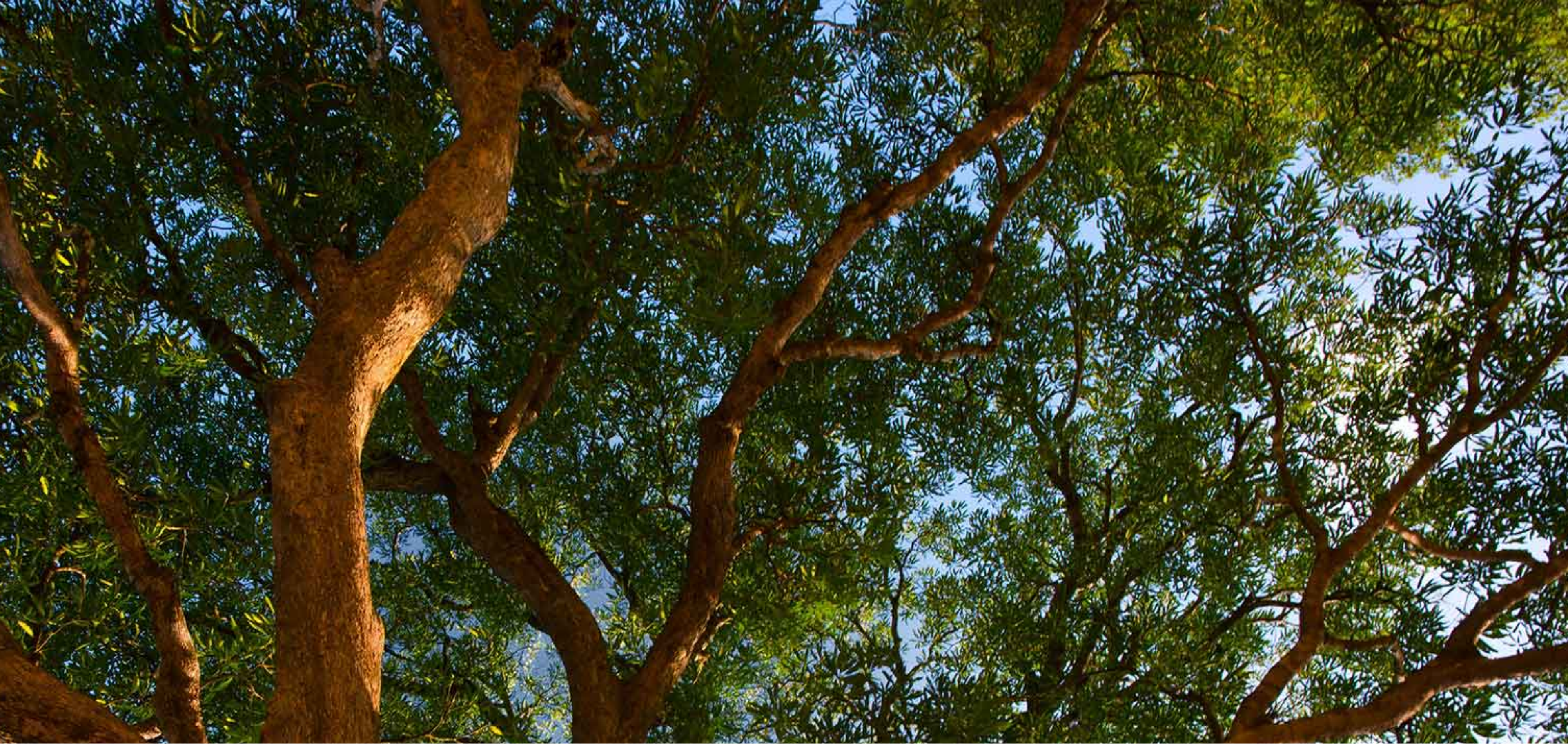

Project: Heavy Machinery

Prepared by: Reciprocus International

Date: January 2017

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Executive Summary

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Reciprocus has recently completed a study on expected demand growth for heavy machinery in the Gulf region (specifically within the GCC markets). This high-level snapshot summarizes some aspects of our findings and insights.

