A Brief History of the International Monetary System

Kenneth N. Matziorinis

1. Introduction

The international monetary system is the structure of financial payments, settlements, practices, institutions and relations that govern international trade and investment around the world.

To understand the international monetary system, we can start by looking at how a domestic monetary system is structured. The Canadian financial system, for instance, is composed of a) a currency; b) a central bank which issues that currency; c) financial deposit-taking and lending institutions such as commercial banks and d) the Canadian Payments Association.

The currency used in Canada is the Canadian dollar. It is the means of payment, store of value and unit of account for all transactions conducted within Canada. It is the currency in which all assets and liabilities are measured. As such, exchange rates are not an issue in our domestic transactions.

The country's central bank, is the Bank of Canada. Its role is to issue the currency of the land, the Canadian dollar, to manage the supply of money to ensure that there is neither too much of it that could cause inflation, nor too little that could cause recession and to oversee the financial system, acting as a lender of last resort when the need arises.

Commercial banks and other non-bank financial institutions are the main players in the financial system. They engage in the process of financial intermediation, which is the taking of deposits from the private public that has a surplus of money and making loans to the public that has a shortage of money. In addition, commercial banks provide payment services such as chequing accounts, bank drafts, debit cards, credit cards, electronic payments, wire transfers and engage in the purchase and sale of foreign exchange.

The Canadian Payments Association (CPA) is the payment system that provides the legal framework, the technological and communications infrastructure for the efficient operation of the payment system, like cheque clearing and reconciliation amongst the banks, electronic forms of payments, the shared automated bank payment system known as Interac, point of sales transactions, and other forms of payment.

Internationally, countries require the same infrastructure and institutions but there are two major differences between the domestic and the international monetary systems:

1) Each country uses its own currency. This creates a need for a mechanism to convert each country's currency to that of another and to determine the value of each country's currency against the other. The role of determining the relative value of each country's currency, what is known as the exchange rate, is performed by the **foreign exchange market**.

2) The international monetary system needs a payment system that is efficient and secure, this role is performed by commercial banks, which are the major players in the foreign exchange market. Corporations and individuals are the secondary players, they buy and sell through the banks. The international financial system relies on the domestic financial networks of each country to make it work. Since each country operates a different financial system there is no homogeneity in the international level. Banks in different countries are structured differently and they are regulated by different sets of rules and standards. This, in fact is one of the key challenges that the international financial system faces. Complicating the above is the fact that different countries pursue different monetary, trade and economic policies that cause the demand and supply of their currencies to diverge, which in turn cause continual fluctuations in the value of exchange rates.

   The monetary system is based on money. Economists define **money** as a:

   a. medium of exchange, i.e. a payment instrument
   b. store value, a saving and investment instrument; and
   c. unit of account, an accounting and measuring instrument

For centuries, the main instruments for settling international payments obligations have been precious metals like silver and gold. Beginning early in the nineteenth century, gold and silver begun to be supplanted by paper (or fiat) money, starting with the British pound in the 19th century and United States dollar since the middle of the 20th century. During the First World War most countries suspended the gold standard. Following the Second World War gold regained some of its previous role returning as a reserve currency for official central bank settlements though not as a payment instrument as was the case under the gold standard. In 1971, the United States rescinded its guarantee to exchange US dollars to gold, and gold's role as an official payment instrument came to an end. Today, the US dollar serves as the *de facto* international medium of exchange, store of value and unit of account. In other words, it serves as the world's money. Gold has been relegated to a secondary status as merely a reserve currency (i.e. a store of value for central banks) and as another metal traded on the world's commodity markets.

2. Brief History of Money: From Its Early Origins to the Gold Standard

There have been three major stages in the history of human economic development over the past 10,000 years:

- The **agricultural revolution**. During this stage people move away from a nomadic way of life based on hunting and gathering and annual migrations and begin to settle down and learn to cultivate the land and domesticate animals. The fruits from exploiting the land and husbandry allow people to enjoy a higher standard of living that results in higher population densities, the rise of cities and a drastic expansion of the total population that the land can support. We saw the first development of major human settlements such as villages and cities. Surpluses of food were exchanged through barter for other goods, the beginnings of trade, transportation networks, metal working and fabricating of tools, textiles, clothing, equipment and other goods takes place and in time we see the rise of early human civilization. Animals like pigs, sheep and cows served as early forms of currency. The source of the agricultural revolution is widely thought to be in the Fertile Crescent, the region in the Middle East that stretches from Mesopotamia, in present day Iraq to the Nile Valley in Egypt.

- The **commercial revolution**. Although commerce first started in the Fertile Crescent, it begun to spread gradually around the known world of the time. It is the ancient Phoenicians (modern day Lebanese), the Lydians in Asia Minor and later on the Greeks who were most responsible for its expansion. The Mediterranean Sea proved to be the most reliable and efficient transportation medium. With the construction of ships and the establishment of colonies all over the Mediterranean basin and Black Sea the Phoenicians and later on the Greeks built the first truly international commercial network. With the development of gold coins in the 6th century B.C. in Lydia, the commercial revolution found the greatest tool needed for the expansion of commerce, because it facilitated the process of trade and greatly reduced its cost. Now payment could be made in gold coins rather than in goods exchanged. Coins, by standardizing and validating the means of exchange, store of value and unit of account have the effect of greatly reducing transactions costs, increasing security and enabling the accumulation of capital. Trade, on the other hand, allows for greater division of labour, specialization and economies of large production, which in turn lower the cost of goods and increase the surplus that can be obtained from economic activities. Following the conquest of the Near East by Alexander the Great, the commercial revolution reached its peak during the Hellenistic (300 BC – 30 BC) and Roman periods, i.e. from the 3rd century B.C to the 3rd century A.D. and it spread throughout the known world from Iberia in the West to India in the East. During this period the

world experienced an immense expansion in capital as witnessed by the huge construction projects of the time, accumulation of wealth, expansion in the total population, rise in population densities, rise in urban populations and the development of science, technology and civilization, and the internationalization of the known world, the likes of which had never been seen before. Clearly, the two centuries following the reign of Augustus Caesar became the high watermark of this period of prosperity and economic expansion.

