

RESEARCH ARTICLE

TRADE DIMENSIONS BETWEEN MALAYSIA AND THE G7 COUNTRIES: AN EXPLORATORY STUDY

Prankrishna Debnath

*Assistant Professor, Department of Physics, Netaji Subhash Mahavidyalaya, Udaipur, Tripura, India
Email: prankrishna.dn@gmail.com*

Sukanta Sarkar

*Visiting Faculty, Faculty of Arts and Social Science, Mata Tripura Sundari Open University, Udaipur, Tripura, India
Email: sarkarsukantaeconomics26@gmail.com*

ABSTRACT

This paper discusses the trade dimensions between Malaysia and the G7 countries. It was found that Malaysia had a trade surplus with the United States (USA), the United Kingdom (UK), and Japan from 2015 to 2024. However, a trade deficit with Italy and France (except 2022) was found during the same period. Malaysia had a trade deficit with Canada during 2022–23, and with Germany during 2015–16 and 2023–24, but a trade surplus during the other periods. The USA and Japan are the largest trade partners of Malaysia among the G7. Malaysia has more intense trade with Japan and the USA, and lower trade with Italy and France. Malaysia has a higher Trade Complementarity Index with the USA and Japan, and a lower one with Canada. The Herfindahl–Hirschman Index of Malaysia is low compared to the G7 countries. This study presents a novel approach of using regression analysis to integrate several key trade dimensions between a developing and developed nations.

Keywords: *Business; Commodities; Export; Import; Services; Trade balance.*

1. Introduction

Malaysia is a well-known country in Southeast Asia and a top producer of computer chips and palm oil. China is Malaysia's largest trade partner, followed by the United States and India. Malaysia's trade surplus has been larger as exports continue to climb while imports have declined. Malaysia plays a major global role in exporting palm oil and its associated products, and its manufacturing sector is increasingly diverse. It has strong trade relations with China and the USA, although the relationship with the USA is more uncertain due to recent reciprocal tariffs.

Raw materials such as rubber and palm oil play a vital role in the economy of Malaysia, but the situation has changed recently, with manufacturing and exports now driving the economy. Foreign investment has increased due to the country's stable political environment, skilled workforce, and improved infrastructure. Malaysia's strategic location in Southeast Asia makes it a natural crossroads for trade, with major ports and strong transport and logistics facilities. Trade deals with groups like EFTA and new agreements with the USA open the prospect of expanded trade and diversified products and services for consumers.

The G7 is a group of seven major highly developed economies: Germany, Canada, France, Italy, the USA, the UK, and Japan. The EU also attends G7 summits, though it is not considered a full member. The group was created in the 1970s to help countries deal with crises like oil shortages and unstable currencies. It is an informal forum of executive powers with no formal charter or standing secretariat. In 1997, Russia joined and the G7 became the G8; in 2014, Russia was removed after its annexation of Crimea, and the group reverted to the G7.

2. Literature Review

Jusoh (2010) reported that the Japan–Malaysia Economic Partnership Agreement is a significant move for both countries in terms of trade and investment growth. Maroufkhani and Dargiri (2012) examined five global change drivers—leaders, governance, people, planet, and profits/productivity—and correlated them with recent trends in Malaysia's economic growth, concluding that more advanced policies are needed to speed the transition to a higher level of development. Olaniyi et al. (2013) investigated the history of agricultural land use in Malaysia, noting that industrialisation and urbanisation changed food consumption patterns and agricultural land use.

Yaw (2017) identified that Malaysia will face challenges in international business as the world becomes more globalised, with economic, socio-cultural, and technological factors determining performance in the global market. Sulaiman and Rambeli (2018) found that trade influences economic growth in both the short and long run, and that exports, imports, and currency rates should be considered in policy. Gerstl (2020) noted that Malaysia has the chance to benefit from China's pivotal global position. Chen et al. (2021) examined Malaysia's plastic waste production and management, noting that Malaysia is the world's biggest plastic waste importer.

Behera and Rath (2023) revealed that the COVID-19 pandemic disrupted Malaysia's production and export, highlighting the government's role in taming inflation and promoting exports. Huda and Ramle (2025) studied Japan–Malaysia economic relations, connecting changes in Japan's Official Development Assistance with Malaysia's Look East Policy. Murad et al. (2025) found that Malaysia's economic growth is positively but weakly influenced by imports from Japan and the development assistance it receives. Overall, the literature concludes that Malaysia has close ties with the G7, with the US and Japan the major importers and exporters of Malaysian goods.