- Insights have been formed based on both primary and secondary, publicly available information as well as our firsthand knowledge of heavy equipment in the GCC region.
- The GCC region has an overall strong demand for heavy machinery with an estimated USD128bn worth of projects to be completed annually between 2016 and 2019. This shows a significant pipeline even after years of substantial infrastructure spending.
- Exports of heavy machinery from ASEAN to the GCC region has grown significantly at a CAGR of 12.7%, which is supported by the key drivers, primarily spurred by the heavy investment in construction projects in the GCC region.
- Three examples of high growth opportunities in the GCC region are Saudi Arabia, Bahrain and the UAE, among others.
- Based on our research, among the GCC countries, Saudi Arabia is currently is the second largest destination for exports of heavy machinery from ASEAN countries and has been growing at the fastest rate with a CAGR of 25.1%.
- On the other hand, there was a decline in imports of heavy machinery from ASEAN among the remaining GCC countries (Kuwait, Oman and Qatar).
- Our analysis of the trade flows between ASEAN and the GCC region showed a general growth in exports of all but the lifting machinery category.
- Further analysis of the lifting machinery category in the GCC saw growth in ASEAN exports to Oman.
- Given the ample growth opportunities in the GCC heavy machinery market that Singapore companies may have missed, we would recommend that companies explore and expand into other countries in the GCC region, Saudi Arabia, Bahrain and the UAE in particular.

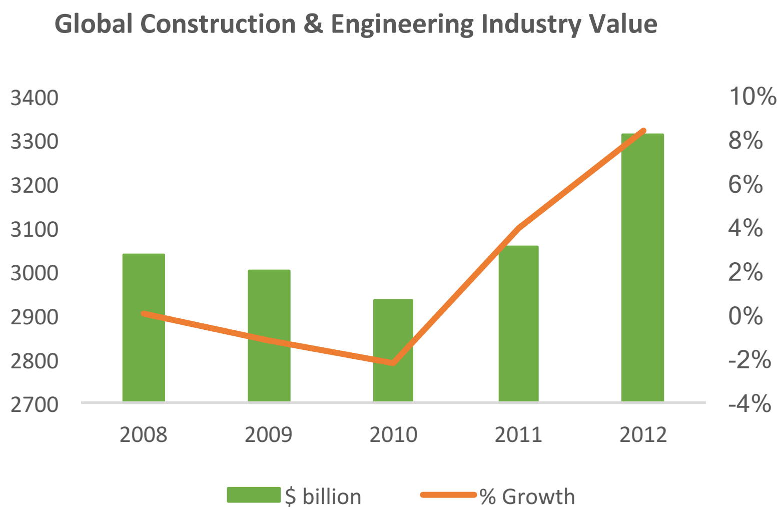
Macroeconomic Outlook of the Industry

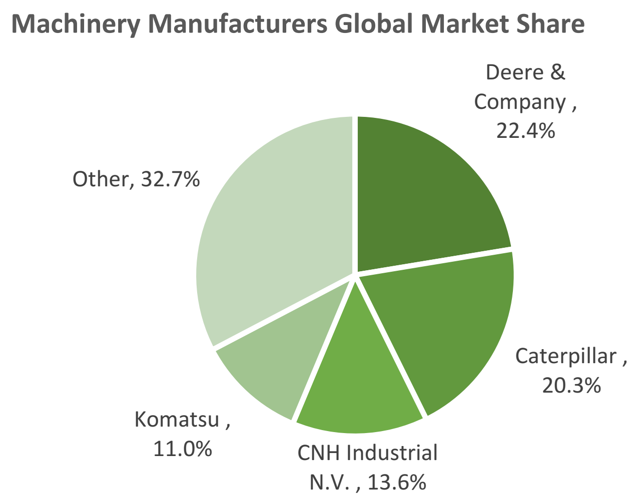
Business Overview

- **Trend Analysis:** The global market for heavy machinery is projected to grow at a steady CAGR of 7.9% over the period 2014 - 2019 and reach a market value of US$ 229 billion by 2019. The recent heavy investment in infrastructure development in the GCC region as a means of diversifying away from reliance on oil-export driven economy also drive demand for the heavy machinery market.

