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# Colossal Growth in the Vietnamese Dairy Industry

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**Report Highlights:**
Few industries in the world are experiencing the colossal growth that the Vietnamese dairy industry has enjoyed the last few years. Not only are U.S. exports of dairy products benefiting, but Vietnam's bid to develop its domestic production is also driving tremendous demand for U.S. forage. Growth in U.S. dairy exports were up 200 percent from 2009 to 2010, while U.S. hay exports jumped an astonishing 675 percent during that time. With domestic production at around 20 percent of current demand, opportunities are bountiful for U.S. dairy product exporters. Vietnam has one of the fastest growing economies in the world and its dairy consumption is here to stay. Post expects strong demand for milk products and forage in the immediate and medium-term future.

**Production:**

In calendar year 2009 Vietnam had a total of 115,500 dairy cattle of all sexes, of which about 70,000 were milk cows. Fifteen percent of the dairy herds are in the Northern region of the country, and 85 percent are in the Southern region. Ho Chi Minh City and the surrounding area account for 69 percent of Vietnam's total dairy population.

Data from Vietnam's Ministry of Agriculture and Rural Development (MARD) shows that domestic milk production grew six percent from 262,000 metric tons in 2008, to 278,000 metric tons in 2009. Local milk production is projected to continue to increase due to the growing demand for fresh milk. Given the projected dairy cattle numbers in 2010, and the current average milk yield, dairy production in 2010 was expected to reach over 315,000 metric tons, but Post has yet to verify this prediction with domestic sources.

**Domestic fresh milk production**

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 |
|---|---|---|---|---|---|---|---|---|---|
| Dairy cattle (head) | 41,241 | 55,848 | 79,225 | 95,794 | 104,120 | 113,215 | 98,659 | 107,983 | 115,518 |
| Fresh milk production (ton) | 64,703 | 78,453 | 126,697 | 151,314 | 197,679 | 215,953 | 234,438 | 262,160 | 278,190 |
| Per capita consumption (liter) | - | - | - | - | 12.22 | 12.71 | 14.75 | 14.81 | - |

Source: MARD

The majority of the dairy cows are locally bred Holstein-Friesian (HF) cattle. Crossbred dairy cows are the result of inseminating Holstein genetics into already crossbred Red Sindhi and local Yellow Cow cattle. The HF blood-ratios include 50 percent, 75 percent, and 87.5 percent with the balance coming from the Red Sindhi/Local Yellow Cow hybrids. Crossbred cattle account for about 85 percent of the total dairy cow population. Introducing Holstein crosses into the dairy herd is a key part of the Vietnamese Government's (GVN) plan for improving Vietnam's local milk yield and quality in the hot, humid low-land areas. Pure HF cows are only raised in Lam Dong province, where the climate is suitable for 100 percent HF cows. Lam Dong province accounts for about 14 percent of Vietnam's total dairy population.

Vietnam's current average milk yield ranges from 4,000-4,500 kilograms per lactation period for HF cows, and above 3,500 kilograms per lactation for crossbred cows. Despite an increase in the number of dairy cows, the average milking capacity per animal remains low, due mainly to inadequate feeding and poor herd management practices.

The first factor impacting low per-head milk production is inadequate feeding. Elephant grass is the most frequent forage used locally. Small portions of rice straw, guinea grass and napier grass are also used. Feed grass ratios are 5-25 percent for elephant grass, 5-10 percent rice straw, 3-10 percent napier grass and 3-5 percent guinea grass, depending on the season. Chronic forage scarcities during the winter-dry season caused the Vietnam dairy industry to start importing hay and hay powder from other

countries. Until recently, alfalfa was the main type of hay imported into Vietnam. U.S. alfalfa accounted for 98 percent of total hay imports in 2009, but that percent drastically dropped in 2010 to other U.S. forage products. Vietnam imported $10,000 worth of fescue and orchard grass hay for the first time in 2009; in 2010, however, the importation of these types of hay surged to over $2.1 million. Alfalfa now accounts for 43 percent Vietnam's of total forage imports while other U.S. hay varieties supply the balance. This illustrates the potential growth and dominant market share of U.S. forage exports to the Vietnam forage market.

