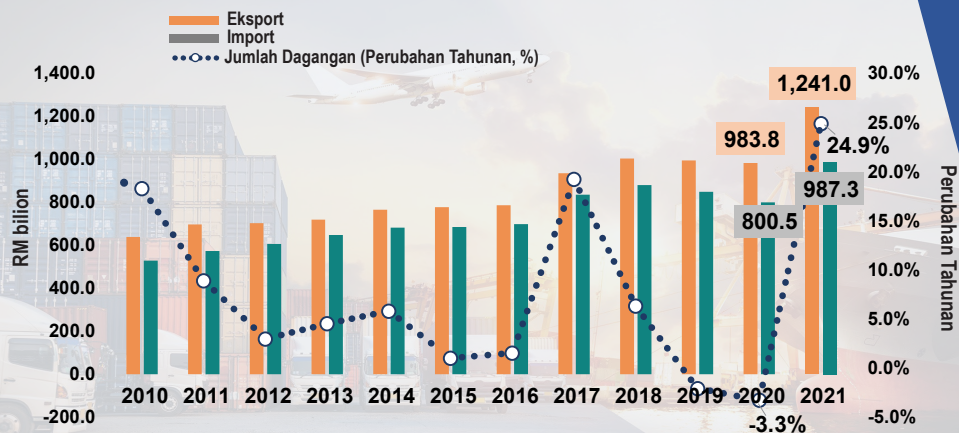


PERANGKAAAN PERDAGANGAN LUAR NEGERI MALAYSIA 2021

Eksport & Import Malaysia
memulih untuk mencatatkan
nilai tertinggi pada 2021,
jumlah dagangan mencecah
RM2 trilion buat pertama kali



EKSPORT PRODUK UTAMA

Produk E&E
Sumbangan **36.7%**
RM456.0 bil.
▲ 18.0%

Minyak Kelapa Sawit & Hasil Keluaran Berasaskan Minyak Kelapa Sawit
Sumbangan **8.7%**
RM108.5 bil.
▲ 48.0%

Keluaran Petroleum Bertapis
Sumbangan **6.9%**
RM86.2 bil.
▲ 60.4%

IMPORT MENGIKUT PENGGUNAAN AKHIR & BEC

Barangan Perantaraan
Sumbangan **55.3%**
RM545.8 bil.
▲ 27.2%

Barangan Modal
Sumbangan **10.5%**
RM103.8 bil.
▲ 14.4%

Barangan Penggunaan
Sumbangan **8.5%**
RM83.9 bil.
▲ 13.2%

RAKAN DAGANGAN UTAMA

Sumbangan
25.9%



RM343.5 bil. ▲ 25.8%
RM232.7 bil. ▲ 33.1%

1 Sumbangan
18.9%



RM192.5 bil. ▲ 20.9%
RM229.0 bil. ▲ 33.0%

2 Sumbangan
12.0%



RM174.0 bil. ▲ 22.4%
RM93.6 bil. ▲ 27.1%

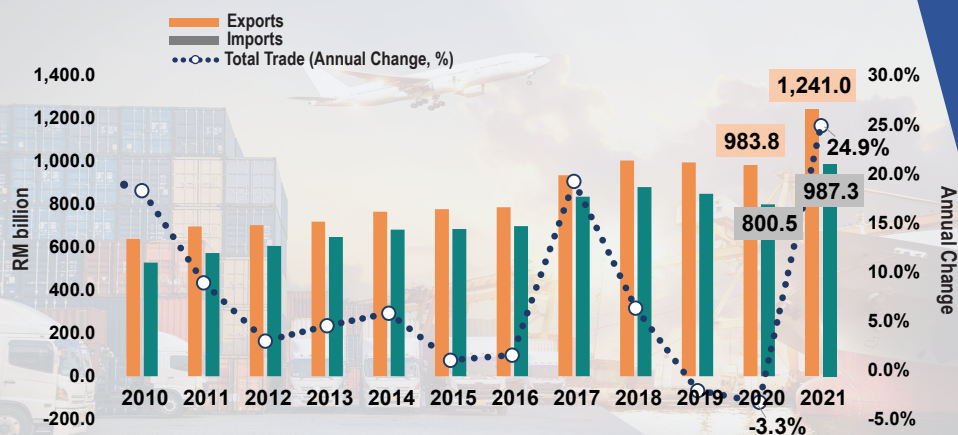
3 Sumbangan
9.7%



RM142.2 bil. ▲ 30.4%
RM74.7 bil. ▲ 7.2%

MALAYSIA EXTERNAL TRADE STATISTICS 2021

Malaysia's exports and imports rebounded and to reach a new high in 2021, total trade exceeded RM2 trillion for the very first time

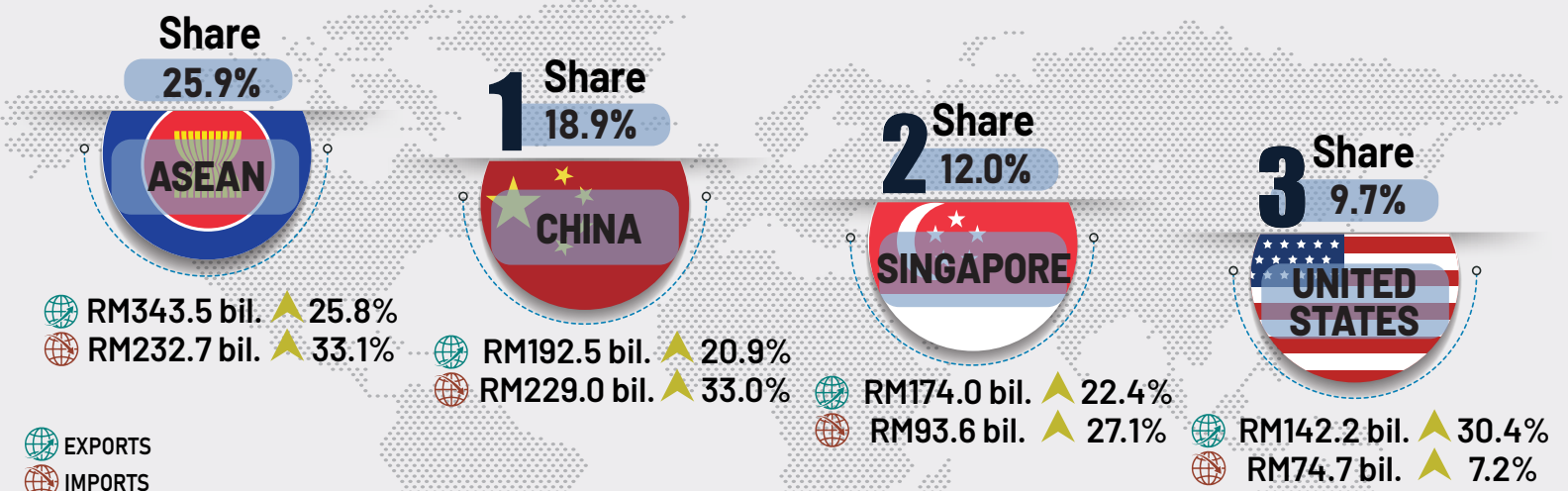


EXPORTS OF MAJOR PRODUCTS

IMPORTS BY END USE & BEC



MAJOR TRADING PARTNERS



Note: All changes are based on year-on-year comparison

Source: Final External Trade Statistics, 2021, Department of Statistics Malaysia (DOSM)

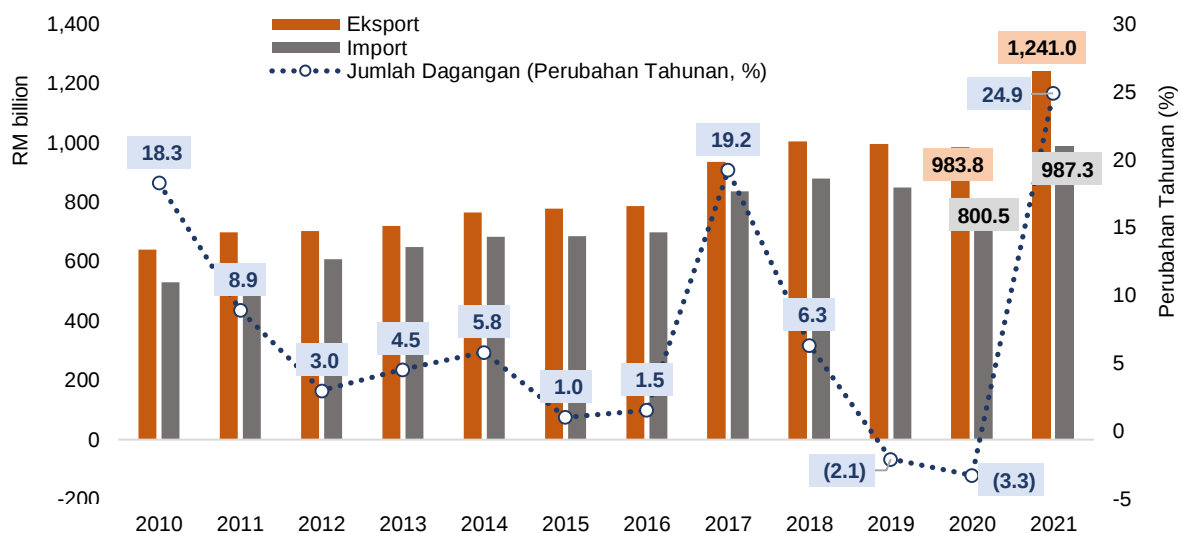
PERANGKAAAN PERDAGANGAN LUAR NEGERI MALAYSIA, 2021

“Prestasi Perdagangan Malaysia pada 2021 berkembang didorong oleh pemulihan aktiviti ekonomi di peringkat global dan juga domestik”

Disokong pemulihan perdagangan global, harga minyak kelapa sawit mentah dan harga minyak, jumlah perdagangan Malaysia kembali mencatatkan pertumbuhan 24.9 peratus pada 2021, daripada RM1.8 trilion pada tahun sebelumnya kepada RM2.2 trilion. Selaras dengan prestasi perdagangan, eksport dan import juga bertambah baik dengan pertumbuhan dua angka. Eksport meningkat 26.1 peratus, tahun ke tahun untuk mencapai nilai tertinggi baharu RM1.2 trilion, manakala import dengan nilai

RM987.3 bilion, lebih tinggi 23.3 peratus berbanding 2020. Pertumbuhan ini melepasi unjuran rasmi pertumbuhan eksport dan import, masing-masing 17.1 peratus dan 16.5 peratus sebagai mana dilaporkan dalam Tinjauan Ekonomi 2022. Lebihan dagangan Malaysia meningkat 38.4 peratus daripada RM183.3 bilion pada tahun sebelumnya kepada RM253.7 bilion, merupakan lebihan dagangan tertinggi pernah direkodkan. Ini adalah lebihan dagangan yang ke-24 tahun berturut-turut sejak 1998.”

Carta 1: Eksport, Import dan Jumlah Perdagangan, RM bilion dan Perubahan Tahunan

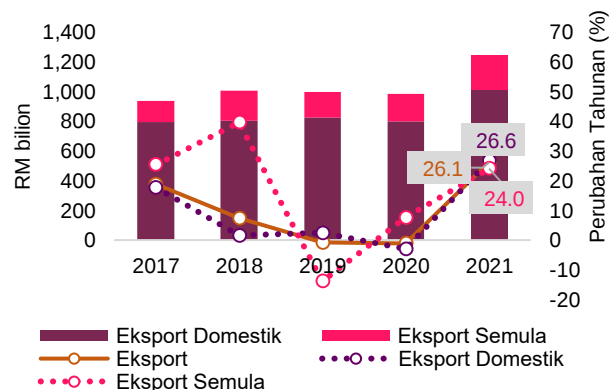


Prestasi Eksport

Eksport Malaysia pada 2021 mencatatkan pertumbuhan dua angka 26.1 peratus kepada RM1.2 trilion berbanding 2020. Ini adalah pertumbuhan tertinggi sejak 1998 dan kali kedua mencecah satu trilion. Pertumbuhan dalam eksport didorong oleh kedua-dua, eksport domestik dan eksport semula. Eksport domestik melepasi paras satu trilion buat kali pertama, menyumbang 81.5 peratus kepada jumlah eksport dan meningkat 26.6 peratus, tahun ke tahun. Pada masa yang sama, eksport semula dengan nilai RM229.0 bilion, meningkat 24.0 peratus berbanding 2020.

