

THE ROLE OF TRADE WITH THE EU IN LIBYAN ECONOMY DEVELOPMENT

Mahmud A. Geheder, Mohamed S. Moussa

University of El Fateh, Tripoli, Libya

Emhemed R. Shnibesh, Abdulhamid A. Yousef

7th April University, Tripoli, Libya

Abstract. The paper is based on an economic analysis of the Libya's foreign trade during the period 1970–2006, with special reference to the trade process between Libya and the EU. In addition, the paper investigates the process of adjustment of Libyan imports from the EU, in the level of domestic economic activities (real income), the consumer price index (CPI), and the exchange rates of the Libyan dinar. The aim is to provide estimates of the aggregate demand of Libya's imports from the EU over the period, applying standard econometrics techniques complemented by appropriate diagnostic tests based on recent and by now widely used dynamic modeling and cointegration techniques. As well as the paper tends to estimate a long run of the independent variables elasticity stated above for Libya's imports from the EU. The findings suggest more economic cooperation through bilateral relations, improving the investment environment in the Libyan market and supporting further economic cooperation through the Euro-Mediterranean Process and suggest the need for trade agreement with the EU.

Key words: trade, economic development, econometrics, EU, Libya

INTRODUCTION

Libya's dependence on its oil export revenues has largely characterised the development process since the sixties. A number of different phases is to be distinguished: the policies of the Kingdom, the surplus re-distributive policies under the revolutionary government until 1981, the US trade boycott and the declining revenues during the eighties, the UN sanctions and further deteriorating growth prospects during the 90 and presently the opening-up of Libya after lifting the UN sanctions.

Adres do korespondencji – Corresponding authors: Abdulhamid A. Yousef, Mohamed S. Moussa, University of El Fateh, Tripoli – Libya, Emhemed R. Shnibesh, 7 th April University, e-mail: hhaamed@yahoo.com, P. Box: 13514 Tripoli – Libya

A lot has been researched about the importance of the oil revenues for Libya and there has been a consensus that the structural dependence on this asset is the national source of wealth but also a major factor of economic uncertainty. The paper tends to examine trade with the EU during the period 1970–2006, and its impact on the economic development in Libya. Besides, to investigate the process of adjustment of imports to changes in the level of GDP, CPI, ER.

In addition, the paper deals with an initial discussion how the chance of economic liberalisation and the recent efforts of re-integration after the end of the UN sanctions could be used to more sustainably absorb the oil revenues. The strategy of enhanced trade integration with the EU is at the centre of this paper. A major question is whether joining the Barcelona Process and the European Neighborhood Programme will be beneficial for economic development of Libya. Here the central issue of research is whether Libya could sufficiently benefit from free trade with the EU and if yes, which reforms have to be tackled by Libya itself. The bulk of liberalisation efforts would have anyway to be done by Libya itself, as under a free trade agreement the EU will just grant preferential duty-free access to industrial products from the Mediterranean free trade partners.

FOREIGN TRADE AND DEVELOPMENT

Libya relies heavily on a single exportable commodity, (ie. crude oil), as the main source of foreign exchange earnings. Moreover, due to the developing nature of its economy, and the limited availability of other endogenous resources other (than oil and gas), the country rely heavily on the imports of capital goods, raw material, intermediate and consumer goods, as a means of sustaining the people standard living, providing for the various needs for the local market.

Because of, the essential dependence of Libya on oil revenues, the extent of the country interdependence with the rest of the world was increased dramatically after the first oil shock in the early 1973–1974. And due to the 1979–1980 upheaval in the oil market caused by the Islamic revolution in Iran and the subsequent the first Gulf war.

As a result of, the structural changes in the local economy, through the socio-economic development plans. The share of manufacturing in GDP rose from 5% in 1970 to around 13.1% in 2006, while the share of agricultural sector increased from 6% in 1970 to 8.9% in 2006, and real GDP increased dramatically from \$ 4380 million in 1970 to \$ 54,120 million in 2006. These ratios are presented in table below.

The value of imports increased consecutively and its ratio in GDP reached to a peak of 28.5% in 1975 and to around 18.5% in 1980. As a result of, the government imports restriction policy to reduce the negative impact of the U.N sanctions, and the freezing of Libya's assets abroad. The ratios of imports in GDP declined to 16.29%, 16.17%, 7.67% in the years 1990, 1995, 2000 and increased to more than 22% in the year 2006.

