001	- 0.000	- 0.001	- 0.000	- 0.003
x46	- 0.000	- 0.001	- 0.002	-	- 0.000	-	- 0.000	- 0.000	- 0.000	- 0.000	-	- 0.002	- 0.001	-	-	- 0.000	- 0.000	-	- 0.001	- 0.001	- 0.000	- 0.000	- 0.001	- 0.000	- 0.000	-	- 0.000	- 0.003	-	- 0.001	- 0.001	- 0.000	- 0.000	- 0.000
x47	- 0.000	- 0.000	- 0.000	-	- 0.000	-	- 0.000	- 0.000	- 0.000	- 0.000	-	- 0.000	-	- 0.001	- 0.001	-	- 0.001	- 0.000	- 0.000	- 0.000	-	-	- 0.000	- 0.000	-	-	- 0.000	- 0.000	-	-	- 0.000	- 0.000	- 0.007	-
x48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	- 0.006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
x49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
x50	- 0.000	- 0.001	- 0.004	-	- 0.000	-	- 0.001	- 0.000	- 0.000	- 0.001	- 0.002	- 0.001	- 0.001	- 0.002	- 0.005	- 0.001	- 0.000	- 0.000	- 0.001	- 0.005	- 0.000	- 0.000	- 0.000	- 0.003	- 0.001	- 0.001	- 0.001	-	-	- 0.006	- 0.000	- 0.000	- 0.001	- 0.002	- 0.001	- 0.000	- 0.000
x51	- 0.000	-	- 0.000	-	- 0.000	-	- 0.001	- 0.000	- 0.000	-	-	- 0.000	- 0.000	-	-	- 0.000	- 0.000	- 0.000	-	- 0.000	- 0.000	- 0.000	- 0.000	- 0.000	-	- 0.000	-	- 0.002	- 0.000	- 0.000	- 0.000	- 0.000
x52	- 0.000	-	- 0.000	-	- 0.000	-	-	-	- 0.002	-	-	- 0.000	-	-	-	-	- 0.000	-	- 0.004	-	- 0.000	-	- 0.000	-	-	-	- 0.000	-	-	-	-	-	-	-	-
x53	- 0.002	- 0.001	- 0.001	-	- 0.000	0.000	- 0.002	- 0.002	- 0.022	- 0.011	- 0.006	- 0.042	- 0.014	- 0.067	- 0.006	- 0.004	- 0.003	- 0.003	- 0.001	- 0.004	- 0.045	- 0.070	- 0.002	- 0.003	- 0.003	- 0.000	- 0.014	- 0.000	- 0.000	- 0.004	- 0.001	- 0.004	- 0.002	- 0.003	- 0.002	- 0.002	- 0.000
x54	- 0.005	- 0.000	- 0.001	-	- 0.000	-	- 0.002	- 0.003	- 0.006	- 0.007	- 0.004	- 0.000	- 0.003	- 0.007	- 0.008	- 0.041	- 0.001	- 0.000	- 0.002	- 0.031	- 0.004	- 0.002	- 0.000	- 0.004	- 0.001	- 0.001	- 0.001	-	- 0.000	- 0.000	- 0.004	- 0.000	- 0.007	- 0.002	- 0.000	- 0.002	- 0.004
x55	- 0.000	-	- 0.000	-	- 0.000	- 0.000	- 0.000	- 0.000	- 0.000	- 0.000	-	- 0.000	- 0.000	- 0.000	- 0.000	- 0.000	- 0.000	- 0.000	- 0.000	- 0.000	- 0.000	- 0.000	-	- 0.000	- 0.000	-	- 0.000	- 0.000	- 0.000	- 0.000	- 0.000
x56	- 0.000	- 0.017	- 0.000	-	- 0.000	-	- 0.017	- 0.020	- 0.009	- 0.010	- 0.007	- 0.007	- 0.081	- 0.002	- 0.035	- 0.037	- 0.030	- 0.001	- 0.025	- 0.015	- 0.066	- 0.009	- 0.003	- 0.001	- 0.004	- 0.078	- 0.003	-	- 0.012	- 0.005	- 0.029	- 0.005	- 0.005	- 0.001	- 0.093	- 0.016	- 0.002
x57	- 0.000	- 0.000	-	-	- 0.000	-	- 0.000	- 0.000	-	-	-	- 0.001	-	-	-	-	- 0.000	-	- 0.000	-	- 0.000	- 0.000	-	- 0.000	-	- 0.000	- 0.000	-	-	-	- 0.000	- 0.000	- 0.000	-	-
x58	-	-	-	-	-	-	- 0.017	- 0.000	- 0.000	-	-	-	- 0.001	-	-	-	- 0.018	-	- 0.000	-	- 0.002	-	-	- 0.000	-	-	-	-	-	-	-	-	-	- 0.000	-	-
x59	- 0.000	-	-	-	- 0.000	-	- 0.000	- 0.000	- 0.001	-	-	-	-	-	-	-	- 0.006	- 0.002	-	-	- 0.000	-	-	- 0.015	-	-	-	-	- 0.068	- 0.006	- 0.031	- 0.003	- 0.000
x60	- 0.005	-	- 0.002	-	- 0.001	-	- 0.000	- 0.071	- 0.001	- 0.000	-	-	-	- 0.002	-	-	- 0.003	- 0.012	- 0.000	-	- 0.003	-	-	- 0.009	-	- 0.000	-	-	-	- 0.057	- 0.000	-	-	-
x61	- 0.000	-	-	-	- 0.000	-	- 0.002	- 0.000	- 0.002	- 0.033	-	- 0.000	- 0.003	- 0.006	- 0.001	-	- 0.001	- 0.000	- 0.001	-	- 0.002	- 0.001	- 0.000	- 0.000	- 0.000	- 0.000	- 0.000	-	- 0.022	-	- 0.001	- 0.000	- 0.001
x62	- 0.000	-	- 0.001	-	- 0.001	-	- 0.041	- 0.004	- 0.000	-	-	-	-	- 0.004	-	-	-	-	-	-	- 0.000	- 0.000	- 0.004	- 0.000	-	-	-	- 0.336	- 0.000	- 0.000	- 0.011	-
x63	- 0.000	-	- 0.000	-	-	-	- 0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	- 0.000
x64	- 0.000	- 0.004	- 0.000	-	- 0.000	-	- 0.001	- 0.002	- 0.001	- 0.001	-	- 0.000	-	- 0.001	-	-	- 0.004	- 0.000	- 0.000	-	- 0.001	- 0.000	- 0.000	- 0.000	-	- 0.001	- 0.000	-	- 0.005	- 0.002	- 0.004	- 0.000	- 0.000	- 0.000
x65	- 0.000	- 0.001	-	-	- 0.000	-	-	-	- 0.000	- 0.000	-	-	-	-	-	-	-	-	-	-	- 0.007	-	- 0.005	-	-	-	-	-	-	-	-	-
x66	-	-	-	-	- 0.000	-	-	- 0.000	-	-	-	-	-	-	-	-	-	-	-	-	- 0.000	-	-	-	-	-	-	-	-	-	-	-
x67	-	-	-	-	- 0.000	-	- 0.003	- 0.001	- 0.000	- 0.055	- 0.004	-	-	-	-	-	- 0.006	- 0.000	-	-	- 0.013	-	- 0.001	- 0.006	- 0.000	- 0.006	-	-	-	-	- 0.002	-	- 0.017	-	-
x68	- 0.000	- 0.001	-	-	- 0.000	-	-	- 0.000	-	- 0.000	- 0.000	-	-	-	-	- 0.000	-	- 0.000	-	-	-	- 0.000	-	-	-	-	-	-	-	- 0.000	- 0.000	- 0.000	- 0.000
x69	- 0.000	-	-	-	- 0.000	-	- 0.001	-	- 0.000	-	-	-	-	-	-	-	- 0.000	- 0.000	-	-	-	-	-	-	-	-	-	-	- 0.001	-	-	-
x70	-	- 0.000	-	-	- 0.000	-	-	- 0.000	- 0.000	- 0.000	-	-	- 0.003	-	-	-	- 0.001	-	-	-	- 0.002	-	-	- 0.000	- 0.001	- 0.000	- 0.001	-	- 0.002	- 0.000	-
x71	-	-	-	-	- 0.000	-	-	- 0.000	- 0.000	-	-	-	-	-	-	-	-	-	-	-	- 0.000	-	-	- 0.000	-	-	-	-	- 0.000	- 0.005	- 0.000	-
x72	- 0.001	0.000	0.000	-	- 0.000	-	- 0.000	- 0.000	- 0.000	-	-	-	-	-	-	-	- 0.000	- 0.001	0.000	0.000	- 0.000	- 0.000	-	- 0.000	-	- 0.003	-	-	- 0.000	- 0.001	-
x73	- 0.000	- 0.000	- 0.001	-	- 0.000	-	- 0.000	- 0.000	- 0.000	-	- 0.001	-	-	-	- 0.000	-	-	-	-	- 0.001	- 0.000	- 0.000	- 0.000	-	-	-	- 0.002	- 0.001	- 0.000	- 0.000	-
x74	- 0.000	- 0.000	-	-	- 0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	- 0.001	-	-	-	-	-	- 0.000	- 0.000	- 0.000	-
x75	-	-	-	-	- 0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
x76	-	- 0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	- 0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
x77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
x78	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	- 0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
x79	- 0.000	-	-	-	- 0.000	-	-	- 0.003	- 0.000	- 0.000	-	-	- 0.000	-	-	-	- 0.000	-	-	-	- 0.000	-	-	-	- 0.000	- 0.000	-	-	-	- 0.000	- 0.000	- 0.000
x80	- 0.000	- 0.000	- 0.001	-	-	-	-	- 0.000	- 0.000	- 0.000	-	- 0.000	-	- 0.001	-	- 0.000	- 0.000	-	-	-	- 0.000	- 0.000	-	- 0.000	-	- 0.000	-	-	- 0.001	- 0.000	- 0.000	- 0.000	- 0.000	- 0.000	-
x81	-	- 0.000	- 0.001	-	-	-	-	- 0.001	- 0.000	-	-	-	-	-	-	- 0.003	-	- 0.005	-	-	- 0.000	-	- 0.000	-	-	- 0.000	- 0.000	-	-	- 0.001	- 0.003	-	-	- 0.001	-	- 0.000

Source: Authors own analysis based on the Input-Output tables, The State Statistical Committee of the Republic of Azerbaijan, 2011, https://www.stat.gov.az/source/system_nat_accounts/?lang=en

x38	x39	x40	x41	x42	x43	x44	x45	x46	x47	x48	x49	x50	x51	x52	x53	x54	x55	x56	x57	x58	x59	x60	x61	x62	x63	x64	x65	x66	x67	x68	x69	x70	x71	x72	x73	x74	x75
-	-	-0.000	-	-	-	-	-0.001	-0.008	-	-	-	-	-	-	-	-	-	-	-	-	-	-0.000	-	-	-	-	-	-0.000	-	-0.001	-0.000	-0.000	-0.000	-0.000	-0.000	-	-
-0.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-0.000	-0.008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-0.000	-	-	-
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-0.001	-0.010	-0.005	-0.055	-0.051	-0.085	-0.000	-0.000	-0.001	-	-0.002	-0.001	-0.002	-	-0.000	-0.000	-0.011	-	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-	-0.000	-0.001	-0.002	-	-0.004	-0.000	-0.001	-	-	-	-	-
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-0.002	-0.000	-0.000	-0.003	-	-0.000	-0.000	-0.000	-0.000	-	-0.000	-0.000	-0.001	-0.000	-0.000	-0.000	-	-0.000	-0.000	-	-0.000	-0.000	-0.000	-0.000	-	-0.000	-0.000	-	-0.000	-0.000	-0.000	-0.000	-	-0.000	-0.000	-0.000	-0.033
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-0.005	-0.001	-0.012	-0.002	-0.001	-0.001	-0.003	-0.035	-0.011	-0.003	-0.002	-0.008	-0.005	-0.004	-0.006	-0.001	-0.001	-0.036	-0.010	-0.003	-0.004	-0.003	-0.003	-0.001	-0.001	-0.000	-0.001	-0.000	-0.010	-0.002	-0.004	-0.003	-0.005	-0.006	-0.022	-0.067	-0.000	-0.004
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-0.006	0.933	-0.007	-0.019	-0.031	-0.059	-0.016	-0.017	-0.021	-0.008	-0.005	-0.001	-0.001	-0.002	-0.053	-0.003	-0.000	-0.002	-0.005	-0.001	-0.001	-0.006	-0.000	-0.002	-0.007	-0.000	-0.002	-0.004	-0.001	-0.020	-0.003	-0.006	-0.003	-0.002	-0.004	-0.028	-0.000	-0.002
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-	-	-	-	-	-0.000	-	-0.001	-	-0.090	0.932	-0.000	-	-	-	-	-	-	-	-	-	-	-0.000	-	-0.000	-	-	-	-	-	-	-	-	-0.000	-	-0.000	-	-
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-0.000	-0.000	-	-	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-	-0.000	-0.000	-0.000	-0.000	-0.000	0.998	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-	-0.000	-0.000	-	-0.000	-0.001	-	-0.000	-0.000	-0.000	-	-	-
-0.010	-0.025	-0.013	-0.009	-0.075	-0.009	-0.013	-0.031	-0.006	-0.046	-0.019	-0.015	-0.007	-0.053	-0.005	-0.108	-0.018	-0.008	0.992	-0.005	-0.002	-0.030	-0.001	-0.004	-0.000	-0.000	-0.067	-	-0.066	-0.126	-0.011	-0.002	-0.029	-0.008	-0.007	-0.037	-0.003	-0.004
-0.000	-0.000	-0.000	-	-	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-	-0.000	-0.000	-0.000	-0.000	-0.001	-0.000	-	0.999	-0.000	-0.000	-0.000	-0.000	-	-	-0.000	-	-0.001	-0.000	-0.000	-0.001	-0.000	-	-	-	-	-
-0.001	-0.002	-0.001	-	-	-0.013	-	-0.002	-0.000	-	-0.015	-0.005	-0.011	-0.058	-0.001	-0.000	-	-	-0.000	-0.002	1.000	-0.000	-0.000	-	-	-	-	-	-0.001	-0.010	-	-0.012	-0.001	-0.000	-0.001	-	-	-
-0.077	-0.000	-0.002	-	-	-0.001	-	-0.001	-	-	-0.040	-0.001	-0.039	-	-	-	-	-	-0.000	-0.139	-0.000	0.810	-0.024	-0.056	-	-	-	-	-	-	-	-0.110	-	-	-	-	-	-
-0.019	-	-0.000	-	-	-	-	-0.000	-0.040	-	-	-0.023	-	-0.004	-0.000	-	-	-	-	-	-0.042	0.994	-0.001	-	-0.000	-	-	-	-	-0.022	-0.007	-0.013	-	-	-	-	-	-
-0.000	-0.060	-0.000	-0.000	-0.004	-0.001	-0.006	-0.003	-0.004	-0.004	-0.000	-0.021	-0.049	-0.079	-0.000	-0.007	-0.016	-0.001	-0.006	-0.000	-0.001	-0.002	0.995	-0.000	-0.001	-0.001	-0.016	-0.029	-	-0.019	-0.001	-0.001	-0.001	-0.015	-0.000	-	-	-
-0.033	-0.000	-0.001	-0.115	-	-0.004	-0.027	-0.000	-0.010	-0.041	-0.001	-0.009	-0.050	-0.003	-0.013	-0.001	-	-0.009	-0.080	-0.019	-0.002	-0.016	-0.000	0.997	-0.000	-0.002	-0.000	-0.011	-	-0.004	-0.000	-0.016	-0.000	-0.003	-	-	-0.000	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-0.000	-	-	-	1.000	-	-	-	-	-	-	-	-	-	-	-	-	-
-0.002	-0.004	-0.001	-0.001	-0.001	-0.001	-0.002	-0.007	-0.001	-0.005	-0.020	-0.004	-0.003	-0.001	-0.001	-0.010	-0.000	-0.000	-0.001	-0.001	-0.000	-0.001	-0.000	-0.000	0.992	-0.010	-0.005	-0.009	-0.000	-0.003	-0.001	-0.001	-0.000	-0.000	-0.002	-0.000	-0.002	-0.001
-0.003	-	-	-	-	-	-	-0.001	-	-	-	-	-	-0.015	-	-	-	-	-	-	-0.007	-	-	-	-0.000	1.000	-	-	-	-	-0.003	-0.023	-	-0.001	-	-	-0.001	-
-0.000	-0.001	-0.000	-	-	-0.004	-0.004	-0.000	-0.000	-	-	-0.002	-	-0.017	-0.005	-	-	-0.001	-0.003	-0.012	-	-	-0.000	-	-	-	0.983	-	-	-0.888	-	-	-0.004	-0.000	-0.005	-	-	-
-0.000	-0.000	-0.000	-	-	-0.000	-0.000	-0.001	-0.000	-	-0.000	-0.000	-0.000	-0.000	-0.000	-	-	-0.001	-	-0.000	-	-0.000	-	-	-0.000	-	-	1.000	-0.000	-0.001	-0.000	-0.001	-	-0.000	-
-0.000	-0.011	-0.001	-	-	-0.000	-0.007	-0.000	-0.000	-	-	-0.001	-0.000	-	-0.001	-	-	-0.000	-0.005	-0.001	-0.012	-	-0.004	-0.000	-	-0.000	-	-	1.000	-0.000	-0.000	-0.001	-	-0.000	-
-0.000	-0.000	-	-0.000	-	-0.003	-0.001	-0.000	-0.001	-	-	-0.000	-0.000	-	-0.001	-0.002	-0.004	-	0.000	-0.001	-	-0.005	-0.001	-0.000	-	-0.000	-	-	0.999	-0.005	-0.001	-0.000	-	-	-
-0.000	-0.004	-	-0.000	-	-0.002	-0.000	-	-0.000	-	-	-0.000	-	-	-0.001	-0.000	-0.001	-	-0.000	-0.000	-0.001	-0.000	-	-	-0.001	-0.001	-0.000	-0.003	0.994	-0.004	-	-	-	-0.000
-0.000	-0.000	-0.002	-	-0.000	-0.001	-0.002	-0.000	-0.000	-0.001	-0.003	-0.004	-0.001	-0.000	-0.001	-0.001	-0.000	-	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-	-0.000	-0.014	-0.000	-0.000	-0.000	-0.003	-0.003	0.999	-0.003	-
-	-	-	-	-	-	-	-0.008	-	-	-	-	-	-	-	-	-	-0.000	-	-	-	-0.000	-	-	-	-	-	-	-0.000	-0.000	-0.000	-0.001	1.000	-
-	-	-0.000	-	-	-0.000	-0.000	-	-	-0.002	-0.000	-	-	-0.000	-	-	-0.000	-	-	-0.000	-0.000	-0.000	-	-0.000	-	-	-0.000	-0.000	-0.001	-	0.000	-0.002	-0.000	1.000
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-0.000	-	-	-0.000	-	-	-	-	-0.000	-0.001	-	-	-
-0.000	-0.000	-0.000	-	-	-0.002	-	-	-	-	-	-0.000	-0.000	-	-0.011	-	-	-0.000	-	-0.000	-0.000	-0.000	-	-	-0.000	-	-	-0.001	-0.003	-	-0.000	-0.000	-0.000	-0.000
-0.000	-0.000	-0.000	-	-0.004	-0.001	-0.000	-0.000	-	-0.000	-0.067	-0.003	-0.011	-0.003	-0.000	-	-0.000	-0.001	-0.000	-0.001	-0.001	-0.000	-	-0.001	-	-0.000	-0.003	-	-0.001	-0.006	-	-0.000	-0.000	-0.001	-0.000
-0.000	-0.000	-0.000	-0.000	-0.000	-0.002	-0.001	-0.000	-0.000	0.000	-0.002	-0.000	-0.000	-0.003	-0.000	-0.000	-0.000	-0.007	-0.001	-0.001	-0.000	-0.001	-0.002	-0.000	-	-0.000	-0.000	-	-0.002	-0.004	-0.000	-0.000	-0.000	-0.000	-0.003	-0.001	-0.000	-0.000
-0.001	-0.000	-0.000	-	-	-0.000	-0.006	-0.009	-0.001	-0.006	-	-0.000	-0.000	-0.000	-0.000	-0.000	-0.001	-0.002	-0.000	-0.000	-	-	-0.000	-	-0.000	-0.000	-0.003	-	-	-0.004	-0.000	-0.000	-0.008	-0.000	-0.009	-	-0.000	-