“Prestasi eksport Malaysia pada 2021 bertambah kukuh disokong oleh eksport domestik”

Carta 2: Eksport Domestik, Eksport Semula (RM bilion) dan Perubahan Tahunan (%)



Prestasi Eksport mengikut Negara Destinasi Utama

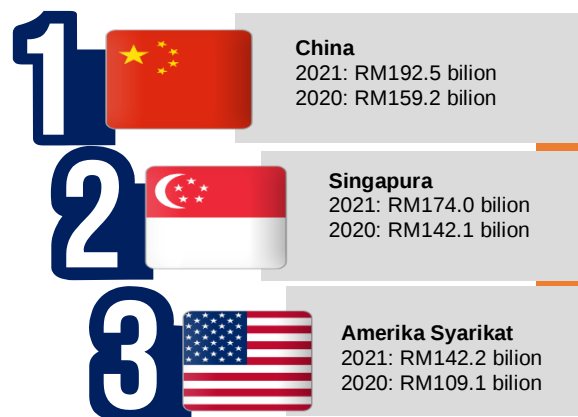
“China dan Singapura merupakan negara destinasi utama pada 2021 dengan jumlah sumbangan 29.5 peratus kepada eksport Malaysia”

Eksport ke China berjumlah RM192.5 bilion, mewakili 15.5 peratus daripada jumlah eksport, mencatatkan 20.9 peratus atau RM33.3 bilion peningkatan, tahun ke tahun. Kenaikan itu diterajui oleh eksport yang lebih tinggi bagi gas asli cecair (LNG) (+RM6.1 bilion, +89.8%), diikuti oleh barangan perkilangan logam (+RM5.8 bilion, +50.3%), barangan elektrik & elektronik (E&E) (+RM5.8 bilion, +10.7%), kimia & bahan kimia (+RM3.7 bilion, +25.6%), barangan besi & keluli (+RM3.1 bilion, +32.7%), barangan perkilangan berasaskan minyak sawit (+RM2.5 bilion, +82.3%) dan bijih logam & serpihan logam (+RM2.2 bilion, +80.2%).

Eksport ke Singapura pada 2021 berjumlah RM174.0 bilion dan menyumbang 14.0 peratus kepada jumlah eksport Malaysia, meningkat 22.4 peratus atau RM31.8 bilion, tahun ke tahun. Pengembangan itu dirangsang oleh peningkatan eksport barangan E&E (+RM16.0 bilion, +23.0%), keluaran petroleum (+RM3.3 bilion, +17.0%),

jentera, kelengkapan & peralatan (+RM3.2 bilion, +35.4 %), barangan perkilangan logam (+RM1.7 bilion, +44.6%), kimia & bahan kimia (+RM1.1 bilion, +28.1%) dan kelengkapan pengangkutan (+RM1.1 bilion, +61.5%).

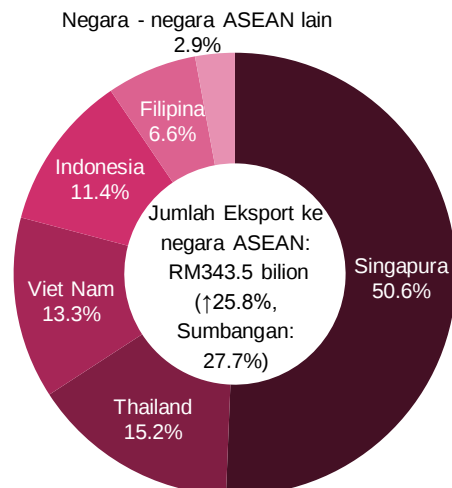
Paparan 1: Eksport mengikut Negara Destinasi Utama, 2020 dan 2021



Eksport ke Negara-negara ASEAN

Negara-negara ASEAN menyumbang 27.7 peratus kepada jumlah eksport Malaysia pada 2021, meningkat 25.8 peratus daripada RM273.0 bilion pada 2020 kepada RM343.5 bilion. Kenaikan ini disumbangkan terutamanya oleh barangan E&E yang meningkat 23.2 peratus atau RM24.1 bilion serta keluaran petroleum yang berkembang 48.3 peratus atau RM15.9 bilion. Ia diikuti oleh kimia & bahan kimia (+RM8.1 bilion, +40.8%), barangan perkilangan logam (+RM4.8 bilion, +50.2%) dan jentera, kelengkapan & peralatan (+RM4.5 bilion, +27.5%). Dalam kalangan negara ASEAN, Singapura terus mendominasi sebagai negara destinasi eksport, dengan sumbangan 50.6 peratus atau RM174.0 bilion, berkembang 22.4 peratus berbanding tahun sebelumnya.

Paparan 2: Nilai Eksport dan Peratus Sumbangan Eksport kepada Negara-negara ASEAN, 2021



Prestasi Eksport mengikut Sektor Ekonomi

“Eksport Pembuatan pada 2021, melepasi paras trilion”

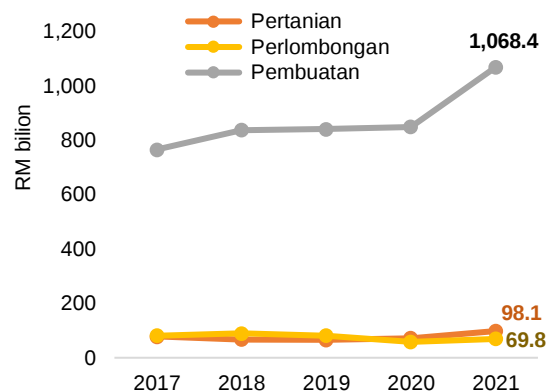
Eksport barangan pembuatan pada 2021, yang merangkumi 86.1 peratus daripada jumlah eksport, mencecah rekod tertinggi baharu RM1.1 trilion dan berkembang 25.8 peratus atau RM218.9 bilion, tahun ke tahun. Penyumbang utama kepada pengembangan adalah barangan E&E (+RM69.7 bilion, +18.0%), diikuti oleh keluaran petroleum (+RM34.3 bilion, +55.4%), keluaran logam (+RM24.7 bilion, +67.1%), keluaran getah (+RM20.3 bilion, +45.9%), kimia & bahan kimia (+RM19.9 bilion, +39.3%), barangan perkilangan berasaskan minyak sawit (+RM11.7 bilion, +55.7%) dan jentera, kelengkapan & peralatan (+RM10.5 bilion, +26.6%).

Eksport keluaran pertanian, yang menyumbang 7.9 peratus kepada jumlah eksport meningkat 36.8 peratus daripada RM71.7 bilion pada 2020 kepada RM98.1 bilion. Peningkatan itu adalah selaras dengan eksport minyak sawit & keluaran pertanian berasaskan minyak sawit yang lebih tinggi, meningkat 44.9 peratus daripada RM52.3 bilion pada tahun sebelumnya kepada

RM75.8 bilion serta getah asli (+RM1.3 bilion, +39.0%).

Sementara itu, eksport hasil perlombongan yang mewakili 5.6 peratus daripada jumlah eksport mencatatkan pertumbuhan positif 19.4 peratus daripada RM58.4 bilion pada 2020 kepada RM69.8 bilion. Ini disokong oleh eksport LNG yang lebih tinggi (+RM8.3 bilion, +27.9%) dan bijih logam & serpihan logam (+RM1.9 bilion, +32.0%).

Carta 3: Eksport mengikut Sektor, 2017-2021



Eksport mengikut Produk Utama Terpilih

“Barangan E&E kekal memegang komposisi sumbangan terbesar eksport Malaysia pada 2021”

Pertumbuhan eksport bagi tahun 2021 disumbangkan oleh pertumbuhan positif produk berikut:

- Barangan E&E (36.7% daripada jumlah eksport), berkembang 18.0 peratus (+RM69.7 bilion) kepada RM456.0 bilion;
- Minyak kelapa sawit & hasil keluaran berasaskan minyak kelapa sawit (8.7% daripada jumlah eksport) meningkat RM35.2 bilion (+48.0%) kepada RM108.5 bilion. Eksport minyak kelapa sawit, komoditi utama dalam kumpulan produk ini meningkat RM19.0 bilion atau 41.6 peratus selari dengan kenaikan nilai purata seunit (+54.7%), tetapi volum eksport menurun (-8.5%);
- Barangan petroleum bertapis, merangkumi 6.9 peratus daripada jumlah eksport, meningkat RM32.4 bilion atau 60.4 peratus

konsisten dengan pertumbuhan dalam kedua-dua nilai purata seunit (+46.7%) dan volum eksport (+9.3%);

- LNG, yang menyumbang 3.1 peratus kepada jumlah eksport, berkembang RM8.3 bilion atau 27.9 peratus kepada RM38.2 bilion selaras dengan peningkatan dalam kedua-dua nilai purata seunit (+24.7%) dan volum eksport (+2.5%);
- Getah asli (0.4% daripada jumlah eksport) meningkat RM1.3 bilion atau 39.0 peratus hasil daripada peningkatan dalam kedua-dua nilai purata seunit (+20.3%) dan volum eksport (+15.6%); dan
- Kayu & hasil keluaran berasaskan kayu, yang menyumbang 1.8 peratus kepada jumlah eksport meningkat 3.2 peratus atau RM716.6 juta kepada RM22.8 bilion.

Bagaimanapun, eksport petroleum mentah, yang merangkumi 1.5 peratus daripada jumlah eksport merosot RM471.3 juta atau 2.5 peratus kepada RM18.4 bilion sejajar dengan penurunan volum eksport (-32.0%). Sebaliknya, nilai purata seunit meningkat 43.4 peratus.

IMPORT

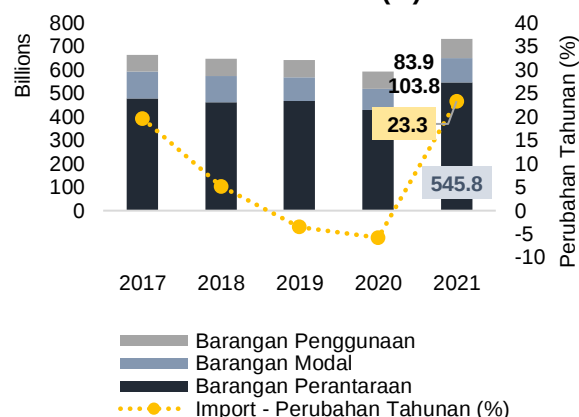
Prestasi Import

“Import Malaysia kembali mencatatkan pertumbuhan positif pada 2021, melonjak 23.3 peratus”

Import Malaysia pada 2021 kembali mencatatkan pertumbuhan 23.3 peratus atau RM186.9 bilion berbanding tahun sebelumnya, merekodkan nilai import tertinggi baharu RM987.3 bilion.

Berasaskan tahun ke tahun, import meningkat berikutan permintaan lebih tinggi bagi barangan perantaraan, barangan modal dan barangan penggunaan.

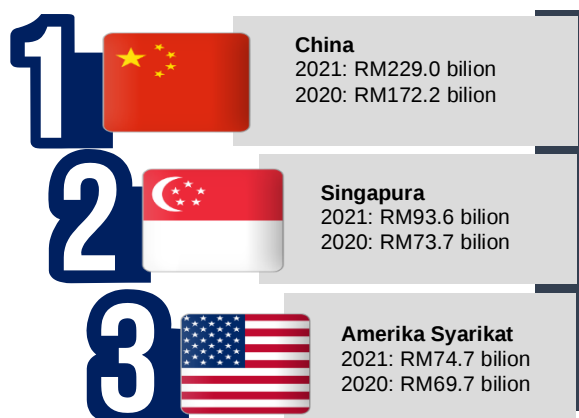
Carta 4: Prestasi Import, Perubahan Tahunan (%)



Prestasi Import Mengikut Negara Asal Utama

“China kekal sebagai sumber import terbesar Malaysia, menyumbang 23.2 peratus kepada jumlah import pada 2021”

Paparan 3: Import mengikut Negara Asal Utama, 2020-2021



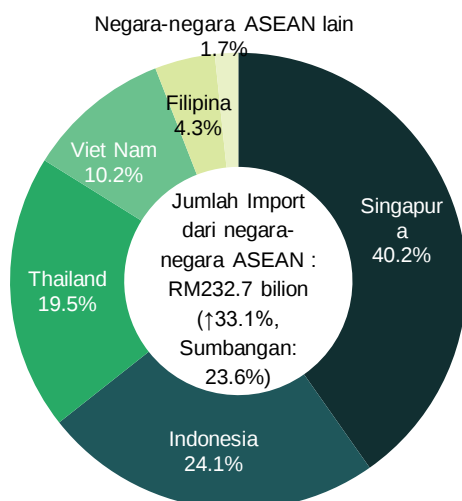
China dan Singapura merupakan dua negara asal utama import Malaysia pada 2021, menyumbang 32.7 peratus kepada jumlah import.

Import dari China yang mewakili 23.2 peratus daripada import Malaysia, berkembang 33.0 peratus atau RM56.8 bilion kepada RM229.0 bilion. Ini terutamanya disumbangkan oleh pertumbuhan ketara dalam import barangan E&E, meningkat 34.1 peratus atau RM23.2 bilion, kimia & bahan kimia (+RM7.8 bilion, +56.4%), jentera, kelengkapan & peralatan (+RM4.8 bilion, +25.2%), keluaran petroleum (+RM4.8 bilion, +62.2%), barangan perkilangan logam (+RM4.4 bilion, +44.4%), barangan besi & keluli (+RM2.5 bilion, +61.5%), barangan optik & saintifik (+RM1.8 bilion, +41.4%) dan kelengkapan pengangkutan (+RM1.8 bilion, +36.5%).

Import dari Singapura bernilai RM93.6 bilion, mewakili 9.5 peratus daripada import Malaysia, meningkat 27.1 peratus atau RM20.0 bilion tahun ke tahun. Pertumbuhan ini terutamanya disumbangkan oleh import yang lebih tinggi keluaran petroleum (+RM9.3 bilion, +53.3%), emas, bukan bentuk wang (+RM4.8 bilion, +107.5%), kimia & bahan kimia (+RM2.3 bilion, +33.8%), jentera, kelengkapan & peralatan (+RM927.3 juta, +20.5%) dan barangan perkilangan logam (+RM544.1 juta, +27.3%).