Imperial Roman economic mismanagement, the rise of Christianity and the barbarian invasions, however, ushered in a period of economic decline (200 AD – 1200 AD) which brought international commerce to a near standstill for almost 1,000 years in the West, what includes the period known as the Dark Ages (476 AD – 1000 AD). The only region that maintained a robust degree of economic activity was the Eastern Roman Empire based in Constantinople and the Arab world in the Middle East. Following the Renaissance, and the rise of nation states, the Europeans rediscovered the classic civilization of Ancient Rome and Greece as well as the benefits of commerce and international trade, and commerce once again became important. Nation states initiated deliberate efforts to expand exports above imports in order to generate trade surpluses and accumulate gold, which was seen as an instrument of economic, political and military power, a doctrine known as **mercantilism**. The search for more gold was one of the factors that stimulated the exploration of new trade routes to the Far East, which among other things also led to the discovery of the Americas in 1492.

- **The industrial revolution**. Between 1750 and 1830 a new revolution takes place in Great Britain. The product of the rise of rationalism, scientific knowledge, individualism and innovations in production, and its applications to the business of life, the British start developing tools, machinery and industrial processes that revolutionize the way goods are produced. They introduced the factory as an organized production setting designed to bring together labour, materials, machinery and energy to produce in large quantities standardized manufactured goods. The mechanization of textile production, the development of the steam engine, the development of train transportation, steam ships, pig iron and steel production and, eventually with the development of the internal combustion engine, automobiles, the light bulb, electrical machinery and consumer appliances and the production of electricity, the world was completely revolutionized. The relationship between people and society underwent a major transformation, whereby people became freer agents as opposed to surfs, they migrated to large cities built around the factories and mines that employed them, and they developed democratic institutions, and organized markets, financial institutions and corporations, and developed public institutions like public schools and hospitals. The

industrial revolution quickly spread to North America and Western Europe and then spread eastward to Poland and Russia, eventually making its way to Japan and later to China and now to most of the developing world. As with the agricultural and later the commercial revolution, the expansion in productivity led to a jump in human living standards, a jump in the total population and an unprecedented rise in population densities.

- **The Information Revolution**? Some thinkers have suggested that the world is now entering a forth stage of economic development, the information age, or the post-industrial society or the knowledge revolution, where new product development and economic activity will be driven by science and technology, especially in micro-electronics, communications, information and biogenetics. It is too early to say whether this is true or not.

Various forms of money from shells to cattle have been used for thousands of years. It is not until the use of precious metals, that could be mined that money takes flight and especially since the invention of metallic coins in the Kingdom of Lydia, along the Aegean shores of Asia Minor around 600 B.C. It is with the introduction of standardized coins made of silver and gold by **King Croesus** that money as we know it today takes off. The introduction of coinage made his kingdom the richest kingdom in the world, so much was his wealth that he decided to attack Persia. To this day King Croesus's name has become synonymous with wealth.

The Greek city-states along the shore of Asia Minor and Greece proper quickly adopted the coinage system and started issuing their own coins. Since the Greeks had already established a mercantile economy with over 100 colonies along the shores of the Mediterranean from Gibraltar to Egypt and from Libya to the Black Sea, they quickly put to use this new invention. Of all the Greek city states, however, there was one that would issue the most successful and enduring coin of its time, and that city was Athens. The coin was called the **Drachma**, which means a grasp full, because it replaced the *obolos,* which was a metallic stick of metal used as early as 1100 BC. The Drachma was a silver coin and was the equivalent to six sticks of *oboloe*, i.e. a fistful of six oboloe. In the 5th century, Athens introduced the *tetradrachm*, i.e. "four drachmae") which became the most widely used coin in the Greek world. It featured the helmeted profile bust of Athena on the front and an owl on the back.

Following the conquests of Alexander the Great, the circulation of the Drachma spread to the Hellenistic kingdoms in the Near East, including the Ptolemaic kingdom in Alexandria. The capture of vast quantities of hoarded gold from the Persians is then turned into coins which fuel an enormous economic expansion in the Eastern Mediterranean region during what is

known as the Hellenistic Period (3rd century BC – 30 BC). The Ptolemies develop the first central bank in Alexandria. Following the defeat of Carthage by the Romans, Delos, a small Greek island becomes the financial centre of its time. The Arabic unit of currency known as *Dirham* inherited its name from the drachma; the dirham is still the name of the official currencies of Morocco and the United Arab Emirates. The Armenian *Dram* also derives its name from the drachma.