x76	x77	x78	x79	x80	x81
- 0.124	-	- 0.000	- 0.000	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	- 0.000	-	- 0.003
-	-	-	-	-	-
- 0.000	-	- 0.003	- 0.005	-	- 0.000
-	-	- 0.000	- 0.001	-	- 0.000
-	-	- 0.000	- 0.000	-	-
-	-	-	- 0.000	-	-
- 0.000	-	- 0.004	- 0.000	-	- 0.000
-	-	- 0.000	-	-	-
- 0.000	-	-	-	-	- 0.005
- 0.001	- 0.000	- 0.000	- 0.004	- 0.002	- 0.001
- 0.000	-	- 0.003	- 0.002	- 0.000	- 0.000
- 0.001	- 0.000	- 0.002	- 0.004	- 0.000	- 0.001
-	- 0.000	- 0.000	-	-	- 0.010
- 0.000	-	- 0.000	- 0.001	-	- 0.000
-	-	- 0.000	-	-	- 0.012
- 0.000	-	- 0.000	- 0.002	-	- 0.010
-	-	- 0.000	-	-	- 0.019
- 0.002	-	- 0.000	- 0.000	- 0.000	- 0.010
- 0.003	- 0.011	- 0.009	- 0.003	- 0.020	- 0.005
- 0.000	- 0.000	- 0.001	- 0.000	- 0.007	- 0.003
- 0.015	- 0.000	- 0.002	- 0.012	- 0.108	- 0.002
- 0.000	-	- 0.000	- 0.006	-	- 0.000
- 0.000	-	-	- 0.001	-	- 0.001
- 0.000	- 0.001	- 0.004	- 0.002	- 0.002	- 0.001
- 0.000	-	- 0.000	- 0.000	- 0.000	- 0.000
-	- 0.001	- 0.000	- 0.005	- 0.000	- 0.000
- 0.002	- 0.000	- 0.006	- 0.004	- 0.002	- 0.001
- 0.021	- 0.000	- 0.001	- 0.000	- 0.000	- 0.000
- 0.000	- 0.000	- 0.000	- 0.000	- 0.000	- 0.000
- 0.000	-	- 0.000	- 0.000	- 0.000	- 0.000
- 0.000	-	- 0.000	- 0.000	- 0.000	- 0.000
- 0.020	- 0.028	- 0.004	- 0.009	- 0.004	- 0.111
- 0.011	- 0.000	- 0.001	- 0.003	- 0.018	- 0.004
- 0.028	- 0.001	- 0.004	- 0.004	- 0.005	- 0.005
-	-	-	-	-	-
- 0.000	- 0.000	- 0.000	- 0.000	- 0.000	- 0.000
-	- 0.001	-	- 0.001	-	- 0.001
- 0.000	- 0.000	- 0.000	- 0.000	- 0.000	- 0.000
- 0.000	- 0.011	- 0.128	- 0.008	- 0.003	- 0.001
- 0.000	- 0.000	- 0.013	- 0.004	- 0.001	- 0.001
- 0.001	- 0.000	- 0.000	- 0.001	- 0.000	- 0.000
-	-	-	-	-	- 0.000
-	-	-	-	-	- 0.010
- 0.000	- 0.003	- 0.001	- 0.003	- 0.000	- 0.003
- 0.000	- 0.003	- 0.000	- 0.000	- 0.003	- 0.001
-	- 0.000	- 0.000	- 0.000	- 0.000	- 0.000
- 0.000	- 0.001	- 0.003	- 0.010	- 0.014	- 0.004
- 0.000	- 0.001	- 0.005	- 0.002	- 0.015	- 0.001
- 0.000	-	- 0.000	- 0.000	- 0.000	- 0.000
- 0.006	- 0.014	- 0.028	- 0.001	- 0.004	- 0.052
- 0.000	- 0.000	- 0.000	- 0.000	- 0.000	- 0.000
-	- 0.180	-	- 0.000	- 0.000	- 0.000
-	-	-	-	- 0.104	- 0.004
-	-	-	- 0.087	-	- 0.002
-	- 0.031	- 0.014	- 0.001	- 0.001	- 0.004
-	-	- 0.006	- 0.047	- 0.000	- 0.003
-	-	-	-	-	-
- 0.000	-	- 0.003	- 0.005	- 0.000	- 0.003
-	-	-	- 0.009	-	-
-	-	- 0.001	- 0.000	-	- 0.001
-	-	- 0.000	-	- 0.000	-
-	-	- 0.000	- 0.000	-	- 0.000
- 0.044	-	-	- 0.000	-	- 0.002
- 0.000	-	- 0.000	- 0.017	-	- 0.000
- 0.000	-	- 0.000	- 0.000	- 0.000	- 0.000
-	-	- 0.003	- 0.001	-	- 0.000
- 0.000	-	- 0.014	- 0.013	-	- 0.000
-	-	-	- 0.001	-	-
- 0.000	-	- 0.002	- 0.015	-	-
0.998	-	- 0.000	- 0.005	-	-
-	1.000	- 0.000	-	-	-
-	- 0.226	0.989	- 0.020	-	-
-	-	- 0.002	1.000	-	-
- 0.000	- 0.000	- 0.000	- 0.000	1.000	- 0.000
- 0.001	- 0.000	- 0.000	- 0.000	-	1.000