Regarding the value of Libya's exports and imports during the entire period 1970–2006, it had been witnessed dramatic changes. Thus, in 1970 exports accounted a total value of LD 841.8 million, increased stridently to LD 2006 million in 1975. Resulted of the higher oil prices followed the first oil shock in the early 1973, 1974, and recorded its high level in the year 1980, by total value of nearly LD 7000 million, when oil prices exceeded

Table 1. GDP, trades, and the structure of imports (Libya, selected years)
Tabela 1. PKB, handel i struktura importu w Libii w wybranych latach

Year	GDP (\$ million)	Imports		Structural of imports (goods) %			Exports	
		Value	% GDP	Capital	Material	Consumption	Value	% GDP
1970	4380	554.4	12.65	66.71	10.75	22.52	2357	53.81
1975	12491	3534.1	28.30	74.52	8.35	17.12	6960	55.72
1980	35880	6760.8	18.24	72.82	7.86	19.32	23138	64.48
1985	24334	4493.4	18.46	53.43	5.63	12.12	12316	50.61
1990	32807	5345	16.29	6815	9.18	22.67	12332	40.63
1995	29928	4839.8	16.17	63.28	10.88	25.21	9102	30.41
2000	44820	3440.5	7.67	65.82	9.98	24.17	14200	31.68
2001	45600	5800	12.71	67.81	8.76	23.43	17300	37.90
2002	47300	6600	13.9	63.32	9.43	27.25	22600	47.70
2003	46500	7400	15.9	59.76	12.35	27.89	24500	52.68
2004	48760	7850	16.0	66,45	10.67	22.88	22000	45.11
2005	49820	8224	16.11	65.28	10.75	23.97	23200	46.56
2006	54120	12320	22,76	69.16	11.32	19.52	27400	50.62

Source: Calculated from Annual Reports of Central Bank of Libya, various issues; and trends of Libyan Foreign Trade, 1970–2000, Authority of Information and Documentation, Tripoli, Libya.

Źródło: Opracowane na podstawie rocznych raportów Banku Centralnego Libii oraz trendów libijskiego handlu zagranicznego, 1970–2000, Authority of Information and Documentation, Tripolis, Libia.

Table 2. Exports, imports and balance of trade (Selected years) (\$ million)
Tabela 2. Eksport, import i bilans handlowy w wybranych latach w milionach \$

Years	Total Exports	Total Imports	Balance of Trade
1970	2357	554	+1803
1975	6960	3534	+3417
1980	23138	6800	+16338
1985	12316	4698.4	+7618
1990	12332	5336	+7896
1995	9102	4882	+4220
2000	14200	7700	+6500
2001	17300	6800	+10500
2002	22600	6600	+16000
2003	24500	7400	+17100
2004	22000	7850	+14150
2005	23200	8224	+14976
2006	27400	12320	+15080

Source: Ministry of Planning, General Administration of Socio-Economic Indicators 1962–1996, December 1997. Central Bank of Libya [2007]. Libya's trade indicators, 2001–2006.

Źródło: Ministerstwo Planowania, General Administration of Socio-Economic Indicators 1962–1996, grudzień 1997. Bank Centralny Libii [2007]. Wskaźniki handlu libijskiego, 2001–2006.

\$ 40 dollars in the world markets after the Islamic revolution of Iran. While in 1985, total exports recorded LD 3645 million and LD 3745 million in 1990, as a consequence of increases of oil price in some years. However, during the period 1992–2000, Libyan exports witnessed a different situation following the U.N sanctions imposed against the country in 1992, which affected the oil sector by prohibited providing Libya's oil industry with its needs of oil equipments. So, the total exports which predominantly consisted of oil exports accounted LD 3038 million, LD 3017 million and LD 3578 million in the years 1992, 1994, 1996 respectively. While in 2006 after the lifting of U.N sanctions, and the increasing of oil prices in the world market, the value of exports recorded its high level since 1980.

GEOGRAPHICAL DISTRIBUTION OF IMPORTS

Due to the historical ties between Libya and the European countries, the EU has been considered as a traditional market for Libya's imports during the whole period 1970–2005. Nonetheless, the percentage share of the value of these imports was 71.3% in 1970, increased to 71.9% in 1983. In 1987, the share of imports from the EU reached 72%, and 57% in 2006. Italy, Germany, the United Kingdom, and France have remained the major partners of Libya. The percentage share of imports from the EU continued rising until it has reached 70.4 per cent before declining again to 63 per cent in 1988. It then accounted for 61.5 per cent, 57 per cent, 55 per cent and 57 per cent of total imports in the years 1990, 1995, 2000, and 2006 respectively [Central Bank of Libya 2007].