The Drachma was also used in Ancient Rome because the Romans were late in adopting coinage. Historians say that in the late Roman Republic and early Roman Empire, the daily wage of a worker was one Drachma. It is estimated that in the 5th century BC, a drachma was equivalent to about $25 U.S. dollars at 1990 prices. In 211 BC the Romans issued the **Dinarius**, a silver coin that became the main currency of the Roman Empire until the 3rd century AD. The Dinarius became the backbone of the Roman economy until the end of the rule of Marcus Aurelius (192 AD), when a succession of weak Roman emperors started debasing the currency. The increasing cost of defending the Empire from barbarian invasions coupled with economic mismanagement forced Rome to reduce the silver content of the Dinarius to 2% of its early value. This created ongoing inflation which ultimately resulted in Rome's decline. To keep prices from rising Roman Emperors instituted price controls, but as micro economic theory teaches us today, since the official prices were below market prices, food producers became unwilling to sell their produce to Roman cities which resulted in unemployment, economic decline and depopulation as people were forced out of market activities and back to the self-sufficiency of farming. This was the beginning of the decline of the commercial revolution and coupled with the invasion of barbarians and the collapse of the Western half of the Roman Empire, led to the Dark Ages.

Emperor Constantine I (The Great) who succeeded in re-uniting the Roman Empire in 310 AD introduced a new gold coin called the ***Solidus***. Although the Western part of the Empire came to an end after his reign, the Solidus, which came to be known as the **bezant**, went on to become the principal currency of the Greek-speaking Eastern half of the Roman Empire centered in Constantinople (the ancient Greek city of Byzantium) which he had made as the capital of the Eastern part of the Roman Empire. This coin maintained its value intact for seven centuries until the Crusades weakened the Byzantine Empire in the 11th century and forced its emperors to start debasing its currency. By the time that the Eastern Roman (Byzantine) Empire came to an end in 1453 AD, the reigns of commerce and currency had passed on to the Venetians and the other ascending city states of Northern Italy such as Florence and Lombardy. The return of commerce helped bring in the Renaissance and from there commercial development spread North and West to the rising nation states of England, Holland, France, Spain and Portugal, where the history of modern money and banking begins.

During the Middle Ages commerce and the use of money had declined to a standstill and was replaced by feudalism, a political and economic system based on large estates controlled by feudal warlords, that aimed to be self sufficient and minimize the need for exchange and division of labour. Naturally, the use of money declined as the system was mostly based on barter and autarchy. Some of the factors that led to the rise of feudalism were the frequency of invasions and constant warfare, the lack of security, the breakdown of transportation networks and the expansion of Christianity which looked down upon trade and considered the charging of interest immoral, i.e.usury. Not only had the highways constructed by the Romans fallen in disrepair, that it became difficult and costly to transport goods but also it had become very unsafe to travel over land, and even then to gain passage from one feudal domain to the next one had to pay extortionist tariffs.

While the Western half of the Roman Empire had succumbed to the invading barbarians and Western Europe had descended in to the Dark Ages, trade and commerce continued to flourish in the Greek-speaking Eastern Half of the Roman Empire centered in Constantinople and after the 7th century in the Arab controlled Middle East. Constantinople had become the world's largest city with over one million inhabitants and because of its strategic location between the West and the East monopolized the trade between the Arabs to the East and Europe to the West, the Arabs in the South and the Slavs in the North. The solidus, which was also called the bezant became the currency of choice in international trade. As the Arabs expanded over the Middle East and North Africa they discovered the writings of the Ancient Greeks from the Hellenistic successor states of Alexander the Great, and along with contributions from Persia, India and China, they staged a Renaissance of their own which led to the Islamic golden age which made advances in science, mathematics, medicine, literature and philosophy. The Arabs issued their own currency, the **Dinar** which was similar in size and weight to the bezant. The Dinar emerged as the dominant coin from Western Africa to India until the late 1200s.

Among the few places where trade and commerce was conducted in Western Europe were the port cities of Venice and to a lesser extent Genoa, in Northern Italy and with time they emerged as the principal trade rivals to Constantinople which was the main trading hub between the Islamic world and the Far East and Western and Northern Europe. As the Byzantine Empire started to weaken in the 11th century and once the Western Europeans came into closer contact with the Byzantines and the Arabs during the Crusades, they rediscovered a taste for trade and money. Venice, allied itself with the Pope and the Crusaders and embarked on a campaign to break the Byzantine monopoly on trade and commerce in the Eastern Mediterranean and eventually succeeded in displacing Constantinople as the commercial gateway to Western Europe. Thus Venice emerged as the port of entry of goods from the Levant (the Eastern Mediterranean) and spices from India and

became the preeminent center of commerce, banking and money in the West. Following the fall of Constantinople to the hands of the Crusaders, the knowledge and expertise of the Byzantines begun to be transferred to Venice, and then as the Turks started making inroads into Byzantine territory, Greek tradesmen and craftsmen started migrating to Italy and Venice in particular. The first institution resembling a modern bank appeared in Venice in 1135 AD. In 1284 Venice issued its first gold coin, the **Ducat,** which became the standard of European coinage for the next 500 years. As the wealth and sophistication of Venice started to spread westward, Genoa, Florence and Milan emerge as major financial, trading and manufacturing centers. The **Medici** family of Florence emerged as the biggest banking family of its time. Italians expanded banking to Northern Europe particularly in manufacturing centers like Yorkshire and Antwerp. By the 16th century trade was centered at the Bourse in Antwerp and the Royal Exchange on Lombard Street in London. Goldsmiths emerged as the new bankers in Europe due to their expertise in coins and bills of exchange. As markets became more complex, there was a need for a monetary policy and a currency, thus central banks were established, in 1674 the Bank of Sweden and in 1694 the Bank of England.