Import dari Negara-negara ASEAN

Paparan 4: Nilai Import dan Peratus Sumbangan Import daripada Negara-negara ASEAN, 2021



Import dari negara ASEAN pada 2021 berjumlah RM232.7 bilion dengan sumbangan

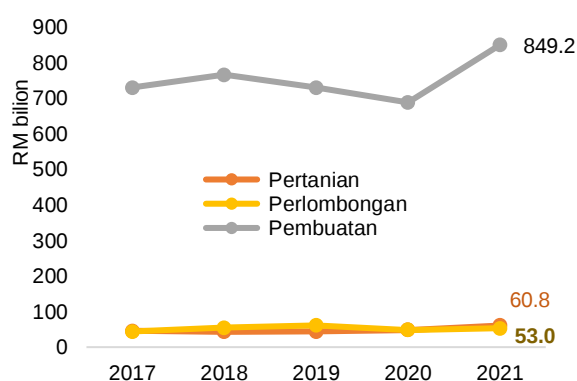
23.6 peratus daripada jumlah import, meningkat 33.1 peratus berbanding 2020. Pertumbuhan ini terutamanya disumbangkan oleh import yang lebih tinggi keluaran petroleum (+RM12.9 bilion, +55.4%), barangan E&E (+RM6.0 bilion, +12.5%), kimia & bahan kimia (+RM4.9 bilion, +35.9%), emas, bukan bentuk wang (+RM4.8 bilion, +107.7%), arang batu (+RM4.7 bilion, +77.8%), minyak kelapa sawit & keluaran pertanian berasaskan minyak kelapa sawit (+RM4.4 bilion, +96.2%), barangan besi & keluli (+RM3.9 bilion, +92.4%), barangan perkilangan logam (+RM3.3 bilion, +65.8%), kelengkapan pengangkutan (+RM2.3 bilion, +37.0%), barangan perkilangan berasaskan minyak kelapa sawit (+RM2.3 bilion, +75.8%) dan bijih logam & serpihan logam (+RM1.6 bilion, +206.0%).

Dalam kalangan negara-negara ASEAN, 40.2 peratus import adalah dari Singapura, berkembang 27.1 peratus atau RM20.0 bilion berbanding tahun sebelumnya.

Prestasi Import Mengikut Sektor Ekonomi

“Perkembangan import diterajui oleh import yang lebih tinggi bagi semua sektor utama pada 2021”

Carta 5: Import mengikut Sektor, 2017-2021



Barangan perkilangan yang menyumbang 86.0 peratus kepada jumlah import, meningkat 23.5 peratus daripada RM687.7 bilion kepada RM849.2 bilion, tahun ke tahun. Ini disokong oleh import lebih tinggi bagi barangan E&E

(+RM61.5 bilion, +24.3%), keluaran petroleum (+RM29.5 bilion, +49.2%), kimia & bahan kimia (+RM22.3 bilion, +30.0%), barangan besi & keluli (+RM8.8 bilion, +35.7%), jentera, kelengkapan & peralatan (+RM8.5 bilion, +14.2%), barangan perkilangan logam (+RM7.2 bilion, +15.3%), keluaran getah (+RM6.9 bilion, +69.7%), barangan optik & saintifik (+RM3.6 bilion, +15.5%) dan barangan perkilangan berasaskan minyak kelapa sawit (+RM3.2 bilion, +63.6%).

Import keluaran pertanian (6.2% daripada jumlah import) mencatatkan pertumbuhan dua angka 24.6 peratus daripada RM48.8 bilion pada tahun sebelumnya kepada RM60.8 bilion. Pengembangan ini disokong oleh peningkatan bagi import minyak kelapa sawit & keluaran pertanian berasaskan minyak kelapa sawit (+RM4.3 bilion, +76.8%), minyak sayuran lain (+RM1.3 bilion, +44.0%) dan getah asli (+RM1.2 bilion, +19.1%).

Import hasil perlombongan berjumlah RM53.0 bilion, meningkat 9.0 peratus berbanding 2020 dan menyumbang 5.4 peratus kepada jumlah import Malaysia. Pertumbuhan ini dilihat bagi import arang batu (+RM7.0 bilion, +72.2%) dan bijih logam & sekerap logam (+RM4.5 bilion, +40.2%).

Import mengikut Klasifikasi Penggunaan Akhir & Kategori Ekonomi Umum

“Barang perantaraan kekal memegang komposisi sumbangan terbesar import Malaysia pada 2021”

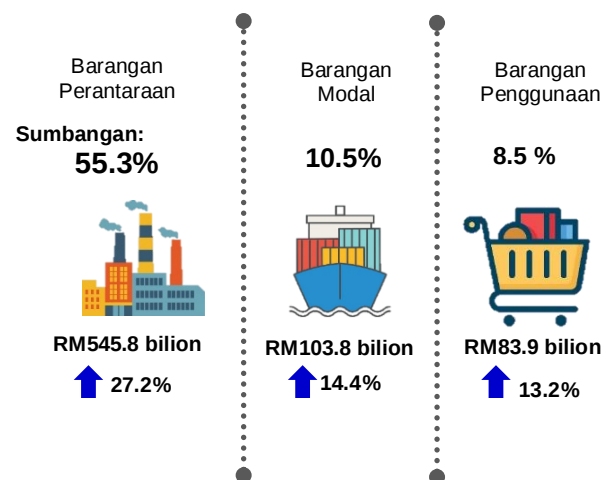
Jumlah import pada 2021 bernilai RM987.3 bilion, meningkat 23.3 peratus tahun ke tahun. Tiga kategori utama import mengikut Penggunaan Akhir yang menyumbang 74.3 peratus kepada jumlah import ialah:

Barangan perantaraan, bernilai RM545.8 bilion atau 55.3 peratus daripada jumlah import, meningkat 27.2 peratus disebabkan peningkatan import bekalan industri, diproses (+RM51.7 bilion, +29.8%), alat ganti & aksesori barangan modal (kecuali peralatan pengangkutan) (+RM35.7 bilion, +26.5%), bekalan industri, utama (+RM11.6 bilion, +36.3%), makanan & minuman, diproses, terutamanya untuk industri (+RM4.9 bilion, +38.7%) dan bahan api & pelincir, diproses, lain-lain (+RM3.9 bilion, +21.8%).

Barangan modal, berjumlah RM103.8 bilion (10.5% daripada jumlah import) meningkat 14.4 peratus, disebabkan oleh import yang lebih tinggi barangan modal (kecuali peralatan pengangkutan), meningkat 8.1 peratus atau RM7.4 bilion.

Barang penggunaan, berjumlah RM83.9 bilion (8.5% daripada jumlah import), mencatatkan peningkatan 13.2 peratus, hasil daripada import yang lebih tinggi makanan & minuman, diproses, khusus untuk penggunaan isi rumah (+RM2.9 bilion, +13.3%), barangan tahan lama (+RM2.5 bilion, +25.8%); barangan tidak tahan lama (+RM1.5 bilion, +8.3%) dan makanan & minuman, utama, khusus untuk penggunaan isi rumah (+RM1.3 bilion, +12.3%).

Paparan 6: Import mengikut Klasifikasi Penggunaan Akhir & Kategori Ekonomi Umum, 2021



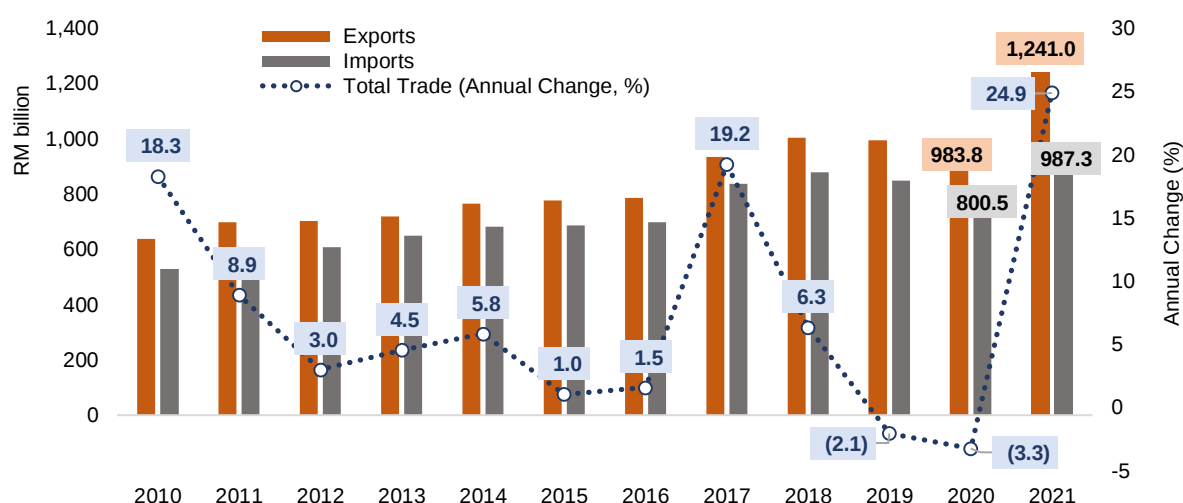
MALAYSIA EXTERNAL TRADE STATISTICS, 2021

“Malaysia’s Trade performance in 2021 progressing buoyed by the resumption in economic activities globally as well as domestic”

On the back of improving global trade, crude palm oil prices and oil prices, Malaysia’s total trade turned around to register an increase of 24.9 per cent in 2021, from RM1.8 trillion in the preceding year to RM2.2 trillion. Consistent with trade performance, exports and imports also improved with double-digit growth. Exports rose by 26.1 per cent, year-on-year (y-o-y) to reach a new high value of RM1.2 trillion, while imports with a value of RM987.3 billion, higher by 23.3 per cent

as compared to 2020. These growths surpassing the official forecast of export and import growth of 17.1 per cent and 16.5 per cent, respectively as reported in the Economic Outlook 2022. Malaysia’s trade surplus widened by 38.4 per cent from RM183.3 billion in the preceding year to RM253.7 billion, the highest trade surplus ever recorded. This was the 24th consecutive year of trade surplus since 1998.”

Chart 1: Exports, Imports and Total Trade, RM billion and Annual Change



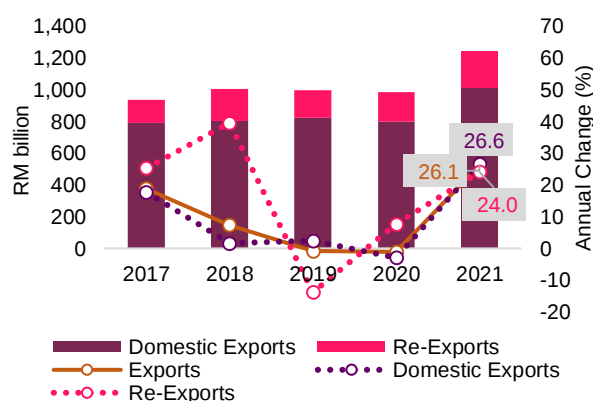
EXPORTS

Performance of Exports

Malaysia’s exports in 2021 registered a double-digit growth of 26.1 per cent to RM1.2 trillion compared to 2020. This was the fastest growth since 1998 and the second time to hit one trillion mark. The expansion in exports was driven by both, domestic exports and re-exports. Domestic exports surpassed one trillion mark for the first time, contributed 81.5 per cent to total exports and rising by 26.6 per cent, y-o-y. On the same note, re-exports with a value of RM229.0 billion, grew by 24.0 per cent as compared to 2020.

“Malaysia’s export performance in 2021 gained ground bolstered by domestic exports”

Chart 2: Domestic Exports and Re-Exports (RM billion) and Annual Change (%)



Export Performance for Major Country of Destination

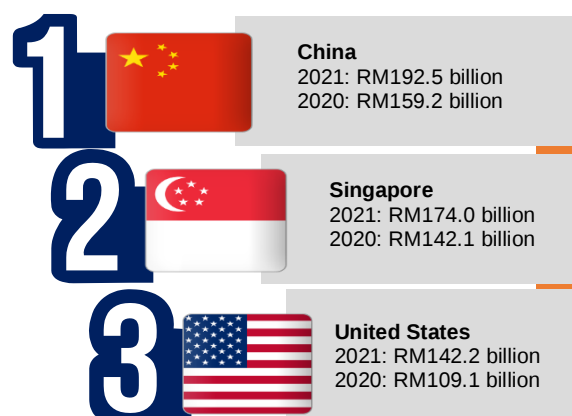
“China and Singapore were the major country of destinations in 2021 with a total contribution of 29.5 per cent to Malaysia’s exports”

Exports to China totalled RM192.5 billion, represented 15.5 per cent of total exports, registering at 20.9 per cent or RM33.3 billion increase, y-o-y. The rise was led by higher exports of liquefied natural gas (LNG) (+RM6.1 billion, +89.8%), followed by manufacture of metal (+RM5.8 billion, +50.3%), electrical & electronic (E&E) products (+RM5.8 billion, +10.7%), chemical & chemical products (+RM3.7 billion, +25.6%), iron & steel products (+RM3.1 billion, +32.7%), palm oil-based manufactured products (+RM2.5 billion, +82.3%) and metalliferous ores & metal scrap (+RM2.2 billion, +80.2%).