- **Key Drivers:** The demand for heavy machinery is mainly driven by global construction and engineering activity, which was severely impacted by the economic climate in 2009, resulting in the global construction industry contracting by over 25%. Since the recession, construction has recovered, with the APAC region accounting for nearly half of the global construction value. As such, the market for heavy machinery is expected to continue to experience significant growth in the APAC region, Middle East and Africa due to the increase in infrastructure activities in emerging economies while Europe's share of the market is expected to decline.

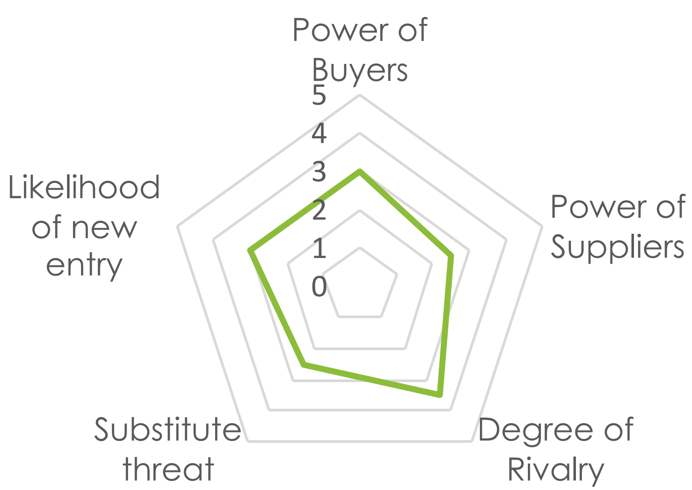
- **Market Leaders:** The largest manufacturers of construction heavy machinery are Deere & Company, Caterpillar, CNH Industrial N.V, and Komatsu, with Deere accounting for 22.4% of the market share and Caterpillar accounting for a further 20.3%





Industry Outlook and Analysis

Porter's 5 Forces Analysis



Analysis Breakdown

- **Power of Buyers:** A large number of end-buyers, primarily construction companies, have strong bargaining power due to the relatively low switching costs and the lack of differentiation of products. However strong brand reputation such as Caterpillar and New Holland can be an influencing factor which may weaken power of buyers.

- **Power of Suppliers:** Suppliers have fairly low differentiation of raw materials and there is often little to distinguish between them, resulting in manufacturers having relatively low supplier switching costs.

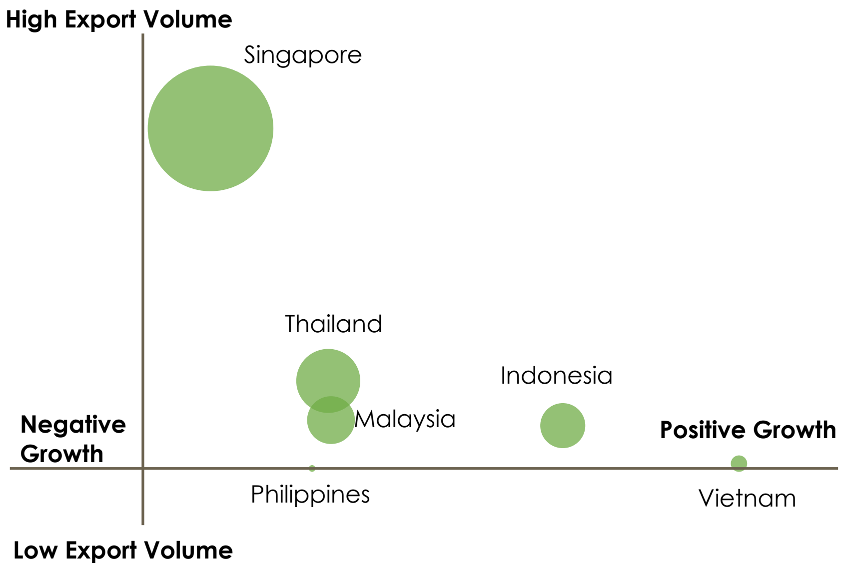
- **Degree of Rivalry:** The global construction and heavy machinery market is characterized by intense competition due in part to high fixed costs, exit barriers, and the dominance of large multinational players namely Caterpillar, CNH, Deere & Company, and Komatsu.