**Exports of U.S. hay to Vietnam** Value: $1,000

| | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---|---|---|---|---|---|---|
| ALFALFA HAY | 76 | 23 | 213 | 335 | 466 | 1,579 |
| OTHER HAY | 0 | 0 | 0 | 0 | 10 | 2,109 |

Source: Department of Commerce, U.S. Census Bureau, Foreign Trade Statistics

Poor animal and herd management practices are the second main factor contributing to the low average milk yield. The structure of the current Vietnamese dairy industry is primarily small-scale, scattered operations which are highly labor intensive and utilize older technology. More than 95 percent of total dairy cows are located in small farms, with an average size of 3-5 head, per farm, in Northern Vietnam, and 5-7 head, per farm, in Southern Vietnam. The farm income, therefore is limited, which constrains their ability to modernize equipment and purchase premium feeds. According to MARD, the number of dairy farms in the 5-10 head range is increasing. These small farms need to become more efficient and productive in order to remain viable in the years ahead. Technology will be the key to increased efficiency as only 10 percent of operations currently use milking machines. This number will approach 100 percent as the industry moves toward modern production practices.

## Consumption:

In Vietnam the yearly per-capita rate of milk consumption is only about 15 kg, compared to 35 kg in the rest of Asia. Therefore, Vietnam's dairy sector has enormous growth potential. Vietnam's economy is expected to grow at seven percent in 2011 and its growth prospects for the next decade look promising. According to Global Insight, growth in the economy will translate to a per capita GDP of $2,000 by 2020. As incomes rise Post expects that expenditures on dairy products will increase commensurately.

Increasing numbers of Vietnamese women joining the workforce has led to an increase in bottle feeding. This is especially true in big cities such as Ho Chi Minh City and Hanoi, although breast feeding is still generally encouraged by the GVN. Nevertheless, the fact that fewer women are breast feeding has created an opportunity for powdered milk products and has helped this market grow sharply in Vietnam in recent years.

Powdered milk formula products are the most popular types of baby food products, mainly because of their affordable price. Though liquid milk formula is more convenient, parents still prefer the powdered formula because it is perceived to be of higher quality. Baby food is heavily dominated by international brands with the only exception being Vietnam Dairy Products (Vinamilk). Many parents think the leading international brands have better quality and are more nutritious than local brands, or at least the product safety is assured by the companies' good reputations. Consumers are therefore willing to pay

the difference in price. Demand for baby food is expected to continue to increase, and this growth will be supplied mainly by imports.

Milk manufacturers in Vietnam have to rely on imports since local milk production is low and cannot keep up with demand. There are two main factors affecting the unit price of drinking milk products, international milk prices and the fluctuating exchange rate. Even though the GVN tried to control price increases for baby formula, unit prices continued to increase in 2010. High prices are a major concern for both manufacturers and consumers.

Condensed/evaporated milk makes up the majority of dairy product sales. It has been a common product in Vietnam for a long time and was a nutritional supplement before drinking milk products became more popular and affordable. Its usage varies widely, from making coffee to home-made yogurt. Looking forward, there is little to no potential for further development of this market segment due to product saturation.

Meal replacement products have not fully developed yet in Vietnam, meaning that they are not entirely competitive. Nonetheless, more and more consumers are becoming aware of meal replacement products due growing consumer awareness about nutrition and healthy lifestyles. Post expects that as per capita income grows, a niche market might emerge for these products.

Convalescence products are the only widely available products in the meal replacement category in Vietnam. Demand for these products has grown in line with the increasing sophistication of doctors, and patients understanding these products' advantages. Private labeling of these products was insignificant in 2010 due to the high-level of investment needed and the cost of developing meal replacement products. Convalescence products are more popular than slimming products in Vietnam. Slimming products, however, have started to gain more consumer attention in Vietnam and might have some potential in the future.

Consumer demand for ice cream continued to increase in 2010. In general, dairy ice cream was perceived as having more varieties, better taste and higher quality than other iced treats. Since the consumption of ice cream in Vietnam is still low compared to other countries in the region, at one liter per capita per year, Post expects this market to provide strong possibilities in the decades to come. Though the market will develop, Post does not expect imported ice cream to be competitive, it is more likely that the Vietnamese domestic processing industry will grow to meet the additional demand.

The demand for cheese is low in Vietnam. Unprocessed cheese is not common and is not widely available in markets and stores. It is mostly consumed by expatriates or in Western style and pizza restaurants. Processed cheese, however, is more familiar to consumers given its light taste and affordable price. Due to the rapid change in living standards and the increasing influence Western food culture, consumer demand for all types of cheese is expected to increase. In particular, the younger population, which is more familiar with dairy products than the previous generation, will likely be the drivers of this increased demand.