Exports to Singapore in 2021 amounted to RM174.0 billion and accounted for 14.0 per cent of Malaysia’s total exports, grew by 22.4 per cent or RM31.8 billion, y-o-y. The expansion was boosted by higher exports of E&E products (+RM16.0 billion, +23.0%), petroleum products (+RM3.3 billion, +17.0%), machinery, equipment

& parts (+RM3.2 billion, +35.4%), manufacture of metal (+RM1.7 billion, +44.6%), chemical & chemical products (+RM1.1 billion, +28.1%) and transport equipment (+RM1.1 billion, +61.5%)

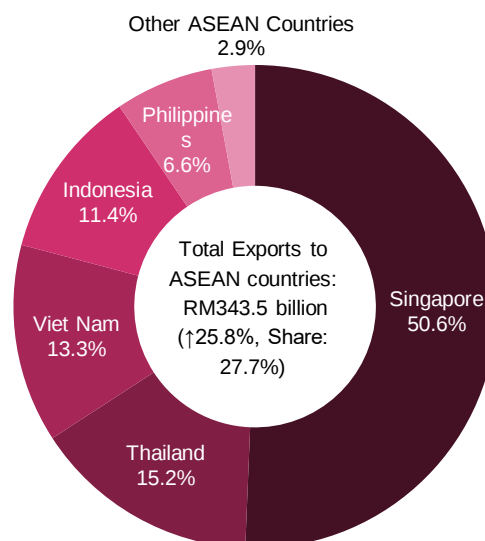
Exhibit 1: Exports by Major Country of Destination, 2020 and 2021



Exports to ASEAN Countries

ASEAN countries contributed 27.7 per cent of Malaysia’s total exports in 2021, rose 25.8 per cent from RM273.0 billion in 2020 to RM343.5 billion. This increment was contributed mainly from E&E products as it widened by 23.2 per cent or RM24.1 billion as well as petroleum products which expanded by 48.3 per cent or RM15.9 billion. It was followed by chemical & chemical products (+RM8.1 billion, +40.8%), manufacture of metal (+RM4.8 billion, +50.2%) and machinery, equipment & parts (+RM4.5 billion, +27.5%). Among ASEAN countries, Singapore continued to dominate as country of destination for exports, with a contribution of 50.6 per cent or RM174.0 billion, expanded by 22.4 per cent over the previous year.

Exhibit 2: Export Value and Percentage Share of Exports to ASEAN Countries, 2021



Export Performance for Economic Sectors

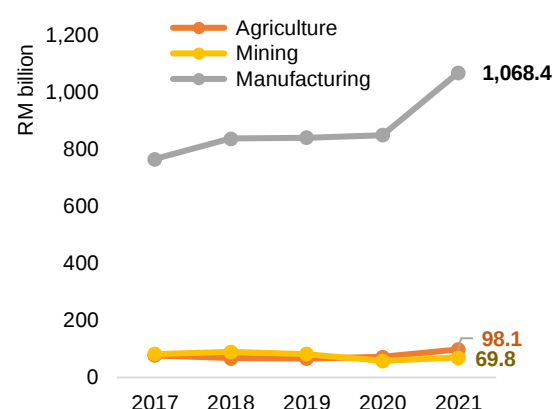
“Exports of Manufacturing in 2021, breached trillion mark”

Exports of manufactured products in 2021, which constituted 86.1 per cent of total exports, hit new high of RM1.1 trillion and expanded by 25.8 per cent or RM218.9 billion, y-o-y. The main contributors to the expansion were E&E products (+RM69.7 billion, +18.0%), followed by petroleum products (+RM34.3 billion, +55.4%), manufacture of metal (+RM24.7 billion, +67.1%), rubber products (+RM20.3 billion, +45.9%), chemical & chemical products (+RM19.9 billion, +39.3%), palm oil-based manufactured products (+RM11.7 billion, +55.7%) and machinery, equipment & parts (+RM10.5 billion, +26.6%).

Exports of agriculture products, which contributed 7.9 per cent of total exports increased by 36.8 per cent from RM71.7 billion in 2020 to RM98.1 billion. The increase was in accordance with higher exports of palm oil & palm oil-based agriculture products which grew by 44.9 per cent from RM52.3 billion in the preceding year to RM75.8 billion as well as natural rubber (+RM1.3 billion, +39.0%).

Meanwhile, exports of mining products which represented 5.6 per cent of total exports recorded positive growth of 19.4 per cent from RM58.4 billion in 2020 to RM69.8 billion. This was supported by higher exports of LNG (+RM8.3 billion, +27.9%) and metalliferous ores & metal scrap (+RM1.9 billion, +32.0%).

Chart 3: Exports by Sector, 2017-2021



Exports of Selected Major Products

“E&E products remained to hold the biggest share of Malaysia’s export composition in 2021”

The expansion in exports for 2021 has been seen in the positive growth for the following products:

- E&E products (36.7% of total exports), expanded by 18.0 per cent (+RM69.7 billion) to RM456.0 billion;
- Palm oil & palm oil-based products (8.7% of total exports) grew by RM35.2 billion (+48.0%) to RM108.5 billion. Exports of palm oil, the major commodity in this group of products rose by RM19.0 billion or 41.6 per cent along with the rise of average unit value (+54.7%), but export volume decreased (-8.5%);
- Refined petroleum products, accounting for 6.9 per cent of total exports, increased RM32.4 billion or 60.4 per cent consistent with

the growth in both average unit value (+46.7%) and export volume (+9.3%);

- LNG, which accounted for 3.1 per cent of total exports, expanded by RM8.3 billion or 27.9 per cent to RM38.2 billion in line with the increase in both average unit value (+24.7%) and export volume (+2.5%);
- Natural rubber (0.4% of total exports) rose RM1.3 billion or 39.0 per cent as a result of the increases in both average unit value (+20.3%) and volume export (+15.6%); and
- Timber & timber-based products, which contributed 1.8 per cent to total exports increased by 3.2 per cent or RM716.6 million to RM22.8 billion.

However, exports of crude petroleum, which constituted 1.5 per cent to total exports declined by RM471.3 million or 2.5 per cent to RM18.4 billion in tandem with the decrease in export volume (-32.0%). In contrary, average unit value increased by 43.4 per cent.

IMPORTS

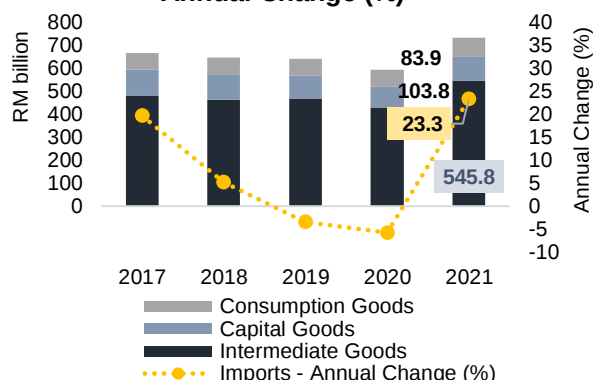
Performance of Imports

“Malaysia’s import turned around to record positive growth in 2021, surged by 23.3 per cent”

Malaysia’s imports in 2021 rebounded to register a growth of 23.3 per cent or RM186.9 billion as compared to the previous year, bringing the highest ever import value of RM987.3 billion.

On a y-o-y basis, imports rose on the back of higher uptake of intermediate goods, capital goods and consumption goods.

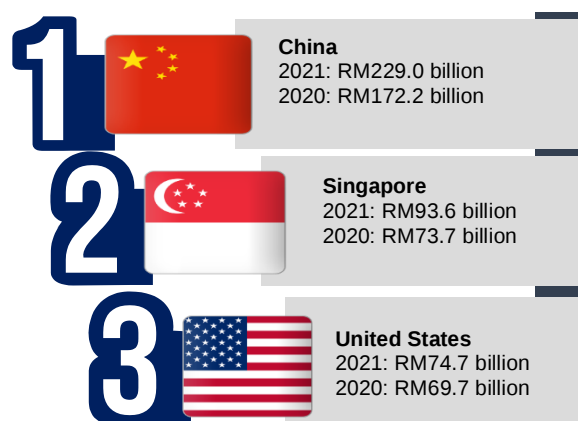
Chart 4: Performance of Imports, Annual Change (%)



Import Performance for Major Country of Origin

“China remained as Malaysia’s largest import source, accounting for 23.2 per cent share of total imports in 2021”

Exhibit 3: Imports by Major Countries of Origin, 2020-2021



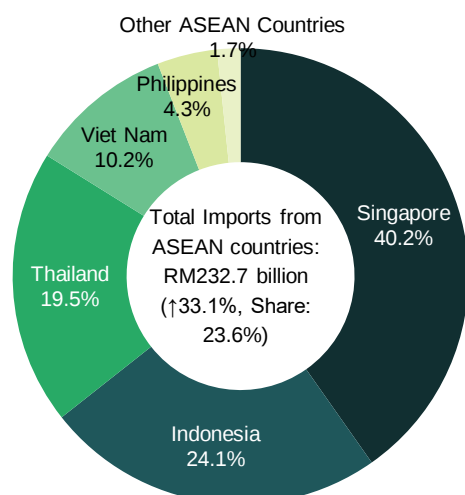
China and Singapore were the two main countries of origin for Malaysia’s imports in 2021, contributed 32.7 per cent to total imports.

Imports from China which represented 23.2 per cent of Malaysia’s imports, expanded by 33.0 per cent or RM56.8 billion to RM229.0 billion. This was contributed mainly by significant growth in imports of E&E products, increased by 34.1 per cent or RM23.2 billion, chemical & chemical products (+RM7.8 billion, +56.4%), machinery, equipment & parts (+RM4.8 billion, +25.2%), petroleum products (+RM4.8 billion, +62.2%), manufacture of metal (+RM4.4 billion, +44.4%), iron & steel products (+RM2.5 billion, +61.5%), optical & scientific equipment (+RM1.8 billion, +41.4%), and transport equipment (+RM1.8 billion, +36.5%).

Imports from Singapore was valued at RM93.6 billion, made up 9.5 per cent of Malaysia’s imports, grew by 27.1 per cent or RM20.0 billion y-o-y. The growth was mainly attributed from higher imports of petroleum products (+RM9.3 billion, +53.3%), gold, non-monetary (+RM4.8 billion, +107.5%), chemical & chemical products (+RM2.3 billion, +33.8%), machinery, equipment & parts (+RM927.3 million, +20.5%) and manufacture of metal (+RM544.1 million, +27.3%).

Imports from ASEAN Countries

Exhibit 4: Import Value and Percentage Share of Imports from ASEAN Countries, 2021



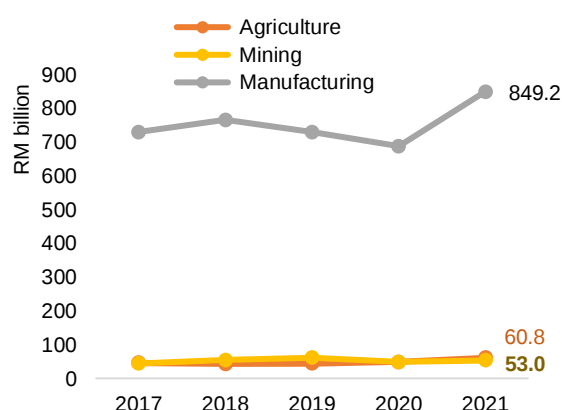
Imports from ASEAN countries in 2021 amounted to RM232.7 billion with a share of 23.6 per cent to total imports, increased by 33.1 per cent as compared to 2020. The growth was mainly attributed from higher imports of petroleum products (+RM12.9 billion, +55.4%), E&E products (+RM6.0 billion, +12.5%), chemical & chemical products (+RM4.9 billion, +35.9%), gold, non-monetary (+RM4.8 billion, +107.7%), coal (+RM4.7 billion, +77.8%), palm oil & palm oil-based agriculture products (+RM4.4 billion, +96.2%), iron & steel products (+RM3.9 billion, +92.4%), manufacture of metal (+RM3.3 billion, +65.8%), transport equipment (+RM2.3 billion, +37.0%), palm oil-based manufactured products (+RM2.3 billion, +75.8%) and metalliferous ores & metal scrap (+RM1.6 billion, +206.0%).

Among ASEAN countries of origin, 40.2 per cent of imports were from Singapore, expanded by 27.1 per cent or RM20.0 billion as compared to previous year.

Import Performance for Economic Sectors

“Expansion in imports was led by higher imports of all main sectors in 2021”

Chart 5: Imports by Sector, 2017-2021



Manufactured products which constituted 86.0 per cent of total imports, increased by 23.5 per cent from RM687.7 billion to RM849.2 billion, y-o-y. This was supported by higher imports of E&E products

(+RM61.5 billion, +24.3%), petroleum products (+RM29.5 billion, +49.2%), chemical & chemical products (+RM22.3 billion, +30.0%), iron & steel products (+RM8.8 billion, +35.7%), machinery, equipment & parts (+RM8.5 billion, +14.2%), manufacture of metal (+RM7.2 billion, +15.3%), rubber products (+RM6.9 billion, +69.7%), optical & scientific equipment (+RM3.6 billion, +15.5%) and palm oil-based manufactured products (+RM3.2 billion, +63.6%).

Imports of agriculture products (6.2% of total imports) registered a double-digit growth of 24.6 per cent from RM48.8 billion in the preceding year to RM60.8 billion. The expanding was underpinned by the increases in imports of palm oil & palm oil-based agriculture products (+RM4.3 billion, +76.8%), other vegetables oil (+RM1.3 billion, +44.0%) and natural rubber (+RM1.2 billion, +19.1%).