Following the Hundred Years War, the Treaty of Westphalia (1648) established the right of every monarch to exercise complete authority over their territory and, what is known as the principle of sovereignty. From the 16th century onwards Europe experiences the rise of the nation state, and we see the emergence of modern day countries. The early nation states had defined boundaries which were defended by standing armies. They conducted foreign affairs and trade and commerce with each other. Principle examples of the emerging nation states were England, France, Holland, Spain and Portugal.

As power started shifting from rural feudal fiefdoms to cities where Kings reigned, nation states started establishing homogeneous rules within their domain and started competing for power with each other. The accumulation of gold became a distinct political and economic objective of these early nation states, a factor that spurred the exploration of the new world and led to the colonization of the New World. Because the supply of gold was viewed as fixed, if you didn't plunder it or acquired it through conquest, you had to earn it through trade. Thus the major nation states of England, France and the Netherlands who were not as successful as the Spaniards and Portuguese, who had acquired it through the colonization of Central and South America, came up with a way to acquire it from the Spaniards and Portuguese by trade. Thus the objective of state policy became protectionism, to generate bullion inflows by exporting more than importing from other nations, by encouraging domestic production and discouraging the importation of goods through tariffs and customs controls. This politico-economic policy is now known as **mercantilism**.

Mercantilist ideas became the dominant economic ideology during the 16th and 17th centuries and where they were applied the most was in England and France. The height of French mercantilism is associated with **Jean-Baptiste Colbert,** the French finance minister. Under his management, the French government became deeply involved in the economy in order to increase exports. Protectionist policies were enacted that limited imports and promoted exports. Industries were organized into guilds and monopolies, and production and commerce became increasingly regulated by the state. Foreign artisans and craftsmen were often imported to stimulate domestic production and reduce the need for imports. Colbert also decreased internal barriers to trade, reducing internal tariffs and building extensive networks of roads and canals. Colbert's policies were so successful, that they established France as the major continental power. Similarly, mercantilist policies spurred the rise of England as an economic power as well. While France became the dominant continental power, England emerged as the dominant maritime and international trading power. At the same time while France drifted to a more absolutist political regime, the powers of the King in England were being increasingly curtailed by democratic reforms and the rise of the merchant class. As France drifted toward revolution in 1789 and chaos and war under Napoleon, England emerged at the conclusion of the Napoleonic Wars in 1815 as the economic and political super power of its time. England's political stability, coupled with democratic reforms and tolerance toward free ideas and thinking along with its greater openness toward the rest of the world, being an island nation and a maritime power, much like Greece had been over two thousand years before it, were major factors in its rise to super power status. Also religion played a role, because the Church of England was less fundamentalist than its Roman Catholic sister Church. Trade, commerce, money, banking and charging of interest were not major hang-ups as they still were elsewhere in continental Europe, especially Portugal, Spain and France. The fact that Jews were driven out of Spain and to a lesser extent France meant that England was the beneficiary of their long-held expertise in money and banking. Thus England became ideally positioned to impose its own order on the international monetary system, and that order came to be called the **gold standard**.

The gold standard is a policy of establishing gold as the medium of exchange, store of value and unit of account of a country, i.e. making gold the money in circulation. Thus all paper money issued by commercial banks in the country were set in terms of their weight in gold and became fully convertible to gold upon presentation at the bank. Thus the British pound was set at approximately ¼ of a troy ounce of gold, while in 1879 following the civil war the United States set the US dollar at 1/20 of a troy ounce of gold. Canada went on the gold standard in 1854. Thus the rate of exchange between the pound and the US dollar became 1£ = 4.90 US $ while 1 USD = 0.204 £. In Canada as with the United States, the first currency used was the Spanish dollar, a gold coin issued by Spain. In 1817 the Bank of Montreal

became the first bank to issue paper currency denominated in dollars. In 1841 the United Provinces of Upper and Lower Canada declared that its dollar was equal to the gold U.S. dollar and was worth 5 shillings. In 1858 the first Canadian dollar coins were issued using the decimal system that were equal to 100 cents. Following Confederation, the federal government passed the Uniform Currency Act in 1871 replacing the various currencies used by the different provinces into the common Canadian dollar. Thus when Canada was established, it established a common currency that was set at parity with the U.S. dollar and equal to roughly 1/5 of the British pound.

Next let us examine the main characteristics of the gold standard and its evolution to what we have today. In the process, the three main international monetary regimes will be described, namely those of 1) fixed exchange rates; 2) flexible or floating exchange rates and 3) dirty or managed exchange rates.

3. The Gold Standard: 1815 to 1914.

The guarantor of the gold standard became the British government. It made the pound fully convertible to gold at a rate of .0204 troy ounces of pure gold. The following are some of the reasons why the British pound went on to become the world's most important currency:

- Britain had emerged as the undisputed maritime, industrial and commercial power following Napoleon's defeat at the battle of Waterloo in 1815. Not only did the British navy emerge as the dominant naval force that commanded the seas, but through her extensive network of colonies Britain had emerged as the principal trading nation in the world.

- The industrial revolution had begun in Great Britain in the 1770s and was gradually transforming Britain into the main manufacturing and financial centre of the world. Technological innovation, technical progress, productivity growth, population growth and economic expansion made Britain, the centre of economic gravity in the world.

- Britain had not only become the most innovative country in technology and manufacturing, but also the most innovative when it came to the world of science (Sir Isaac Newton and Charles Darwin) and new ideas such as the development of economic theory especially in the area of trade. Starting with **David Hume** (1711-1776), **Adam Smith** (1723-1790), the father of economics, followed by **David Ricardo** (1772-1823), who were the first to advance the theory of free trade along with **Jean Baptiste Say** (1767-1832) in France and develop the theory of modern trade.