APPENDIX IV

I-A inverse matrix based on Input - output tables in 2011

	x1	x2	x3	x4	x5	x6	x7	x8	x9	x10	x11	x12	x13	x14	x15	x16	x17	x18	x19	x20	x21	x22	x23	x24	x25	x26	x27	x28	x29	x30	x31	x32	x33	x34	x35	x36	x37
x1	1.310	0.001	0.057	-	0.000	0.000	0.001	0.000	0.284	0.091	0.282	0.278	0.102	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.331	0.001	0.001	0.000	0.001	0.000	0.000	0.001	0.002	0.001	0.001	0.001	0.000	0.000	0.001	0.000	0.000
x2	0.000	1.004	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.000
x3	0.000	0.000	1.008	-	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
x4	0.000	0.000	0.000	1.000	0.000	0.000	0.001	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
x5	0.031	0.014	0.033	-	1.002	0.017	0.038	0.014	0.025	0.026	0.023	0.012	0.018	0.024	0.021	0.050	0.031	0.416	0.116	0.022	0.033	0.050	0.020	0.027	0.019	0.018	0.016	0.018	0.007	0.026	0.015	0.005	0.208	0.063	0.019	0.007	0.047
x6	0.003	0.002	0.003	-	0.001	1.350	0.016	0.003	0.006	0.003	0.002	0.005	0.003	0.008	0.007	0.004	0.002	0.004	0.002	0.015	0.009	0.384	0.104	0.039	0.074	0.045	0.005	0.007	0.007	0.010	0.013	0.004	0.039	0.007	0.005	0.002	0.001
x7	0.001	0.002	0.001	-	0.000	0.000	1.043	0.002	0.001	0.011	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.000	0.002	0.000	0.002	0.070	0.001	0.001	0.005	0.001	0.001	0.001	0.002	0.001	0.001	0.001	0.000	0.003	0.003	0.002	0.001
x8	0.001	0.001	0.001	-	0.028	0.001	0.193	1.123	0.001	0.004	0.001	0.000	0.001	0.001	0.001	0.002	0.001	0.012	0.005	0.001	0.002	0.023	0.001	0.001	0.002	0.001	0.001	0.001	0.001	0.000	0.006	0.002	0.001	0.001	0.001	0.001	0.001
x9	0.003	0.001	0.090	-	0.001	0.000	0.003	0.001	1.351	0.010	0.003	0.001	0.001	0.002	0.001	0.001	0.001	0.001	0.001	0.002	0.002	0.000	0.001	0.001	0.002	0.008	0.000	0.005	0.001	0.000	0.001	0.003	0.001	0.001	0.001	0.000	0.001
x10	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	1.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
x11	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	1.429	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
x12	0.000	0.000	0.004	-	0.000	0.000	0.000	0.000	0.002	0.000	0.004	1.136	0.415	0.015	0.000	0.000	0.001	0.000	0.001	0.040	0.001	0.001	0.000	0.004	0.001	0.000	0.001	0.001	0.003	0.001	0.001	0.000	0.000	0.001	0.000	0.000	0.000
x13	0.000	0.001	0.002	-	0.001	0.001	0.001	0.001	0.003	0.001	0.005	0.001	1.024	0.001	0.001	0.001	0.001	0.002	0.099	0.002	0.002	0.001	0.007	0.001	0.001	0.002	0.003	0.006	0.002	0.001	0.000	0.001	0.003	0.001	0.001	0.001	0.000
x14	0.000	0.001	0.000	-	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.003	0.092	1.478	0.000	0.001	0.000	0.000	0.000	0.009	0.000	0.000	0.001	0.000	0.001	0.000	0.001	0.002	0.000	0.001	0.000	0.001	0.003	0.000	0.001	0.001	0.000
x15	0.001	0.001	0.001	-	0.001	0.000	0.002	0.005	0.001	0.003	0.002	0.001	0.001	0.002	1.637	0.003	0.003	0.001	0.007	0.001	0.009	0.002	0.001	0.002	0.003	0.001	0.002	0.001	0.003	0.158	0.003	0.001	0.001	0.004	0.005	0.002	0.001
x16	0.001	0.001	0.005	-	0.000	0.001	0.003	0.001	0.007	0.059	0.201	0.001	0.008	0.042	0.008	1.321	0.348	0.000	0.002	0.002	0.005	0.004	0.001	0.003	0.003	0.002	0.001	0.001	0.001	0.005	0.013	0.002	0.001	0.002	0.004	0.002	0.001
x17	0.000	0.000	0.003	-	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.001	0.000	0.001	0.003	0.001	1.040	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.000	0.000	0.001	0.000	0.000	0.001	0.000	0.000	0.001	0.001	0.000
x18	0.054	0.036	0.068	-	0.005	0.015	0.068	0.029	0.039	0.033	0.034	0.020	0.031	0.035	0.030	0.022	0.047	1.166	0.036	0.049	0.056	0.019	0.044	0.030	0.020	0.027	0.032	0.010	0.047	0.021	0.009	0.011	0.078	0.035	0.007	0.047	0.097
x19	0.009	0.015	0.006	-	0.002	0.007	0.034	0.018	0.007	0.043	0.010	0.004	0.027	0.099	0.041	0.037	0.024	0.005	1.127	0.067	0.127	0.060	0.039	0.078	0.067	0.036	0.038	0.144	0.009	0.071	0.053	0.006	0.005	0.017	0.017	0.004	0.007
x20	0.000	0.000	0.016	-	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.121	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.001	0.000	0.001	0.001	0.000	0.000
x21	0.007	0.003	0.006	-	0.002	0.002	0.009	0.008	0.015	0.263	0.066	0.003	0.030	0.133	0.160	0.410	0.140	0.002	0.040	0.008	1.502	0.025	0.008	0.033	0.039	0.017	0.008	0.008	0.029	0.146	0.285	0.008	0.010	0.021	0.015	0.006	0.003
x22	0.005	0.014	0.003	-	0.001	0.006	0.122	0.008	0.007	0.181	0.004	0.004	0.004	0.004	0.006	0.010	0.006	0.001	0.012	0.003	0.021	1.229	0.009	0.009	0.076	0.013	0.005	0.003	0.025	0.005	0.015	0.003	0.003	0.013	0.012	0.010	0.002
x23	0.008	0.004	0.008	-	0.003	0.008	0.030	0.045	0.007	0.016	0.008	0.006	0.013	0.008	0.021	0.017	0.012	0.005	0.012	0.005	0.039	0.023	1.068	0.215	0.107	0.205	0.121	0.015	0.017	0.018	0.026	0.035	0.010	0.107	0.020	0.014	0.006
x24	0.003	0.006	0.003	-	0.001	0.001	0.006	0.007	0.003	0.007	0.003	0.001	0.004	0.002	0.006	0.004	0.003	0.001	0.007	0.002	0.008	0.006	0.002	1.006	0.024	0.016	0.044	0.008	0.035	0.005	0.006	0.018	0.004	0.014	0.003	0.003	0.001
x25	0.003	0.003	0.005	-	0.000	0.001	0.009	0.007	0.010	0.008	0.010	0.003	0.014	0.005	0.015	0.013	0.013	0.002	0.006	0.006	0.016	0.009	0.003	0.004	1.225	0.159	0.010	0.005	0.003	0.007	0.014	0.010	0.013	0.010	0.016	0.005	0.003
x26	0.014	0.005	0.026	-	0.002	0.004	0.046	0.028	0.018	0.021	0.017	0.009	0.029	0.011	0.066	0.026	0.020	0.005	0.014	0.013	0.035	0.033	0.009	0.017	0.178	1.757	0.049	0.026	0.007	0.020	0.085	0.065	0.025	0.048	0.030	0.013	0.010
x27	0.013	0.003	0.012	-	0.003	0.002	0.090	0.091	0.014	0.013	0.007	0.007	0.038	0.005	0.006	0.010	0.008	0.002	0.005	0.008	0.023	0.022	0.002	0.033	0.018	0.013	1.019	0.012	0.045	0.058	0.008	0.029	0.014	0.044	0.012	0.033	0.013
x28	0.010	0.003	0.014	-	0.001	0.002	0.025	0.020	0.011	0.008	0.009	0.006	0.013	0.005	0.003	0.005	0.015	0.002	0.003	0.006	0.007	0.013	0.003	0.008	0.006	0.005	0.191	1.003	0.009	0.015	0.004	0.006	0.007	0.014	0.013	0.007	0.011
x29	0.007	0.023	0.035	-	0.001	0.002	0.012	0.006	0.007	0.005	0.004	0.005	0.014	0.004	0.013	0.004	0.015	0.001	0.002	0.005	0.003	0.009	0.003	0.003	0.003	0.002	0.022	0.003	1.103	0.007	0.004	0.006	0.013	0.007	0.004	0.002	0.003
x30	0.001	0.001	0.006	-	0.000	0.000	0.001	0.002	0.001	0.002	0.005	0.001	0.002	0.001	0.010	0.001	0.003	0.001	0.000	0.004	0.002	0.002	0.000	0.001	0.005	0.002	0.002	0.000	0.014	1.437	0.004	0.001	0.001	0.002	0.004	0.002	0.001
x31	0.001	0.001	0.001	-	0.002	0.000	0.002	0.006	0.001	0.006	0.001	0.000	0.002	0.001	0.195	0.001	0.004	0.001	0.009	0.001	0.003	0.001	0.001	0.006	0.004	0.007	0.003	0.008	0.002	0.020	1.001	0.018	0.001	0.002	0.002	0.001	0.000
x32	0.007	0.002	0.007	-	0.001	0.017	0.027	0.016	0.008	0.007	0.037	0.016	0.036	0.004	0.003	0.005	0.021	0.002	0.004	0.007	0.006	0.011	0.007	0.027	0.022	0.007	0.092	0.377	0.006	0.008	0.003	1.015	0.008	0.052	0.013	0.006	0.006
x33	0.061	0.006	0.044	-	0.002	0.058	0.065	0.015	0.057	0.064	0.055	0.025	0.033	0.046	0.046	0.209	0.068	0.016	0.048	0.036	0.062	0.141	0.062	0.047	0.033	0.053	0.025	0.013	0.014	0.036	0.034	0.010	1.028	0.177	0.033	0.020	0.064
x34	0.004	0.004	0.006	-	0.000	0.000	0.002	0.002	0.003	0.015	0.007	0.001	0.002	0.006	0.010	0.028	0.009	0.000	0.006	0.002	0.002	0.003	0.001	0.005	0.003	0.001	0.002	0.001	0.008	0.003	0.002	0.001	0.001	1.101	0.003	0.007	0.003
x35	0.001	0.000	0.002	-	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	1.004	0.000	0.000	0.000
x36	0.001	0.000	0.000	-	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.001	0.000	0.000	0.001	0.003	0.000	0.000	0.000	0.001	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.002	0.165	1.013	0.165
x37	0.001	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.015	0.000	0.000	1.002
x38	0.034	0.028	0.030	-	0.007	0.003	0.017	0.041	0.019	0.027	0.016	0.016	0.018	0.031	0.015	0.020	0.041	0.018	0.042	0.016	0.030	0.020	0.009	0.042	0.012	0.016	0.016	0.012	0.006	0.038	0.014	0.016	0.021	0.194	0.210	0.128	0.033
x39	0.043	0.008	0.035	-	0.002	0.038	0.091	0.035	0.147	0.039	0.057	0.042	0.074	0.052	0.023	0.033	0.027	0.019	0.032	0.061	0.039	0.040	0.046	0.037	0.030	0.038	0.281	0.017	0.020	0.124	0.022	0.018	0.013	0.032	0.017	0.013	0.137
x40	0.093	0.016	0.063	-	0.008	0.088	0.077	0.099	0.177	0.068	0.126	0.094	0.123	0.114	0.046	0.069	0.059	0.051	0.075	0.137	0.074	0.076	0.110	0.061	0.058	0.079	0.038	0.026	0.019	0.088	0.046	0.012	0.013	0.038	0.022	0.011	0.028
x41	0.001	0.000	0.001	-	0.000	0.000	0.000	0.001	0.000	0.004	0.000	0.000	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.005	0.000	0.008	0.021	0.000	0.001	0.000	0.000	0.000
x42	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.002	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
x43	0.009	0.009	0.006	-	0.001	0.007	0.076	0.005	0.016	0.017	0.010	0.005	0.058	0.021	0.006	0.022	0.009	0.003	0.007	0.012	0.011	0.024	0.008	0.008	0.006	0.007	0.005	0.002	0.003	0.033	0.006	0.002	0.096	0.037	0.006	0.005	0.008
x44	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
x45	0.002	0.003	0.014	-	0.000	0.001	0.005	0.004	0.002	0.004	0.009	0.003	0.003	0.010	0.002	0.002	0.003	0.001	0.001	0.001	0.005	0.007	0.001	0.001	0.004	0.002	0.002	0.001	0.001	0.017	0.004	0.001	0.004	0.003	0.003	0.001	0.004
x46	0.001	0.001	0.002	-	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.000	0.002	0.003	0.001	0.001	0.001	0.000	0.001	0.001	0.003	0.001	0.001	0.001	0.000	0.001	0.001	0.001	0.006	0.001	0.001	0.001	0.003	0.001	0.003	0.001	0.004
x47	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.007	0.001
x48	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
x49	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
x50	0.001	0.001	0.006	-	0.000	0.000	0.003	0.002	0.003	0.003	0.007	0.003	0.005	0.006	0.012	0.004	0.003	0.001	0.002	0.008	0.004	0.004	0.001	0.004	0.003	0.004	0.004	0.001	0.001	0.013	0.002	0.001	0.002	0.004	0.004	0.001	0.002
x51	0.000	0.000	0.000	-	0.000	0.000	0.000	0.001	0.000	0.001	0.001	0.000	0.001	0.001	0.001	0.001	0.000	0.000	0.001	0.000	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.000	0.000	0.001	0.002	0.000	0.001	0.001	0.000	0.000
x52	0.000	0.000	0.000	-	0.000	0.000	0.001	0.001	0.001	0.001	0.004	0.000	0.001	0.001	0.001	0.001	0.000	0.000	0.005	0.001	0.002	0.001	0.000	0.001	0.001	0.001	0.001	0.001	0.000	0.001	0.001	0.001	0.000	0.001	0.001	0.000	0.001
x53	0.008	0.003	0.008	-	0.001	0.003	0.021	0.010	0.043	0.053	0.023	0.054	0.049	0.116	0.024	0.034	0.017	0.006	0.008	0.018	0.076	0.094	0.007	0.011	0.016	0.008	0.033	0.005	0.006	0.036	0.019	0.008	0.006	0.013	0.009	0.006	0.010
x54	0.008	0.001	0.003	-	0.000	0.001	0.005	0.004	0.012	0.012	0.018	0.003	0.006	0.014	0.015	0.057	0.017	0.001	0.003	0.038	0.007	0.005	0.001	0.006	0.003	0.003	0.003	0.003	0.001	0.009	0.003	0.007	0.003	0.005	0.003	0.003	0.006
x55	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
x56	0.007	0.020	0.010	-	0.002	0.004	0.038	0.032	0.029	0.046	0.043	0.019	0.103	0.035	0.086	0.089	0.062	0.006	0.039	0.037	0.119	0.037	0.011	0.013	0.032	0.146	0.023	0.011	0.019	0.038	0.064	0.015	0.013	0.016	0.110	0.023	0.012
x57	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.002	0.000	0.000
x58	0.000	0.000	0.000	-	0.001	0.000	0.005	0.019	0.001	0.001	0.002	0.000	0.002	0.001	0.000	0.001	0.019	0.000	0.000	0.001	0.000	0.000	0.001	0.000	0.000	0.001	0.000	0.000	0.001	0.000	0.000	0.000	0.002	0.001	0.001	0.000	0.000
x59	0.007	0.004	0.006	-	0.001	0.003	0.007	0.009	0.007	0.010	0.007	0.004	0.006	0.007	0.021	0.011	0.008	0.012	0.012	0.005	0.008	0.010	0.004	0.008	0.028	0.008	0.006	0.007	0.002	0.011	0.088	0.013	0.042	0.032	0.023	0.014	0.008
x60	0.009	0.001	0.004	-	0.003	0.001	0.017	0.083	0.004	0.003	0.005	0.003	0.004	0.004	0.002	0.002	0.003	0.002	0.005	0.017	0.002	0.007	0.001	0.003	0.014	0.003	0.006	0.023	0.001	0.002	0.005	0.059	0.004	0.009	0.006	0.004	0.002
x61	0.003	0.001	0.003	-	0.000	0.002	0.008	0.003	0.012	0.038	0.008	0.004	0.010	0.014	0.005	0.005	0.004	0.002	0.004	0.006	0.007	0.006	0.003	0.003	0.004	0.004	0.018	0.002	0.002	0.041	0.003	0.002	0.001	0.003	0.004	0.001	0.009
x62	0.005	0.004	0.006	-	0.003	0.006	0.022	0.057	0.011	0.009	0.017	0.008	0.022	0.006	0.017	0.010	0.014	0.003	0.007	0.007	0.013	0.009	0.004	0.017	0.012	0.015	0.034	0.129	0.004	0.009	0.009	0.345	0.006	0.028	0.032	0.009	0.005
x63	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
x64	0.001	0.005	0.001	-	0.000	0.000	0.002	0.003	0.002	0.003	0.002	0.001	0.002	0.003	0.001	0.001	0.006	0.000	0.001	0.001	0.003	0.002	0.001	0.001	0.001	0.002	0.002	0.002	0.009	0.003	0.005	0.001	0.001	0.002	0.001	0.001	0.001
x65	0.001	0.001	0.000	-	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.000	0.001	0.000	0.001	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.008	0.001	0.010	0.001	0.001	0.000	0.001	0.001	0.000	0.001	0.001	0.000	0.001
x66	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
x67	0.000	0.001	0.001	-	0.000	0.000	0.004	0.005	0.003	0.004	0.090	0.006	0.004	0.001	0.001	0.001	0.001	0.008	0.003	0.001	0.002	0.019	0.001	0.002	0.010	0.003	0.008	0.001	0.001	0.002	0.001	0.001	0.003	0.002	0.021	0.001	0.001
x68	0.000	0.001	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
x69	0.001	0.000	0.001	-	0.000	0.000	0.001	0.002	0.001	0.003	0.001	0.009	0.001	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.003	0.001	0.001	0.001	0.002	0.001	0.004	0.001	0.000	0.002	0.002	0.000	0.002	0.001	0.000	0.002
x70	0.000	0.000	0.000	-	0.000	0.000	0.000	0.001	0.000	0.001	0.001	0.001	0.000	0.004	0.001	0.000	0.002	0.002	0.000	0.000	0.001	0.004	0.001	0.000	0.001	0.000	0.001	0.001	0.004	0.000	0.001	0.001	0.000	0.002	0.001	0.000	0.000
x71	0.000	0.000	0.000	-	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.001	0.002	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.000	0.000
x72	0.001	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.001	0.000	0.000	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
x73	0.001	0.000	0.001	-	0.000	0.000	0.000	0.000	0.001	0.002	0.001	0.001	0.003	0.001	0.001	0.001	0.000	0.001	0.000	0.000	0.001	0.002	0.000	0.001	0.002	0.001	0.001	0.001	0.000	0.000	0.003	0.001	0.000	0.000	0.001	0.000	0.000
x74	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.002	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
x75	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
x76	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.001	0.000	0.000	0.000
x77	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
x78	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.001	0.001	0.000	0.001	0.000	0.000	0.000	0.001	0.000	0.023	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
x79	0.000	0.000	0.000	-	0.000	0.000	0.001	0.003	0.000	0.001	0.001	0.000	0.001	0.001	0.000	0.001	0.000	0.000	0.000	0.001	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
x80	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.001	0.000	0.000	0.000	0.000
x81	0.000	0.000	0.001	-	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.006	0.001	0.001	0.001	0.000	0.001	0.001	0.000	0.000	0.001	0.000	0.002	0.004	0.000	0.000	0.002	0.001	0.000	0.000

Source: Authors own analysis based on the Input-Output tables, The State Statistical Committee of the Republic of Azerbaijan, 2011, https://www.stat.gov.az/source/system_nat_accounts/?lang=en