Imports of mining products totalled RM53.0 billion, increased by 9.0 per cent compared with 2020 and accounting for 5.4 per cent of Malaysia's total imports. The expansions were seen for imports of coal (+RM7.0 billion, +72.2%) dan metalliferous ores & metal scrap (+RM4.5 billion, +40.2%).

Imports for End Use & Broad Economic Categories (BEC) Classification

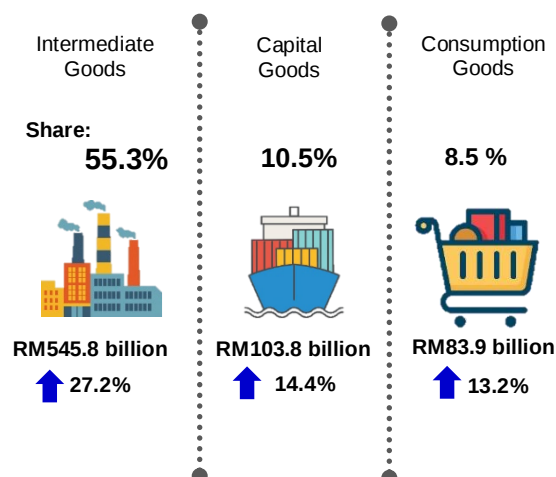
“Intermediate goods remained to hold the biggest share of Malaysia’s imports composition in 2021”

Total imports in 2021 was valued at RM987.3 billion, rose 23.3 per cent y-o-y. The three main categories of imports by End Use which accounted for 74.3 per cent of total imports were:

Intermediate goods, was valued at RM545.8 billion or 55.3 per cent of total imports, increased by 27.2 per cent on account of higher imports of industrial supplies, processed (+RM51.7 billion, +29.8%), parts & accessories of capital goods (except transport equipment) (+RM35.7 billion, +26.5%), industrial supplies, primary (+RM11.6 billion, +36.3%), food & beverages, processed, mainly for industries (+RM4.9 billion, +38.7%) and fuel & lubricants, processed, others (+RM3.9 billion, +21.8%).

Capital goods, stood at RM103.8 billion (10.5% of total imports) grew by 14.4 per cent, attributable to the higher imports of capital goods (except transport equipment), increased by 8.1 per cent or RM7.4 billion.

Exhibit 6: Imports by BEC and End Use, 2021



Consumption goods, amounted to RM83.9 billion (8.5% of total imports), recorded an increase of 13.2 per cent, resulting from higher imports of food & beverages, processed, mainly for household consumption (+RM2.9 billion, +13.3%), durables goods (+RM2.5 billion, +25.8%), non-durables goods (+RM1.5 billion, +8.3%) and food & beverages, primary, mainly for household consumption (+RM1.3 billion, +12.3%).

ADAKAH HARGA IMPORT BAHAN MAKANAN TERNAKAN MEMBERI KESAN KEPADA HARGA DAGING TERNAKAN DI PASARAN

Wan Siti Zaleha binti Wan Zakaria¹; Nur Maslina binti Muhamed¹; Nur Syafiqah binti Mohd Azraai^{1,2}; Anis Syafiqah binti Mohd Zamri^{1,3}; Siti Haslinda binti Mohd Din¹

¹Bahagian Perangkaan Perdagangan Antarabangsa, Jabatan Perangkaan Malaysia

² Universiti Putra Malaysia

³ Universiti Utara Malaysia

PENDAHULUAN

Isu kenaikan harga daging ternakan sering menjadi tumpuan terutamanya setiap kali menjelang musim perayaan. Bagi mengawal kenaikan harga, daging ternakan yang meliputi daging ayam, lembu dan babi sering kali tersenarai sebagai salah satu barangan dalam Skim Harga Maksimum Musim Perayaan (SHMMP). Mutakhir ini, kenaikan harga daging ternakan terutamanya ayam tidak hanya berlaku pada musim perayaan, malah tidak menentu didorong oleh pelbagai faktor dalaman dan luaran seperti kekurangan bekalan serta kenaikan harga makanan ternakan.

Malaysia mengimport RM5.5 bilion atau 2,019,586 tan metrik bahan makanan untuk ternakan pada 2021. Pada masa yang sama Malaysia turut mengimport input bahan makanan untuk ternakan iaitu jagung (RM4.7 bilion, 3,563,448 tan metrik), gandum (RM1.8 bilion, 1,318,057 tan metrik), dan soya (RM1.8 bilion, 735,540 tan metrik). Timbalan Ketua Setiausaha (Pembangunan)

Kementerian Pertanian dan Industri Makanan (MAFI), Datuk Badrul Hisham Mohd, pada 11 Mei 2022 berkata makanan untuk ayam merangkumi 70 peratus daripada keperluan modal keseluruhan yang lazimnya dilaburkan ke dalam industri penghasilan makanan industri penternakan. Dalam meminimumkan kebergantungan terhadap import serta mengatasi isu kenaikan mendadak harga bekalan makanan untuk ternakan MAFI menerusi Projek Pembangunan Industri Jagung Bijian untuk makanan ternakan menyasarkan pengurangan import makanan ternakan 30 peratus pada 2030.

Kajian ini bertujuan untuk mengukur kesan harga daging ternakan di pasaran dengan harga purata seunit import input bagi bahan makanan untuk ternakan iaitu jagung, gandum dan kacang soya; serta bahan makanan untuk ternakan. Selain itu, kajian ini juga melihat kepada hubung kait antara harga daging ternakan di pasaran dan di ladang.

SENARIO PERMINTAAN DAN PENAWARAN DAGING TERNAKAN

Survei Perbelanjaan Isi Rumah 2019 menunjukkan secara purata, isi rumah Malaysia membelanjakan RM109.08 sebulan untuk membeli daging yang terdiri daripada daging segar (RM79.70), daging beku (RM11.08) dan daging yang diproses (RM18.30). Nilai ini mewakili 2.4 peratus jumlah perbelanjaan penggunaan isi rumah bulanan Malaysia pada tahun tersebut. Sementara itu, Akaun Pembekalan dan Penggunaan Komoditi

Pertanian Terpilih menunjukkan penduduk Malaysia pada 2020 paling banyak menggunakan daging ayam/itik dengan penggunaan per kapita 47.4 kilogram setahun. Ini diikuti oleh daging lembu/kerbau (5.6 kilogram/tahun) dan daging kambing (1.3 kilogram/tahun), manakala penggunaan daging babi dalam kalangan penduduk Malaysia bukan Islam adalah 17.5 kilogram setahun seperti di Jadual i.

Jadual i: Indikator Utama Permintaan Daging Ternakan

Subkumpulan perbelanjaan	Komposisi perbelanjaan penggunaan isi rumah Malaysia, 2019		Daging Ternakan	Penggunaan Per Kapita 2020 (kg/tahun)
	(RM/bulan)	(%)		
Daging Segar	79.70	1.76	Daging Ayam/ Itik	47.4
Daging Beku	11.08	0.24	Daging Babi	17.5
Daging Proses	18.30	0.40	Daging Lembu/ Kerbau	5.6
Jumlah	109.08	2.41	Daging Kambing/ Bebiri	1.3

Sumber: Jabatan Perangkaan Malaysia

Keperluan penduduk Malaysia tersebut dipenuhi oleh pengeluaran domestik dan import. Pengeluaran domestik daging ayam/itik pada 2020 ialah 1,597,526.1 tan metrik, diikuti oleh daging babi (221,324.5 tan metrik), daging lembu/kerbau (43,492.5 tan metrik) dan daging kambing/bebiri (4,026.4 tan metrik). Walaupun begitu, penawaran ini tidak mencukupi untuk memenuhi permintaan domestik apabila kadar sara diri (SSR) keempat-empat komoditi ini direkodkan kurang daripada 100.0 peratus pada 2020. SSR daging ayam/itik dan daging babi menghampiri kadar 100.0 dengan masing-masing pada 98.2 peratus dan 93.2 peratus, manakala SSR daging lembu/kerbau dan daging kambing /bebiri masing-masing direkodkan pada 22.2 peratus dan 9.6 peratus.

Kekurangan pengeluaran tempatan ini diatasi melalui pengimportan. Daging kambing/bebiri dan daging lembu/kerbau masing-masing menunjukkan pergantungan yang tinggi terhadap import pada 2020 dengan merekodkan kadar kebergantungan import (IDR) 90.4 peratus dan 78.1 peratus. Sementara itu, IDR daging babi dan daging ayam masing-masing direkodkan pada 5.8 peratus dan 4.2 peratus (Jadual ii). Malaysia mengimport RM2.3 bilion daging lembu/kerbau pada 2021 dengan 93.7 peratus merangkumi daging yang dibekukan terutamanya dari India, manakala import daging kambing/bebiri berjumlah RM767.9 juta terutamanya dari Australia. Sementara itu, negara asal utama daging ayam/itik (RM774.5 juta) dan daging babi (RM211.5 juta) masing-masing adalah Thailand dan Kesatuan Eropah (E.U).

Jadual ii: Indikator Utama Penawaran Daging Ternakan

Daging Ternakan	Pengeluaran Domestik (tan metrik)	Kadar Sara Diri (SSR), %	Kadar Kebergantungan Import (IDR), %	Import (RM juta)
				2021
Daging Ayam/Itik	1,597,526.1	98.2	4.2	774.5
Daging Babi	221,324.5	94.9	5.8	211.5
Daging Lembu/ Kerbau	43,492.5	22.2	78.1	2,322.9
Daging Kambing/ Bebiri	4,026.4	9.6	90.4	767.9

Sumber: Jabatan Perangkaan Malaysia

SOROTAN KAJIAN

Inflasi merujuk kepada kenaikan secara umum harga barang dan perkhidmatan yang membawa kepada pengurangan kuasa beli. Inflasi boleh diukur melalui indeks harga atau penderfasi Keluaran Dalam Negeri Kasar (KDNK). Inflasi disebabkan terutamanya oleh faktor penawaran dan/atau permintaan. Faktor permintaan mengakibatkan inflasi tarikan permintaan yang berlaku apabila permintaan agregat meningkat ketara mengatasi penawaran agregat. Apabila permintaan melebihi penawaran, harga akan meningkat dan menyumbang kepada inflasi. Sementara itu, faktor penawaran menyumbang kepada inflasi tolakan kos yang berlaku apabila pengeluar menangani peningkatan kos dengan menaikkan harga untuk mengekalkan margin keuntungan.

Merujuk kepada dapatan analisis oleh Lee (2002), input perantaraan yang mempunyai kesan ketara kepada harga makanan adalah input pertanian, perkhidmatan, dan input perkilangan tidak tahan lama. Sehubungan itu, kesan kenaikan harga input perantaraan ke atas harga makanan adalah besar, terutamanya untuk produk pertanian dan

makanan domestik. Sebaliknya, berdasarkan analisis Jongwanich dan Park (2008), berbanding kejutan harga luaran, permintaan agregat yang lebih tinggi dan jangkaan inflasi menjadi penyumbang utama kepada inflasi Asia, menunjukkan bahawa dasar monetari akan terus menjadi alat yang berkesan dalam usaha menangani inflasi di Asia. Analisis ini juga mencadangkan bahawa kesan kejutan harga luaran terhadap harga domestik adalah terhad setakat ini. Sementara itu, menurut Devi, Zala dan Pal (2015), kadar pertumbuhan yang positif dan ketara lebih tinggi diperhatikan untuk harga output berbanding jumlah kos input dalam kebanyakan tanaman yang dicerap untuk kajian mereka. Oleh itu, ini menunjukkan bahawa harga yang diterima untuk keluaran tanaman yang dikaji tidak meningkat selaras dengan harga yang dibayar untuk input. Jongwanich, Wongcharoen dan Park (2016) mendapati bahawa harga pengeluar biasanya mengalami kenaikan harga minyak dan makanan global yang lebih ketara berbanding harga pengguna. Iaitu, kejutan harga komoditi global memberi kesan yang lebih besar terhadap indeks harga pengeluar berbanding indeks harga pengguna.

METODOLOGI

Data yang digunakan dalam kajian ini adalah Indeks Harga Pengguna (IHP) Subkumpulan Daging, Indeks Harga Pengeluar (IHPR) Pengeluaran Tempatan Pengeluaran Ternakan dan harga purata seunit import bagi jagung, gandum, kacang soya, dan bahan makanan untuk haiwan. IHP diperoleh daripada pungutan harga pengguna yang meliputi harga runcit atau harga transaksi daripada lebih kurang 21,800 saluran runcit di seluruh Malaysia sama ada secara mingguan, bulanan atau suku tahunan. Sementara itu, IHPR diperoleh daripada Survei Harga Pengeluar. Harga yang digunakan dalam pengiraan IHPR pengeluaran tempatan merujuk kepada harga yang diterima oleh pengeluar pada peringkat pertama pengkomersilan daripada pertumbuhan terpilih mengikut sumbangan kepada jumlah output

bagi industri yang telah ditetapkan. Harga purata seunit import diperoleh daripada Perangkaan Perdagangan Luar Negeri yang disusun daripada pengikraran import dan eksport barangan yang bersumberkan terutamanya daripada Jabatan Kastam Diraja Malaysia (JKDM). Data yang digunakan meliputi tempoh 144 bulan iaitu dari Januari 2017 hingga Disember 2021.