Table 3. Value of Libya's Imports from the Largest Trading Partners, 1997–2001 (\$ million)
Tabela 3. Wartość libijskiego importu według głównych partnerów handlowych w latach 1997–2001 w milionach \$

Partner	1997	1998	1999	2000	2001	2006
Italy	1113	1210	1012	1041	1268	1650
Germany	595	607	542	403	538	832
UK	485	428	315	311	292	520
France	373	311	277	288	261	579
Spain	250	178	281	291	266	560

Source: Central Bank of Libya, Annual Reports, 1997–2007.

Źródło: Bank Centralny Libii, roczne raporty, 1997–2007.

TRENDS OF LIBYAN FOREIGN TRADE

Per capita imports and exports reveal a strong trade exchange between Libya and the EU, at least if compared to other important North African countries and between African blocs, as the following two tables show.

Table 4. Trade with the EU: Libya compared to Egypt and Algeria (bn Euro)
 Tabela 4. Handel z UE, Libia w porównaniu z Egiptem i Algierią (bn euro)

Year	Exports to the EU			Imports from the EU		
	Libya	Egypt	Algeria	Libya	Egypt	Algeria
1999	6.9	2.4	7.8	2.3	7.9	5.2
2000	13.0	3.4	16.4	2.5	7.9	6.1
2001	11.5	3.1	16.0	3.0	6.9	7.5
2002	9.5	3.2	14.3	3.1	6.3	8.1
2003	10.9	3.4	14.6	3.1	6.0	7.8
2004	11.2	3.5	14.5	3.2	6.1	7.7
2005	11.0	3.3	14.3	3.2	6.8	7.9
2006	11.7	3.2	14.7	3.4	6.2	8.3

Source: Galal A. and Hoekman B. (2003). Arab Economic Integration: Between hope and Reality, Egyptian Center for Economic Studies, Cairo – Eurostat (2006).

Źródło: Galal A. and Hoekman B. (2003). Arab Economic Integration: Between hope and Reality, Egyptian Center for Economic Studies, Cairo – Eurostat (2006).

Table 5. EU-Libyan trade volume per capita in Euro (compared with Egypt and Algeria)
 Tabela 5. Handel pomiędzy UE a Libią per capita (w porównaniu z Egiptem i Algierią)

Year	Libya	Egypt	Algeria
1999	1,673	158	418
2000	2,818	173	723
2001	2,636	153	746
2002	2,291	145	720
2003	2,545	144	720
2004	2,465	145	715
2005	2,604	154	722
2006	2,768	161	716

Source: Eurostat (own calculation).

Źródło: Opracowanie własne na podstawie danych Eurostat.

THE BARCELONA PROCESS, THE NEIGHBORHOOD PROGRAMME AND THE EXPECTED MUTUAL ADVANTAGES OF TRADE INTEGRATION

The Barcelona Process was launched in 1995 as a means through which the EU supports Mediterranean partners in their political, economic and social reforms while at the same time building a closer EU-Mediterranean partnership. In order to tackle the challenges effectively, the EU and the partners have created a multilateral regional framework, in which a new bilateral contractual relationship (the Euro-Mediterranean Association Agreements, combined with free-trade Agreements among the Mediterranean Partners) and a dedicated assistance programme (MEDA) support each country to progress on the

way towards the Barcelona objective. The three main goals of EU Mediterranean policy are set out in the Barcelona Declaration: The creation of an area of peace and stability, the improvement of mutual understanding among the peoples of the region including the development of an active civil society and the creation of an area of shared prosperity through sustainable and balanced economic and social development, and especially the gradual establishment of free trade between the EU and its partners, and among the partners themselves, until 2010. This process should be accompanied by substantial EU financial support to help partners dealing with economic transition and the resulting social, economic and environmental challenges.

As regards trade integration, the latter goal of the Barcelona process is of particular importance, as here the explicit goal of an area of shared prosperity is spelled out.

All Mediterranean non-EU countries have joined the Barcelona process, except Libya. Only in April 1999, following the suspension of UN sanctions, Libya acquired an observer status in the Barcelona Process. The country was invited to become a full member as soon as the UN Security Council sanctions have been definitively lifted and once Libya has accepted the full Barcelona 'acquis'.