	x38	x39	x40	x41	x42	x43	x44	x45	x46	x47	x48	x49	x50	x51	x52	x53	x54	x55	x56	x57	x58	x59	x60	x61	x62	x63	x64	x65	x66	x67	x68	x69	x70	x71	x72	x73	x74	x75
	0.000	0.000	0.000	0.002	0.001	0.001	0.001	0.047	0.016	0.000	0.001	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.001	0.000	0.001	0.000	0.000	0.000	0.002	0.011	0.021	0.003	0.002	0.001	0.033	0.018	0.001
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.016	0.019	0.020	0.080	0.064	0.017	0.010	0.025	0.005	0.011	0.012	0.006	0.004	0.008	0.010	0.007	0.002	0.013	0.015	0.009	0.007	0.009	0.002	0.005	0.001	0.000	0.011	0.011	0.005	0.030	0.016	0.009	0.008	0.004	0.014	0.127	0.001	0.005
	0.025	0.003	0.002	0.015	0.004	0.005	0.003	0.003	0.001	0.004	0.005	0.002	0.002	0.008	0.011	0.003	0.001	0.004	0.012	0.003	0.004	0.007	0.001	0.002	0.000	0.000	0.001	0.000	0.003	0.008	0.006	0.003	0.007	0.002	0.005	0.002	0.000	0.003
	0.016	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.000	0.000	0.001	0.001	0.001	0.001	0.000	0.001	0.001	0.002	0.002	0.000	0.001	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.003	0.001	0.002	0.000	0.000	0.001
	0.004	0.001	0.001	0.002	0.002	0.001	0.000	0.001	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.004	0.000	0.000	0.001	0.004	0.000	0.000	0.000
	0.001	0.001	0.001	0.001	0.002	0.001	0.002	0.203	0.022	0.001	0.003	0.001	0.001	0.004	0.003	0.001	0.001	0.001	0.001	0.002	0.001	0.005	0.001	0.001	0.000	0.001	0.000	0.007	0.020	0.004	0.011	0.004	0.002	0.025	0.021	0.002	0.003
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.009	0.004	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.000	0.000	0.000	0.006	0.000	0.000	0.000	0.005	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.025	0.003	0.000	0.001	0.000
	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.009	0.000	0.000	0.003
	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000	0.000	0.004	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.062	0.007	0.000	0.001	0.000	0.009	0.021	0.000	0.000	0.000
	0.019	0.001	0.001	0.001	0.002	0.001	0.007	0.003	0.001	0.002	0.005	0.001	0.001	0.001	0.002	0.001	0.002	0.001	0.003	0.002	0.002	0.003	0.011	0.001	0.002	0.000	0.000	0.007	0.001	0.008	0.003	0.006	0.004	0.002	0.003	0.002	0.000	0.004
	0.002	0.001	0.001	0.002	0.011	0.001	0.038	0.005	0.001	0.096	0.002	0.005	0.001	0.010	0.003	0.001	0.003	0.044	0.001	0.004	0.001	0.012	0.001	0.005	0.001	0.000	0.001	0.022	0.002	0.008	0.003	0.028	0.006	0.004	0.003	0.015	0.000	0.004
	0.000	0.001	0.000	0.000	0.022	0.000	0.011	0.001	0.000	0.128	0.001	0.002	0.001	0.009	0.001	0.000	0.001	0.016	0.000	0.003	0.001	0.002	0.001	0.005	0.000	0.000	0.000	0.001	0.001	0.006	0.002	0.051	0.002	0.008	0.003	0.004	0.000	0.003
	0.031	0.051	0.048	0.216	0.174	0.043	0.019	0.041	0.006	0.017	0.028	0.008	0.006	0.013	0.019	0.015	0.004	0.008	0.029	0.020	0.015	0.017	0.003	0.010	0.001	0.000	0.027	0.028	0.006	0.072	0.032	0.017	0.014	0.006	0.020	0.313	0.001	0.006
	0.018	0.004	0.004	0.012	0.005	0.011	0.005	0.010	0.002	0.008	0.010	0.004	0.002	0.008	0.006	0.003	0.001	0.006	0.011	0.005	0.004	0.016	0.003	0.007	0.000	0.000	0.006	0.004	0.003	0.013	0.072	0.006	0.007	0.002	0.014	0.014	0.000	0.008
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.000	0.002	0.001	0.000	0.001	0.067	0.001	0.003	0.000	0.089	0.042	0.000	0.000	0.000
	0.023	0.005	0.003	0.006	0.008	0.005	0.016	0.010	0.003	0.037	0.010	0.005	0.005	0.011	0.005	0.004	0.003	0.018	0.007	0.004	0.005	0.009	0.001	0.057	0.000	0.000	0.002	0.013	0.003	0.017	0.008	0.014	0.008	0.003	0.007	0.010	0.000	0.016
	0.052	0.002	0.001	0.004	0.005	0.005	0.004	0.006	0.003	0.004	0.009	0.003	0.002	0.005	0.004	0.005	0.001	0.003	0.009	0.004	0.008	0.012	0.001	0.004	0.000	0.000	0.001	0.000	0.003	0.007	0.003	0.005	0.009	0.002	0.009	0.002	0.000	0.007
	0.068	0.007	0.004	0.040	0.010	0.013	0.009	0.008	0.004	0.011	0.014	0.006	0.005	0.021	0.029	0.009	0.002	0.010	0.032	0.008	0.012	0.017	0.002	0.007	0.000	0.000	0.004	0.001	0.007	0.021	0.017	0.008	0.020	0.004	0.014	0.006	0.000	0.008
	0.010	0.002	0.002	0.013	0.003	0.007	0.002	0.002	0.001	0.002	0.003	0.003	0.003	0.007	0.003	0.001	0.000	0.003	0.004	0.006	0.002	0.034	0.001	0.003	0.000	0.000	0.001	0.000	0.001	0.007	0.003	0.005	0.005	0.001	0.003	0.002	0.000	0.001
	0.006	0.008	0.003	0.012	0.012	0.008	0.029	0.016	0.002	0.022	0.126	0.031	0.013	0.029	0.028	0.015	0.005	0.015	0.117	0.025	0.003	0.009	0.002	0.008	0.000	0.010	0.001	0.023	0.064	0.012	0.007	0.014	0.004	0.020	0.018	0.000	0.010
	0.022	0.037	0.007	0.100	0.028	0.014	0.031	0.018	0.007	0.044	0.034	0.021	0.014	0.050	0.222	0.024	0.006	0.033	0.191	0.015	0.007	0.015	0.002	0.013	0.001	0.000	0.016	0.002	0.028	0.047	0.058	0.029	0.020	0.005	0.017	0.016	0.001	0.012
	0.016	0.004	0.006	0.224	0.006	0.064	0.010	0.007	0.003	0.013	0.006	0.006	0.006	0.094	0.008	0.003	0.001	0.026	0.004	0.019	0.008	0.024	0.003	0.004	0.000	0.000	0.002	0.003	0.002	0.016	0.009	0.007	0.060	0.004	0.010	0.005	0.000	0.005
	0.007	0.013	0.017	0.044	0.005	0.049	0.005	0.006	0.005	0.007	0.005	0.004	0.002	0.020	0.003	0.002	0.003	0.006	0.007	0.007	0.003	0.021	0.003	0.003	0.000	0.000	0.032	0.001	0.002	0.016	0.159	0.006	0.013	0.002	0.017	0.033	0.000	0.002
	0.005	0.013	0.008	0.069	0.058	0.097	0.002	0.004	0.003	0.003	0.001	0.003	0.002	0.005	0.002	0.001	0.000	0.014	0.001	0.002	0.002	0.006	0.000	0.002	0.000	0.000	0.001	0.001	0.001	0.005	0.006	0.002	0.007	0.001	0.003	0.003	0.000	0.001
	0.001	0.001	0.000	0.002	0.003	0.002	0.007	0.017	0.002	0.009	0.042	0.004	0.001	0.005	0.003	0.004	0.003	0.021	0.001	0.001	0.001	0.002	0.000	0.002	0.000	0.000	0.062	0.003	0.060	0.015	0.007	0.009	0.007	0.003	0.011	0.000	0.025
	0.005	0.001	0.001	0.005	0.001	0.001	0.002	0.001	0.000	0.002	0.001	0.000	0.001	0.001	0.001	0.001	0.001	0.000	0.001	0.001	0.001	0.002	0.000	0.001	0.000	0.000	0.001	0.001	0.000	0.002	0.002	0.001	0.001	0.000	0.001	0.001	0.000	0.034
	0.006	0.006	0.012	0.056	0.003	0.022	0.014	0.004	0.004	0.007	0.006	0.003	0.002	0.015	0.010	0.003	0.001	0.009	0.005	0.005	0.002	0.012	0.002	0.003	0.000	0.016	0.001	0.001	0.111	0.064	0.008	0.002	0.009	0.015	0.000	0.002
	0.021	0.006	0.016	0.015	0.011	0.007	0.014	0.053	0.015	0.025	0.010	0.013	0.008	0.014	0.016	0.006	0.003	0.049	0.021	0.008	0.009	0.013	0.004	0.007	0.002	0.000	0.004	0.006	0.015	0.022	0.015	0.013	0.013	0.010	0.034	0.082	0.001	0.011
	0.001	0.001	0.001	0.002	0.001	0.001	0.002	0.003	0.002	0.003	0.003	0.003	0.000	0.001	0.001	0.000	0.000	0.005	0.001	0.001	0.000	0.002	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.005	0.002	0.002	0.002	0.003	0.009	0.003	0.000	0.004
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.001	0.002	0.000	0.000	0.001
	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.002	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001	0.000	0.002	0.000	0.000	0.001
	1.197	0.020	0.006	0.013	0.067	0.021	0.030	0.047	0.039	0.032	0.009	0.008	0.017	0.038	0.019	0.089	0.016	0.023	0.035	0.016	0.185	0.038	0.004	0.042	0.001	0.000	0.012	0.003	0.009	0.032	0.023	0.018	0.187	0.048	0.156	0.012	0.004	0.090
	0.021	1.077	0.012	0.091	0.042	0.085	0.033	0.050	0.028	0.027	0.015	0.006	0.005	0.040	0.067	0.008	0.002	0.021	0.014	0.012	0.008	0.020	0.002	0.009	0.008	0.000	0.005	0.011	0.006	0.050	0.018	0.020	0.026	0.005	0.019	0.045	0.001	0.010
	0.039	0.019	1.032	0.064	0.055	0.020	0.019	0.082	0.017	0.038	0.025	0.008	0.005	0.019	0.024	0.010	0.003	0.017	0.029	0.013	0.011	0.025	0.002	0.013	0.001	0.000	0.009	0.017	0.011	0.059	0.031	0.024	0.016	0.007	0.033	0.101	0.001	0.014
	0.004	0.000	0.000	1.017	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.001	0.000	0.000
	0.000	0.000	0.000	0.000	1.014	0.000	0.000	0.003	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.003	0.001	0.001	0.000	0.000
	0.014	0.008	0.017	0.017	0.003	1.013	0.007	0.012	0.004	0.004	0.003	0.003	0.006	0.004	0.003	0.002	0.001	0.006	0.003	0.002	0.009	0.003	0.001	0.015	0.000	0.000	0.001	0.002	0.005	0.025	0.021	0.004	0.004	0.003	0.007	0.011	0.000	0.003
	0.000	0.000	0.000	0.000	0.000	0.000	1.370	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.003
	0.004	0.004	0.002	0.005	0.009	0.003	0.008	1.075	0.002	0.006	0.002	0.002	0.002	0.019	0.017	0.004	0.003	0.003	0.003	0.008	0.004	0.024	0.004	0.005	0.000	0.000	0.003	0.001	0.021	0.097	0.009	0.009	0.009	0.007	0.012	0.001	0.000	0.003
	0.001	0.002	0.001	0.001	0.001	0.002	0.001	0.017	1.001	0.001	0.001	0.001	0.000	0.002	0.002	0.001	0.000	0.001	0.000	0.002	0.003	0.006	0.000	0.001	0.000	0.000	0.004	0.011	0.001	0.002	0.001	0.003	0.003	0.001	0.000	0.082
	0.000	0.000	0.000	0.000	0.014	0.000	0.003	0.000	0.000	1.011	0.000	0.000	0.002	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.004	0.001	0.001	0.000	0.006	0.001	0.001	0.000	0.001
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	1.007	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.001	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.098	1.075	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.004	0.000	0.000	0.000	0.000
	0.002	0.006	0.001	0.002	0.004	0.003	0.015	0.024	0.002	0.032	0.021	0.021	1.106	0.030	0.037	0.018	0.003	0.007	0.015	0.007	0.004	0.006	0.001	0.007	0.000	0.000	0.010	0.001	0.009	0.027	0.005	0.018	0.005	0.003	0.004	0.004	0.000	0.001
	0.001	0.001	0.000	0.000	0.001	0.000	0.004	0.001	0.000	0.006	0.001	0.001	0.002	1.006	0.031	0.001	0.000	0.021	0.004	0.161	0.000	0.005	0.000	0.001	0.000	0.000	0.008	0.000	0.003	0.003	0.006	0.021	0.004	0.002	0.001	0.000	0.000	0.000
	0.001	0.002	0.000	0.001	0.002	0.001	0.033	0.005	0.001	0.118	0.001	0.001	0.003	0.123	1.023	0.001	0.002	0.097	0.006	0.023	0.007	0.005	0.000	0.002	0.000	0.000	0.002	0.013	0.002	0.102	0.003	0.001	0.001	0.001	0.001	0.001	0.000	0.001
	0.022	0.063	0.005	0.017	0.008	0.009	0.013	0.024	0.011	0.017	0.007	0.015	0.023	0.040	0.011	1.015	0.079	0.078	0.010	0.011	0.015	0.018	0.004	0.353	0.001	0.000	0.038	0.003	0.042	0.037	0.006	0.032	0.067	0.005	0.023	0.018	0.000	0.005
	0.007	0.005	0.002	0.008	0.002	0.002	0.004	0.008	0.002	0.006	0.002	0.003	0.003	0.016	0.004	0.006	1.002	0.005	0.001	0.004	0.003	0.007	0.001	0.004	0.000	0.000	0.009	0.001	0.014	0.020	0.004	0.008	0.005	0.004	0.007	0.004	0.000	0.002
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.027	0.040	0.017	0.027	0.088	0.018	0.030	0.048	0.011	0.067	0.030	0.024	0.014	0.071	0.033	0.117	0.029	0.028	1.029	0.025	0.011	0.047	0.004	0.053	0.001	0.000	0.075	0.004	0.078	0.170	0.024	0.021	0.046	0.012	0.021	0.050	0.003	0.012
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	1.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000
	0.002	0.002	0.001	0.001	0.001	0.014	0.001	0.003	0.000	0.003	0.016	0.006	0.013	0.059	0.004	0.001	0.000	0.002	0.001	0.012	1.001	0.001	0.000	0.001	0.000	0.000	0.001	0.000	0.002	0.014	0.001	0.015	0.002	0.001	0.002	0.001	0.000	0.000
	0.009	0.009	0.005	0.006	0.010	0.005	0.007	0.010	0.005	0.007	0.010	0.058	0.008	0.060	0.006	0.011	0.003	0.007	0.009	0.185	0.019	1.244	0.031	0.075	0.000	0.000	0.003	0.001	0.004	0.025	0.142	0.021	0.006	0.019	0.009	0.009	0.000	0.013
	0.029	0.001	0.001	0.004	0.003	0.002	0.003	0.003	0.001	0.043	0.009	0.004	0.027	0.006	0.006	0.003	0.001	0.002	0.003	0.009	0.005	0.054	1.008	0.005	0.000	0.000	0.002	0.000	0.001	0.005	0.006	0.008	0.027	0.009	0.019	0.003	0.000	0.003
	0.003	0.066	0.001	0.006	0.008	0.006	0.012	0.010	0.006	0.009	0.006	0.025	0.056	0.085	0.010	0.010	0.017	0.006	0.008	0.015	0.002	0.006	0.001	1.009	0.000	0.004	0.003	0.019	0.043	0.003	0.025	0.002	0.004	0.019	0.000	0.002
	0.046	0.007	0.007	0.140	0.012	0.014	0.047	0.010	0.014	0.054	0.011	0.015	0.059	0.020	0.022	0.015	0.004	0.018	0.087	0.028	0.011	0.030	0.002	0.012	1.003	0.000	0.014	0.001	0.019	0.022	0.029	0.009	0.030	0.004	0.013	0.010	0.000	0.006
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	0.003	0.005	0.001	0.002	0.002	0.002	0.003	0.009	0.002	0.006	0.021	0.005	0.004	0.003	0.002	0.010	0.001	0.002	0.002	0.002	0.001	0.003	0.000	0.005	0.000	0.000	1.009	0.011	0.006	0.012	0.001	0.004	0.002	0.002	0.001	0.002	0.002
	0.005	0.000	0.000	0.001	0.001	0.000	0.001	0.001	0.000	0.002	0.001	0.001	0.000	0.003	0.017	0.001	0.000	0.002	0.001	0.002	0.001	0.010	0.000	0.001	0.000	0.000	1.000	0.000	0.002	0.006	0.024	0.000	0.002	0.000	0.006	0.001	0.000
	0.000	0.000	0.000	0.000	0.002	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.017	0.000	0.000	0.001	0.000	0.000
	0.002	0.003	0.001	0.004	0.002	0.006	0.008	0.002	0.001	0.003	0.002	0.001	0.003	0.005	0.020	0.006	0.001	0.003	0.003	0.004	0.014	0.001	0.000	0.002	0.000	0.000	0.001	0.000	0.001	1.128	0.001	0.003	0.006	0.001	0.007	0.003	0.000	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	1.000	0.000	0.001	0.000	0.001	0.000	0.000
	0.002	0.012	0.001	0.002	0.001	0.002	0.011	0.001	0.001	0.001	0.001	0.002	0.001	0.002	0.003	0.002	0.000	0.001	0.001	0.008	0.002	0.015	0.000	0.006	0.000	0.000	0.001	0.000	0.004	0.105	0.000	1.003	0.000	0.002	0.001	0.001	0.000
	0.001	0.001	0.000	0.000	0.005	0.001	0.000	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.000	0.004	0.000	0.002	0.002	0.007	0.001	0.001	0.000	0.000	0.000	0.000	0.002	0.000	1.001	0.005	0.001	0.001	0.000
	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.001	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.001	0.002	0.000	0.000	0.000	0.002	0.002	0.000	0.000	0.000	0.000	0.001	0.001	0.003	1.006	0.000	1.005	0.000
	0.000	0.000	0.003	0.000	0.000	0.001	0.002	0.000	0.000	0.002	0.004	0.005	0.002	0.001	0.001	0.002	0.000	0.000	0.000	0.000	0.001	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.017	0.000	0.000	0.000	0.003	0.003	1.001	0.003	0.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.000	0.000	0.000	0.002	1.000	1.000
	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.001	0.001	0.000	0.000	0.000	0.004	0.000	0.000	0.001	0.000	0.001	0.004
	0.000	0.000	0.000	0.000	0.004	0.001	0.000	0.000	0.000	0.001	0.068	0.005	0.012	0.003	0.001	0.000	0.001	0.000	0.001	0.001	0.000	0.000	0.000	0.000	0.003	0.001	0.000	0.008	0.000	0.002
	0.000	0.000	0.000	0.000	0.000	0.002	0.002	0.001	0.000	0.000	0.002	0.000	0.000	0.003	0.000	0.000	0.000	0.007	0.001	0.002	0.000	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.002	0.005	0.000	0.001	0.000	0.004	0.001	0.000
	0.002	0.000	0.000	0.000	0.000	0.000	0.008	0.010	0.001	0.007	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003	0.000	0.000	0.006	0.001	0.000	0.008	0.001	0.010	0.000	0.000	0.000