Analisis Korelasi Pearson digunakan untuk menentukan sama ada terdapatnya pertalian statistik antara dua pemboleh ubah selanjar. Analisis Regresi Linear Berganda digunakan untuk menilai hubungan kait antara satu pemboleh ubah bersandar selanjar dengan pemboleh ubah-pemboleh ubah tidak bersandar seperti berikut:

$$Y = \beta_0 (\text{PPI}) + \beta_1 (\text{M_AUP}) + \beta_2 (\text{W_AUP}) + \beta_3 (\text{S_AUP}) + \beta_4 (\text{PPI}) + \beta_5 (\text{F_AUP}) + \varepsilon$$

Di mana:

Y: IHP Subkumpulan Daging
 PPI: IHPR Pengeluaran Tempatan Pengeluaran Ternakan
 M_AUP: Harga purata seunit import Jagung
 W_AUP: Harga purata seunit import Gandum
 S_AUP: Harga purata seunit import Kacang soya
 F_AUP: Harga purata seunit import Makanan haiwan

Kaedah Regresi Linear Berganda harus memenuhi andaian model regresi: lineariti, normaliti, homoskedastisiti dan multikolineariti. Lineariti ditunjukkan oleh plot nilai reja berbanding nilai yang ditetapkan, manakala untuk normaliti ditunjukkan oleh kebarangkalian normal lakaran Q-Q.

Heteroskedastisiti mengandaikan bahawa nilai reja yang tersebar dengan varian yang tidak sekata boleh menjejaskan dapatan model. Sehubungan itu, ujian Breusch-Pagan dilaksanakan untuk memastikan nilai reja diagihkan dengan varian yang sekata bagi memenuhi ciri-ciri homoskedastisiti.

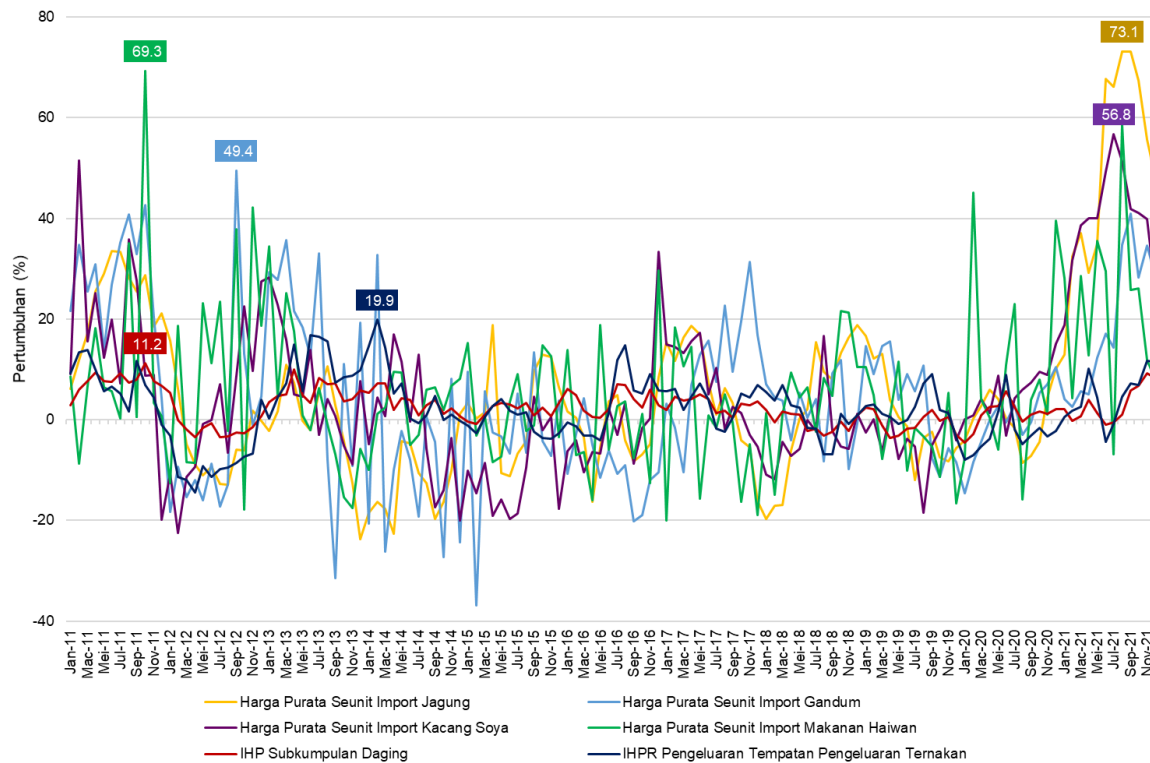
Hubung kait antara pembolehubah tidak bersandar dalam set data adalah keadaan multikolineariti, yang mempengaruhi secara negatif hasil model regresi. Multikolineariti harus dihapuskan kerana akan menyumbang kepada varian yang tinggi antara pembolehubah. Pendekatan pekali korelasi menunjukkan hubungan antara dua pembolehubah. Sementara itu, pendekatan faktor inflasi varian (VIF) digunakan untuk mengukur peningkatan varian penganggaran pekali regresi sekiranya pembolehubah tidak bersandar berhubung kait.

KEPUTUSAN

Analisis ini bertujuan untuk melihat kesan perubahan harga import bagi jagung, gandum, kacang soya dan makanan haiwan terhadap harga daging ternakan serta hubung kait antara harga di peringkat pengguna dan di ladang menggunakan Analisis Regresi Linear Berganda. Analisis ini menggunakan statistik bulanan IHP Subkumpulan Daging, IHPR Pengeluaran Tempatan Pengeluaran Ternakan dan harga purata seunit import bagi jagung, gandum, kacang soya dan bahan makanan untuk haiwan. Hasil cerapan menunjukkan

pertumbuhan tahunan tertinggi bagi IHP Subkumpulan Daging dicatatkan pada Oktober 2011 dengan peningkatan 11.2 peratus, manakala bagi IHPR Pengeluaran Tempatan Pengeluaran Ternakan adalah pada Februari 2014, dengan 19.9 peratus. Pada masa yang sama, pertumbuhan tertinggi bagi harga purata seunit import bagi jagung (+73.1%), gandum (+49.4%), kacang soya (+56.8%) dan makanan haiwan (+69.3%) dicatatkan masing-masing pada Ogos 2021, September 2012, Julai 2021 dan Oktober 2011 (Carta i).

Carta i: Pertumbuhan Tahunan IHP Subkumpulan Daging, IHPR Pengeluaran Tempatan Pengeluaran Ternakan dan Harga Purata Seunit Import bagi Jagung; Gandum; Kacang Soya; dan Bahan Makanan untuk Haiwan, Januari 2011 hingga Disember 2021



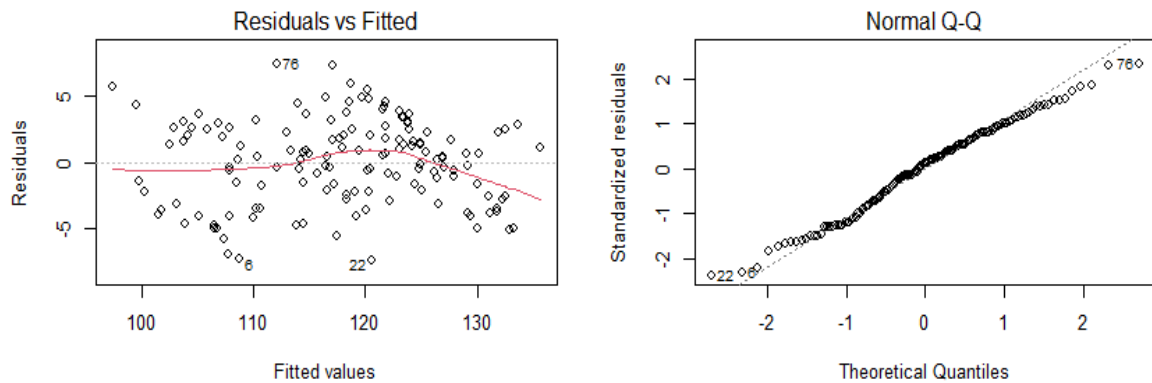
Sumber: Jabatan Perangkaan Malaysia

Andaian regresi telah diuji untuk memastikan kesahihan keputusan analisis diagnostik model regresi. Andaian normaliti diuji melalui lakaran normal Q-Q. Carta ii menunjukkan lakaran normal Q-Q di mana titik data terletak berhampiran dengan garis pepenjuru, yang menunjukkan reja bertaburan secara normal. Pengujian plot nilai reja berbanding nilai yang ditetapkan untuk menyemak andaian hubungan linear tidak menunjukkan corak yang berbeza,

dan garis merah yang hampir mendatar pada sifar menunjukkan lineariti data.

Andaian Heteroskedastisiti ditentukan oleh ujian Breusch-Pagan, yang menilai hipotesis null bahawa reja regresi memenuhi andaian homoskedastisiti iaitu reja diserak dengan varian yang sekata. Dapatan ujian Breusch-Pagan mempunyai nilai-p yang tidak signifikan (nilai-p = 0.2091), menunjukkan reja adalah homoskedastik.

Carta ii: Lakaran Andaian

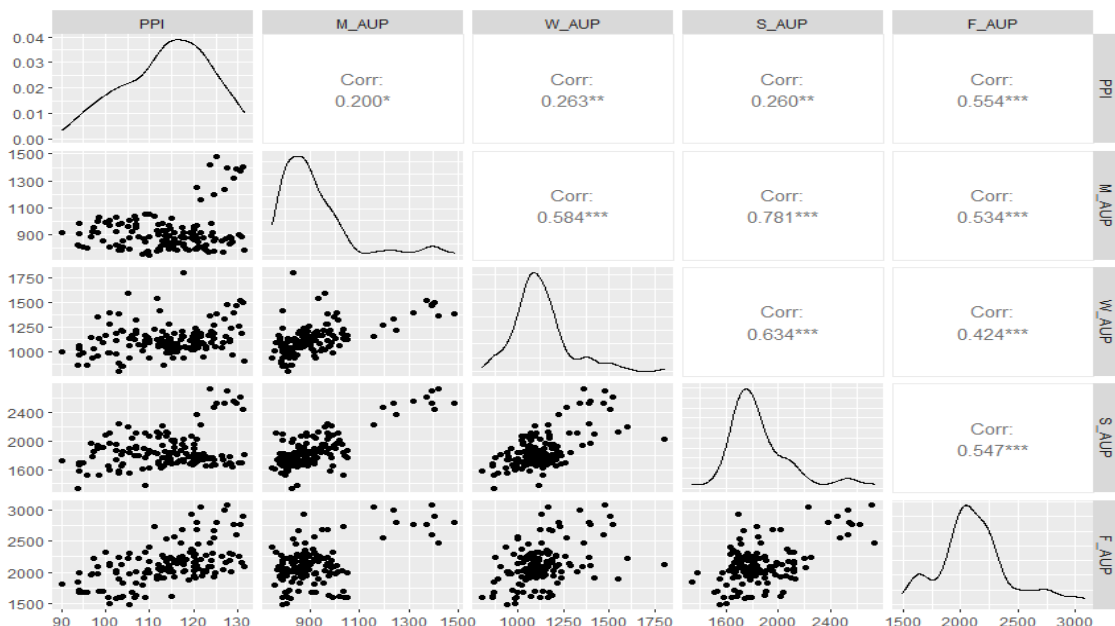


Analisis hubungan antara IHP Subkumpulan Daging dan faktor lain menghasilkan pertalian yang positif dan signifikan (melalui asterisk bersebelahan dengan pekali) pada nilai- $p < 0.05$. Pekali pertalian keseluruhan IHP Sub-kumpulan daging dengan IHPR Pengeluaran Tempatan Pengeluaran Ternakan mempunyai pertalian positif yang sangat kuat ($r = 0.925$, nilai- $p < 0.00$), diikuti oleh dan harga purata seunit import bahan makanan untuk haiwan ($r = 0.658$, p -nilai < 0.00), harga purata seunit import kacang soya ($r = 0.263$, nilai- $p = 0.001$), harga purata seunit import gandum ($r = 0.262$, nilai- $p = 0.002$) dan harga purata seunit import jagung

($r = 0.232$, nilai- $p = 0.005$). Sementara itu, harga purata seunit import jagung mempunyai pertalian positif yang sangat lemah ($r = 0.200$, nilai- $p = 0.02$) dengan IHPR Pengeluaran Tempatan Pengeluaran Ternakan, namun pertalian positif yang kuat dengan harga purata seunit import kacang soya ($r = 0.781$, nilai- $p < 0.00$).

Nilai VIF antara pembolehubah tidak bersandar adalah kurang daripada 5; menunjukkan bahawa pembolehubah adalah berhubung kait secara sederhana antara satu sama lain. Nilai VIF yang kecil sepadan dengan pembolehubah menunjukkan bahawa tidak terdapat kolineariti.

Paparan i: Matriks Korelasi Pearson dan Plot Serakan



R-Kuasa dua (R^2) mengukur perkadaran perubahan yang dijelaskan oleh perubahan dalam pemboleh ubah tidak bersandar nilai R^2 ialah 0.8925 menunjukkan 89.3 peratus perubahan IHP Subkumpulan Daging dijelaskan oleh perubahan dalam gabungan lima pembolehubah terkawal iaitu IHPR Pengeluaran Tempatan Pengeluaran Ternakan

dan harga purata seunit import bagi jagung; gandum; kacang soya dan bahan makanan untuk haiwan. R^2 terselaras mengukur perkadaran varian (bukan perubahan) yang dijelaskan oleh perubahan pengregrasi, iaitu 0.8886 bermaksud 88.9 peratus daripada varian adalah dijelaskan oleh regresi.

