Global Dairy Industry: The Milky Way
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1. Executive Summary

A steady rise in consumption demand for dairy and allied products has led to higher levels of technology adoption among the major dairy producing countries in the world. The global dairy industry is anticipated to clock a turnover worth USD XX billion in 2014. With a Compound Annual Growth Rate (CAGR) of XX percent, the industry is expected to generate revenues worth USD XX billion in 2019.

Negatively impacted by the global economic crisis of 2009, the dairy industry worldwide suffered a major setback. The growth of milk production dropped below one percent and the demand for dairy products slowed down significantly during the period. However, the industry is on the path to recovery. Asia continues to dominate the global dairy market. China, India and countries in South East Asia account for a major portion to the global dairy industry, but milk supply in these regions has not been able to keep pace with the level of growing demand. These markets offer huge potential for dairy companies that are looking to meet the global demand for dairy products.

Positive demand stimulus has led to the rise in global milk production, which reached XX million tonnes in 2012. Growing at a Compound Annual Growth Rate (CAGR) of XX percent and a steady rise in demand from the developing countries, global milk production is estimated to reach XX million tonnes in 2019.

Cow milk represents nearly XX percent of global milk production, which was estimated at XX million tonnes in 2013. With a CAGR of XX percent, overall production is estimated to reach XX million tonnes in 2019. Apart from a few exceptions in Europe, such as Russia and Ukraine, milk production around the world has increased significantly. As compared to cow milk, buffalo milk is produced in fewer countries. It is estimated that more than XX percent of the world’s total buffalo milk is produced in India and Pakistan.

The North American dairy industry is dominated by the United States of America followed by Canada and Mexico. Market revenues in the USA stood at USD XX million in 2011. By 2016, the USA is expected to lead the North American Free Trade Agreement (NAFTA) bloc, clocking revenues worth
USD XX million. Brazil and Argentina are the leading milk procuring countries in the region, with Chile and Uruguay slowly emerging as significant contributors to the South America dairy industry. Milk and allied dairy products is one of the major constituents of animal husbandry in Russia. In value terms, the dairy industry in Russia accounts for nearly XX percent of the gross product of animal husbandry. The Russian Federation is the fifth largest milk producer globally after India, the United States, China and Pakistan. The Russian Federation is the fifth largest milk producer globally, after India, the United States, China and Pakistan.

Asia remains one of the most diverse regions in the world in terms of economic growth, changing food consumption preferences and relative availability of resources, both human and environmental. From being a laggard and an importing nation of dairy products in the 1960’s, India has come a long way to become one of the leading milk producing countries in the world today. In its quest for self reliance, the Indian dairy industry witnessed a structural change and milk production increased four-folds over the last four decades.

Butter, ghee and anhydrous milk fat have become global products for which the worldwide market is growing steadily. The production is skewed towards south Asia, mainly in India and Pakistan. Global cheese production is concentrated in Europe and North America, which together contribute nearly XX percent of the global natural cheese production. Global whole milk powder (WMP) production was estimated at XX million tonnes in 2013, as compared to XX million tonnes in 2012. China and New Zealand are the two major producers of WMP. World production of skim milk powder (SMP) was estimated at around XX to XX million tonnes in 2013. Global trade in SMP noted a dynamic development since 2011 when worldwide exports of SMP soared by nearly XX percent.

According to the World Bank, long term demand for food is anticipated to rise immensely, resulting in price volatility. Among other food sectors, the dairy sector is projected to experience considerably erratic movement in prices in the coming years. A World Bank Survey suggests that developing and emerging countries have largely contributed to the world’s wealth growth in the last decade. Although developed countries were the major contributors till 2005, the period between 2000 and 2010 witnessed significant contribution from the BRIC (Brazil, Russia, India and China) region. The rise of these developing countries has played a crucial role in the growth of the global dairy sector.
2. Global Overview

The continuous drive to increase global dairy production level has led to increasing adoption of new technologies. New technologies have resulted in a significant climb in productivity - producing more milk per cow. Meanwhile, steady increases in the number of global dairy processing units have led to a considerable drop in the turnaround time and in the operating cost.

The global dairy industry is anticipated to clock turnovers worth USD XX billion in FY2014 and with a Compound Annual Growth Rate (CAGR) of XX percent, the industry is expected to generate revenues worth USD XX billion in 2019. According to the Association for Packaging and Processing Technologies (PMMI), the United States of America is anticipated to account for XX percent of the global dairy sales by 2015. The US market is not only one of the largest global dairy markets but is also a major dairy exporter. As of 2012, the US exported XX percent of the total milk produced, up from XX percent in 2010. Approximately two-thirds of the total milk produced in the US goes toward domestic fluid milk consumption.

Despite the challenging economic scenario in the US and EU over the past one year, the demand for dairy and its allied products has remained stable. Globally, dairy commodity prices accelerated as a result of a drought in New Zealand in early 2013. Prior to the drought, consumers reduced purchase volumes and retailers ran down stocks in anticipation of declining prices. Although a supply constraint as a result of the drought has not increased the price level, at the same time the usage of substitutable products has increased.

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2.1 Global Milk Production

Positive demand stimulus has led to a rise in global milk production, which reached XX million tonnes in 2012. With a CAGR of XX percent and steady rise in demand from developing countries, global milk production is estimated to reach XX million tonnes in 2019.

The global dairy industry registered steady growth till 2012. The major milk producing countries all registered growth in milk output except Chile and Kazakhstan.
Chart 11

Continent-wise Cow Milk Production

Source:
4. Milk Production – North America

The North American dairy industry was valued at USD XX million in 2011. With a CAGR of XX percent through 2011-2014, the market is estimated to log revenues worth USD XX million in 2014.