Full integration into the Barcelona process is the first step towards new relations with the EU, which include the negotiation of an Association Agreement. If it is achieved and once there are contractual arrangements with the EU, participation in European Neighborhood Programme will allow further development of the EU's relationship with Libya as for all other countries in the Barcelona process.

MODEL SPECIFICATION

Due to the importance of imports from the EU as the Libya's main tradepartner, in providing the local market by its needs of various goods, and Libya's strategy to diversify the sources of income, the goal here is to estimate Libya's trade with The EU countries, which remained the main source of Libyan imports for more than two decades.

The sensitivity of imports IEU to changes in:

- GDPG is of particular interest for its role to determine the value of imports.
- RER the exchange rate of the Libyan Dinar is an important factor, because will change capital good import value over time when the exchange rate changes.
- INF = indicates the price inflation, and any change, lead to a change in the value of imports. Consequently, we will measure the effect of those explanatory variables on the real quantity of imports from the EU (dependent variable). Thus, we assume that our model takes the following form:

$$IEU = f(\text{GDPG}, \text{RER}, \text{INF})$$

Where:

IEU is Libya's real quantity of Capital good imports.

GDPG is the growth in gross domestic economy.

RER is the real bilateral exchange rate of the Libyan Dinar against US\$.

INF is the consumer price index.

DUM is dummy variable.

STATIONARITY AND COINTEGRATION TESTS

In light of recent advances in time-series econometrics, we began the estimation process by using the time series properties of the data before proceeding to present the estimation results. The diagnostic tests include stationarity and cointegration.

In order to test for the stationarity of the variables included in the models, the Dickey-Fuller test of stationarity was applied to each variable, see Dickey-Fuller [1979, 1981]. This procedure determines the stationarity of a variable by applying the Dickey-Fuller unit root test, which reduces to testing the significance of the t statistic. The result indicates that all variables of our models are stationary at first difference.

Table 6. Stationarity Test
Tabela 6. Test diagnostyczny

Variable	At Level	First Difference
Imports from the EU (IEU)	3,120	-4,123**
Growth in GDP (GGDP)	0,764	-6,819**
Real Exchange Rate (REX)	-2,542	-3,421*
Level of Inflation (INF)	-2,413	-4,773**

** Significant at 1% level.

* Significant at 5% level.

Source: Authors' calculations.

Źródło: Obliczenia własne.

Having established the stationarity of the series, we can proceed to check for cointegration among the variables. Thereby, Johansen cointegration test was applied to the model to be estimated. In order to determine if there is a linear combination between variables or not after removing unit roots, and attempts to compare the size of estimated Likelihood Ratio (LR), by calculating its critical value at 5% and 1%.

Table 7. Johansen cointegration test for imports from the EU (1970–2006)
Tabela 7. Test kointegracji Johansena dla importu z UE (1970–2006)

Eigenvalu	Likelihood Ratio (LR)	5% Critical Value	1% Critical Value	Hypothetical number of CEs
0.521213	61.207	48.21	53.46	None**
0.492145	36.516	31.68	34.65	At most 1**
0.367211	14.372	16.41	21.04	At most 2
0.004276	0.0013	3.86	6.55	At most 3

LR tests indicate 2 cointegrating equations at both 5%, and 1% levels.

Source: Authors' calculations.

Źródło: Obliczenia własne.

GRANGER CAUSALITY TEST

Traditionally, to test for a causal relationship between two variables, the standard Granger [1969] test has been employed in the relevant literature. This test states that, if past values of a variable Y significantly contribute to forecasting the value of another variable X_{t+1} then Y is said to Granger cause X and vice versa.

Table 8. Granger Causality Test
Tabela 8. Test przyczynowości Grangera

Regression	F-Value	Probability	Result
LIEU = F(LGGDP)	8.213	0.0042	IEU causes GDPG
LGDPG = F(LIEU)	4.124	0.0941	GDPG Causes IEU

Source: Authors' calculations.

Źródło: Obliczenia własne.

Regarding the results of the Granger causality test between LIEU and growth of income GDP, the results of the F test indicate that the direction is from LIEU to GDPG and vice versa, meaning that any changes in the size of imports from the EU lead to changes in GDP growth. This also means that imports play an important role in developing non oil sector. The results also show that GDP growth affects the size and value of imports from the EU.

DUMMY VARIABLE

The dummy variable was inserted in the model to distinguish between three different treatment groups, the first covering the period 1970–1991 by a zero value, and by value one from 1992–1999, and zero value for the period 2000–2006.