x76	x77	x78	x79	x80	x81
0.163	0.003	0.009	0.004	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000
0.008	0.005	0.009	0.007	0.005	0.007
0.003	0.003	0.002	0.002	0.007	0.013
0.001	0.001	0.000	0.001	0.000	0.006
0.000	0.000	0.000	0.000	0.000	0.001
0.001	0.010	0.032	0.010	0.001	0.001
0.000	0.000	0.001	0.001	0.000	0.000
0.000	0.000	0.001	0.001	0.000	0.000
0.000	0.001	0.002	0.000	0.000	0.000
0.000	0.002	0.004	0.001	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000
0.001	0.002	0.001	0.001	0.002	0.012
0.003	0.001	0.003	0.007	0.005	0.003
0.002	0.001	0.003	0.003	0.001	0.000
0.013	0.009	0.015	0.013	0.008	0.012
0.003	0.003	0.004	0.004	0.008	0.019
0.000	0.000	0.001	0.002	0.000	0.000
0.003	0.005	0.005	0.004	0.005	0.025
0.003	0.005	0.002	0.004	0.004	0.020
0.008	0.007	0.005	0.004	0.020	0.035
0.004	0.001	0.001	0.001	0.009	0.012
0.006	0.020	0.017	0.006	0.028	0.014
0.008	0.011	0.013	0.005	0.026	0.021
0.019	0.004	0.004	0.015	0.114	0.006
0.006	0.002	0.003	0.010	0.024	0.003
0.002	0.001	0.001	0.002	0.003	0.002
0.001	0.004	0.008	0.005	0.004	0.002
0.000	0.001	0.000	0.001	0.001	0.002
0.004	0.002	0.002	0.010	0.013	0.003
0.016	0.008	0.017	0.010	0.009	0.011
0.023	0.001	0.001	0.001	0.001	0.001
0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000
0.034	0.073	0.015	0.020	0.014	0.137
0.024	0.007	0.012	0.011	0.054	0.012
0.045	0.011	0.021	0.011	0.015	0.018
0.000	0.000	0.000	0.000	0.000	0.001
0.000	0.000	0.001	0.000	0.000	0.000
0.003	0.004	0.003	0.002	0.002	0.005
0.000	0.000	0.000	0.000	0.000	0.000
0.001	0.045	0.140	0.013	0.006	0.002
0.000	0.004	0.015	0.006	0.002	0.001
0.001	0.000	0.000	0.001	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.000	0.000	0.000	0.000	0.011
0.002	0.006	0.006	0.005	0.002	0.005
0.001	0.003	0.000	0.000	0.004	0.001
0.005	0.002	0.001	0.001	0.001	0.001
0.005	0.019	0.014	0.015	0.023	0.012
0.002	0.003	0.007	0.003	0.017	0.002
0.000	0.000	0.000	0.000	0.000	0.000
0.010	0.029	0.039	0.008	0.017	0.062
0.000	0.000	0.000	0.000	0.000	0.000
0.001	0.181	0.001	0.001	0.000	0.001
0.011	0.011	0.004	0.006	0.132	0.021
0.002	0.003	0.001	0.090	0.007	0.006
0.003	0.036	0.017	0.003	0.006	0.006
0.004	0.008	0.012	0.053	0.009	0.015
0.000	0.000	0.000	0.000	0.000	0.000
0.001	0.002	0.004	0.006	0.001	0.004
0.001	0.000	0.000	0.009	0.001	0.001
0.000	0.000	0.001	0.000	0.000	0.001
0.001	0.003	0.001	0.001	0.002	0.001
0.000	0.000	0.001	0.000	0.000	0.000
0.045	0.001	0.000	0.001	0.002	0.003
0.000	0.000	0.000	0.017	0.001	0.000
0.000	0.000	0.000	0.000	0.000	0.000
0.000	0.001	0.003	0.001	0.000	0.000
0.000	0.003	0.015	0.014	0.000	0.000
0.000	0.000	0.000	0.001	0.000	0.000
0.000	0.000	0.002	0.015	0.000	0.000
1.002	0.000	0.000	0.005	0.000	0.000
0.000	1.000	0.000	0.000	0.000	0.000
0.000	0.228	1.012	0.021	0.000	0.000
0.000	0.001	0.002	1.000	0.000	0.000
0.000	0.000	0.000	0.000	1.000	0.000
0.001	0.001	0.002	0.000	0.000	1.000

Optimization Results based on Input - output tables in 2011

Thousand (K)of Manat (Azerbaijan currency, 1 usd = 1.70 Manat, https://www.cbar.az/)		Goal 1			Goal 2			Goal 3	Given Data						Comparison		
Sector	Sector No	Total Optimum Output Value per sector, K manat	Total Optimum Output Value per sector, % margin	Comment	Employment Multiplier, thousand, number of employees	Number of Employees are needed, thousand,	Comment	Trade Balance as %of Total output	Total Produced Output Per Sector, K manat	Total Produced Output Per Sector, K manat, (Without Value added)	Compensation of employees, K manat	Employment Multiplier, thousand, number of employees	Export	Import	Output	Empl	Export
Crop and animal production, hunting and related service activities	x1	1,169,027	306%	Production is over optimum value	11	10	Employment is over optimum value	-2%	4,742,105	2,215,758	103,093	21	423,577	498,572	4.06	1.90	-6%
Forestry and logging	x2	1,214	668%	Production is over optimum value	4	1	Employment is over optimum value	0%	9,319	1,433	307	5	-	-	7.68	1.18	0%
Fishing and aquaculture	x3	7,135	2560%	Production is over optimum value	6	51	Employment is over optimum value	0%	189,773	69,554	1,235	56	-	926	26.60	9.75	-13%
Mining of coal and lignite	x4	-							-	-				1,541			
Extraction of crude petroleum and natural gas	x5	1,183,042	2102%	Production is over optimum value	2	0	Employment is over optimum value	95%	26,056,354	1,353,196	489,414	3	24,858,372	18	22.02	1.14	2101%
Mining of metal ores	x6	47,633	56%	Production is over optimum value	7	2	Employment is under optimum value	1%	74,366	30,544	7,025	4	6,907	5,842	1.56	0.64	2%
Other mining and quarrying	x7	95,587	-13%	Production is under optimum value	200	84	Employment is far under optimum value	-43%	83,248	55,421	479	116	7,545	42,950	0.87	0.58	-37%
Mining support service activities	x8	632,737	8%	Production is over optimum value	105	44	Employment is over optimum value	-8%	680,338	365,300	6,041	60	1,926	53,762	1.08	0.58	-8%
Manufacture of food products	x9	505,685	328%	Production is over optimum value	7	15	Employment is over optimum value	-25%	2,162,935	1,589,859	71,468	22	84,148	615,207	4.28	3.14	-105%
Manufacture of beverages	x10	9,050	1874%	Production is over optimum value	1	11	Employment is over optimum value	-4%	178,683	109,282	9,346	12	9,011	15,982	19.74	12.08	-77%
Manufacture of tobacco products	x11	6,441	254%	Production is over optimum value	9	15	Employment is over optimum value	-874%	22,811	17,096	706	24	9,197	208,677	3.54	2.65	-3097%
Manufacture of textiles	x12	18,155	188%	Production is over optimum value	5	2	Employment is over optimum value	-8%	52,307	25,196	3,568	7	34,822	39,135	2.88	1.39	-24%
Manufacture of wearing apparel	x13	28,979	33%	Production is over optimum value	36	3	Employment is over optimum value	-65%	38,569	31,088	797	39	4,327	29,324	1.33	1.07	-86%
Manufacture of leather and related products	x14	6,389	212%	Production is over optimum value	9	10	Employment is over optimum value	-12%	19,962	13,548	743	18	7,548	9,878	3.12	2.12	-36%
Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials	x15	59,439	-76%	Production is under optimum value	121	100	Employment is far under optimum value	-1495%	14,403	10,111	491	21	654	215,990	0.24	0.17	-362%
Manufacture of paper and paper products	x16	42,161	-34%	Production is under optimum value	49	25	Employment is far under optimum value	-259%	27,929	20,448	862	24	9,981	82,227	0.66	0.49	-171%
Printing and reproduction of recorded media	x17	42,934	6%	Production is over optimum value	16	7	Employment is under optimum value	-60%	45,504	24,217	2,696	9	434	27,724	1.06	0.56	-64%
Food and beverage service activities	x46	31,469	2073%	Production is over optimum value	0	1	Employment is over optimum value	115%	683,926	106,133	68,280	2	852,216	68,615	21.73	3.37	2490%
Manufacture of chemicals and chemical products	x19	106,385	78%	Production is over optimum value	10	1	Employment is over optimum value	-171%	188,979	98,166	10,687	9	138,142	461,190	1.78	0.92	-304%
Manufacture of basic pharmaceutical products and pharmaceutical preparations	x20	70,654	-97%	Production is under optimum value	898	882	Employment is far under optimum value	-8730%	1,864	1,241	79	16	45,936	208,619	0.03	0.02	-230%
Manufacture of rubber and plastic products	x21	133,812	-41%	Production is under optimum value	43	26	Employment is far under optimum value	-209%	79,310	53,853	3,128	17	1,841	167,267	0.59	0.40	-124%
Manufacture of other non-metallic mineral products	x22	213,581	33%	Production is over optimum value	17	3	Employment is under optimum value	-90%	284,701	179,878	12,757	14	3,645	261,264	1.33	0.84	-121%
Manufacture of basic metals	x23	166,836	17%	Production is over optimum value	14	5	Employment is under optimum value	-208%	195,621	101,657	12,347	8	106,753	514,273	1.17	0.61	-244%
Manufacture of fabricated metal products, except machinery and equipment	x24	73,963	27%	Production is over optimum value	14	5	Employment is under optimum value	-292%	93,745	47,085	5,164	9	5,269	279,094	1.27	0.64	-370%
Manufacture of computer, electronic and optical products	x25	153,383	-53%	Production is under optimum value	37	27	Employment is far under optimum value	-616%	72,527	39,994	4,181	10	12,086	458,702	0.47	0.26	-291%
Manufacture of electrical equipment	x26	230,315	-26%	Production is under optimum value	48	21	Employment is far under optimum value	-413%	171,581	129,635	4,826	27	24,600	733,062	0.74	0.56	-308%
Manufacture of machinery and equipment n.e.c.	x27	384,470	-59%	Production is under optimum value	68	49	Employment is far under optimum value	-1030%	156,664	108,071	5,614	19	19,416	1,632,636	0.41	0.28	-420%
Manufacture of motor vehicles, trailers and semi-trailers	x28	167,400	-98%	Production is under optimum value	710	701	Employment is far under optimum value	-15460%	3,774	1,973	236	8	2,073	585,533	0.02	0.01	-349%
Manufacture of other transport equipment	x29	159,939	-94%	Production is under optimum value	155	153	Employment is far under optimum value	88.49	10,271	2,567	1,030	2	3,079	912,037	0.06	0.02	-568%
Manufacture of furniture	x30	33,067	38%	Production is over optimum value	22	0	Employment is over optimum value	-132%	45,681	33,016	1,476	22	2,660	63,169	1.38	1.00	-183%
Other manufacturing	x31	57,976	-92%	Production is under optimum value	158	153	Employment is under optimum value	-1666%	4,879	2,089	366	6	1,270	82,555	0.08	0.04	-140%
Repair and installation of machinery and equipment	x32	80,683	16%	Production is over optimum value	16	5	Employment is under optimum value	0%	93,986	54,600	4,922	11	-	-	1.16	0.68	0%
Manufacture of coke and refined petroleum products	x18	1,018,712	144%	Production is over optimum value	8	4	Employment is over optimum value	5%	2,483,839	1,457,683	124,294	12	119,014	6,454	2.44	1.43	11%
Water collection, treatment and supply	x34	49,836	131%	Production is over optimum value	2	1	Employment is over optimum value	0%	115,006	76,945	21,618	4	-	-	2.31	1.54	0%
Sewerage	x35	27,404	31%	Production is over optimum value	2	1	Employment is under optimum value	0%	35,953	19,791	11,209	2	-	-	1.31	0.72	0%
Waste collection, treatment and disposal activities; materials recovery	x36	14,381	101%	Production is over optimum value	1	0	Employment is under optimum value	0%	28,891	6,169	17,332	0	-	-	2.01	0.43	0%
Remediation activities and other waste management services	x37	4,259	4%	Production is over optimum value	2	1	Employment is under optimum value	0%	4,418	2,045	1,706	1	-	-	1.04	0.48	0%
Construction of buildings	x38	2,074,378	341%	Production is over optimum value	4	6	Employment is over optimum value	-3%	9,155,136	4,694,365	468,185	10	89,054	405,678	4.41	2.26	-15%
Public administration and defence; compulsory social security	x70	19,192	11177%	Production is over optimum value	0	1	Employment is over optimum value	6%	2,164,420	940,968	896,279	1	134,937	-	112.77	49.03	703%
Land transport and transport via pipelines	x40	1,224,469	113%	Production is over optimum value	6	4	Employment is under optimum value	0%	2,610,570	427,214	207,754	2	779,396	781,456	2.13	0.35	0%
Water transport	x41	45,794	146%	Production is over optimum value	10	9	Employment is over optimum value	10%	112,615	85,122	4,562	19	13,773	2,694	2.46	1.86	24%
Air transport	x42	12,124	4503%	Production is over optimum value	0	9	Employment is over optimum value	-14%	558,088	257,881	26,723	10	554,206	629,590	46.03	21.27	-622%
Warehousing and support activities for transportation	x43	294,399	22%	Production is over optimum value	14	8	Employment is under optimum value	0%	360,130	128,145	21,702	6	-	-	1.22	0.44	0%
Postal and courier activities	x44	2,359	86%	Production is over optimum value	9	1	Employment is over optimum value	0%	4,393	2,172	262	8	-	-	1.86	0.92	0%
Accommodation	x45	124,074	227%	Production is over optimum value	11	7	Employment is over optimum value	-11%	406,180	207,732	11,162	19	301,611	347,407	3.27	1.67	-37%
Electricity, gas, steam and air conditioning supply	x33	598,740	160%	Production is over optimum value	4	0	Employment is over optimum value	2%	1,555,815	653,967	134,406	5	191,471	153,823	2.60	1.09	6%
Publishing activities	x47	14,087	17%	Production is over optimum value	11	4	Employment is under optimum value	0%	16,480	8,898	1,296	7	-	-	1.17	0.63	0%
Motion picture, video and television programme production, sound recording and music publishing activities	x48	2,707	6%	Production is over optimum value	10	5	Employment is under optimum value	0%	2,872	1,205	275	4	-	-	1.06	0.45	0%
Programming and broadcasting activities	x49	8,330	306%	Production is over optimum value	2	0	Employment is over optimum value	0%	33,829	8,873	4,530	2	-	-	4.06	1.07	0%
Telecommunications	x50	156,021	630%	Production is over optimum value	1	1	Employment is over optimum value	0%	1,139,349	346,257	144,325	2	55,033	59,549	7.30	2.22	-3%
Computer programming, consultancy and related activities	x51	24,811	39%	Production is over optimum value	9	2	Employment is under optimum value	0%	34,517	19,255	2,672	7	-	-	1.39	0.78	0%
Information service activities	x52	36,871	25%	Production is over optimum value	7	4	Employment is under optimum value	0%	45,911	17,216	5,247	3	-	-	1.25	0.47	0%
Financial service activities, except insurance and pension funding	x53	651,058	17%	Production is over optimum value	3	2	Employment is under optimum value	-1%	763,261	201,086	201,059	1	471	11,596	1.17	0.31	-2%
Insurance, reinsurance and pension funding, except compulsorysocial security	x54	128,581	48%	Production is over optimum value	2	2	Employment is under optimum value	0%	190,931	25,816	59,888	0	-	-	1.48	0.20	0%
Activities auxiliary to financial services and insurance activities	x55	280	36%	Production is over optimum value	3	2	Employment is under optimum value	0%	381	141	82	2	-	-	1.36	0.50	0%
Real estate activities	x56	559,856	149%	Production is over optimum value	27	1	Employment is over optimum value	0%	1,393,428	539,897	20,578	26	-	-	2.49	0.96	0%
Legal and accounting activities	x57	4,706	804%	Production is over optimum value	0	1	Employment is over optimum value	0%	42,541	16,264	10,798	2	-	-	9.04	3.46	0%
Activities of head offices; management consultancy activities	x58	57,926	16%	Production is over optimum value	3	2	Employment is under optimum value	0%	67,049	15,256	21,815	1	-	-	1.16	0.26	0%
Architectural and engineering activities; technical testing and analysis	x59	680,648	-53%	Production is under optimum value	10	8	Employment is under optimum value	-180%	320,546	155,843	68,565	2	280,188	858,168	0.47	0.23	-85%
Scientific research and development	x60	387,027	-65%	Production is under optimum value	7	7	Employment is under optimum value	-268%	133,664	7,980	54,288	0	-	357,879	0.35	0.02	-92%
Advertising and market research	x61	392,791	7%	Production is over optimum value	4	2	Employment is under optimum value	0%	420,347	206,050	89,611	2	-	-	1.07	0.52	0%
Other professional, scientific and technical activities	x62	620,304	-97%	Production is under optimum value	91	91	Employment is far under optimum value	-3825%	16,065	289	6,824	0	14,042	628,455	0.03	0.00	-99%
Veterinary activities	x63	97	16628%	Production is over optimum value	0	0	Employment is over optimum value	0%	16,182	38	6,993	0	-	-	167.28	0.39	0%
Rental and leasing activities	x64	64,203	30%	Production is over optimum value	2	1	Employment is over optimum value	0%	83,268	17,462	39,079	0	-	-	1.30	0.27	0%
Employment activities	x65	86,467	3%	Production is over optimum value	2	2	Employment is over optimum value	0%	88,974	9,649	49,707	0	-	-	1.03	0.11	0%
Travel agency, tour operator reservation service and related activities	x66	4,601	1972%	Production is over optimum value	0	0	Employment is over optimum value	-9%	95,322	23,363	40,052	1	92,282	101,121	20.72	5.08	-192%
Security and investigation activities	x67	46,558	63%	Production is over optimum value	5	1	Employment is over optimum value	0%	75,661	59,240	9,973	6	-	-	1.63	1.27	0%
Services to buildings and landscape activities	x68	5,097	29%	Production is over optimum value	4	2	Employment is under optimum value	0%	6,551	2,676	1,391	2	-	-	1.29	0.53	0%
Office administrative, office support and other business support activities	x69	60,420	45%	Production is over optimum value	2	1	Employment is under optimum value	0%	87,332	35,892	25,068	1	-	-	1.45	0.59	0%
Wholesale and retail trade and repair of motor vehicles and motorcycles	x39	840,550	494%	Production is over optimum value	1	1	Employment is over optimum value	0%	4,994,030	1,590,735	979,041	2	85,361	77,916	5.94	1.89	1%
Education	x71	23,661	7714%	Production is over optimum value	0	0	Employment is over optimum value	0%	1,848,817	229,548	1,147,476	0	-	-	78.14	9.70	0%
Human health activities	x72	8,697	9723%	Production is over optimum value	0	2	Employment is over optimum value	0%	854,317	344,831	221,073	2	-	-	98.23	39.65	0%
Residential care activities	x73	22,439	458%	Production is over optimum value	1	3	Employment is over optimum value	0%	125,313	77,651	16,431	5	-	-	5.58	3.46	0%
Social work activities without accommodation	x74	1,210	16869%	Production is over optimum value	0	0	Employment is over optimum value	0%	205,363	3,218	91,753	0	-	-	169.69	2.66	0%
Creative, arts and entertainment activities	x75	2,104	250%	Production is over optimum value	1	0	Employment is under optimum value	0%	7,361	1,827	1,839	1	-	-	3.50	0.87	0%
Libraries, archives, museums and other cultural activities	x76	3,291	7465%	Production is over optimum value	0	1	Employment is over optimum value	0%	248,973	70,597	60,636	1	-	-	75.65	21.45	0%
Gambling and betting activities	x77	44	104967%	Production is over optimum value	0	3	Employment is over optimum value	0%	45,827	23,445	7,360	3	-	-	1050.67	537.51	0%
Sports activities and amusement and recreation activities	x78	21,019	1011%	Production is over optimum value	0	1	Employment is over optimum value	0%	233,591	65,918	56,893	3	-	-	11.11	3.14	0%
Activities of membership organisations	x79	28,266	411%	Production is over optimum value	7	4	Employment is under optimum value	0%	39,921	12,817	4,016	3	-	-	1.41	0.45	0%
Repair of computers and personal and household goods	x80	6,336	493%	Production is over optimum value	2	1	Employment is over optimum value	0%	37,588	11,880	3,837	3	-	-	5.93	1.88	0%
Other personal service activities	x81	40,861	1281%	Production is over optimum value	1	2	Employment is over optimum value	0%	564,172	167,805	58,072	3	-	-	13.81	4.11	0%
Total		16,421,583	1,988		3,092	2,276		-44795%	70,361,301	20,171,130	6,293,100	817	29,388,275				