3. Research Objectives

The primary objective is to explore Malaysia's trade relations with the G7 countries. The specific objectives are:

1. To examine the status of trade relations between Malaysia and the G7 countries.
2. To study the Trade Intensity Index, Trade Complementarity Index, Export Diversification Index, and Logistics Performance Index between Malaysia and the G7 countries.
3. To study the relationship between net exports and the gross domestic product of Malaysia.
4. To identify the prospects and challenges of trade between Malaysia and the G7 countries.

4. Research Hypotheses

H01: There is a relationship between net exports and the gross domestic product of Malaysia.

H1a: There is no relationship between net exports and the gross domestic product of Malaysia.

5. Methodology

Study area. Malaysia is a federation of thirteen states and three federal territories in Southeast Asia, separated by the South China Sea into Peninsular Malaysia and the eastern territory on Borneo. Islam is the official religion and Malay the official language, with English as a widely used second language and many

indigenous languages. Malaysia's economy is highly developed—a middle-income, industrially driven, and diverse economy that has made impressive strides toward eliminating extreme poverty.

Design and approach. The study is based on secondary data, using both qualitative and quantitative approaches. Data were collected from TradingEconomics.com, the World Integrated Trade Solution (WITS), and research articles.

Method of analysis. The research employed descriptive analysis, analytical content analysis, and textual analysis. The Trade Intensity Index, Trade Complementarity Index, Herfindahl–Hirschman Index, Logistics Performance Index, and Global Peace Index were used to explore the trade between Malaysia and the G7. A basic regression model was implemented, with gross domestic product as the dependent variable and net exports as the independent variable.

6. Results and Discussion

Malaysia continues to have a substantial trade relationship with the G7 countries. Japan and the US are not only the main partners but also the biggest investors; Malaysia also trades with the UK, Canada, France, Germany, and Italy. The primary areas of trade are the energy, technology, and electronics sectors. The USA, one of Malaysia's largest trading partners, mostly does business in technology, gas, and oil, and is a major foreign investor in the technology and oil-and-gas industries.

Table 1. Malaysia's Export Revenue from G7 Countries (Billion USD)

Year	USA	UK	Canada	Italy	Germany	Japan	France
2015	18.9	2.39	0.782	0.933	5.04	18.9	1.50
2016	19.4	2.11	0.704	0.965	5.37	15.3	1.42
2017	20.7	2.27	0.821	1.07	6.21	17.6	1.38
2018	22.5	2.14	0.879	1.44	6.98	17.1	1.58
2019	23.3	2.20	0.853	1.22	6.28	15.9	1.52
2020	26.0	2.38	0.946	1.30	5.87	14.9	1.24
2021	34.4	2.36	1.53	1.72	6.87	18.3	1.39
2022	38.0	2.11	1.11	1.91	6.83	22.4	2.57
2023	35.5	1.93	0.915	1.38	6.78	18.8	1.47
2024	43.4	1.88	1.42	1.47	7.05	18.1	1.37

Source: <https://tradingeconomics.com/> · Figures in billion USD.

The US is the main market for Malaysian products, followed by Japan; Canada's and Italy's revenues are the lowest. Malaysia's export revenue to the USA was \$18.9 billion in 2015, \$38.0 billion in 2022, and \$43.4 billion in 2024. Export revenue from Japan was \$18.9 billion in 2015 and \$18.1 billion in 2024. A new US–Malaysia trade deal aims to align the markets around technology and security, withdrawing tariffs on certain goods and setting up channels for future agreements; Malaysia will lift restrictions on rare-earth shipments to the US.

Table 2. Malaysia's Import Cost from G7 Countries (Billion USD)

Year	USA	UK	Canada	Italy	Germany	Japan	France
2015	14.2	1.83	0.693	1.33	6.01	13.8	2.21
2016	13.4	1.58	0.667	1.39	5.73	13.7	2.29
2017	15.2	1.59	0.707	1.68	6.12	14.8	2.96

Year	USA	UK	Canada	Italy	Germany	Japan	France
2018	16.1	1.73	0.810	1.65	6.53	15.7	4.12
2019	16.6	1.77	0.808	1.70	6.46	15.4	2.62
2020	16.6	1.60	0.723	1.59	5.53	14.6	1.49
2021	18.1	1.78	0.860	1.85	6.15	17.8	1.68
2022	22.8	1.88	1.24	2.26	6.79	18.9	2.20
2023	19.5	1.87	0.927	1.76	7.21	15.6	2.32
2024	27.6	1.79	1.05	1.72	7.06	15.3	2.15

Source: <https://tradingeconomics.com/> · Figures in billion USD.