- Britain, unlike its continental European rivals had evolved into a stable constitutional monarchy, which afforded the rising commercial and industrial class increasing freedom and political power. As a most secular, politically stable and democratic country Britain had developed into a more tolerant, outwardly open and inclusive society than all its economic rivals, with the possible exception of Holland. When the issue of protectionism (mercantilism) vs. free trade came up, the British government under Sir Robert Peel made the critical decision to back free trade at the expense of the land-owning aristocracy that had ruled Britain for centuries. The land-owning aristocracy favoured protectionism because tariffs on imported corn kept the price of corn high in Britain and therefore made their corn-growing land valuable. On the other hand, allowing the importation of corn duty free would lower the price of corn and reduce the cost of living for the average worker, which would benefit the rising commercial and industrial class. With the repeal of the Corn Laws in the 1840s, British policy became committed to free trade, open borders and an open, inclusive financial system.

Under the gold standard all other countries did the same. They set the value of their paper currencies in terms of a weight in gold, at which rate they could be converted by their commercial banks. Thus since each country set its value in terms of the same commodity, namely gold, the exchange rates between one country's currency and that of the other were proportional to the amount of gold. Since 1 pound was worth ¼ of an ounce of gold and 1 US dollar worth 1/20th, the exchange rate between the two was set at 1 £ equals 5 US dollars and, reciprocally, 1 US dollar equals 0.20 of a British pound. Since each country's currency was priced in terms of gold – a common denominator or uniform standard- the exchange rates among countries were proportional to the amount of gold they contained. Therefore, there was no need for a foreign exchange market to determine the value of currencies, the exchange rates remained constant among countries, so long as a country would not devalue its currency in terms of gold.

Under the gold standard, the money supply in the world economy remained fixed since the amount of gold in circulation was fixed. The only source of growth in the money supply was newly mined gold and new gold discoveries. Since paper money was convertible to gold bullion, the total amount of bank notes that could be issued was held in check. Under this system inflation at a world scale could not occur. What happened then if one country enjoyed a surplus in its balance of trade with another country? It attracted more gold, which saw its gold reserves rise and consequently the amount of paper money in circulation would rise as well. As more money circulated the demand for goods increased and along with the demand prices would also increase as well. The opposite would happen in a country experiencing a trade deficit. This is known as the **specie flow mechanism** of the gold standard system. With time, the inflating country would find that its

exports became more expensive, hence they would decline while the deflating country would see its exports rise because their price would rise, thus ensuring that with time any trade surpluses or deficits would be eventually balanced. In effect, because currencies were anchored in gold, no country could inflate its way out of economic difficulties, the exchange rates remained fixed and the only way to adjust was through real adjustment rather than monetary adjustment. In other words, a deficit country would experience a contraction in its economy, a fall in prices and wages, which, in time would restore its competitiveness *vis à vis* the other country.

The gold standard proved to be a very successful regime, providing the world with a period of unusually high stability, economic growth and prosperity. So successful it was that it created an era of globalization not seen before since the Hellenistic period (300 BC – 30 BC) and the golden age of Rome (100 BC – 100 AD). Globalization was so extensive that even in today's world we have yet to surpassed it.

The gold standard was suspended when the First World War broke out in 1914. Countries were in need to print money to pay for the war and could not ensure the convertibility of their currency to gold. Convertibility to gold was suspended and had to await the end of the war. The problem that resulted, was that during the war countries had printed so much money that had caused inflation which pushed prices well above the pre-war levels. So much was the rise in prices (and devaluation of paper money) that it was questionable when and if it would be possible to return to the gold standard at the pre-war parities.

4. <u>The Inter-War Period: 1919 - 1939</u>

The period between 1919 (End of WWI and the Treaty of Versailles) and the outbreak of the Second World War (WWII) is known in economic history as the inter-war period. The world economy was characterized by tremendous instability and eventually economic breakdown, what is known as the Great Depression (1930-39). The world tried to return to a functional international monetary order but failed, and one of the consequences of this failure was the outbreak of WWII. Below is a list of the major geopolitical factors that resulted in instability and ultimate collapse of the international monetary order.

- High inflation in the warring countries and their dependencies had resulted in global inflation that had pushed prices to much higher levels. This meant that no country could go back to the gold standard at the parities prevailing before the war (i.e. each currency was equivalent to less weight in gold and new parities had to be established). Moreover, a period of normalcy had to be re-established first before such an attempt was to be made.

