How economy in its global dimensions

Singapore thrives on its strategic geographical location where lying at the crossroads of main shipping lines, it is one crucial factor that turned it into one of the world's greatest commercial centre. Other contributory factors such as a strong and stable government, good infrastructure and a transparent legal system could perhaps be traced back to the development of the tin and rubber industry in the Malay States during the 1870s and the l900s. The advantageous position of Singapore fully capitalized by the two proliferating industries thus marked the beginning in its gradual transformation into the global trading power that it is today. Singapore's emergence as a staple port began with tin.

Tin was Singapore's main import during the period 1874 and 1896. The demand for tin took off as a result of two product innovations: barrels for transporting petroleum and canned food. Herein lies the first sign of how technological advances was to influence future trade patterns and consequently the economy of Singapore. The emergence of a new trading partner in the United States (US) and the subsequent part it plays in charting the course of the Singapore economy was also defined. The significance of the tin industry's growth in the late 19th century affected Singapore's global dimensions in many ways. Firstly, the tin industry attracted many Chinese immigrants into Singapore to support the labour intensive nature of tin mining and it gave rise to small-scale Chinese enterprises.

Simple open cast mining placed heavy dependence on manual labour to excavate large quantities of alluvial soil and to wash the tin-bearing gravel in the extraction of tinstone. The growth of the tin industry and immigration were closely linked with both peaking at 50, 000 tons and 150, 000 persons respectively in 1895. Such large-scale immigration helped shaped the future demographic composition of Singapore, with Chinese making up the majority. Economically, the increase in immigration spurred greater increases in trade. Chinese workers created a demand for food and simple manufactures stressing the importance of trade with China and India that was essentially an extension of the regional economy. However, the prosperous tin mining industry also attracted many Europeans in the early 19th century.

The British were the first to introduce the “ gravel-pump” method of mining. In addition, the Europeans also introduced the “ bucket-dredge” to tin mining. A main characteristic feature of this mining method was that it was highly capital intensive and employed relatively few workers. Hence, the total number of workers in fell from 170, 000 in 1910 to 104, 000 in 1920.

The tin industry also affected the development of the Singapore economy in its circulating capital because at least four-fifths of the production costs was needed to maintain the mining labour force. Singapore Chinese traders, who supplied much of this circulating capital, typically did so through a goods-credit marketing interlinked transaction. This barter system of credit became the backbone of the tin industry and the trade between the East and the West. It enabled local traders to obtain western imports in credit and in exchange, the foreigners are supplied with local produce when there is supply.

Hence, the tin industry saw Chinese traders taking on additional services as they provided credit and financial services in addition to goods. The attractiveness of trading in Singapore grew and this appealed to many other countries worldwide. The basis of commercial law was also laid in this period with the implementation of property rights and contracts to ensure the smooth workings of the tin industry. British's concern over the barter trade further culminated in a " protectionist" po1icy where export of tin ore from the Malay Peninsula was prohibited to discourage theft and sale for cash to an emerging class of tin ore dealers.

This resulted in tin ore being smelted at or near mines reaching Chinese merchants in the Straits ports in the form of slag metal. Once again, the locational advantage of Singapore comes into play enabling it to take full advantage of the change in British policy as it had an excellent site for the smelting industry on the island of Pulau Brani. The setting up of the Straits Trading Company (STC), which led to a change of players in the tin smelting industry, probably marked the first wave of foreign investment in Singapore. Establishing an alternative credit structure of using cash rather than goods, the STC was able to rival the barter system by offering higher prices than its Chinese competitors with its efficient smelting.

Moreover, the easy acquisition of cash and credit at low interest rate with its links to the Europeans banks widened the competition. Yet despite control of financing the tin industry falling into the hands of the Europeans, for the Singapore economy in general, tin smelting had concentrated the tin market here. The tin industry also laid the foundations for the transportation and communications infrastructure that was later expanded upon under the rubber boom. Growth of the tin industry necessitated efficient transport network and by 1899, all major tin mining centres were linked to their respective ports. The increase in government revenue spent on building roads, constructing railways, clearing rivers, and setting up social infrastructure such as hospitals and schools had the function of aiding in the development of the economy by speeding up economic activities and served not just as the base of current infrastructure. Unfortunately, tin (also rubber) subjects the economy to both positive and negative effects.

Characterized by a low price elasticity of demand and high income elasticity, it is prone to fluctuations in prices as a result of changes in demand. Indeed, dependency on tin as its export meant that Singapore is susceptible to world events beyond its control. Positive effects on the economy arose from occurrences (the Industrial Revolution, which brought about an increase in tin demand, the America Civil War, which precipitated the tin canning of food). The above mentioned world events marked the start of an important trading relationship with the US. Since the US was the main importer of tin, the volume of Singapore’s exports to Britain slowly declined. This shift also reflected the relative decline of London as an entrepot in the late 19th century.