- **Substitute Threat:** Substitutes as such do not exist in this market due to the specific function of various types of equipment.

- **Likelihood of New Entry:** There are relatively high barriers to entry in this industry due to factors such as high capital expenditure, long set-up time and large economies of scale. However, due to the low volume, high complexity nature of heavy machinery, small scale entry as shortline or specialty manufacturers is possible.

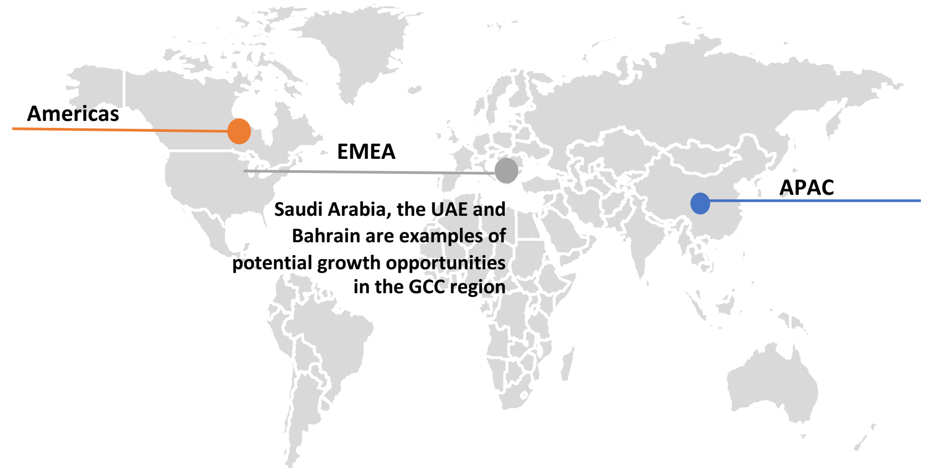
Regional Landscape and Analysis

ASEAN Exports to GCC: Growth and Volume by Country



- **Growing demand for heavy machinery:** The fall in oil prices from approximately USD 110/bbl in 2010 to USD 50/bbl in 2015 has created fiscal pressure on the oil-based economies in the GCC region. Despite this, the GCC infrastructure still has a project pipeline of USD 2 trillion to be awarded from 2016-2020, creating a huge opportunity for heavy machinery.

- **Emerging opportunities in ASEAN export market:** Singapore is currently the largest exporter of heavy machinery to the GCC countries among the ASEAN countries. However, there is still opportunity for growth as the GCC countries' import volume from Singapore is relatively small compared to larger players such as the US and Japan.



UAE

Population: 9.1 million
Total GDP (2015): US$ 370.3 billion
Heavy Machinery Import (2014): US$ 416.5 million
10-Year CAGR: 7.4%

Saudi Arabia

Population: 31.5 million
Total GDP (2015): US$ 646.0 billion
Heavy Machinery Import (2014): US$ 382.2 million
10-Year CAGR: 7.0%

Bahrain

Population: 1.3 million
Total GDP (2015): US$ 31.1 billion
Heavy Machinery Import (2014): US$ 13.1million
10-Year CAGR: 6.9%

Opportunities Spotlight and Analysis

Why Saudi Arabia?

Why Bahrain?

Why UAE?

Saudi Arabia

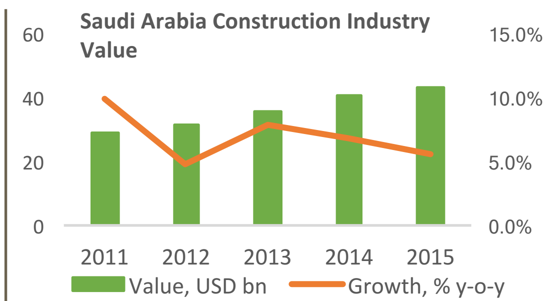
- Among the GCC countries, Saudi Arabia is the fastest growing destination for exports of heavy machinery from ASEAN, with a 3 year CAGR of **25.1%**.
- Saudi Arabia has led the transformation in the GCC construction market with the development of the six economic cities.
- It currently has a pipeline of megaprojects, such as the KACARE Renewable Energy Program (worth USD 150 billion alone) with more than 80% of the investment flowing through these multi-billion dollar projects, creating demand for heavy machinery.

