



# Prospects for Growth in U.S. Dairy Exports to Southeast Asia

Christopher G. Davis and Jerry Cessna

## What Is the Issue?

The demand for dairy products in Southeast Asia (SEA) is expected to grow in the coming decades, creating opportunities for exporters in the United States and other countries. Top dairy suppliers to the region include New Zealand, the European Union (EU), the United States, and Australia. This study examines the prospects for growth of U.S. dairy exports to the SEA region, U.S. competitors in these markets, and the price sensitivity of SEA demand for the four top U.S. products imported by the region. In addition, this study explains how the U.S. potential to gain or lose market share varies from one SEA country to another and among products.

## What Did the Study Find?

Trends in market share and sensitivity to prices for U.S. dairy products vary across countries and products. By examining trade patterns and using a statistical modeling approach, this study shows:

- SEA total dairy imports have grown in recent years, from \$3.8 billion in 2006 (valued in constant 2018 U.S. dollars) to \$6.3 billion in 2018. SEA dairy imports from the United States grew from \$401 million in 2006 (valued in constant 2018 U.S. dollars) to \$738 million in 2018. Over this period, the United States moved from the fourth to the third largest SEA dairy product supplier, behind New Zealand and the EU.
- Skim milk powder (SMP), whey products, lactose, and cheese are the major U.S. dairy products imported by SEA countries. SMP was SEA's top dairy product imported, by value, from the world and from the United States in 2018. Although the EU was the top supplier of SMP to the region in 2018, the United States was the largest supplier of SMP to the Philippines and Indonesia. And while the EU was the largest supplier of whey products to the region, the United States was the largest supplier of whey products to Vietnam; the United States was the second largest supplier of whey products to Indonesia. The United States was the top supplier of lactose to the region and supplied over half of the lactose imports, by value, to the SEA region in 2018. The region imported less cheese from the United States than from New Zealand, the EU, and Australia in 2018; however, SEA cheese imports from the United States have grown significantly since 2006.

ERS is a primary source of economic research and analysis from the U.S. Department of Agriculture, providing timely information on economic and policy issues related to agriculture, food, the environment, and rural America.

- Cheese has been the dairy product most consistently imported by SEA countries from most trading partners. Each of the five major SEA importing countries imports cheese from several trading partners almost every month. In addition to New Zealand, the EU, Australia, and the United States, consistent suppliers to the region also include Switzerland and Japan.
- SEA countries were sensitive to changes in U.S. export prices of dairy products in varying degrees. An analysis of 2006-16 data found that Malaysia and Singapore were the most sensitive to changes in U.S. cheese prices, while Malaysia and Indonesia were the most sensitive to changes in U.S. SMP prices. Malaysia was also sensitive to fluctuations in U.S. whey product prices. In some cases, SEA demand for U.S. dairy products increased or decreased significantly in response to price changes for products from competing suppliers, such as the EU, Australia, and New Zealand.
- If past trends continue, rising import expenditures in SEA could lead to an increase in U.S. market share for cheese, whey products, SMP, and lactose in some countries. If dairy import expenditures grow in SEA, the United States could gain market share for cheese in Indonesia; whey products in Malaysia, Singapore, and the Philippines; SMP in Indonesia and Vietnam; and lactose in the Philippines, Indonesia, and Malaysia. By contrast, the United States could lose market share for cheese imports in the Philippines, Malaysia, and Singapore. Although imports of cheese from the United States could grow for these countries, cheese imports from other trading partners may grow at a faster rate.
- The EU has been the chief competitor for the United States in the SEA dairy market. Over the 2006-16 timeframe, SEA importers were more likely to substitute U.S. dairy products for EU dairy products than for products from New Zealand or Australia. There are substitute relationships between the United States and the EU for cheese in Singapore; whey products in the Philippines and Malaysia; SMP in Indonesia and Singapore; and lactose in the Philippines, Indonesia, and Vietnam. The magnitude of these relationships between U.S. and EU dairy products could identify which of the two countries will benefit the most in trade, given a change in price.

*Note: Sensitivities to prices and expenditures may potentially be much different than this study would indicate under conditions brought about by the coronavirus COVID-19 pandemic. At the time of publication, the potential impacts of the virus on economic trade are uncertain. The findings discussed below would be most representative if market conditions post-COVID-19 are similar to those in the 2006-16 time period.*

## **How Was the Study Conducted?**

The study examined trade patterns and used a statistical modeling approach—the Rotterdam model—to estimate the sensitivities of price and dairy import expenditures on demand for dairy imports from five SEA countries. A Rotterdam model is a system of equations often used in econometric studies of consumer demand. The trade data were accessed through the Global Trade Atlas (GTA) database. Monthly import data from 2006 to 2016—including volumes, values, and tariff rates—were used for the Philippines, Indonesia, Malaysia, and Singapore. Since Vietnam import data are not published, export data of Vietnam’s trading partner countries were used. Annual tariff data from the World Integrated Trade Solution (WITS) database were employed for each country. Unit values (trade values divided by volumes) plus tariffs were used as import price proxies. Sensitivity measurements, known as elasticities, were calculated for prices of dairy products from each supplying country (own-price elasticities), prices of dairy products from competing suppliers (cross-price elasticities), and dairy import expenditures of importing countries (import expenditure elasticities).