**Trade:**

Vietnam produces about 22 percent of its total annual dairy requirements and imports the balance.

Dairy processing companies purchase fresh milk collected by milk collecting centers. Vietnam Dairy Products (Vinamilk) purchases more than 60 percent of the total fresh milk production in Vietnam, with more than 370 tons of fresh milk purchased daily. Other fresh milk purchasers are Dutch Lady, Anco (ex-Nestle), Hanoimilk, and IDP. A substantial part of the milk produced in Vietnam never reaches the bulk milk processing and distribution system, but is rather consumed by households or is sold in local markets. This informal sector represents around 20 percent of total fresh milk production.

The local fresh milk purchase price was stable from 1995 to 2003 at around USD $0.20, per liter, with only a few price increases during that period. Then, between 2004 and 2006, the price increased to USD $0.30, per liter. From 2006 to 2007, the price jumped rapidly to USD $0.40, per liter. At that time, global prices for milk powder rapidly increased, making fresh milk much more profitable for processing companies. In 2010, the fresh milk purchase price increased three more times: September 2010 to USD $0.46, per liter; October 2010 to USD $0.51, per liter; and December 2010 to USD $0.54, per liter.

About 71 percent of Vietnam's total annual milk demand is imported from New Zealand, the United States, the EU, and Australia. Major imported products in 2009 and 2010 were non-fat dry milk (30 percent of total imports), infant formula (25 percent of total imports), full-fat dry milk (10 percent of total imports), whey (4 percent of total imports), and lactose (3 percent of total imports). The following table shows Vietnam's milk imports by supplier, for 2009 and 2010.

Vietnamese Imports of Milk and Milk Products in Calendar Years 2009 and 2010 (USD $1,000)

| | CY 2009 | CY 2010 | 2010/2009 % change | Market share 2009 % | Market share 2010 % |
|---|---|---|---|---|---|
| Milk products total | 515,773 | 708,289 | 37.3 | 100 | 100 |
| New Zealand | 141,500 | 181,740 | 28.4 | 27.4 | 25.7 |
| USA | 45,690 | 141,099 | 208.8 | 8.9 | 19.9 |
| Netherlands | 71,812 | 87,563 | 21.9 | 13.9 | 12.4 |
| Thailand | 34,073 | 37,382 | 9.7 | 6.6 | 5.3 |
| Australia | 19,521 | 26,257 | 34.5 | 3.8 | 3.7 |
| Poland | 20,412 | 25,877 | 26.8 | 4.0 | 3.7 |
| France | 10,115 | 17,560 | 73.6 | 2.0 | 2.5 |
| Denmark | 44,715 | 17,377 | -61.1 | 8.7 | 2.5 |
| Malaysia | 27,077 | 11,639 | -57.0 | 5.2 | 1.6 |
| Germany | 4,840 | 9,923 | 105.0 | 0.9 | 1.4 |

Source: Vietnam Custom Office; Note-dried whey ($10 mil) and lactose ($6 mil) are categorized in Vietnam as feed ingredients. This accounts for the difference between the FAS USDA BICO dairy export values ($157,524,000) and Vietnam's U.S. milk and milk products import value ($141,099,000).

**Policy:**

MARD continues to place a high priority on developing the country's dairy industry, in an effort to keep up with the growing domestic demand for fresh milk. The table below reflects the GVN's plans for increasing the size of the national dairy cattle herd from 2010 to 2020.

| Areas | YEAR | | | | | | | | | | | Average growth rate (%/year) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2010-2015 | 2015-2020 |
| Whole country | 132k | 145k | 161k | 181k | 207k | 240k | 263k | 289k | 320k | 356k | 400k | 12.70 | 10.76 |
| North Vietnam | 29k | 34k | 40k | 48k | 59k | 73k | 84k | 96k | 111k | 129k | 150k | 20.28 | 15.49 |
| South Vietnam | 103k | 111k | 121k | 133k | 148k | 167k | 179k | 193k | 209k | 227k | 250k | 10.15 | 8.40 |
| Region: Southeast* | 84k | 87k | 91k | 96k | 101k | 108k | 111k | 114k | 118k | 123k | 128k | 5.13 | 3.55 |
| Ho Chi Minh City | 72k | 74k | 75k | 77k | 78k | 80k | 80k | 80k | 80k | 80k | 80k | 2.02 | 0.00 |

*Includes Ho Chi Minh City

Source: Husbandry development strategy to 2020 and Department of Agriculture and Rural Development

MARD's acknowledgment of the need to increase Vietnam's fresh milk production is a signal that the GVN knows that its citizens will consume more milk products in the years to come. This is very positive news for the industry, and supports speculation for significant increases in projected dairy consumption. (NOTE: Vietnamese import tariffs for imported milk products are at the end of this report.)