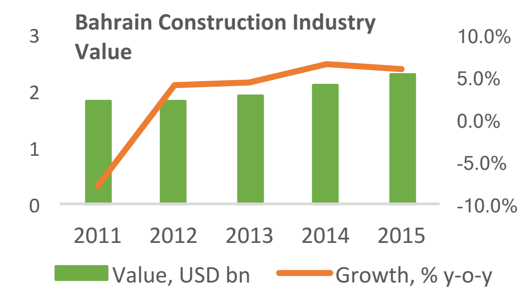
Bahrain

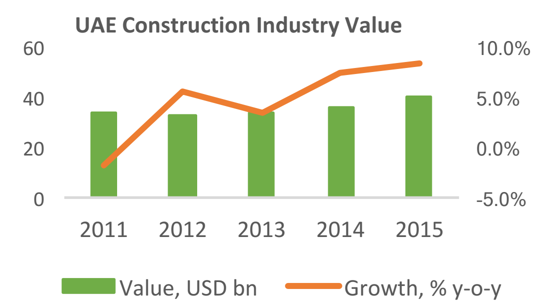
- Bahrain has the second highest 3 year CAGR of **13.5%** for ASEAN exports of heavy machinery among the GCC countries.
- Its construction market is expected to continue growing at a CAGR of 8.75% over the period 2015-2025 and industry outlook appears to be improving, following the announcement of several major non-residential construction projects.

UAE

- Exports of heavy machinery from ASEAN to the UAE also grew at a steady rate with a 3 year CAGR of **7.8%**.
- The UAE government has set aside DH 47.3 bn (USD 12.8 bn) in the 2017 budget for infrastructure development which is a 27% increase over the previous year, creating greater demand for heavy machinery.
- The highest growth in the construction industry is expected to be between 2016 and 2019, as Dubai's preparation for World Expo 2020 is driving significant momentum into commercial building and transport infrastructure.