Malaysia imports the highest value of products from the US, followed by Japan and Germany, and the lowest from Canada, the UK, and Italy. Import cost from the USA was \$14.2 billion in 2015 and \$27.6 billion in 2024. Malaysia has strong upward-trending trade with Italy (electronics, machinery, food) and a robust relationship with Germany, its largest EU trading partner. The Japan–Malaysia comprehensive strategic partnership covers energy transition and digital transformation, and France's ties are being deepened through diplomatic and commercial engagement.

Table 3. Trade Gap (Surplus / Deficit) between Malaysia and G7 Countries (Billion USD)

Year	USA	UK	Canada	Italy	Germany	Japan	France
2015	+4.7	+0.56	+0.089	-0.397	-0.97	+5.1	-0.71
2016	+6.0	+0.53	+0.037	-0.425	-0.36	+1.6	-0.87
2017	+5.5	+0.68	+0.114	-0.610	+0.09	+2.8	-1.58
2018	+6.4	+0.41	+0.069	-0.210	+0.45	+1.4	-2.54
2019	+6.7	+0.43	+0.045	-0.480	-0.18	+0.5	-1.10
2020	+9.4	+0.78	+0.223	-0.290	+0.34	+0.3	-0.25
2021	+16.3	+0.58	+0.670	-0.130	+0.72	+0.5	-0.29
2022	+15.2	+0.23	-0.130	-0.350	+0.04	+3.5	+0.37
2023	+16.0	+0.06	-0.012	-0.380	-0.43	+3.2	-0.85
2024	+15.8	+0.09	+0.370	-0.250	-0.01	+2.8	-0.73

Source: <https://tradingeconomics.com/> · Trade (surplus/deficit) = Export – Import; figures in billion USD.

Malaysia has a trade surplus with the USA, the UK, and Japan throughout 2015–2024, and a trade deficit with Italy and France (except 2022). It has a deficit with Canada during 2022–23 and with Germany during 2015–16 and 2023–24, with surpluses in other periods. The surplus with the USA was \$4.7 billion in 2015 and \$15.8 billion in 2024.

6.1 Trade Intensity, Complementarity, Diversification, Logistics, and Peace Indices

Table 4. Trade Intensity Index of Malaysia and G7 Countries

Country	2017	2018	2019	2020	2021	2022	2023	2024
Malaysia–USA	106.12	88.33	90.15	99.45	103.15	89.07	84.68	86.27
Malaysia–UK	24.92	20.55	19.23	20.70	24.30	30.25	27.79	24.49
Malaysia–Canada	33.22	28.77	26.39	29.63	32.26	29.53	26.21	27.14
Malaysia–Italy	16.96	14.92	15.50	16.30	17.32	15.34	14.13	13.43
Malaysia–Germany	58.77	47.24	44.03	43.20	43.44	44.04	47.92	44.25
Malaysia–Japan	192.14	145.33	136.70	132.27	133.58	153.33	143.13	137.97
Malaysia–France	26.20	24.30	23.16	17.13	19.14	20.90	16.93	21.83

Source: Calculated by author from the World Integrated Trade Solution (WITS). Malaysia is the reporting country.

A Trade Intensity Index value above one implies more intense trade than the global average. Malaysia's exports are more intense with Japan and the USA than with the other countries, and less intense with Italy and France.

Table 5. Trade Complementarity Index of Malaysia and G7 Countries

Country	2017	2018	2019	2020	2021	2022	2023	2024
Malaysia–USA	51.62	53.65	53.24	51.87	73.02	74.66	71.61	72.00
Malaysia–UK	46.64	50.49	47.72	45.80	50.12	56.29	51.15	49.83
Malaysia–Canada	47.33	50.10	48.87	47.19	47.19	49.45	48.46	49.44
Malaysia–Italy	49.73	52.57	53.37	50.52	51.40	56.98	55.23	52.35
Malaysia–Germany	50.74	53.11	52.48	51.32	53.31	59.76	57.10	57.46
Malaysia–Japan	57.76	59.10	58.35	58.22	59.65	63.48	62.03	61.32
Malaysia–France	47.55	49.36	48.71	47.27	49.47	55.52	50.77	51.78

Source: Calculated by author from WITS. Malaysia is the reporting country.

The Trade Complementarity Index (0–100) measures how well one country's exports match another's imports. Malaysia has a higher index with the USA and Japan—its export profile partially matches their import profiles—and a relatively lower index with Canada.