Source: Authors own analysis based on the Input-Output tables, The State Statistical Committee of the Republic of Azerbaijan, 2011, https://www.stat.gov.az/source/system_nat_accounts/?lang=en

APPENDIX VI

LEONTIEF: Leontief inverse matrix (total) per selected countries, 2011, index

Country	To: (sector in column)	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16	S17	S18	S19	S20	S21	S22	S23	S24	S25	S26	S27	S28	S29	S30	S31	S32	S33	S34	S35	S36
Brunei Darussalam	S1	1.1	0.0	0.0	0.0	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Brunei Darussalam	S2	0.1	1.3	0.0	0.2	0.1	0.0	0.1	0.1	0.8	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.6	0.1	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0
Brunei Darussalam	S3	0.1	0.1	1.5	0.2	0.0	0.0	0.1	0.1	0.1	0.4	0.1	1.1	0.8	0.5	0.1	0.3	0.3	0.2	0.2	0.2	0.1	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Brunei Darussalam	S4	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Brunei Darussalam	S5	0.5	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1
Brunei Darussalam	S6	0.0	0.0	0.0	0.0	0.0	1.8	0.1	0.1	0.0	0.1	0.2	0.0	0.0	0.0	0.1	0.1	0.0	0.2	0.1	0.2	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.0
Brunei Darussalam	S7	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Brunei Darussalam	S8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Brunei Darussalam	S9	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	1.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0
Brunei Darussalam	S10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Brunei Darussalam	S11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Brunei Darussalam	S12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Brunei Darussalam	S13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.4	0.1	0.2	0.2	0.2	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Brunei Darussalam	S14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Brunei Darussalam	S15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Brunei Darussalam	S16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Brunei Darussalam	S17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Brunei Darussalam	S18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Brunei Darussalam	S19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Brunei Darussalam	S20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Brunei Darussalam	S21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Brunei Darussalam	S22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Brunei Darussalam	S23	0.2	0.0	0.0	0.0	0.2	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.1	0.1	0.2	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.1
Brunei Darussalam	S24	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.3	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.0
Brunei Darussalam	S25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Brunei Darussalam	S26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Brunei Darussalam	S27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.4	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.1
Brunei Darussalam	S28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Brunei Darussalam	S29	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.1	1.3	0.1	0.1	0.1	0.0	0.1	0.0
Brunei Darussalam	S30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
Brunei Darussalam	S31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0
Brunei Darussalam	S32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0
Brunei Darussalam	S33	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0
Brunei Darussalam	S34	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0
Brunei Darussalam	S35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
Brunei Darussalam	S36	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
Saudi Arabia	S1	1.1	0.0	0.0	0.0	0.3	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Saudi Arabia	S2	0.0	1.0	0.0	0.2	0.0	0.0	0.0	0.1	0.4	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.4	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Saudi Arabia	S3	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Saudi Arabia	S4	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Saudi Arabia	S5	0.1	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Saudi Arabia	S6	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Saudi Arabia	S7	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Saudi Arabia	S8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Saudi Arabia	S9	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	1.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Saudi Arabia	S10	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	1.3	0.4	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Saudi Arabia	S11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Saudi Arabia	S12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Saudi Arabia	S13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.4	0.2	0.4	0.4	0.3	0.3	0.2	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Saudi Arabia	S14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Saudi Arabia	S15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Saudi Arabia	S16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Saudi Arabia	S17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Saudi Arabia	S18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Saudi Arabia	S19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Saudi Arabia	S20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Saudi Arabia	S21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Saudi Arabia	S22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Saudi Arabia	S23	0.1	0.0	0.1	0.1	0.2	0.2	0.2	0.2	0.0	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.0	0.1	1.2	0.1	0.2	0.1	0.1	0.0	0.0	0.2	0.1	0.0	0.1	0.1
Saudi Arabia	S24	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	1.3	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.0
Saudi Arabia	S25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Saudi Arabia	S26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Saudi Arabia	S27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	1.4	0.0	0.0	0.1	0.0	0.1	0.0	0.0
Saudi Arabia	S28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0
Saudi Arabia	S29	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.0	0.1	1.1	0.1	0.1	0.0	0.1
Saudi Arabia	S30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0
Saudi Arabia	S31	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	1.3	0.1	0.1	0.1
Saudi Arabia	S32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0
Saudi Arabia	S33	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
Saudi Arabia	S34	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0
Saudi Arabia	S35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
Saudi Arabia	S36	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
Kazakhstan	S1	1.2	0.0	0.0	0.0	0.4	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kazakhstan	S2	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kazakhstan	S3	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kazakhstan	S4	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kazakhstan	S5	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Kazakhstan	S6	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kazakhstan	S7	0.0	0.0	0.0	0.2	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kazakhstan	S8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kazakhstan	S9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Kazakhstan	S10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kazakhstan	S11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kazakhstan	S12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kazakhstan	S13	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	1.4	0.5	0.2	0.4	0.4	0.3	0.3	0.2	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Kazakhstan	S14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kazakhstan	S15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kazakhstan	S16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kazakhstan	S17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kazakhstan	S18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Country	Sample	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16	S17	S18	S19	S20	S21	S22	S23	S24	S25	S26	S27	S28	S29	S30	S31	S32	S33	S34	S35	S36
Kazakhstan	S19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kazakhstan	S20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kazakhstan	S21	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Kazakhstan	S22	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0
Kazakhstan	S23	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	1.2	0.1	0.1	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.0	0.0
Kazakhstan	S24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kazakhstan	S25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kazakhstan	S26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kazakhstan	S27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kazakhstan	S28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kazakhstan	S29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Kazakhstan	S30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.1	1.1	0.1	0.1	0.1	0.1	0.0			
Kazakhstan	S31	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	1.2	0.2	0.1	0.2	0.2	0.0	
Kazakhstan	S32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	
Kazakhstan	S33	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	3.0	0.0	0.0	
Kazakhstan	S34	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.1	0.0	
Kazakhstan	S35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	
Kazakhstan	S36	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	
Colombia	S1	1.1	0.0	0.0	0.0	0.4	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Colombia	S2	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Colombia	S3	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.2	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Colombia	S4	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Colombia	S5	0.1	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Colombia	S6	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Colombia	S7	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Colombia	S8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Colombia	S9	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.1	1.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Colombia	S10	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	1.3	0.3	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Colombia	S11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Colombia	S12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Colombia	S13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.3	0.1	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Colombia	S14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Colombia	S15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Colombia	S16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Colombia	S17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Colombia	S18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Colombia	S19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Colombia	S20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Colombia	S21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Colombia	S22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Colombia	S23	0.1	0.0	0.1	0.0	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.0	0.1	1.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.0
Colombia	S24	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	1.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Colombia	S25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Colombia	S26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Colombia	S27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Colombia	S28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Colombia	S29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.1	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Colombia	S30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.1	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
Colombia	S31	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.0	1.2	0.1	0.1	0.1	0.1	0.0	0.0
Colombia	S32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
Colombia	S33	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	3.0	0.0	0.0	0.0
Colombia	S34	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.1	0.0	0.0
Colombia	S35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0
Colombia	S36	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	
Norway	S1	1.2	0.0	0.0	0.0	0.3	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Norway	S2	0.0	1.0	0.1	0.1	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Norway	S3	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Norway	S4	0.2	0.1	0.3	1.4	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Norway	S5	0.1	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Norway	S6	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Norway	S7	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Norway	S8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Norway	S9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Norway	S10	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	1.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Norway	S11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Norway	S12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Norway	S13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Norway	S14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.2	0.1	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Norway	S15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Norway	S16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Norway	S17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	1.2	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Norway	S18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Norway	S19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Norway	S20	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Norway	S21	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.2	0.1	0.0	0.1	0.0	0.1	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Norway	S22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0
Norway	S23	0.1	0.0	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	1.2	0.1	0.1	0.2	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.0	
Norway	S24	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	1.2	0.1	0.2	0.0	0.1	0.0	0.0	0.1	0.1	0.0			
Norway	S25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Norway	S26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Norway	S27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Norway	S28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Norway	S29	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	1.2	0.1	0.1	0.0	0.1	0.0			
Norway	S30	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	1.1	0.1	0.0	0.0			
Norway	S31	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.2	0.1	0.1	0.1	0.1	0.0	
Norway	S32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	
Norway	S33	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	3.0	0.0	0.0	
Norway	S34	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.1	0.0	
Norway	S35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	
Norway	S36	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	
Russian Federation	S1	1.2	0.0	0.0	0.0	0.5	0.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Russian Federation	S2	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Russian Federation	S3	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Country	S																																								
Russian Federation	S4	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S4	0.0	0.0	0.0
Russian Federation	S5	0.1	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S5	0.0	0.0		0.0	0.0	
Russian Federation	S6	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S6	0.0	0.0	0.0	0.0		
Russian Federation	S7	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S7	0.0	0.0	0.0	0.0		
Russian Federation	S8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S8	0.0	0.0	0.0	0.0		
Russian Federation	S9	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	1.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S9	0.0	0.0	0.0	0.0		
Russian Federation	S10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	1.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S10	0.0	0.0	0.1	0.0		
Russian Federation	S11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S11	0.0	0.0	0.0	0.0		
Russian Federation	S12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S12	0.0	0.0	0.0	0.0		
Russian Federation	S13	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.1	1.5	0.6	0.1	0.4	0.4	0.3	0.3	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S13	0.0	0.0	0.0	0.0		
Russian Federation	S14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S14	0.0	0.0	0.0	0.0		
Russian Federation	S15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S15	0.0	0.0	0.0	0.0		
Russian Federation	S16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S16	0.0	0.0	0.0	0.0		
Russian Federation	S17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S17	0.0	0.0	0.0	0.0		
Russian Federation	S18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S18	0.0	0.0	0.0	0.0		
Russian Federation	S19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S19	0.0	0.0	0.0	0.0		
Russian Federation	S20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S20	0.0	0.0	0.0	0.0		
Russian Federation	S21	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	1.5	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	S21	0.1	0.1				
Russian Federation	S22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	S22	0.0	0.0				
Russian Federation	S23	0.2	0.1	0.1	0.1	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.1	0.1	1.1	0.1	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	S23	0.1	0.1				
Russian Federation	S24	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S24	0.0	0.0				
Russian Federation	S25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S25	0.0	0.0				
Russian Federation	S26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S26	0.0	0.0				
Russian Federation	S27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	S27	0.0	0.0				
Russian Federation	S28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	S28	0.0	0.0				
Russian Federation	S29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.1	0.0	0.0	0.0	S29	0.0	0.0				
Russian Federation	S30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.1	S30	0.0	0.0				
Russian Federation	S31	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	1.1	0.1	0.0	S31	0.1	0.0				
Russian Federation	S32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	S32	0.0	0.0				
Russian Federation	S33	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	S33	0.0	0.0				
Russian Federation	S34	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	S34	0.0	0.0				
Russian Federation	S35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	S35	0.0	0.0				
Russian Federation	S36	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	S36	0.0	0.0				
Malta	S1	1.1	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S1	0.0	0.0				
Malta	S2	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S2	0.0	0.0				
Malta	S3	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S3	0.0	0.0				
Malta	S4	0.0	0.1	0.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S4	0.0	0.0				
Malta	S5	0.1	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	S5	0.0	0.0				
Malta	S6	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S6	0.0	0.0				
Malta	S7	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S7	0.0	0.0				
Malta	S8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S8	0.0	0.0				
Malta	S9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S9	0.0	0.0				
Malta	S10	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.1	1.2	0.3	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S10	0.0	0.0				
Malta	S11	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S11	0.0	0.0				
Malta	S12	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S12	0.0	0.0				
Malta	S13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S13	0.0	0.0				
Malta	S14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.1	0.0	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S14	0.0	0.0				
Malta	S15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S15	0.0	0.0				
Malta	S16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S16	0.0	0.0				
Malta	S17	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	1.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S17	0.0	0.0				
Malta	S18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S18	0.0	0.0				
Malta	S19	0.4	0.3	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.2	0.2	0.0	2.7	0.1	0.1	0.1	0.0	0.6	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.5	S19	0.0	0.0				
Malta	S20	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S20	0.0	0.0				
Malta	S21	0.1	0.0	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.1	1.6	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	S21	0.0	0.0				
Malta	S22	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S22	0.0	0.0				
Malta	S23	0.2	0.2	0.1	0.2	0.3	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.3	0.2	0.1	0.1	0.3	0.2	0.2	0.2	1.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.1	S23	0.0	0.1	0.2			
Malta	S24	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S24	0.0	0.0				
Malta	S25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S25	0.0	0.0				
Malta	S26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	S26	0.0	0.0				
Malta	S27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.4	0.1	0.0	0.0	0.0	0.0	S27	0.0	0.0				
Malta	S28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	S28	0.0	0.0				
Malta	S29	0.9	0.7	0.8	1.2	0.9	1.3	1.3	1.1	0.4	1.3	1.1	1.4	0.8	1.4	1.6	1.1	0.3	0.2	0.5	1.1	2.0	1.1	0.9	1.1	0.9	1.2	0.8	1.6	7.6	0.7	1.2	0.4	S29	0.4	0.6	2.7	0.0		
Malta	S30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	S30	0.0	0.0				
Malta	S31	0.1	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.3	0.2	0.2	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.3	0.1	0.1	1.3	0.1	S31	0.0	0.1	0.4			
Malta	S32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	1.0	S32	0.0	0.0				
Malta	S33	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	S33	0.0	0.0				
Malta	S34	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	S34	0.0	0.0				
Malta	S35	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	S35	0.0	0.0				
Malta	S36	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	S36	0.0	0.0				
Indonesia	S1	1.1	0.0	0.0	0.0	0.5	0.1	0.3	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	S1	0.0	0.0				
Indonesia	S2	0.0	1.2	0.1	0.2	0.0	0.1	0.0	0.1	0.5	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.3	0.1	0.0	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	S2	0.0	0.1				
Indonesia	S3	0.0	0.0	1.1	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.4	0.4	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S3	0.0	0.0				
Indonesia	S4	0.0	0.1	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S4	0.0	0.0				
Indonesia	S5	0.1	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S5	0.0	0.0				
Indonesia	S6	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S6	0.0	0.1				
Indonesia	S7	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S7	0.0	0.0				
Indonesia	S8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S8	0.0	0.0				
Indonesia	S9	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	1.4	0.3	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.1	0.3	0.2	0.2	0.2	0.1	0.5	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.1	S9	0.1	0.2				
Indonesia	S10	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	1.2	0.4	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S10	0.0	0.1				
Indonesia	S11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S11	0.0	0.0				
Indonesia	S12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S12	0.0	0.0				
Indonesia	S13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.3	0.1	0.2	0.3	0.1	0.2	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S13	0.0	0.0				
Indonesia	S14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.1	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S14	0.0	0.0				
Indonesia	S15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S15	0.0	0.1				
Indonesia	S16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S16	0.0	0.0				
Indonesia	S17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S17	0.0	0.0				
Indonesia	S18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S18	0.0	0.0				
Indonesia	S19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S19	0.0	0.0				
Indonesia	S20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S20	0.0	0.0				
Indonesia	S21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S21	0.0	0.0				
Indonesia	S22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	S22	0.0	0.0				
Indonesia	S23	0.1	0.0	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.1	1.1	0.1	0.1	0.2	0.0	0.1	0.0	0.0	0.1	0.0	S23	0.1	0.2				
Indonesia	S24	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	1.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	S24	0.1	0.0				