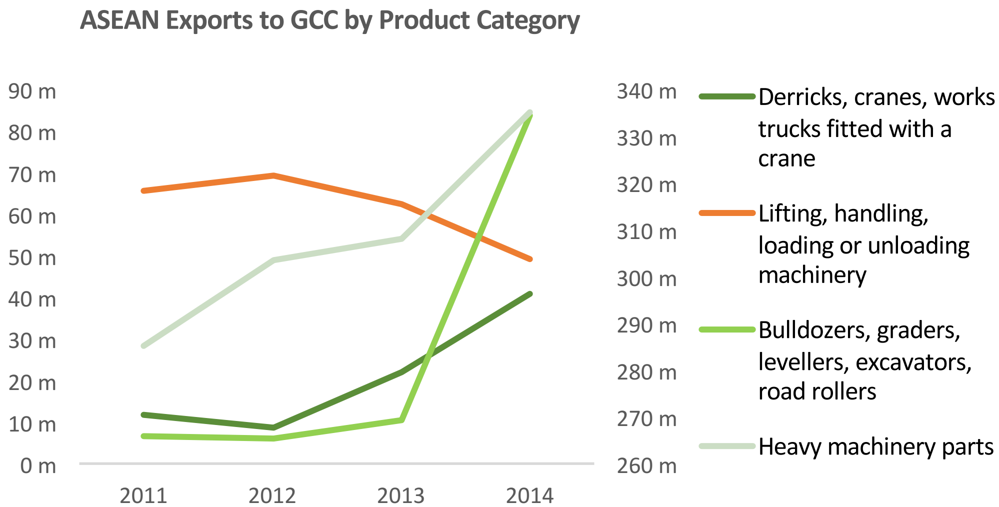


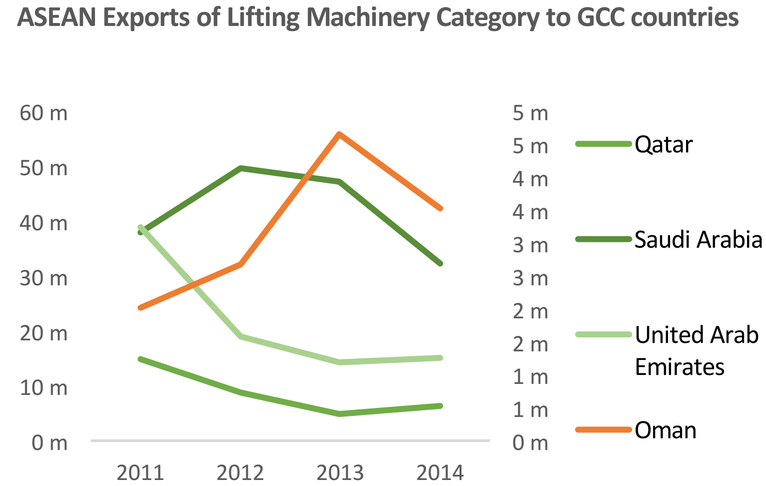


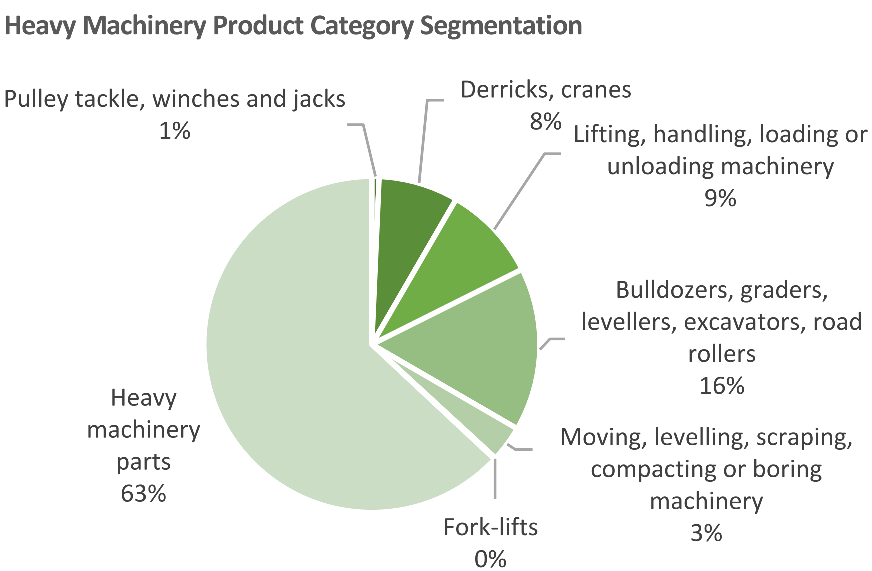


While Saudi Arabia, Bahrain and the UAE show promising signs of growth, we see potential for headwinds for the heavy machinery market in Kuwait, Oman and Qatar. ASEAN exports of heavy machinery to these countries have declined, with **Kuwait** at a CAGR of **-4.1%**, **Oman** at **-7.5%** and **Qatar** at **-8.1%**. We would therefore recommend that Singapore companies focus on other countries for growth.