**Conclusion:**

Vietnam's dairy market is rich with opportunities. A growing population with a rapidly increasing per capita income is setting the stage for a decade of transformational growth in the Vietnamese dairy product import sector. Domestic production of milk and milk products will continue to buoy the import demand for U.S. forages. It is exciting to see a sector in the process of expanding to allow opportunities in nearly every area of the overall dairy market, both for milk product providers and production input suppliers. FAS Vietnam encourages U.S. dairy product exporters and forage providers to come and see for themselves.

Note: The following table is the Vietnamese 2011-2012 tariff schedule for imported milk products. Please note the following acronyms: CEPT- Common Effective Preferential Tariff; ACFTA- Asean-China Free Trade Agreement; AANZFTA- Asean-Australia and New Zealand Free Trade Agreement.

VIETNAM IMPORT TARIFFS FOR DAIRY PRODUCTS

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | CEPT | ACFTA | AANZFTA | VAT |

| H.S. Code | Description | MFN | 2011 | 2012 | | | |
|---|---|---|---|---|---|---|---|
| **0401** | **Milk and cream, not concentrated nor containing added sugar or other sweetening matter** | | | | | | |
| 0401.10.00.00.00 | - Of a fat content, by weight, not exceeding 1% | 15 | 5 | 5 | 0 | 15 | 10 |
| 0401.20.00.00.00 | - Of a fat content, by weight, exceeding 1% but not exceeding 6% | 15 | 5 | 5 | 0 | 15 | 10 |
| 0401.30.00.00.00 | - of a fat content, by weight, exceeding 6% | 15 | 5 | 5 | 0 | 15 | 10 |
| | | | | | | | |
| **0402** | **Milk and cream, concentrated or containing added sugar or other sweetening matter** | | | | | | |
| 0402.10 | - in powder, granules or other solid forms, of a fat contents, by weight, not exceeding 1.5% | | | | | | |
| 0402.10.30 | --- Packed size from 20 kg up | 0 | 0 | 5 | 0 | 0 | 0 |
| 0402.10.30.10.00 | --- Not containing added sugar or other sweetening matter, in powder form | 3 | 5 | 0 | 0 | 10 | 10 |
| 0402.10.30.20.00 | --- Not containing added sugar or other sweetening matter, in other form | 3 | 5 | 0 | 0 | 10 | 10 |
| 0402.10.30.90.00 | --- Other, in powder form | 5 | 5 | 0 | 0 | 25 | 10 |
| 0402.10.90 | --- Other, in other form | | | 5 | | | |
| 0402.10.90.10.00 | --- Not containing added sugar or other sweetening matter, in powder form | 3 | 5 | 0 | 0 | 10 | 10 |
| 0402.10.90.20.00 | --- Not containing added sugar or other sweetening matter, in other form | 3 | 5 | 0 | 0 | 10 | 10 |
| | | 5 | 5 | 0 | 0 | 25 | 10 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 0402.10.90.90.00 | --- Other, in powder form | | | | | | |
| | - In powder, granules or other solid forms, of a fat content, by weight, exceeding 1.5% | | | | | | |
| 0402.21 | -- Not containing added sugar or other sweetening matter | | | | | | |
| 0402.21.20.00.00 | --- Packed size from 20 kg up | 3 | 5 | 5 | 0 | 10 | 10 |
| 0402.21.90.00.00 | --- In other form | 3 | 5 | 5 | 0 | 10 | 10 |
| 0402.29 | -- Other | | | | | | |
| 0402.29.20.00.00 | --- Packed size from 20 kg up | 5 | 5 | 5 | 0 | 25 | 10 |
| 0402.29.90.00.00 | ---In other form | 5 | 5 | 5 | 0 | 25 | |
| | - Other: | | | | | | |