Jadual 1: Anggaran parameter untuk peramalan IHP Subkumpulan Daging

Parameter	Anggaran	SE	95% CI		Pr(> t)	
			Had bawah	Had Atas		
Pintasan	β_0	17.8289	3.493	12.0420	23.6147	1.09e-06 ***
PPI	β_1	0.7909	0.033	0.7355	0.8464	< 2e-16 ***
M_AUP	β_2	0.0003	0.003	-0.0049	0.0055	0.9200
W_AUP	β_3	-0.0005	0.002	-0.0043	0.0034	0.8448
S_AUP	β_4	-0.0034	0.002	-0.0065	-0.0003	0.0726 .
F_AUP	β_5	0.0078	0.001	0.0059	0.0098	1.04e-09 ***

Nota: S.E.: anggaran ralat piawai.

CI: selang keyakinan.

*** p < 0.01

. p < 0.1

IHP Subkumpulan Daging mempunyai pertalian yang signifikan dengan IHPR Pengeluaran Tempatan Pengeluaran Ternakan dan harga purata seunit import bahan makanan untuk haiwan. IHP subkumpulan daging dipengaruhi secara positif oleh IHPR Pengeluaran Tempatan Pengeluaran Ternakan. Peningkatan satu unit IHPR Pengeluaran Tempatan Pengeluaran Ternakan menyumbang kepada peningkatan 0.791. unit

IHP Subkumpulan Daging. Sebaliknya, kenaikan satu unit harga purata seunit import bahan makanan untuk haiwan menyumbang kepada peningkatan 0.008 unit IHP Subkumpulan Daging. Pembolehubah harga purata seunit import bagi jagung, gandum, dan kacang soya tidak mempunyai pertalian yang signifikan kepada perubahan IHP Subkumpulan Daging, masing-masing dengan nilai-p 0.9200, 0.8448 dan 0.0726.

PERBINCANGAN DAN KESIMPULAN

Harga daging ternakan di pasaran mempunyai pertalian dan hubung kait yang kuat dengan harga daging ternakan di ladang. Perubahan harga daging ternakan di ladang memberi kesan secara langsung kepada harga daging ternakan di pasaran. Sementara itu, pertalian antara harga daging ternakan di pasaran dengan harga import makanan ternakan, walaupun kecil, memberi kesan marginal kepada perubahan harga daging ternakan di

pasaran. Sementara itu, pertalian antara harga daging ternakan di pasaran dengan harga import input bahan makanan bagi haiwan iaitu jagung, gandum dan kacang soya masing-masing adalah lemah. Oleh itu, harga import jagung, gandum dan kacang soya tidak memberi kesan yang ketara kepada perubahan harga daging ternakan di pasaran. Penemuan ini konsisten dengan Jongwanich dan Park (2008) dan Devi, Zala dan Pal (2015) yang

menunjukkan kesan marginal kejutan harga luaran terhadap inflasi. Sehubungan itu, analisis lanjut boleh dilaksanakan dengan melihat kepada barangan dan perkhidmatan perantara lain untuk industri ternakan. Walaupun begitu, mutakhir ini, isu kenaikan harga bijirin global semakin ketara berikutan peningkatan stok makanan semasa pandemik, fenomena cuaca dan yang terkini, krisis Rusia-Ukraine. Harga purata seunit import bahan makanan untuk haiwan bagi tempoh enam bulan pertama 2022 meningkat 16.4 peratus berbanding tempoh yang sama tahun lalu, manakala jagung, gandum dan kacang soya masing-masing bertumbuh 26.9 peratus, 37.1 peratus dan 27.0 peratus. Berikutan itu, pelbagai agensi kini bekerjasama untuk meningkatkan pengeluaran makanan ternakan

tempatan dan penanaman jagung bijirin bagi mengurangkan kos pengeluaran makanan ternakan tempatan dan seterusnya harga daging ternakan. Merujuk perkembangan berkaitan, Kabinet meminta kerjasama kerajaan negeri, agensi kerajaan dan syarikat berkaitan kerajaan (GLC) menyediakan tanah Lesen Kependudukan Sementara (TOL) untuk penanaman jagung bagi jangka masa panjang. Sebagai strategi jangka panjang dan untuk mengurangkan pergantungan kepada import makanan, Kerajaan telah memperkenalkan inisiatif 30 peratus pengurangan kebergantungan import makanan melalui rancangan dengan program bijirin peringkat kebangsaan menerusi Projek Pembangunan Industri Jagung Bijian.

PENAFIAN

Pandangan yang dikemukakan adalah pandangan daripada penulis dan tidak semestinya mewakili pandangan Jabatan Perangkaan Malaysia.

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IS THE MARKET PRICE OF LIVESTOCK MEAT INFLUENCED BY THE IMPORT PRICE OF ANIMAL FEED?

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INTRODUCTION

The increase in livestock meat prices is often being the focus especially during the festive season.

To curb the increases, livestock meat which includes poultry, beef, mutton and pork were being listed as one of the items in the Festive Season Maximum Price Scheme (SHMMP). However, recently, the increase in the price of livestock meat, especially poultry, does not only occur during the festive season, along with various internal and external factors such as lack of supply and rising prices of livestock feed.

Malaysia's imports of feeding stuff for animals amounted at RM5.5 billion or 2,019,586 tonnes in 2021. At the same time, Malaysia also imported input for feeding stuff for animal, namely maize (RM4.7 billion, 3,563,448 tonnes), wheat (RM1.8 billion, 1,318,057 tonnes), and soya beans; (RM1.8 billion, 735,540 tonnes). The Ministry of Agriculture

and Food Industries (MAFI) deputy secretary-general (development) Datuk Badrul Hisham Mohd, on 11 May 2022 said, feed for poultry comprised 70 per cent of total cost which is typically belongs to the livestock food production industry. To overcome the issue of the substantial increase in the cost of livestock feed as well as to minimise the reliance on imports, MAFI through its Grain Corn Industry Development Project has set a target to reduce livestock feed imports by 30 per cent by the year 2030.

This study aims to measure the influence of price of livestock meat in the market with import price of input for feeding stuff for animals, namely maize, wheat and soya beans as well as import price for feeding stuff for animals. In addition, this study also looks at the correlation between the price of livestock meat in the market and ex-farm.

SCENARIO OF DEMAND AND SUPPLY FOR LIVESTOCK MEAT

According to the Household Expenditure Survey 2019, Malaysian households spent an average of RM109.08 per month on meat, consisting of fresh meat (RM79.70), frozen meat (RM11.08) and processed meat (RM18.30). These values represented 2.4 per cent of Malaysia's total monthly household consumption expenditure during the year. Meanwhile, according to the Supply and

Utilization Accounts for Selected Agricultural Commodities, Malaysia population in 2020 consumed poultry the most with a per capita consumption of 47.4 kilograms per year. This was followed by beef (5.6 kilograms/year) and mutton (1.3 kilograms/year), while pork consumption among the non-Muslim population in Malaysia was 17.5 kilograms per year as shown in Table i.

Table i: Key Indicators for Demand of Livestock Meat

Expenditure Sub-group	Composition of household consumption expenditure, Malaysia, 2019)		Livestock Meat	Per Capita Consumption 2020 (kg/year)
	(RM/month)	(%)		
Fresh Meat	79.70	1.76	Poultry	47.4
Frozen Meat	11.08	0.24	Pork	17.5
Processed Meat	18.30	0.40	Beef	5.6
Total	109.08	2.41	Mutton	1.3

Source: Department of Statistics Malaysia

The demand was then met by domestic production and imports. Domestic production of poultry in 2020 was 1,597,526.1 tonnes, followed by pork (221,324.5 tonnes), beef (43,492.5 tonnes) and mutton (4,026.4 tonnes). Even so, these supplies were not enough to meet domestic demand as the Self-Sufficiency Ratio (SSR) of these commodities were recorded below 100.0 per cent in 2020. The SSR of poultry and pork was approaching 100.0 with 98.2 per cent and 94.9 per cent respectively, while the SSR of beef was recorded at 22.2 per cent and mutton at 9.6 per cent.

This scenario derived the needs of imports in order to fill the gap in local production. Malaysia was highly dependent on imports of mutton and beef by recording the import dependency ratio (IDR) of 90.4 per cent and 78.1 per cent, respectively in 2020. Meanwhile, the IDR for pork and poultry were recorded at 5.8 per cent and 4.2 per cent, respectively (Table ii). Malaysia imported RM2.3 billion of beef in 2021, 93.7 per cent of which was frozen meat, mostly from India, while mutton imports totaled RM767.9 million, primarily from Australia. Meanwhile, the primary sources for poultry (RM774.5 million) and pork (RM211.5 million) were Thailand and the European Union (E.U), respectively.

Table ii: Key Indicators for Supply of Livestock Meat

Livestock Meat	Domestic Production (tonnes)	Import Dependency Ratio (IDR), %	Self-Sufficiency Ratio (SSR), %	Imports (RM)
				2020
Poultry	1,597,526.1	98.2	4.2	774.5
Pork	221,324.5	94.9	5.8	211.5
Beef	43,492.5	22.2	78.1	2,322.9
Mutton	4,026.4	9.6	90.4	767.9

Source: Department of Statistics Malaysia

LITERATURE REVIEW

Inflation refers to general increases in prices of goods and services which lead to a reduction in the purchasing power. Inflation can be measured through price indices or Gross Domestic Product (GDP) deflator. Inflation is mainly due to supply or/and demand factors. Demand side factors resulted in demand-pull inflation that occurs when aggregate demand increases so much outpacing aggregate supply. When demand surfeits supply, prices will go up and create inflation. Meanwhile, supply side factors lead to cost-push inflation that occurs when the producers counter the increase in costs by raising prices to safeguard the profit margins.

According to the findings of analysis by Lee (2002), the intermediate inputs observed to have the greatest effect on food prices were the agricultural inputs, services, and nondurable manufactured inputs. Accordingly, the impact of an increase in intermediate input prices on food prices was substantial, especially for domestic agricultural and food products. On the other hand, based on Jongwanich and Park's

analysis (2008), as opposed to external price shocks, excess aggregate demand and inflation expectations were mostly to blame for Asia's inflation, indicating that monetary policy will continue to be an effective tool in the fight against inflation in Asia. Furthermore, the analysis also suggested that the impact of external price shocks on domestic prices has been limited thus far. Meanwhile, according to Devi, Zala and Pal (2015), a positive and significantly higher growth rate was observed for output prices compared to total input cost in most of the crops observed for their study. Thus, implied that the prices received for output of the observed crops did not increase in line with the prices paid for the inputs. Jongwanich, Wongcharoen and Park (2016) found that the producer prices typically experience a stronger pass-through of global oil and food prices than consumer prices. That is, global commodity price shocks appear to have a greater impact on the price index that is more important to producers than on the price index that is more important for customers.

METHODOLOGY

For this study, data on Consumer Price Index (CPI) Sub-group of Meat, Producer Price Index (PPI) Local Production for Animal Production and import average unit price for maize, wheat, soya beans and animal feed. CPI is compiled based on the retail prices or transacted prices that are being collected from about 21,800 retail outlets throughout Malaysia either on a weekly, monthly or quarterly basis. Meanwhile, the PPI is obtained from Producer Price Survey. This price refers to the prices received by the producer at the first stage of commercialisation from selected establishments according to the contributions to the total output of the selected industries. Import average unit price was

obtained from External Trade Statistics, compiled from the declarations of imports and exports of goods mainly from the Royal Malaysian Customs Department. The data covering a 144-months period from January 2010 to December 2021.

The Pearson Correlation Analysis was used to measure the statistical relationship between two continuous variables. The Multiple Linear Regression (MLR) analysis was used to evaluate the relationship between one continuous dependent variable with other independent variables with the considered variables as below:

$$Y = \beta_0 (\text{PPI}) + \beta_1 (\text{M_AUP}) + \beta_2 (\text{W_AUP}) + \beta_3 (\text{S_AUP}) + \beta_4 (\text{PPI}) + \beta_5 (\text{F_AUP}) + \varepsilon$$

Where:

Y: CPI Sub-group of Meat

PPI: PPI Local Production for Animal Production

M_AUP: Import average unit price for Maize

W_AUP: Import average unit price for Wheat

S_AUP: Import average unit price for Soya bean

F_AUP: Import average unit price for Animal feed

The MLR method should satisfy regression model assumptions: linearity, normality, homoscedasticity, and multicollinearity. For linearity, it was shown from the Residuals vs Fitted graph, while for normality, it was shown from the Normal Probability Q-Q graph.

Heteroscedasticity assumes that residuals are distributed with an unequal variance which could affect the model's outcome. Thus, the Breusch-Pagan test assures the residuals were distributed with equal variance to achieve homoscedasticity.