This dairy industry is dominated by the United States of America followed by Canada. The market revenues in the USA stood at USD XX million in 2011. It is anticipated that USA would lead the North American Free Trade Agreement (NAFTA) bloc by clocking revenues worth USD XX million in 2016. The dairy industry in Canada and Mexico stood at USD XX million and USD XX million, respectively, in 2011.
7. Milk Production – Asia

Asia remains one of the most diverse regions in the world in terms of economic growth, changing food consumption preferences and relative availability of resources, both human and environmental. The nature of this diversity is reflected in regional dairy development patterns, marked by diverse growth paths, diverging growth patterns, different production/market systems and varying consumption preferences.

According to estimates of the Planning Commission of India, demand for milk is expected to reach XX million tonnes by 2019-2020. In order to meet such a high demand, the industry has to sustain an annual growth rate of XX percent. Thus, the Indian dairy industry is anticipated to have an incremental addition of XX million tonnes per year for the next 8 years.
8. Milk Production – Oceania

The dairy sector in Oceania is stimulated by sustained high prices of products in the international market. Milk production in the region was hit due to prolonged dry weather at the start of 2013. In New Zealand, milk production level was ahead by 6 percent in January 2013 compared to the previous year, but the sector experienced a XX percent drop in production level in March 2013. However, abundant rainfall and good quality of pastures in April resulted in XX percent growth of milk production in September.

New Zealand accounts for XX percent of the global milk production and is the XX largest milk producing country in the world. The production level is somewhat similar to countries such as the UK and France, but with a low population level the country earns large export revenues as a major portion of the produce is exported to South East Asian and Latin American countries.

Source:
10.1 Butter Production in Selected Countries

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Source:
**13.1 SMP Production – Selected Countries**

Table 2

| SMP Production – Selected Countries (in ’000 metric tonnes) |
|-----------------|--------|--------|--------|--------|--------|
|                  | 2009   | 2010   | 2011   | 2012   | 2013e  |
| **North America**|        |        |        |        |        |
| Canada           | XX     | XX     | XX     | XX     | XX     |
| Mexico           | XX     | XX     | XX     | XX     | XX     |
| United States    | XX     | XX     | XX     | XX     | XX     |
| Sub Total        | XX     | XX     | XX     | XX     | XX     |
| **South America**|        |        |        |        |        |
| Argentina        | XX     | XX     | XX     | XX     | XX     |
| Brazil           | XX     | XX     | XX     | XX     | XX     |
| Sub Total        | XX     | XX     | XX     | XX     | XX     |
| European Union - 28 | XX | XX | XX | XX | XX |
| **Former Soviet Union**|        |        |        |        |        |
| Russia           | XX     | XX     | XX     | XX     | XX     |
| Ukraine          | XX     | XX     | XX     | XX     | XX     |
| Sub Total        | XX     | XX     | XX     | XX     | XX     |
| **Asia**         |        |        |        |        |        |
| China            | XX     | XX     | XX     | XX     | XX     |
| India            | XX     | XX     | XX     | XX     | XX     |
| Japan            | XX     | XX     | XX     | XX     | XX     |
| Korea            | XX     | XX     | XX     | XX     | XX     |
| Sub Total        | XX     | XX     | XX     | XX     | XX     |
| **Oceania**      |        |        |        |        |        |
| Australia        | XX     | XX     | XX     | XX     | XX     |
| New Zealand      | XX     | XX     | XX     | XX     | XX     |
| Sub Total        | XX     | XX     | XX     | XX     | XX     |

*Source:*
15. Outlook

According to the United Nations, XX billion additional people are expected on earth by 2050 and the major issue will revolve around the availability of resources to feed such a huge population. The situation would become even more challenging as fluctuations in climate and the unavailability of natural resources would further hinder productivity.

As a result of a steady rise in demand in Africa and Asia, the world milk production is likely to increase in the coming years. An increase slightly above XX per year seems to be reasonable. It is

Table 3

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**Source:**

According to the United Nations, XX billion additional people are expected on earth by 2050 and the major issue will revolve around the availability of resources to feed such a huge population. The situation would become even more challenging as fluctuations in climate and the unavailability of natural resources would further hinder productivity.

As a result of a steady rise in demand in Africa and Asia, the world milk production is likely to increase in the coming years. An increase slightly above XX per year seems to be reasonable. It is
estimated that the large gap between potential and effective growth could exist in many parts of the world depending on the incentives and attractiveness associated with dairying, compared to other crops.

If biofuel and green electricity continue to be sustained with incentive policies, milk production will not be as vibrant as anticipated in countries like Germany or Brazil. However, according to the Food and Agriculture Organization of the United Nations (FAO) and Organisation for Economic Co-operation and Development (OECD), the gain milk production (XX percent) by 2021, would be mainly attributable to the developing countries, notably China and India. From 2014 onwards, total milk production in developing countries is expected to exceed production in developed countries.

According to the World Bank, long term demand for food and dairy products is anticipated to rise immensely, thereby resulting in price volatility. Among other food sectors, the dairy sector is anticipated to experience the most erratic movement in prices in coming years. The global market is primarily dominated by five key countries (India, New Zealand, European Union, the United States and Australia) contributing more than XX percent of the global dairy trade. Any variation in milk production in these countries would result in fluctuations in world prices.

According to a World Bank Survey, developing and emerging countries have largely contributed to world wealth growth in the last decade. There has been an increase in standard of living among the household class who can now afford costlier food products such as vegetables, meat and dairy products.