Thus, Singapore started to be more independent from its colonial masters. However, the downside of this is precisely the over-reliance on the US for tin demand. This would mean that any decrease in US demand for tin would have a serious adverse impact on the Singapore economy. Furthermore, years of international tin control schemes, for example, the International Tin Agreement in 1953, made the tin industry amendable to international control and correspondingly placed the Singapore economy at a very vulnerable position.

In addition, during the outbreak of war, for example the Pacific War, the tin market was effectively eliminated as shipping was cut off. Therefore it can be seen that while tin helps propel the growth of the Singapore economy, trade is a double-edged sword as it exposes the economy to fluctuations in world demand and changes. From 1910, the change in the international economy that profoundly influenced Singapore's whole history was the great new demand for rubber. By 1916, rubber had exceeded tin in importance as a Malayan export. The rubber boom was brought about by two technological innovations: the discovery of vulcanization in 1839 and the invention of pneumatic tyres in 1888. Together with the burgeoning automobile industry, these innovations created a massive demand for rubber and yet another substantial trading relationship with the US.

The main importer of rubber was also the US which imported up to three-quarters of the world's rubber production. As a result, the swift increase of rubber cultivation in Malaya and Netherlands India put Singapore at the centre of one of history's greatest commodity boom. Immigration moved largely in response to the rubber industry and a greater inflow of immigrants was reflected in the growth of Singapore, where population doubled between 1911 and 1936. Rubber also led to the expansion of shipping, railway and port facilities. In 1923, the Johore causeway was opened and the railway reached the southern terminus in Singapore linking the port directly by rail to the rest of Malaya.

By the end of the 1920s, a west trunk road covered the length of the Peninsula to Singapore. Evidently, the significance of these communication lines lies beyond mere geographical and physical connection; it enhanced the economical linkage between these two countries as seen today. The roads and railways built with Singapore as the focal point ensured full boost to the Singapore trade. On top of that, the rubber industry is associated with several other major developmental features in the European business community, principally the widespread adoption of the managing agency system and the establishment of oil palm estates.

The managing agency system provided a form of insurance against the fluctuating prices of rubber since investors believed that their investment would be safeguarded under the agency house management of the company. With the growth of the rubber industry, Singapore became more dependent on imports from its immediate hinterland of Malaya, Netherlands India and British Borneo. Thus, improvement of trade relations with these countries was the highest with Netherlands India. By 1925, Netherlands India was the main source of Singapore's three staples of rubber, tin and petroleum. Furthermore, the international finance and banking relations grew from one of barter trade mentioned earlier, to one of foreign banks.

These European banks mainly concentrated on the finance of exports and efficiently met the needs of export trade and helped lay the basis for subsequent financial development. The Singapore shipping industry developed under the rubber boom years. A port trust was set up (which later became known in 1913 as the Singapore Harbour Board) overseeing the construction of modern facilities in the port. Rubber shifted the focus from the roads to the wharves as milled rubber was sent there directly for export, enabling the cutting of transportation cost and time. The large amount of rubber export generated a greater flow of return imports, which further increased activity at the wharves. This assured a bunkering trade for the Harbour Board as shipping increased.

Wharf development undertaken in the years 1934-1937 to match the increase in shipping tonnage then laid the foundations for the emergence of a first class trading port in later years. The rubber industry also prompted the establishment of the Straits Steamship Company (SSC), which inadvertently led to the decline of Chinese shipping. By 1934, more than half of the local steamers based in Singapore belonged to the SSC and improvements upon the SSC fleet meant the general improvement of local shipping as a whole. Analogous to the tin industry, the rubber industry caused instability in the Singapore economy as it seesawed according to the changing demands of its trading partners and world events that are beyond its control. It suffered a blow during the depression years and the World War II as America channeled its resources into the production of war goods. Furthermore, with the US turning to synthetic rubber to reduce its dependency on Malayan cultivated rubber and the spread of the uses of synthetic rubber across the industrialized countries, the economy of Singapore was further hit.

The consequences of technological advances and over reliance on US trade were once again exhibited. This is exacerbated by the existence of rubber restriction schemes (Stevenson Scheme in 1922), which reduced rubber exports, thus hurting the Singapore economy. In conclusion, it is clear that tin and rubber affected the Singapore economy on a micro and macro level. On a micro level, tin and rubber brought about a positive impact on the Singapore economy through their contribution in laying the foundations for the development of transportation infrastructure, financial and banking services and the shipping industry. These are the fundamentals of the economy, which facilitated the evolution of a globalized nation. On a macro level, tin and rubber fully utilized the strategic location of the Singapore port for entrepot trade leading to its maturation as a global hub for shipping today.

The other main consequence was to reduce the multiplier effect of exports to the West by making trade, and balance of payments, less bilateral than in the 19th century.