- Old countries disappeared from the map while new countries emerged. For example, the end of WWI saw the disappearance of the Austro-Hungarian Empire based in Vienna, the Ottoman Empire based in Constantinople and the collapse of the Russian Empire and its transformation, following a bloody civil war into the word's first communist state. Under the ashes of the old empires emerged new countries in Central Europe such as Austria, Hungary and Czechoslovakia. The map of Southeastern Europe in the Balkans had become radically transformed with the creation of Yugoslavia as Serbia and Romania gained territory at the expense of the Austro-Hungarians and Greece gained territory at the expense of the Ottoman Empire. In the Middle East, the collapse of the Ottomans resulted in the creation of new states like Syria, Lebanon, Trans-Jordan, Iraq, Iran and the principalities of the Arabian peninsula. Instability in the Far East between a nascent Republican China and war with militarist Japan along with instability in other parts of the world from Africa to South America contributed to the chaotic geopolitical environment. All the new and reconstituted countries had to establish new governments, constitutions, treasuries, issue money accumulate gold reserves and establish tax policies, this made them weak and vulnerable.
- The United States emerged as a major economic and political power in the world. Following the destruction from the War on continental Europe, Britain's weakening and France's indebtedness to the United States, the USA and New York City emerged as the chief rival to the City of London as the world financial center. Although the Americans had the big money and the confidence of the "nouveau riches", they lacked the experience and sophistication of the British.
- After a forced deflation, Britain went back to the gold standard in 1925 at the pre-war parity of the pound equal to ¼ ounce of gold, under the Chancellor of the Exchequer Winston Churchill. But the attempt failed miserably and Britain was forced to abandon the gold standard in 1931 once the Great Depression broke out. Sweden abandoned the gold standard in 1929, as did the United States in 1933. All other nations were forced off the gold standard and a free-for-all period of competitive devaluations and "beggar-thy-neighbour" economic trade policies ensued. These events combined with the passage of the **Smoot Hawley tariff** of 1930 and a rise of protectionist policies around the world bought world trade to a near standstill. By 1934, global trade had fallen to one sixth of its 1929 level, while tariff levels had surpassed even those of the mercantilist period, the highest levels the world had ever seen! This was the end of the gold standard.
- The Great Depression of 1930-1939 takes place causing a catastrophic collapse in production, incomes and employment the likes of which the world had never seen before. The sheer scale and range of the collapse was unprecedented. The GDP of countries collapses

by an average of 30% and unemployment rose above 25% in North America and most of Europe. Along with the collapse of stock prices following the stock market crash of 1929 there was a banking collapse. A chain of bank failures was triggered starting from Vienna and extending around the world. Some of the biggest bank failures occur in the United States, with three waves of bank failures taking place until 1934. With the collapse of banks came the loss of bank deposits, which were stored purchasing power that could have been used to maintain demand. All this was before central banks were established, before the "lender of last resort" function of central banks became standard practice and before deposit insurance became the norm. As depression unleashed a deflationary spiral, real interest rates rose to very high levels. The problem did not occur as a result of higher nominal rates but as a result of the deflation. If nominal interest rates are 1%, the real, inflation adjusted interest rate becomes 11% if the rate of deflation is 10% (real rate = nominal rate minus inflation rate). In an environment of high real interest rates, therefore, there was little incentive to spend, and little incentive to invest.

- Finally, the knowledge and know-how of managing economies at the aggregate or macro level had not yet been invented, it awaited the breakthrough of **John Maynard Keynes** (1936) when with the publication of his famous book *The General Theory of Employment, Interest and Money*, In that book, he developed a new framework and explained how economies behave at the macro (country) level, and identified what are the right policies that a government should follow to avoid depressions and control inflations. In retrospect, all the economic policies that had been followed by the governments of the time, with few exceptions –notably Hitler's Germany- were the opposite of those that should have been followed. Instead of trying to balance their budgets, governments should have spent more and taxed less, instead of letting banks fail and allow real interest rates to rise, they should have rescued the banks and expanded the money supply. Instead of raising tariffs and devaluing their currencies, governments should have kept their exchange rates unchanged and promoted freer trade. In short, the pursuit of wrong policies turned a recession into a depression.

5. The Gold Exchange Standard- Bretton Woods : 1944 to 1971

As the Second World War was drawing to an end, the allied powers held a Conference at Bretton Woods, New Hampshire in July, 1944 [a three hour drive south of Montreal] to plan the structure of the post-war international monetary system that would replace the gold standard that had collapsed during the inter-war period. The objective was to avoid a repetition of what had happened before and to set up a system that would govern effectively the post-war international monetary order.

During the Bretton Woods meetings there were two alternative proposals that were put forth, the British and the American proposals:

a. The British proposal drafted by John M. Keynes, the British representative at the Conference called for the establishment of a real world bank, the *International Clearing Union* (ICU) and the issuance by this international inter-governmental organization of a world currency called the *Bancor*. Under the plan all countries could fix the value of their currency against the bancor. Countries with trade surpluses would have to take steps to reduce them by increasing their imports while countries with large deficits would take steps to reduce them by increasing their exports with the objective of maintaining zero trade balances over time. Countries would be allowed to adjust the value of their currencies through revaluation and devaluation so as to achieve balanced trade. Countries that would not do enough to adjust their balances to zero would see part of their bancor surpluses transferred to the ICU reserve account, thus being penalized, and that action would in effect reduce the money supply in their jurisdiction and bring the balance of trade to equilibrium. The role of the world central bank would be to encourage balanced trade over time in the international economy and when and if the international economy would require additional money the ICU would issue new bancors that would in effect increase the world money supply. Essentially, what Keynes proposed was to replace the gold standard by an international fiat money or virtual money standard that would be controlled by an international central bank that would be prepared to act as a lender of last resort to the global monetary system. This system would be more fair to all the countries in the world and would promote long-term international financial stability and discipline in the world economy.

b. The American proposition was simpler and a lot more self-serving than Keyne's. The US proposal was similar to what had been attempted briefly during the interwar period (1925-31), that is enhance gold's role by making the US dollar a reserve currency convertible to gold for official central bank purposes. Since one of the main weaknesses of the gold standard was that the supply of gold (money) was not rising fast enough to meet the growing global demand for it as a result of expanding trade and increasing output, to stick to a pure gold standard would create a permanent deflationary force in the system that would encourage financial instability and high unemployment. By making the US dollar a reserve currency (i.e. international money) much like the British pound had served as a reserve currency for countries that lacked

sufficient gold in the prewar period, the US dollar would become a substitute for gold and as the US expanded its money supply, so would the global money supply expand as well. Since Britain had lost much of its gold during the war and had become economically weakened by, the United States was in a strong position to impose its own will on the rest of the countries. Thus, the American proposal was adopted.