ECONOMETRIC ESTIMATION

As discussed earlier, the econometric estimation of import functions is based here on estimating the equations over the entire period 1970–2006, testing whether there have been any significant changes in the Libyan imports from the EU and the role of imports in the development of the Libyan economy partners since 1970. The aim behind running this estimation is to examine the import demand function including an error correction term to model the long run response of imports and their determinants. The long-run equation is inserted in the equation as a residual vector (Res) derived from the error correction mechanism through applying cointegration

MODEL STRUCTURE

The estimated model of imported intermediate inputs in Libya as the following:

$$LIEU = \alpha_0 + \alpha_1 LGDPG + \alpha_2 LRER + \alpha_3 LINF + \alpha_4 DUM$$

All variables are in log in except of DUM and the results of our estimated model presented as shown in table 9.

Table 9. Results of OLS estimation, (1970–2006)

Tabela 9. Wyniki estymacji metodą najmniejszych kwadratów (1970–2006)

Independent Variables	Coefficient(t-ratio)
Constant	3.70 (4.98)***
LGDPG	2.310 (3.45)***
LRER	1.103 (2.258)**
LCPI	0.368 (-1.771)**
DUM	0.789 (-0.959)*
R2-adjusted	0.86
S.E of regression	0.296
DW	1.83

Source: Authors' calculations.

Źródło: Obliczenia własne.

As evidenced by the above equation, with the exception of price elasticity and the dummy variable, the estimation results in the above equation indicate that LGDPG has a positive impact on the imports from the EU. This variable can also reflect the dynamism of the Libyan economy; also it reflects that any growth in the GDP leads to increase imports from the EU in terms of imports and exports. In addition, the income elasticity of imports, gives a clear indication of the importance and significance of GDP growth in the determination of trade with the EU. The estimation results indicate that income and exchange rate are significant in Libya's imports. The high F value confirms that our model provides a good fit.

On the other hand, the estimated coefficient of the exchange rate is shown to be large but insignificant with positive sign. This is due to the fact that Libya's exchange rate has remained rather stable against the US\$. Moreover, the estimated price elasticity of import demand is unexpectedly small and insignificant. This may be due to government policy, subsidising prices of most imported goods.

The estimated value of the coefficient of the dummy variable is small and insignificant. This implies that there has been no large effect of the UN sanctions on Libya's imports, which may be a result of Libya's high dependence on foreign market, the lack of domestic inputs produced locally and the high growth of local demand for different goods. The overall goodness of fit of the estimated import function is shown by the estimated R2-adjusted.

As motioned above one of the main objectives is to see to what extent imports from the EU have made any significant changes in the structural of the domestic economy, the estimated model suggest that although the contribution of non oil sector increased in particular for industrial sector from 1.7% in 1970 to 11.7 per cent in 2006 and the share of agricultural sector rose from 2.6% in 1970 to 8.9 percent in 2006, the share of oil sector in total GDP decreased from 63% in 1970 to 32% in 2006. It also may attribute to fluctuations of oil prices that decreased the share of oil sector in GDP.

CONCLUSIONS

In this paper econometric estimation of Libya's imports from the EU as the main partner for Libya's foreign trade has been performed. To improve the degree of accuracy of the estimated results, the unit root test was conducted. The cointegration approach was followed in order to determine the number of cointegrating equations. The estimation procedure was based on long-run equilibrium of Libya's import function from the EU countries. The estimated model was meaningful and statistically significant, and the most prominent factor in determining imports appears to be GDPG. Whereas, the next most important factor determining imports was found to be the real exchange rate, which effectively reduces the costs of imported goods.

The findings have shown that the perspective of free trade will however strongly enhance the pressure to pursue courageous domestic reforms in Libya in terms of a market-oriented re-allocation of the huge capital resources. Since the Libyan human resource capacities are still too small to absorb the capital economically in building up a modern and diversified economy, a far-reaching re-structuring and privatisation as well as enhanced economic co-operation in terms of FDI and business co-operation needs to be boosted very soon. An overall improvement of economic co-operation in terms of clear, fair and reliable mutual agreements, market-oriented reforms, legal security and a further encouragement of EU originated FDI in Libya will probably contribute to diversification and productivity improvements in Libya by incentive and further positive external effects. Surplus export earnings (from oil) ought to be invested abroad (notably the EU) in sectors, where important knowledge spillovers for Libya (technology transfer) can be reaped.