Opportunities Spotlight and Analysis

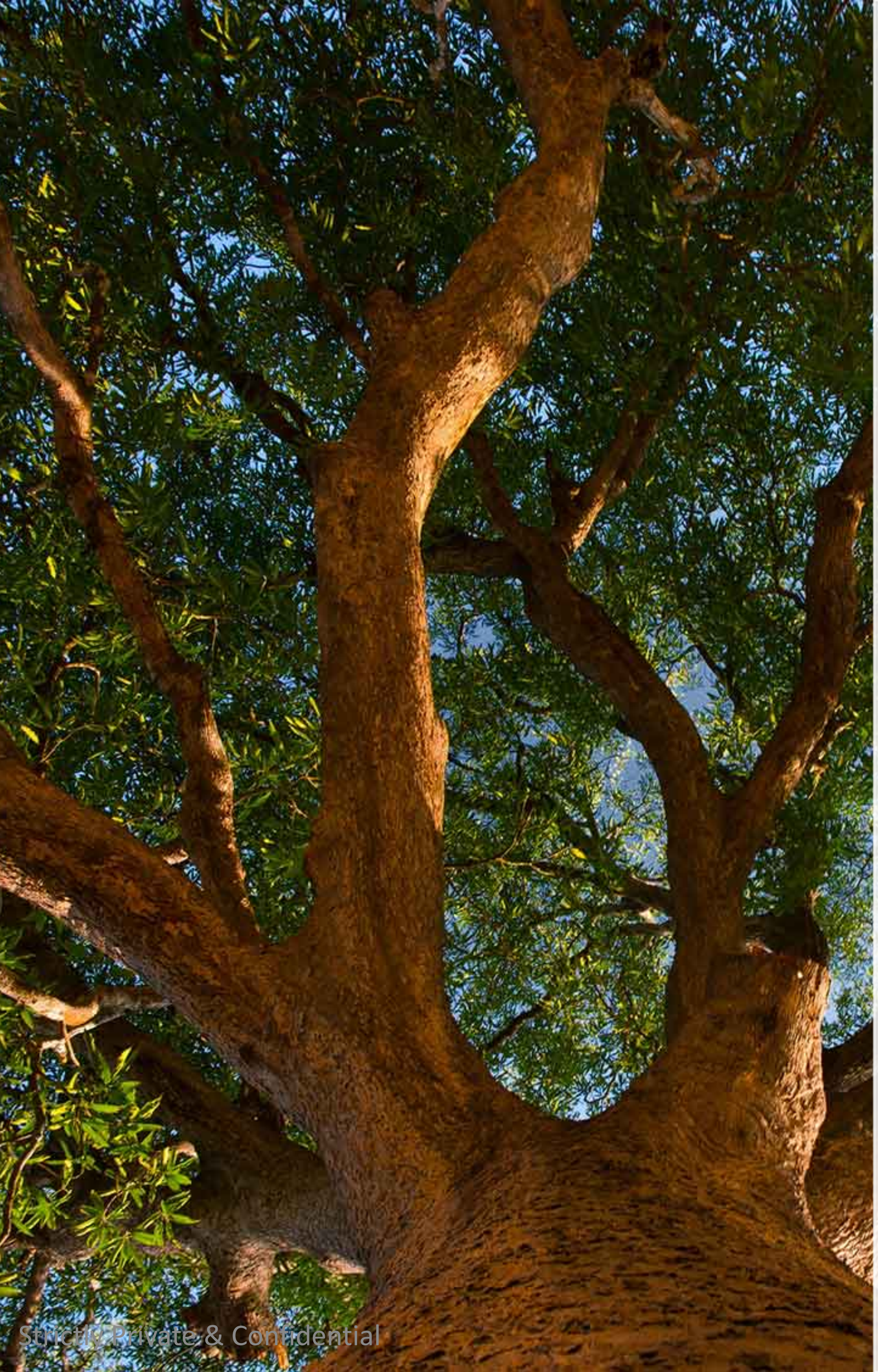






Analysis Breakdown

- The analysis indicated that the winches, fork-lifts and moving, levelling or boring machinery categories had small trade flows of less than $20 million each in 2014, relative to the $536 million of total heavy machinery exports.
- While ASEAN exports of most product categories of heavy machinery have seen positive growth, exports of the lifting machinery category in the GCC region shrank at a 3 year CAGR of -9.0%.
- Upon closer analysis of the lifting machinery category exports to the GCC region, exports specifically to **Oman** have grown at a CAGR of 20.5%. This indicates an opportunity for growth of the lifting machinery category in Oman.



About Reciprocus

We specialize in assisting small and medium-sized businesses with expansion into overseas markets:

- Selecting and Structuring Route to Entry;
- Mergers, Acquisitions, Joint Ventures;
- Distributorships, Franchising and Licensing;
- Capital Raising.

For more information about our practice, visit our website at: www.reciprocus.com.

IE Singapore Assistance

The Singapore Government co-funds up to 70% of the third party professional fees for internationalization activities under the following schemes:

Market Readiness Assistance Grant: Market assessment, market entry and business matching activities.

Global Company Partnership Grant: Market research, scouting for overseas partners and due diligence activities.

More information available at:
http://www.iesingapore.gov.sg/Assistance.

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