Thus, the main features of the system agreed upon at the Bretton Woods Conference were the following:

- The US dollar would supplant the role of gold by becoming a reserve currency that would be fully convertible to gold for official payment purposes amongst central banks at the price of 1 ounce of gold equals $35 US dollars.
- Countries would then set the value of their currency against the US dollar, which in turn was anchored to that of gold at the $35/ounce rate.
- Countries would keep their exchange rates fixed at all times, intervening in the foreign exchange market to buy their currency with their US dollar reserves when its value was falling or to sell their currency and buy US dollars when its value was rising. Thus the central banks of each country were required to maintain sufficient reserves made up of a mixture of gold and US dollars.
- To help countries maintain their fixed exchange rate parities, and weather balance of payments crises, the Bretton Woods Conference recommended the establishment of an international inter-governmental organization (IGO) called the International Monetary Fund (IMF) to be headquartered in Washington, D.C. The role of the IMF would be to provide short-term lending to countries experiencing balance of payments deficits and prevent their currencies from being devalued. At the same time, the IMF would provide technical advice to these countries to help them design policies and devise measures to help them balance their payments.
- If a balance of payments problem facing a country stemmed from fundamental economic imbalances that could not be resolved by policy actions, that country would be allowed, as a measure of last resort, to devalue or revalue its currency.
- In order to assist in the reconstruction of the war torn countries especially in Europe, the Conference decided to establish a second international IGO the International Bank for Reconstruction and Development what is more commonly known as the World Bank, also headquartered in Washington. As the world's largest economy, the USA undertook to provide most of the paid-up capital of these two organizations.

Thus the post-war international monetary order was established. Since the US was the super power at this time, all other countries were not in position to negotiate. A new regime was born, the gold-exchange standard, where the value of gold was fixed to the USD and where the USD was convertible into gold, but exchange rates remained fixed as with the prewar order.

The problem with this arrangement was that the USD attained a unique status as both a national currency and an international reserve asset instrument at the same time, a status that no other country had. This asymmetry bestowed the United States with a unique advantage called *seigniorage*. What this means is that a government issuing currency to its people has an advantage in that people choose to hold their currency as part of their cash balance instead of returning it to the government and asking for something real in return. It is as if the cheques one writes do not get cashed at the bank by their recipients, because they need to use them as money for payments amongst themselves. In effect, you can buy things without having to pay for them. Since the world was short of money after the War, the demand for US dollars exceeded the supply, so the US could buy more goods and services from other countries than it would sell. As long as the US was willing to print the money to pay for them, the world did not mind as long as there was a dollar shortage. But If the US abused this privilege and keeps printing more money than the rest of the world needs, then it sets up the US and the world for a fall. Either the US will have to accept to devalue its currency to more than $35 US an ounce or the rest of the world will find itself holding depreciated (unwanted) dollars whose value has fallen below par. This system ensured that the USA could maintain balance of payments deficits without having to undergo the necessary hard adjustments required to balance its books as every other country has to do from time to time. As we will see next, it was this weakness that caused this system to break down thirty years later.

6. The Ushering of Flexible Exchange Rates and Currency Instability: 1971-1985

By the end of the 1960s the early postwar dollar shortage had been resolved and the European economies had been rebuilt. At the same time US involvement in the War of Vietnam was escalating, causing the US government to spend more and more while fighting the war on poverty at home. US balance of payments deficits kept growing and inflation started to rise in the economy. European holders of US dollars started becoming concerned at the lax US attitude toward their obligations as the guarantor of the postwar monetary order. They started demanding the transfer of US gold in exchange for dollars and by 1968 the price of gold on commodities markets broke above the official $35 price. The US started experiencing a drain on its gold reserves that became a serious concern to US government authorities.

By August 1971, the US administration of Richard Nixon was forced to severe the link between the US dollar and gold and suspend convertibility. After nearly two centuries the world found itself off the gold standard. From that point on, the value of the US dollar was based on the strength of the US economy, rather than being backed by the amount of gold being held in reserve. The world had no choice but to take it or leave it. By demonetizing gold, the US government effectively said there is no need to devalue the US dollar. If the Europeans and Japan have a problem with the high value of the US dollar, instead of demanding that the United States devalue the dollar, let them revalue their own currencies –what amounts to the same thing- to solve the dollar glut problem. From that point on the system of fixed exchange rates had come to an end as well. Without gold, how is the value of a country's currency to be determined? The answer? The free market. This is what led to the move from fixed exchange rates to floating or flexible exchange rates whose value was determined by the daily demand and supply for them in the foreign exchange market.

Between August of 1971 and July of 1973 the world economy went through its most turbulent bout of instability since the 1930s. The currencies of Germany, France, Switzerland and Britain and Japan were forced up by more than 50%. While countries tried to patch the problem, most notably the Smithsonian Agreement of February 1973, the US devalued the dollar to $38 and ounce and then again to $42 an ounce. These attempts were too little too late and the free market price of gold had surged to $215 an ounce. When the Six-Day War broke out in the Middle East and Egypt was defeated, King Faisal of Saudi Arabia in an act of revenge for the Arab defeat, raised the price of oil from $3 a barrel to $12 in October, 1973 and the world experienced its first oil supply shock. The world economy experienced the greatest peace-time inflation that had ever taken place. Central banks lost control of inflation and they did not know how to act to bring it under control. When the Iranian Revolution occurred in 1979 and the US Embassy hostage crisis occurred the world went through a second supply shock and it seemed that the United States had lost control over the global financial system. The US defeat in Vietnam, the Watergate scandal that forced President Nixon to resign from office and then the Teheran hostage crisis undermined global confidence in the United States and the US dollar in particular. As a consequence, by November 1979, gold had reached a record high of $700 an ounce!