Table 6. Export Diversification (Herfindahl–Hirschman) Index of Malaysia and G7 Countries

Country	2017	2018	2019	2020	2021	2022	2023	2024
Malaysia–USA	0.1069	0.1212	0.1202	0.1022	0.1039	0.0516	0.0401	0.0440
Malaysia–UK	0.0227	0.0243	0.0219	0.0328	0.0448	0.0277	0.0257	0.0242
Malaysia–Canada	0.0353	0.0275	0.0286	0.0410	0.0628	0.0287	0.0230	0.0221
Malaysia–Italy	0.0446	0.0383	0.0468	0.0584	0.0676	0.0606	0.0958	0.0526
Malaysia–Germany	0.0398	0.0382	0.0405	0.0345	0.0375	0.0373	0.0431	0.0420
Malaysia–Japan	0.1069	0.0922	0.0726	0.0697	0.0706	0.1473	0.1403	0.1135
Malaysia–France	0.0594	0.0612	0.0473	0.0563	0.0692	0.0747	0.0488	0.0211

Source: Calculated by author from WITS. Malaysia is the reporting country.

Values closer to zero signify a more diversified export basket. Malaysia's Herfindahl–Hirschman Index is low with the G7 countries, indicating that Malaysia exports a diversified range of products to them.

Table 7. Logistics Performance Index of Malaysia and G7 Countries

Country	Rank	Score	Country	Rank	Score
Malaysia	26	3.6	Italy	19	3.7
USA	17	3.8	Germany	3	4.1
UK	19	3.7	Japan	13	3.9
Canada	7	4.0	France	13	3.9

Source: World Bank Logistics Performance Index 2023.

The Logistics Performance Index benchmarks trade logistics across 139 countries. Malaysia (rank 26) is slightly behind the G7 (ranks 3–19), indicating somewhat lower transport and logistics facilities, but its overall performance is better than that of most developing countries.

Table 8. Global Peace Index of Malaysia and G7 Countries, 2025

Country	Rank	Score	Country	Rank	Score
Malaysia	13	1.469	Italy	33	1.662
USA	128	2.443	Germany	20	1.533
UK	30	1.634	Japan	12	1.440
Canada	14	1.491	France	74	1.967

Source: Global Peace Index 2025, Vision of Humanity.

Malaysia's rank in the Global Peace Index is higher than that of the USA, UK, Canada, Italy, Germany, and France. France and the USA are in less favourable positions due to political and economic disturbances. Peace supports increased production and trade.

6.2 Relationship between Net Exports and GDP

Table 9. Year-wise GDP and Net Exports of Malaysia (Billion USD)

Year	GDP	Net Export	Year	GDP	Net Export
2013	323.28	11.41	2019	365.18	35.18
2014	337.80	40.65	2020	337.46	43.65
2015	301.36	24.04	2021	373.85	60.96
2016	301.26	21.14	2022	407.61	58.24
2017	319.11	23.00	2023	399.71	59.22
2018	358.79	26.81	2024	421.97	29.94

Source: Calculated by author from WITS. Figures in billion USD.

The regression model is $Y = \beta_1 + \beta_2 X$, where Y is gross domestic product (dependent) and X is net exports (independent).

Table 9(a). Summary Output — Regression Statistics

Regression Statistic	Value
Multiple R	0.61007569
R Square	0.372192347
Adjusted R Square	0.302435941
Standard Error	34.7877366
Observations	11

Source: Calculated by author.

Table 9(b). ANOVA Analysis

	df	SS	MS	F	Significance F
Regression	1	6457.072892	6457.072892	5.33560097	0.046244676
Residual	9	10891.67956	1210.186618		
Total	10	17348.75245			

Source: Calculated by author.

Table 9(c). Regression Coefficients

	Coefficients	Standard Error	t Stat	P-value
Intercept	292.6940591	29.64297181	9.873978255	3.97622E-06
Net export	1.666072299	0.721277147	2.309891982	0.046244676

Source: Calculated by author.

Table 9(a) shows an R^2 of 0.372, indicating the degree of relationship between GDP and net exports. Table 9(b) shows a p-value (0.046) below the 5% level of significance, so the null hypothesis (H1a, of no relationship) is rejected. It is therefore established that net exports and gross domestic product are related in Malaysia.