| 0402.91.00.00.00 | -- Not containing added sugar or other sweetening matter | 10 | 5 | 5 | 0 | 10 | 10 |
| 0402.99.00.00.00 | -- Other | 20 | 5 | 5 | 0 | 25 | 10 |
| | | | | | | | |
| **0403** | **Buttermilk, curdled milk and cream, yogurt, kephir and other fermented or acidified milk and cream, whether or not concentrated or containing added sugar or other sweetening matter or flavored or containing added fruit, nuts or cocoa.** | | | | | | |
| 0403.10 | - Yogurt: | | | | | | |
| | -- Containing fruit, nuts, cocoa or flavoring matter, liquid yogurt: | | | | | | |
| 0403.10.11.00.00 | --- Liquid and condensed yogurt | 7 | 5 | 5 | 0 | 25 | 10 |
| 0403.10.19.00.00 | --- Other | 7 | 5 | 5 | 0 | 25 | 10 |
| | -- Other | | | | | | |
| 0403.10.91.00.00 | --- In condensed form | 7 | 5 | 5 | 0 | 25 | 10 |
| | | 7 | 5 | 5 | 0 | 25 | 10 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 0403.10.99.00.00 | --- Other | | | | | | |
| 0403.90 | - Other | | | | | | |
| 0403.90.10.00.00 | -- Buttermilk | 3 | 5 | 5 | 0 | 25 | 10 |
| 0403.90.90.00.00 | -- Other | 7 | 5 | 5 | 0 | 25 | 10 |
| | | | | | | | |
| **0404** | **Whey, whether or not concentrated or containing added sugar or other sweetening matter; products consisting of natural milk constituents, whether or not containing added sugar or other sweetening matter not elsewhere specified or included** | | | | | | |
| 0404.10 | - Whey and modified whey, whether or not concentrated or containing added sugar or other sweetening matter | | | | | | |
| | -- Fit for human consumption | | | | | | |
| 0404.10.11.00.00 | --- Whey | 0 | 5 | 5 | 0 | 15 | 10 |
| 0404.10.19.00.00 | --- Other | 0 | 5 | 5 | 0 | 25 | 10 |
| | -- Fit for animal feeding | | | | | | |
| 0404.10.91.00.00 | --- Whey | 0 | 5 | 5 | 0 | 15 | 5 |
| 0404.10.99.00.00 | --- Other | 0 | 5 | 5 | 0 | 25 | 5 |
| 0404.90.00.00.00 | - Other | 0 | 5 | 5 | 0 | 25 | 10 |
| **0405** | **Butters, other fats and oils derived from milk; dairy spreads** | | | | | | |
| 0405.10.00.00.00 | - Butter | 15 | 5 | 5 | 0 | 15 | 10 |
| 0405.20.00.00.00 | - Dairy spreads | 15 | 5 | 5 | 0 | 51 | 10 |
| 0405.90 | - Other | | | | | | |
| 0405.90.10.00.00 | -- Anhydrous butterfat | 5 | 5 | 5 | 0 | 5 | 10 |
| 0405.90.20.00.00 | -- Butter oil | 5 | 5 | 5 | 0 | 5 | 10 |
| | | 15 | 5 | 5 | 0 | 15 | 10 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 0405.90.30.00.00 | -- Ghee | | | | | | |
| 0405.90.90.00.00 | -- Other | 15 | 5 | 5 | 0 | 15 | 10 |
| | | | | | | | |
| **0406** | **Cheese and curd** | | | | | | |
| 0406.10 | --- Fresh cheese (fermented or not) including whey cheese and milk not for cheese processing | | | | | | |
| 0406.10.10.00.00 | --- Fresh cheese (including whey cheese), not fermented, and curd | 10 | 5 | 5 | 0 | 10 | 10 |
| 0406.10.90.00.00 | --- Other | 10 | 5 | 5 | 0 | 10 | 10 |
| 0406.20 | - Grated or powdered cheese, of all kinds: | | | | | | |
| 0406.20.10.00.00 | -- In packages of a gross weight exceeding 20 kg | 10 | 5 | 5 | 0 | 10 | 10 |
| 0406.20.90.00.00 | -- Other | 10 | 5 | 5 | 0 | 10 | 10 |
| 0406.30.00.00.00 | - Processed cheese, not grated or powdered | 10 | 5 | 5 | 0 | 10 | 10 |
| 0406.40.00.00.00 | - Blue-veined cheese | 10 | 5 | 5 | 0 | 10 | 10 |
| 0406.90.00.00.00 | - Other cheese | 10 | 5 | 5 | 0 | 10 | 10 |
| | | | | | | | |