Country	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
Indonesia	S25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Indonesia	S26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Indonesia	S27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Indonesia	S28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Indonesia	S29	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.1	1.3	0.1	0.1	0.0	0.0	0.1	0.0	0.0
Indonesia	S30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
Indonesia	S31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
Indonesia	S32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
Indonesia	S33	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0
Indonesia	S34	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0
Indonesia	S35	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0
Indonesia	S36	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
Greece	S1	1.2	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Greece	S2	0.1	1.1	0.1	0.1	0.1	0.0	0.0	0.0	0.7	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Greece	S3	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Greece	S4	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Greece	S5	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Greece	S6	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Greece	S7	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Greece	S8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Greece	S9	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	1.2	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Greece	S10	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Greece	S11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Greece	S12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Greece	S13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.4	0.1	0.3	0.2	0.2	0.2	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Greece	S14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Greece	S15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Greece	S16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Greece	S17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Greece	S18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Greece	S19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Greece	S20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Greece	S21	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Greece	S22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Greece	S23	0.2	0.1	0.1	0.1	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.2	0.1	0.1	0.2	1.1	0.1	0.2	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0
Greece	S24	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	1.1	0.2	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0
Greece	S25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Greece	S26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Greece	S27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Greece	S28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Greece	S29	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.2	0.1	0.1	0.1	0.0	0.0	0.1	0.0
Greece	S30	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	1.0	0.0	0.0	0.0	0.0	0.0	0.0
Greece	S31	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.0	1.1	0.0	0.1	0.0	0.0	0.0
Greece	S32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
Greece	S33	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0
Greece	S34	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0
Greece	S35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
Greece	S36	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
Australia	S1	1.2	0.0	0.0	0.0	0.4	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Australia	S2	0.1	1.2	0.1	0.1	0.1	0.0	0.0	0.1	0.8	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Australia	S3	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.6	0.1	0.0	0.1	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Australia	S4	0.0	0.1	0.1	1.2	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Australia	S5	0.1	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
Australia	S6	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Australia	S7	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Australia	S8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Australia	S9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Australia	S10	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	1.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Australia	S11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Australia	S12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Australia	S13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.2	0.0	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Australia	S14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Australia	S15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Australia	S16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Australia	S17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Australia	S18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Australia	S19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Australia	S20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Australia	S21	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Australia	S22	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0
Australia	S23	0.2	0.1	0.1	0.1	0.3	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	1.1	0.1	0.2	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.0
Australia	S24	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.3	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.0
Australia	S25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Australia	S26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Australia	S27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Australia	S28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Australia	S29	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.3	0.2	0.1	0.1	0.0	0.0	0.1	0.0
Australia	S30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
Australia	S31	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.1	1.3	0.1	0.1	0.1	0.2	0.0
Australia	S32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
Australia	S33	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0
Australia	S34	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0
Australia	S35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0
Australia	S36	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
Chile	S1	1.2	0.0	0.0	0.0	0.4	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Chile	S2	0.1	1.1	0.0	0.0	0.1	0.0	0.1	0.1	0.8	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.2	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Chile	S3	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.3	0.8	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Chile	S4	0.1	0.1	0.0	1.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Chile	S5	0.1	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
Chile	S6	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Chile	S7	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Chile	S8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Chile	S9	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.1	1.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Country	Sample	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
Chile	S10	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	1.2	0.3	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Chile	S11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Chile	S12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Chile	S13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Chile	S14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Chile	S15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.2	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Chile	S16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Chile	S17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Chile	S18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Chile	S19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Chile	S20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Chile	S21	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	1.4	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0
Chile	S22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Chile	S23	0.1	0.1	0.1	0.0	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.1	1.2	0.3	0.3	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0
Chile	S24	0.1	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	1.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0
Chile	S25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Chile	S26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Chile	S27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Chile	S28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Chile	S29	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	1.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Chile	S30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Chile	S31	0.1	0.2	0.1	0.0	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.2	0.1	1.2	0.1	0.1	0.1	0.1	0.0	0.0
Chile	S32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
Chile	S33	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
Chile	S34	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0
Chile	S35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0
Chile	S36	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
Iceland	S1	1.2	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Iceland	S2	0.1	1.4	0.1	0.5	0.1	0.1	0.1	0.1	1.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.2	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0			
Iceland	S3	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Iceland	S4	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Iceland	S5	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Iceland	S6	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Iceland	S7	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Iceland	S8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Iceland	S9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Iceland	S10	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	1.1	0.3	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Iceland	S11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Iceland	S12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Iceland	S13	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	1.4	0.4	0.1	0.3	0.3	0.2	0.2	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Iceland	S14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Iceland	S15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Iceland	S16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.5	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Iceland	S17	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Iceland	S18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Iceland	S19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0		
Iceland	S20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Iceland	S21	0.0	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.1	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.1			
Iceland	S22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Iceland	S23	0.1	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.2	0.3	0.1	0.2	0.2	0.1	0.1	0.1	1.2	0.2	0.2	0.2	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.0			
Iceland	S24	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	1.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0				
Iceland	S25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Iceland	S26	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Iceland	S27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Iceland	S28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Iceland	S29	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	1.3	0.3	0.1	0.1	0.1	0.1	0.1	0.0			
Iceland	S30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Iceland	S31	0.0	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	1.2	0.1	0.1	0.1	0.1	0.0	
Iceland	S32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0		
Iceland	S33	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0		
Iceland	S34	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	1.1	0.0	0.0				
Iceland	S35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0		
Iceland	S36	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0		
Peru	S1	1.1	0.0	0.0	0.0	0.4	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Peru	S2	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.7	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Peru	S3	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.2	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Peru	S4	0.0	0.1	0.0	1.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Peru	S5	0.1	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Peru	S6	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Peru	S7	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Peru	S8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Peru	S9	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.1	1.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Peru	S10	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	1.2	0.3	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Peru	S11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Peru	S12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Peru	S13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.4	0.1	0.2	0.3	0.1	0.2	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Peru	S14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Peru	S15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Peru	S16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Peru	S17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Peru	S18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Peru	S19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0			
Peru	S20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Peru	S21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Peru	S22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0			
Peru	S23	0.1	0.1	0.1	0.0	0.2	0.2	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	1.1	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.1			
Peru	S24	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	1.2	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.0				
Peru	S25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Peru	S26	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Peru	S27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Peru	S28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
Peru	S29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	1.2	0.1	0.1	0.1	0.0							
Peru	S30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	1.0	0.0	0.0	0.0	0.0				

Peru	S31	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.0	1.2	0.1	0.1	0.1	0.1	0.0
Peru	S32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
Peru	S33	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	0.0	0.0	0.0
Peru	S34	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0
Peru	S35	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
Peru	S36	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0

Source: OECD Input Putput Tables, 2011, https://www.oecd.org/sti/ind/input-outputtables.htm

LEONTIEF: Leontief inverse matrix (total) per Azerbaijan, 2011, index

Country	To: (sector in column)	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16	S17	S18	S19	S20	S21	S22	S23	S24	S25	S26	S27	S28	S29	S30	S31	S32	S33	S34	S35	S36
Azerbaijan	S1	1.1	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Azerbaijan	S2	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Azerbaijan	S3	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Azerbaijan	S4	0.0	0.0	0.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Azerbaijan	S5	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Azerbaijan	S6	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Azerbaijan	S7	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Azerbaijan	S8	0.0	0.0	0.0	0.0	0.1	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Azerbaijan	S9	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	1.2	0.2	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Azerbaijan	S10	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	1.2	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Azerbaijan	S11	0.0	0.0	0.0	0.0	0.2	0.1	0.2	0.4	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Azerbaijan	S12	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Azerbaijan	S13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.2	0.1	0.2	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Azerbaijan	S14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Azerbaijan	S15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Azerbaijan	S16	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.2	0.0	0.0	0.0	0.0	0.0
Azerbaijan	S17	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.1
Azerbaijan	S18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Azerbaijan	S19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Azerbaijan	S20	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Azerbaijan	S21	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Azerbaijan	S22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.2	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.2	0.0	0.1	0.1	0.1
Azerbaijan	S23	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.1	1.1	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Azerbaijan	S24	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Azerbaijan	S25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Azerbaijan	S26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Azerbaijan	S27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Azerbaijan	S28	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Azerbaijan	S29	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Azerbaijan	S30	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.1	1.0	0.1	0.0	0.0	0.0	0.0	0.1
Azerbaijan	S31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.1	0.0	0.0	0.0
Azerbaijan	S32	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
Azerbaijan	S33	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0
Azerbaijan	S34	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0
Azerbaijan	S35	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0
Azerbaijan	S36	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0

Source: Authors own analysis based on the Input-Output tables, The State Statistical Committee of the Republic of Azerbaijan, 2011, https://www.stat.gov.az/source/system_nat_accounts/?lang=en

Mean of LEONTIEF: Leontief inverse matrix (total) per selected countries, 2011, index

To: (sector in column)	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16	S17	S18	S19	S20	S21	S22	S23	S24	S25	S26	S27	S28	S29	S30	S31	S32	S33	S34	S35	S36
S1	1.152	0.004	0.0	0.0	0.4	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S2	0.044	1.124	0.1	0.1	0.0	0.0	0.0	0.1	0.6	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S3	0.012	0.013	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.3	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S4	0.025	0.057	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S5	0.111	0.004	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S6	0.008	0.004	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S7	0.002	0.002	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S8	0.006	0.004	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S9	0.053	0.038	0.1	0.0	0.0	0.0	0.0	0.0	1.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S10	0.037	0.016	0.0	0.0	0.0	0.1	0.0	0.1	0.0	1.2	0.3	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S11	0.009	0.007	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S12	0.004	0.004	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S13	0.009	0.024	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.3	0.1	0.2	0.2	0.2	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S14	0.008	0.013	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S15	0.002	0.003	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S16	0.003	0.006	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S17	0.007	0.020	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S18	0.003	0.003	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S19	0.032	0.029	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
S20	0.009	0.011	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S21	0.030	0.049	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S22	0.013	0.013	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S23	0.123	0.069	0.1	0.1	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.1	1.2	0.1	0.2	0.2	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.0
S24	0.046	0.057	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.2	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.0
S25	0.004	0.004	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S26	0.003	0.003	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S27	0.009	0.008	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S28	0.004	0.005	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S29	0.108	0.098	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	1.7	0.1	0.1	0.2	0.1	0.1	0.3	0.0
S30	0.012	0.013	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
S31	0.049	0.101	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	1.2	0.1	0.1	0.1	0.1	0.0
S32	0.001	0.001	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0
S33	0.000	0.001	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0
S34	0.009	0.006	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0
S35	0.093	0.006	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0
S36	0.000	0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0

Source: Author's own analysis based on the OECD Input Putput Tables, 2011, https://www.oecd.org/sti/ind/input-outputtables.htm

Standard Deviation of LEONTFT: Leontief inverse matrix (total) per selected countries, 2011, index

To: (sector in column)	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16	S17	S18	S19	S20	S21	S22	S23	S24	S25	S26	S27	S28	S29	S30	S31	S32	S33	S34	S35	S36
S1	0.059	0.003	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S2	0.027	0.116	0.0	0.1	0.0	0.0	0.0	0.0	0.3	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S3	0.024	0.021	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.3	0.3	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S4	0.059	0.049	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S5	0.108	0.002	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S6	0.011	0.006	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S7	0.002	0.002	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S8	0.002	0.003	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S9	0.039	0.034	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S10	0.017	0.012	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S11	0.004	0.006	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S12	0.003	0.004	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S13	0.004	0.021	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S14	0.005	0.011	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S15	0.002	0.002	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S16	0.002	0.009	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S17	0.007	0.025	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S18	0.003	0.003	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S19	0.097	0.089	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.4	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
S20	0.012	0.014	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S21	0.019	0.050	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S22	0.015	0.013	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S23	0.043	0.054	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
S24	0.020	0.048	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S25	0.003	0.003	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S26	0.003	0.003	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S27	0.006	0.007	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S28	0.004	0.007	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S29	0.226	0.178	0.2	0.3	0.2	0.3	0.3	0.3	0.1	0.3	0.3	0.3	0.2	0.3	0.4	0.3	0.1	0.0	0.1	0.3	0.5	0.3	0.2	0.3	0.2	0.3	0.2	0.4	1.7	0.2	0.3	0.1	0.1	0.2	0.7	0.0
S30	0.008	0.011	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S31	0.029	0.090	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0
S32	0.001	0.001	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S33	0.001	0.001	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S34	0.007	0.011	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S35	0.306	0.005	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
S36	0.000	0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Source: Author's own analysis based on the OECD Input Putput Tables, 2011, https://www.oecd.org/sti/ind/input-outputtables.htm

APPENDIX X

Azerbaijan in the range of the Standard Deviation of LEONTIEF: Leontief inverse matrix (total) per selected countries, 2011, index