7. Trade Opportunities and Constraints

Malaysia offers excellent trade and investment opportunities with the G7 in electrical and electronics, semiconductors, medical devices, and renewable energy, supported by numerous investments and free trade agreements. The US was Malaysia's third-largest trading partner in 2024, and Japan is a significant market for Malaysian exports. More than 90% of medical devices made in Malaysia are exported, and G7 automakers such as Ford, General Motors, and Mercedes use parts produced by Malaysia's automotive industry. Because of its solid infrastructure, skilled workforce, and business-friendly laws—and its membership in ASEAN and global agreements such as the CPTPP—Malaysia is a reliable and attractive partner and a smart base for G7 companies expanding into Asia.

The main trade conflicts with the G7 arise from strained political relations, US tariffs, and regulations on environmental protection and labour conditions, which slow planning and negatively affect Malaysian exports (especially electronics, palm oil, and rubber). The US–China trade war further complicates Malaysia's balancing act. Malaysia faces closer scrutiny and possible limitations on key exports such as palm oil due to G7 ecological regulations, and some G7 countries have raised concerns about labour treatment. Malaysia is responding by diversifying its trade partners, deepening intra-ASEAN trade, and using agreements to consolidate its position.

8. Conclusion

Malaysia has a trade surplus with the USA, the UK, and Japan from 2015 to 2024, and a trade deficit with Italy and France (except 2022). It has a deficit with Canada during 2022–23 and with Germany during 2015–16 and 2023–24, but a surplus in other periods. The USA and Japan are the largest trade partners among the G7. The Trade Intensity Index shows more intense trade with Japan and the USA and lower trade with Italy and France; the Trade Complementarity Index is higher with the USA and Japan and lower with Canada. The Herfindahl–Hirschman Index is low with the G7, indicating a diversified export basket. The Logistics Performance Index rankings are favourable, aiding trade logistics. A statistically significant relationship exists between net exports and GDP in Malaysia.

The Malaysia–G7 trade relationship has existed for a long time and expanded across many areas. Malaysia is a major supplier of high-tech electronics and natural resources, while the G7 are key markets and sources of advanced machinery and investment. Within the EU, Germany is Malaysia's biggest trading partner. Cooperation is progressing into new fields such as the digital economy, clean energy technologies, artificial intelligence, and critical minerals. The major trade disputes stem from protectionist policies and US tariffs, alongside supply-chain vulnerabilities and non-tariff barriers. As an export-dependent economy, Malaysia remains vulnerable to slower global growth and weaker demand in the G7.

References

- Behera, C., & Rath, C. (2023). Trade openness, COVID-19 shock, foreign direct investment, inflation, and output volatility in six ASEAN member states. *ERIA Discussion Paper Series*, 503, 1.



- Chen, H., Nath, T., Chong, S., Foo, V., Gibbins, & Lechner, A. (2021). The plastic waste problem in Malaysia: Management, recycling and disposal of local and global plastic waste. *SN Applied Sciences*, 3, 437. <https://doi.org/10.1007/s42452-021-04234-y>
- Gerstl, A. (2020). Malaysia's hedging strategy towards China under Mahathir Mohamad (2018–2020). *Journal of Current Chinese Affairs*, 49(1), 106. <https://doi.org/10.1177/1868102620964220>
- Huda, M., & Ramle, A. (2025). Japan–Malaysia economic relations: Official Development Assistance, Look East Policy and opportunities. *Business and Economic Research*, 15(2), 23. <https://doi.org/10.5296/ber.v15i2.22617>
- Jusoh, S. (2010). The benefit of free trade agreement on inter-firm trade: The case of the Japan–Malaysia Economic Partnership Agreement. *ATDF Journal*, 5(3), 20.
- Maroufkhani, P., & Dargiri, N. (2012). Global changes of Malaysia toward a new economic model: Review and update. *IOSR Journal of Humanities and Social Science*, 6(1), 39.
- Murad, A., Azam, A., & Zainuddin, M. (2025). Malaysia's economic growth: Evidence from Japan–Malaysia bilateral trade and development aid relationships. *International Journal of Economics and Financial Issues*, 15(2), 260. <https://doi.org/10.32479/ijefi.16872>
- Olaniyi, A., Abdullah, A., Ramli, M., & Sood, A. (2013). Agricultural land use in Malaysia: An historical overview and implications for food security. *Bulgarian Journal of Agricultural Science*, 19(1), 60.
- Sulaiman, N., & Rambeli, N. (2018). Effect of international trade on economic growth in Malaysia. *International Journal of Academic Research in Business and Social Sciences*, 8(12), 2279. <https://doi.org/10.6007/IJARBS/v8-i12/5438>
- Yaw, W. K. (2017). Study of Malaysia's challenges in the Asian international business environment. *JRDO-Journal of Business Management*, 3(3), 93.