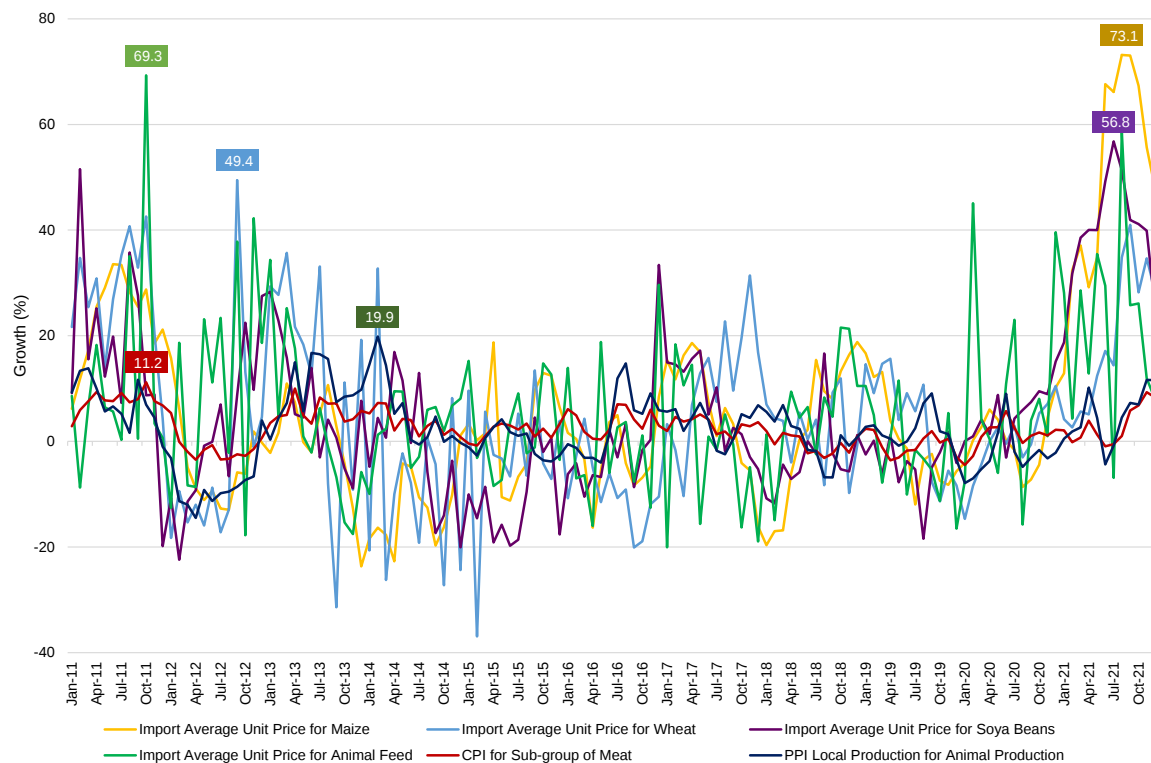
Correlation among the independent variables within the data set is the phenomenon of multicollinearity, which negatively influences the outcome of the regression model. It should be eliminated because it will contribute to high variance between variables. The correlation coefficients approach shows the relationship between two variables. Meanwhile, the variance inflation factor (VIF) approach is used to measure how much the variance of the estimated regression coefficient is inflated if the independent variables are correlated.

RESULT

This analysis aims to see the impact of changes in the import price for maize, wheat, soya beans and animal feed on the price of livestock meat prices as well as the relationship between prices of livestock meat at the consumer level and ex-farm using MLR. The analysis was employed on monthly Malaysia's CPI Sub-group of Meat, PPI Local Production for Animal Production and import average unit price for maize, wheat, soya beans and animal

feed. The highest annual growth for CPI for Sub-group of Meat was noted in October 2011 with an increase of 11.2 per cent, while for PPI Local Production for Animal Production was in February 2014, with 19.9 per cent. On the same note, the highest growth for import price for maize (+73.1%), wheat (+49.4%), soya beans (+56.8%) and animal feeds (+69.3%) were noted in August 2021, September 2012, July 2021 and October 2011, respectively (Chart i).

Chart i: Annual Percentage Change of CPI Sub-Group of Meat, PPI Local Production for Animal Production and Import Average Unit Price for Maize, Wheat, Soya beans and Animal Feed, January 2011 to December 2021

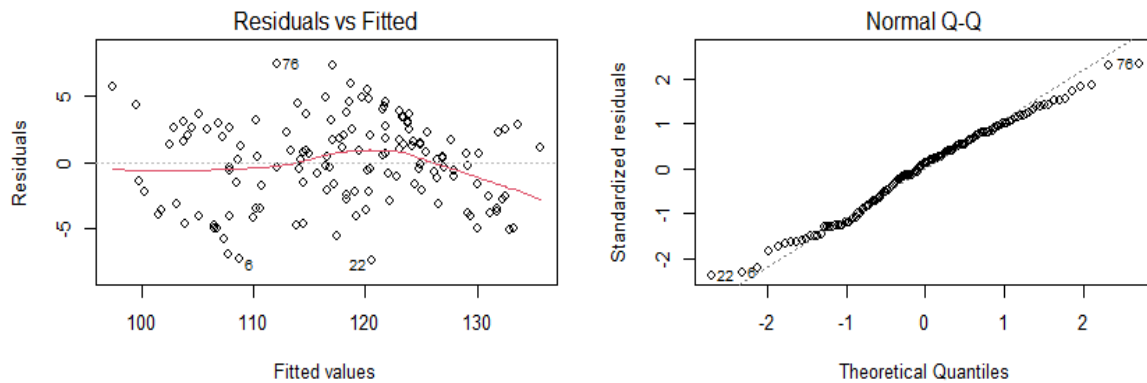


Source: Department of Statistics Malaysia

The regression assumptions were tested to ensure the validity of the analysed results for regression model diagnostics. The assumption of normality is tested through visualisation in the Normal Q-Q plot. From chart ii, it is evident from the Normal Q-Q plot that data points lie close to the diagonal line, which indicates the residuals are normally distributed. Inspection of the Residuals vs Fitted plot to check the linear relationship assumption showed no distinct

pattern, and the red line approximately horizontal at zero indicates linearity of data. The heteroscedasticity assumption is examined by the Breusch-Pagan test, which evaluates the null hypothesis that the residuals of a regression meet the assumption of homoscedasticity in which residuals are distributed with equal variance. The output of the Breusch-Pagan test has a non-significant p-value (p-value = 0.2091), showing the residuals were homoscedastic.

Chart ii: Assumption Plots

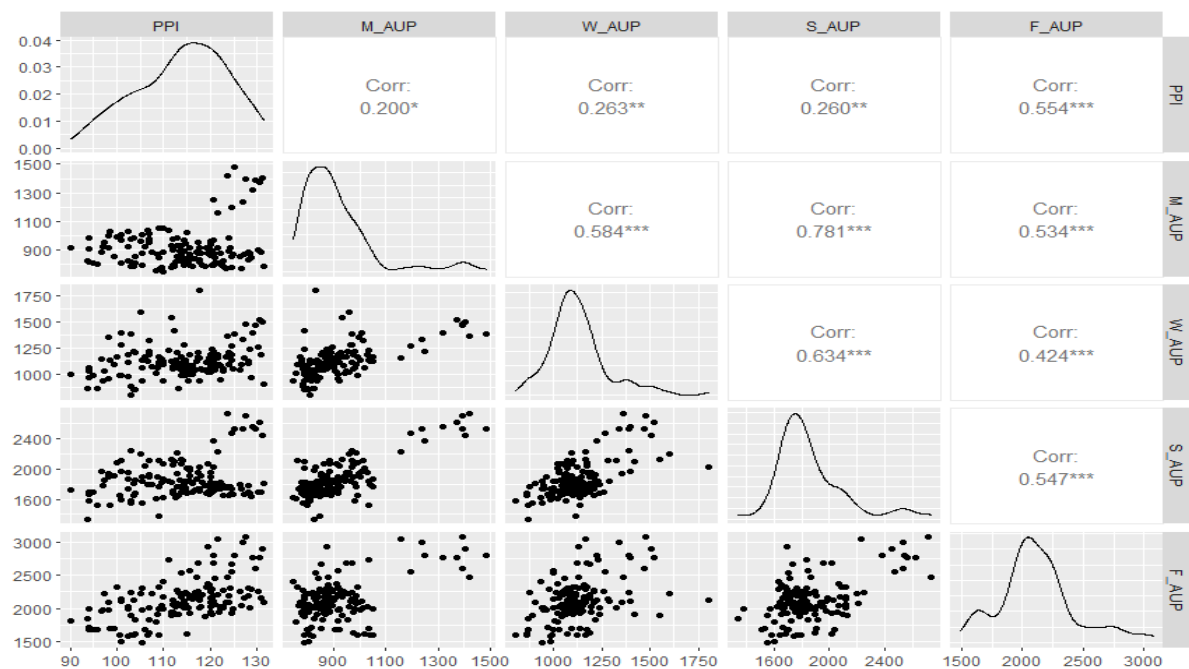


The correlation analysis between CPI Sub-group of Meat and other factors resulted with positive and significant correlation (via the asterisks next to coefficients) at a p-value < 0.05. The correlation coefficient of overall CPI Sub-group of Meat with the PPI Local Production for Animal Production has very strong positive correlation ($r = 0.925$, p-value < 0.00), followed by Animal Feed Import Average Unit Price ($r = 0.658$, p-value < 0.00), Soya beans Import Average Unit Price ($r = 0.263$, p-value = 0.001), Wheat Import Average Unit Price ($r = 0.262$, p-value = 0.002) and Maize Import

Average Unit Price ($r = 0.232$, p-value = 0.005). Meanwhile, the Maize Import Average Unit Price has a very weak positive correlation ($r = 0.200$, p-value = 0.02) with PPI Local Production for Animal Production, but a strong positive correlation with Soya beans Import Average Unit Price ($r = 0.781$, p-value < 0.00).

The values of VIF among the independent variables are less than 5; it specifies that the variables are moderately correlated to each other. Small values of VIF corresponding to the variables show that there is no problem of collinearity.

Figure i: Pearson's Correlation and Scatter Plots Matrix



R-Squared (R^2) measured the proportion of the variation that is explained by the variations in the independent variables. The value of R^2 was 0.8925 showing that 89.3 per cent changes in CPI Sub-group of Meat occurred because of changes in a combination of five controlled variables which were PPI Local Production for Animal Production, Maize Import Average Unit

Price, Wheat Import Average Unit Price, Soya beans Import Average Unit Price, and Animal Feed Import Average Unit Price. The adjusted R^2 measured the proportion of the variance (not variation) that was explained by the variations in the regressors, of which 0.8886 means that 88.9 per cent of the variance was explained by the regression.

Table 1: Parameter estimates for predicting CPI Sub-group of meat

Parameter		Estimate	SE	95% CI		Pr(> t)	
				Lower	Upper		
Intercept	β_0	17.8289	3.493	12.0420	23.6147	1.09e-06	***
PPI	β_1	0.7909	0.033	0.7355	0.8464	< 2e-16	***
M_AUP	β_2	0.0003	0.003	-0.0049	0.0055	0.9200	
W_AUP	β_3	-0.0005	0.002	-0.0043	0.0034	0.8448	
S_AUP	β_4	-0.0034	0.002	-0.0065	-0.0003	0.0726	.
F_AUP	β_5	0.0078	0.001	0.0059	0.0098	1.04e-09	***

Notes: S.E.: estimated standard error.

CI: confidence or credible interval.

*** p < 0.01

. p < 0.1

PPI Local Production for Animal Production and Animal Feed Import Average Unit Price were statistically significant. CPI Sub-group of meat was positively influenced by PPI Local Production for Animal Production. The increase in PPI Local Production for Animal Production by one unit led to an increase in CPI Sub-group of meat by 0.791. On the contrary, one unit

increase of Animal Feed Import Average Unit Price will cause CPI Sub-group of meat to increase by 0.008. The Maize Import Average Unit Price, Wheat Import Average Unit Price, and Soya beans Import Average Unit Price variables were statistically insignificant to the changes of CPI Sub-group of meat, with a p-value 0.9200, 0.8448 and 0.0726, respectively.

DISCUSSION AND CONCLUSION

Price of livestock meat in the market correlated and related strongly with the price of livestock meat ex-farm, implied that changes in the price of livestock meat ex-farm have a direct impact on the price of livestock meat in the market. Likewise, there was also a correlation between the price of livestock meat in the market with animal feed import price, though marginal, led to a minimal impact on changes in the price meat in the market. Meanwhile, the correlation between the price of livestock meat in the market with import price of input for feeding stuff for animals, namely maize, wheat and soya

beans were weak respectively. Therefore, the import price of maize, wheat and soya beans did not seem to have a significant effect on changes in the price of meat in the market. The finding was consistent with that Jongwanich and Park (2008) and Devi, Zala and Pal (2015) which indicated the least impact of external price shocks on inflation. Accordingly, further studies can be carried out on other intermediate goods and services for the livestock industry. Having said so, in recent times, the issue of rising global grain prices has become more and more apparent along with the food stockpiling

during the pandemic, weather phenomena and recently, the Russia-Ukraine crisis. Malaysia's import average unit price for animal feeds for the first six months of 2022 increased 16.4 per cent as compared to the same period a year ago, while maize, wheat and soya beans inclined 26.9 per cent, 37.1 per cent and 27.0 per cent, respectively. Accordingly, many parties are currently working together to increase the local production of animal feed and cultivation of grain corn to lower the cost of the local livestock food production and subsequently the price of livestock meat. In light

of recent developments, the Cabinet had requested the cooperation of state governments, government agencies and government-linked companies (GLC) to provide Temporary Occupation Licence (TOL) land for long-term corn cultivation. As a long-term intervention and to reduce dependence on food imports, the Government has introduced the 30 per cent Reduction of Feed Imports Dependency initiative with plans for a national level grain program under the Corn Grain Development Blueprint.

DISCLAIMER

The views expressed are those of the authors and do not necessarily represent the view of the DOSM.

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