Sectors	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16	S17	S18	S19	S20	S21	S22	S23	S24	S25	S26	S27	S28	S29	S30	S31	S32	S33	S34	S35	S36	Total	T	F
S1	T	F	F	F	F	F	F	T	F	F	F	F	F	F	F	F	F	F	F	T	F	F	F	F	F	F	F	F	F	F	T	F	F	T	F	F		5	31
S2	T	F	T	T	T	T	F	T	F	T	F	F	F	F	F	F	F	F	F	T	T	F	T	T	F	F	F	T	T	T	T	F	F	F	F	F		15	21
S3	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	F	T	T	T	T	T	T	F		34	2
S4	T	T	F	T	T	T	T	T	T	T	T	T	F	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	F		33	3
S5	T	F	F	F	T	F	F	F	F	F	F	F	F	F	F	F	F	F	F	T	F	F	F	F	F	F	F	F	F	F	T	F	T	T	T	F		7	29
S6	T	T	F	T	T	T	T	T	T	T	F	T	T	F	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	F		30	6
S7	T	T	T	F	T	T	F	T	T	T	T	T	T	T	T	F	T	T	T	F	T	T	T	T	F	T	T	F	T	F	T	T	T	T	T	F		28	8
S8	T	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	T	T	F	F	F	F	T	T	T	F	T	T	T	T	T	T	F		12	24
S9	T	F	T	T	T	T	T	T	F	T	T	T	T	T	T	T	T	T	F	T	T	T	T	T	T	T	T	T	T	F	T	T	F	T	T	F		31	5
S10	F	F	T	T	T	T	T	F	F	T	F	T	F	T	F	T	F	T	F	T	T	F	F	T	F	T	F	T	F	T	F	T	T	F	F	F		18	18
S11	T	F	T	F	T	F	F	F	F	F	T	F	T	F	T	F	F	F	F	T	T	F	T	T	F	T	F	F	F	F	T	T	T	T	F	F		14	22
S12	F	T	F	T	F	F	T	F	T	T	F	F	T	T	F	T	T	F	F	T	F	T	T	T	F	F	F	T	F	F	T	F	T	T	F	F		18	18
S13	T	T	T	T	T	T	T	T	T	T	T	T	F	T	T	T	F	F	F	F	F	F	T	T	F	T	F	T	F	F	T	F	T	T	T	F		23	13
S14	T	F	T	T	T	T	F	F	F	T	F	T	F	T	F	F	T	F	F	T	T	F	T	F	T	T	T	T	F	T	T	F	T	T	T	F		21	15
S15	F	F	F	F	F	F	F	F	T	F	F	F	T	T	T	F	T	T	T	F	T	F	T	F	F	F	F	F	F	F	T	F	T	F	T	F		13	23
S16	F	T	F	F	F	F	F	F	F	T	F	F	T	T	F	F	T	T	T	F	F	T	F	F	F	T	F	F	F	F	F	F	F	T	F	F		11	25
S17	F	T	F	F	F	F	T	F	T	F	T	F	F	T	F	F	T	F	F	T	T	F	F	T	F	F	T	F	F	T	F	F	F	F	T	F		16	20
S18	F	T	F	F	F	F	T	F	T	F	F	T	F	T	T	F	T	F	F	T	T	F	F	T	F	F	T	F	F	F	F	F	F	F	T	F		13	23
S19	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	F		35	1
S20	T	T	T	T	T	F	F	T	T	T	T	T	T	T	T	T	F	T	T	F	T	F	F	T	F	F	T	F	T	F	T	T	T	T	F	F		21	15
S21	T	T	T	T	T	T	F	T	F	T	F	T	F	T	F	F	F	F	F	F	T	T	F	F	T	T	F	T	T	T	F	F	T	T	F	F		20	16
S22	F	T	T	F	F	T	T	F	T	F	F	T	T	T	F	T	T	F	F	T	T	F	F	T	F	T	F	F	F	F	F	F	F	F	F	F		14	22
S23	F	F	T	T	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	T	F	F	F	F	F	F	T	T	T	F	F	F	F	F	F	F		6	30
S24	T	F	T	T	F	F	F	F	F	T	F	F	T	F	F	F	F	F	F	T	F	F	F	F	T	F	F	F	T	T	F	T	F	F	F	F		9	27
S25	F	F	T	T	T	F	F	F	F	T	F	F	T	F	T	T	F	F	T	T	T	F	T	F	T	T	F	T	T	T	T	T	T	T	F	F		22	14
S26	T	T	T	F	T	T	T	F	F	T	F	F	T	F	F	F	F	F	T	T	F	T	F	T	F	T	F	T	F	T	F	F	F	F	F	F		14	22
S27	T	F	F	F	T	T	T	F	F	T	F	F	F	F	F	F	F	F	T	F	F	F	T	T	T	F	T	T	F	F	T	F	F	T	F	F		13	23
S28	T	T	T	T	T	T	T	T	T	T	T	F	F	T	T	T	T	T	F	T	T	T	F	F	T	F	F	T	T	F	T	T	T	T	T	F		27	9
S29	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	F	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T		34	2
S30	T	F	F	F	F	F	F	F	T	F	F	T	T	T	F	T	T	T	F	F	T	T	F	T	F	T	F	F	T	F	T	T	T	T	T	F		17	19
S31	F	F	F	T	F	F	F	F	F	F	F	F	F	F	F	T	F	F	F	T	T	F	F	F	F	F	F	T	T	F	T	F	F	F	F	F		6	30
S32	T	F	T	T	T	F	T	T	T	T	F	T	T	T	F	T	F	F	T	T	T	F	T	T	T	T	T	F	T	T	T	F	T	F	F	F		25	11
S33	T	T	T	T	T	T	T	T	T	T	T	T	F	T	T	F	T	F	T	T	T	F	T	T	F	T	T	T	F	T	T	T	T	T	T	F		30	6
S34	F	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	F	T	T	T	F	T	T	T	F	T	T	F	T	F	T	F		30	6
S35	T	F	T	T	F	F	F	F	F	F	F	F	T	F	F	F	F	F	F	F	F	F	F	F	T	T	F	T	T	F	F	F	F	T	F	F		9	27
S36	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F	F		0	36
Total																																						674	622
T	24	18	22	24	19	18	18	17	20	20	14	17	22	17	20	14	19	14	19	21	20	21	20	19	19	17	22	18	15	25	19	17	21	21	23	0	674		
F	12	18	14	12	17	18	18	19	16	16	22	19	14	19	16	22	17	22	17	15	16	15	16	17	17	19	14	18	21	11	17	19	15	15	13	36	622		52

Source: Author's own analysis based on the Azerbaijan and OECD Input Putput Tables, 2011, https://www.oecd.org/sti/ind/input-outputtables.htm / The State Statistical Committee of the Republic of Azerbaijan, 2011, https://www.stat.gov.az/source/system_nat_accounts/?lang=en

Azerbaijan Inverse Matrix vs Mean of LEONTIEF: Leontief inverse matrix (total) per selected countries, 2011, index

Sectors	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11	S12	S13	S14	S15	S16	S17	S18	S19	S20	S21	S22	S23	S24	S25	S26	S27	S28	S29	S30	S31	S32	S33	S34	S35	>0
S1	-2%	-97%	-91%	-94%	-39%	247%	-98%	-99%	-97%	454%	-98%	-95%	-98%	-90%	-97%	-98%	-94%	-85%	-95%	-95%	-86%	-97%	-98%	-84%	-74%	-94%	-97%	-84%	-93%	-92%	-39%	-90%	-92%	41%	200%	4.00
S2	-28%	-11%	-45%	-92%	-20%	-35%	-66%	-20%	-53%	-36%	-66%	-50%	-85%	-63%	-65%	-73%	-77%	-68%	-90%	-50%	-55%	-79%	-50%	-46%	-53%	-55%	-86%	-46%	-28%	0%	-38%	-81%	-88%	117%	-72%	1.00
S3	-64%	-94%	9%	-62%	0%	-43%	-58%	-67%	-91%	-94%	-61%	-73%	-17%	-39%	-40%	-42%	-60%	-92%	-88%	-73%	14%	-73%	-71%	8%	-50%	-13%	-66%	124%	87%	27%	1%	-23%	-60%	-26%	-45%	7.00
S4	-94%	-68%	208%	4%	-72%	-64%	-88%	-76%	-63%	-49%	-78%	134%	-93%	-77%	-39%	-81%	-88%	-77%	-79%	-70%	-74%	-52%	-65%	-65%	-79%	-67%	-87%	-53%	-19%	-43%	-63%	-59%	-80%	56%	-72%	4.00
S5	-72%	-88%	-71%	-87%	6%	-92%	-99%	-96%	-94%	-98%	-95%	-90%	-96%	-97%	-95%	-97%	-87%	-49%	-98%	-78%	-81%	-92%	-94%	-61%	-53%	-76%	-95%	-58%	-83%	-78%	-34%	-87%	-89%	-32%	-46%	1.00
S6	-66%	-90%	-70%	-83%	-22%	5%	-98%	-96%	-85%	339%	-97%	-76%	-80%	-23%	-93%	-95%	-84%	-93%	-79%	-97%	-46%	-96%	-97%	-70%	-88%	-96%	-94%	-73%	-87%	-75%	110%	-93%	-97%	-19%	-81%	3.00
S7	-33%	-64%	-42%	198%	13%	-37%	41%	-59%	-46%	-25%	79%	-57%	-64%	-73%	-21%	-72%	-47%	-79%	-56%	59%	56%	-19%	-66%	90%	24%	30%	-69%	19%	300%	-62%	206%	91%	9%	36%	-6%	15.00
S8	-23%	-96%	-50%	-60%	58%	-56%	9%	-93%	-86%	-82%	-74%	-90%	-66%	-85%	-86%	-82%	-91%	-90%	-40%	-43%	-80%	-85%	297%	-67%	-11%	-84%	-12%	173%	-51%	53%	-45%	-41%	20%	-43%	7.00
S9	50%	-91%	6%	-31%	37%	18%	-30%	0%	5%	77%	-27%	-20%	-65%	-1%	-28%	-55%	-37%	-1%	-78%	-4%	33%	-38%	66%	7%	8%	-11%	-65%	7%	-11%	292%	27%	-55%	-68%	638%	-44%	14.00
S10	-49%	-94%	-19%	-14%	-19%	-27%	-42%	-57%	-91%	-2%	-67%	-13%	-19%	47%	-14%	-53%	-22%	170%	-84%	25%	0%	-61%	-78%	-32%	-60%	-57%	-80%	-7%	-13%	52%	101%	-43%	-82%	65%	-62%	6.00
S11	-12%	-85%	-20%	3%	701%	339%	490%	1317%	-78%	52%	35%	79%	-18%	77%	-10%	-59%	-73%	-82%	-1%	607%	160%	-14%	-53%	9%	-18%	177%	-24%	105%	337%	142%	146%	29%	-8%	22%	29%	20.00
S12	183%	-84%	564%	46%	1245%	55%	-43%	126%	-62%	10%	80%	10%	9%	-26%	306%	-10%	-55%	-78%	172%	13%	177%	-39%	-47%	31%	16%	127%	-42%	156%	180%	41%	74%	86%	-25%	49%	59%	24.00
S13	14%	-91%	2%	18%	26%	28%	8%	-36%	-68%	-36%	20%	-37%	-13%	-35%	-3%	-18%	-48%	-91%	-89%	-65%	153%	-35%	-31%	95%	-2%	59%	-51%	365%	186%	371%	65%	60%	-30%	32%	-5%	16.00
S14	-29%	-95%	-59%	-49%	-50%	-58%	-71%	-64%	-90%	-49%	-61%	-69%	-92%	-9%	-37%	-62%	-35%	-83%	-21%	-64%	-11%	-78%	-60%	-6%	-74%	-38%	-53%	36%	-7%	3%	36%	-40%	-63%	-42%	-58%	3.00
S15	157%	-89%	181%	150%	395%	272%	334%	268%	-37%	114%	230%	133%	-8%	-5%	6%	341%	-6%	-70%	-74%	9%	271%	11%	82%	450%	290%	837%	-30%	107%	386%	8824%	276%	153%	22%	287%	85%	27.00
S16	677%	-82%	489%	382%	725%	610%	1242%	494%	-9%	272%	405%	425%	6%	65%	174%	56%	53%	2%	-66%	408%	334%	0%	611%	931%	352%	698%	19%	2924%	1554%	6594%	534%	311%	44%	352%	92%	32.00
S17	95%	-90%	283%	299%	154%	231%	-41%	17%	-77%	14%	101%	62%	-85%	94%	-23%	-44%	-5%	-54%	29%	116%	374%	1%	-37%	914%	57%	121%	4%	1237%	554%	90%	129%	613%	43%	154%	189%	26.00
S18	449%	-79%	540%	383%	359%	309%	-11%	357%	-24%	135%	72%	275%	8%	81%	8%	-38%	1842%	-16%	-44%	100%	556%	69%	38%	405%	208%	171%	2%	590%	409%	815%	968%	248%	105%	1706%	112%	29.00
S19	2%	-97%	17%	-23%	-38%	99%	80%	84%	-82%	-33%	-59%	-5%	-41%	-73%	-69%	-89%	-10%	-49%	-16%	-5%	47%	-64%	124%	31%	-42%	-44%	-50%	-25%	124%	-37%	-72%	-86%	-55%	9%	-63%	10.00
S20	-11%	-87%	80%	24%	178%	102%	522%	7%	-76%	19%	-52%	-58%	-68%	33%	-15%	-50%	161%	1339%	-34%	12%	148%	-47%	-23%	184%	83%	197%	-76%	109%	356%	-8%	462%	27%	-9%	3%	242%	21.00
S21	7%	-98%	-56%	-84%	28%	-42%	-66%	-4%	-90%	-60%	-70%	-50%	-79%	-69%	-74%	-67%	-82%	-90%	-81%	-51%	-2%	-79%	-91%	-55%	-51%	-58%	-90%	-57%	4%	-61%	-35%	-86%	-89%	-17%	-49%	3.00
S22	246%	-66%	-48%	197%	195%	223%	14%	204%	78%	205%	148%	-3%	-38%	225%	-12%	28%	41%	7%	-40%	94%	843%	11%	59%	183%	336%	107%	-23%	300%	630%	-23%	240%	388%	204%	552%	326%	27.00
S23	-65%	-98%	1%	-56%	-43%	-59%	-86%	-75%	-83%	-61%	-80%	-69%	-62%	-74%	-82%	-78%	100%	-91%	-88%	-48%	-18%	-84%	-7%	-32%	-66%	-85%	-95%	-15%	-69%	-56%	-76%	-64%	-88%	-56%	-79%	2.00
S24	9%	-96%	20%	-32%	47%	50%	-79%	-44%	-75%	-9%	-66%	-62%	-40%	-66%	-72%	-60%	-78%	-85%	-90%	-26%	32%	-69%	-88%	-7%	-23%	-74%	-91%	-68%	-67%	-17%	-43%	-84%	-89%	36%	-53%	6.00
S25	112%	-96%	-19%	-58%	12%	19%	-77%	-62%	-80%	-78%	-43%	-22%	-85%	-88%	-67%	-80%	-71%	-87%	-92%	49%	-29%	-60%	-59%	-40%	4%	-66%	-76%	21%	-56%	-51%	42%	-46%	-47%	-67%	417%	8.00
S26	-93%	-100%	-97%	-95%	-95%	-86%	-74%	-98%	-99%	-53%	-98%	-97%	-97%	-98%	-98%	-95%	-98%	-99%	-99%	-94%	-30%	-95%	-99%	-22%	-91%	-3%	-99%	-95%	-90%	-88%	-87%	-84%	-96%	-85%	-94%	0.00
S27	-55%	-97%	-82%	-81%	-47%	-57%	-15%	-76%	-91%	-51%	-73%	-74%	-88%	-67%	-89%	-70%	-77%	-94%	-94%	-48%	-70%	-85%	-68%	-61%	20%	-39%	-12%	-13%	-46%	129%	-56%	-81%	-82%	-73%	-76%	2.00
S28	-84%	-97%	-84%	-77%	-59%	-77%	-84%	-86%	-94%	-68%	-82%	-88%	-94%	-91%	-93%	-86%	-86%	-87%	-96%	-74%	-74%	-83%	-78%	19%	-40%	107%	-87%	2%	135%	46%	203%	-62%	-79%	-85%	-80%	6.00
S29	-90%	-99%	-87%	-94%	-52%	-45%	-87%	-65%	-96%	-82%	-71%	-67%	-96%	-95%	-95%	-96%	-75%	-94%	-96%	-79%	-92%	-89%	-72%	-88%	-84%	-89%	-88%	-83%	-38%	-96%	-47%	-58%	-93%	-79%	-93%	0.00
S30	50%	-89%	136%	270%	196%	187%	299%	268%	-60%	142%	335%	76%	-22%	-38%	24%	573%	23%	-54%	-5%	126%	235%	14%	-19%	133%	-18%	61%	-69%	108%	228%	1%	90%	68%	-55%	43%	-16%	24.00
S31	-83%	-99%	-85%	-66%	-63%	-83%	-92%	-88%	-95%	-92%	-94%	-91%	-96%	-92%	-91%	-93%	-85%	-70%	-98%	-15%	-60%	-74%	-82%	-61%	-88%	-73%	-78%	-65%	-81%	-59%	-5%	-81%	-94%	-77%	-48%	0.00
S32	-64%	-93%	-73%	-65%	-17%	90%	-67%	5%	-86%	-64%	155%	-61%	-84%	-71%	-30%	-75%	-42%	-90%	-87%	-27%	-18%	-49%	-86%	-24%	-42%	-48%	-75%	-49%	109%	-78%	-11%	0%	272%	-65%	118%	6.00
S33	-75%	-98%	-59%	32%	-53%	-57%	-86%	-79%	-80%	-86%	-85%	-81%	-82%	-68%	-85%	-87%	-14%	184%	-84%	206%	-57%	-38%	-85%	4%	-79%	-75%	-46%	-62%	-6%	-75%	-68%	65%	0%	75%	-81%	7.00
S34	-87%	-99%	-94%	-94%	-89%	-92%	-98%	-97%	-97%	-97%	-95%	-95%	-94%	-99%	-98%	-93%	-97%	-98%	-79%	-91%	-93%	-98%	-98%	-89%	-96%	-66%	-93%	-94%	-96%	-95%	-85%	-96%	-70%	-6%	-74%	0.00
S35	-100%	-97%	-97%	-80%	-88%	-88%	-98%	-97%	-97%	-95%	-95%	-94%	-99%	-99%	-99%	-99%	-96%	-99%	-99%	-95%	-94%	-98%	-96%	-82%	-93%	-13%	-50%	-87%	-51%	-95%	-71%	-91%	-94%	-92%	1%	1.00
>0	13.00	0.00	14.00	13.00	17.00	18.00	9.00	12.00	2.00	12.00	11.00	8.00	3.00	7.00	5.00	4.00	6.00	5.00	2.00	13.00	15.00	6.00	6.00	17.00	11.00	12.00	3.00	16.00	17.00	14.00	19.00	12.00	8.00	20.00	12.00	

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