Due to the less advantageous starting conditions compared to North African countries, which their economies are more competitive in international trade, it is likely that the efforts of Libya need to be much more courageous. For Libya's pursuit of economic development, a free trade agreement supporting further economic cooperation through the Euro-Mediterranean Process and suggest the need for trade agreement with the EU.

REFERENCES

- Al Dakhil K. and Al Yousef N., 2002. Aggregate Import Demand Function for Saudi Arabia: An Error Correction Approach, King Saudi University, Riyadh. *Journal of Economic & Administrative Sciences*, 18, 83–100.
- Central Bank of Libya, annual reports, 1995–2007, various issues, Tripoli, Libya.
- Derwish B.M., 1997. An analysis of investment Motivations, Strategic Posture, and Performance of Libyan companies Aboard, Ph.D. thesis, University of Bradford.
- Dickey D.A. and Fuller W.A., 1981. Likelihood Ratio Statistics of Autoregressive Time Series With a Unit Root, *Econometrica*, Vol. 49, 1057–1072.
- Dickey D.A. and Fuller W.A., 1979. Distribution of the Estimators for Autoregressive Time Series With Unit Root, *Journal of American Statistical Association*, Vol. 74, 427–431.
- Dolado J.J., Gonzalo J. and Marmol F., 1999. Cointegration. Department of Economic, Statistics and Econometrics, University Carlos III de Madrid, Spain.
- Doroodian K., Koshal R. and AL-Muhanna S., 1994. An Examination of the traditional Aggregate Import demand function for Saudi Arabia, *Applied Economics*, Vol. 26, Number 9 (September), 909–915.

- Dutta D. and Nasiruddin A., 1986. An aggregate import demand function for Bangladesh: A cointegration Approach. Department of Economics, University of Sydney, Australia.
- Engle R.F and Granger C.W.J., 1987. Cointegration and Error correction: Representation, Estimation, and Testing, *Econometrica*, March, 251–276.
- Eurostat 2006: External and Intra-European Union Trade – Statistical Yearbook, Luxembourg.
- Folayan K., 1979. Tripoli During the Reign of Yousef Pasha Gramanli, University of Ife Press, Ife, Nigeria.
- Levine R., and Renelt D., 1992. A sensitivity analysis of cross-country growth regression, *American Economic Review*, 942–963.
- Manning L.M. and Andrianos D., 1993. Dollar Movements and Inflation, A cointegration analysis, *Applied Economics*, 25, 1483–1488.
- Authorization of Information and Documentation, Trends of Libya's Foreign Trade Tripoli-Libya, 2006.
- Oskooee M. and Brooks J., Taggart, 1999. Cointegration Approach to estimate bilateral trade Elasticities between U.S and her trading partners. *International Economic Journal*, Vol. 13, Number 4.
- Shaltout H.M., 1987. An Economic Model of UAE imports, 1972–1985, *The administration and Political Science Review*, Special Issue (November), Number 4, 17–39.
- United Nations Industrial Organization (UNIDO), 2002. Enabling developing countries to participate in international trade, strengthening the supply capacity, AUNIDO strategy for capacity building.
- Wilkinson B., 2002. Establishing a Presence, in Marat Terterov and Jonathan Wallace, doing business with Libya, 57.

ZNACZENIE HANDLU Z UE W ROZWOJU LIBIJSKIEJ GOSPODARKI

Streszczenie. Opracowanie zawiera analizę libijskiego handlu zagranicznego w latach 1970–2006, ze szczególnym uwzględnieniem handlu z krajami Unii Europejskiej. W artykule przedstawiono proces zmian libijskiego importu z krajów UE z uwzględnieniem poziomu dochodów realnych, indeksu wzrostu cen towarów i usług konsumpcyjnych oraz kursu wymiany libijskiego dinara. Celem opracowania jest ocena zagregowanego libijskiego popytu na import z UE w przyjętym okresie przy wykorzystaniu standardowych technik ekonometrycznych uzupełnionych przez odpowiednie testy diagnostyczne oparte na szeroko obecnie wykorzystywanych technikach dynamicznego modelowania i kointegracji. Wyniki analiz sugerują większą współpracę ekonomiczną poprzez kontakty dwustronne, poprawę środowiska inwestycyjnego w Libii, wspieranie przeszłej współpracy w ramach Procesu Morza Śródziemnego oraz wskazują potrzebę porozumień handlowych z UE.

Słowa kluczowe: handel, rozwój ekonomiczny, ekonometria, UE, Libia

Zaakceptowano do druku – Accepted for print 02.02.2010