To bring inflation down and restore confidence in the dollar, dramatic action was required by the US government. Following the passage of the Depository Institutions Deregulation and Monetary Control Act of 1980, the US Congress removed the ceiling on US interest rates that had existed until that time. Incoming Federal Reserve Board Chairman Paul Volker then embarked on a campaign to raise interest rates to the highest level the world had ever seen. The sudden jump in interest rates provoked the recession of

1981-82, which was the deepest recession since the Great Depression. With extremely high interest rates and falling demand and production, producers and workers were forced to stop raising prices and wages and the central bank regained control over inflation once more after nearly ten years of inflation out of control in the near 10% range. Thus by the early 1980s inflation started to subside and normalcy returned to the international economy. The tight money and high interest rate policy of Paul Volker had not only broken the back of inflation, but succeeded in restoring the value of the US dollar which recovered strongly while the price of gold declined. By September 1985, the US dollar had risen so much that the central bank presidents of the G-5 met at the Plaza Hotel in New York and decided on an acceptable range for the fluctuation of floating currencies. The Plaza Accord, as it is known, decided on a coordinated plan to devalue the US dollar against a basket of key European currencies and the Yen. Following the conflict that characterized central bank relations in the early 1970s, the Plaza Accord initiated a period of central bank coordination around the world. If gold was no longer there to provide a stabilizing role to a nation's currency, then each nation needed the help of the other nation to succeed. Thus begun, the modern period of central bank policy coordination.

7. The Current System of Managed Floats and Targeted Inflation: 1985 - Present

The current system in use is a) a floating rate system, but where b) central banks intervene from time to time to manage the level and control the rate of change in the value of their currency, in a context of c) price stability where central banks target the rate of inflation at a rate of 2% or less per year and punctuared with d) optimal currency areas where countries in geographic areas with high interdependence link their currencies to each other to reinforce price and monetary stability. The evolution of forward and futures markets along with those of derivatives markets have created an environment of checks and balances that help police the monetary authorities and help establish the discipline that a gold standard would have provided. Here are its main characteristics:

- The currencies are no longer backed by gold. In fact, gold has no role in the present system other than to serve as one of many asset instruments in central bank reserves. Gold today makes up on average only about 5% of a central bank's total reserves. Gold trades like any other metal in commodities markets.
- The value of each currency is determined by demand and supply on the foreign exchange market. There is a spot price, price for current delivery and a forward price, that for future delivery determined in futures markets. The foreign exchange market is a single international market and is the largest of all markets

surpassing fixed income, equity, commodities and real estate markets in the world.

- The foreign exchange rates are flexible or floating, based on the changing demand and supply of currencies, both for payment purposes as well as for global asset allocation purposes as well as speculative purposes. Although nominally flexible, exchange rates are closely watched by central bankers and finance officials to make sure that they do not become a destabilizing influence in a country's economy. Governments take steps to manage the direction and level of exchange rates, so in fact the current system can more correctly be described as a **managed system of floating exchange rates**.
- How do government and central bank officials manage the level and direction of exchange rates?
    i. Central banks can slow down or smooth the depreciation or appreciation of their currency by conducting interventions in the foreign exchange market by using foreign exchange reserves to buy or sell their currency.
    ii. By using moral suasion, i.e. pronouncements as to what is the range at which they see or want to see their currency trade at.
    iii. By coordinated central bank interventions, whereby central banks agree on a level or target and then they intervene simultaneously to impose their view on the F/X market. If the reserves of a single central bank are not enough to move the market, the combined reserves of a group of central banks working together can be much more effective.
    iv. If a currency depreciates or appreciates more than it should, central banks can also adjust the level of short-term interest rates to encourage or discourage capital flows and speculators.

- While the gold standard had the side effect of ensuring price stability by restricting the supply of money to the amount of gold held in the system which was more or less fixed, the current system of fiat money managed by central banks places full employment above that of price stability as the preeminent goal of government economic policy. While with the gold standard and fixed exchange rates monetary policy is ineffective or neutered, with the current system monetary policy has a broad scope and ability to influence the direction of production, employment and prices in the short-run, an attribute that reduces the risk of recessions and promotes growth and employment.
- If the current system allows central banks to inflate or deflate at will, what mechanism is in place to prevent central banks from doing so? In other words, in the absence of the gold standard, how do

central banks maintain monetary discipline? There are three tools that have been created over the past twenty years to assist banks in maintaining discipline. They are 1) central bank independence; 2) inflation targeting 3) futures markets and rational expectations and 4) the power of experience. First, although government institutions, central banks are run by boards that have been granted legal and institutional independence from the legislative and executive branches of government, in other words from politicians. Thus the central bank will take the monetary course appropriate for ensuring price stability first, whether the politically elected government likes it or not. Second, more and more central banks have set formal targets for inflation, e.g. the European Central Bank has set a goal of 2% for inflation. So have the central banks of Canada, Australia and New Zealand. Mexico has set a target of 3%. While the USA has chosen not to set an official target, the central Bank starting with Volker and then with Alan Greenspan has followed an informal target of 2% as well. In other words, it is the integrity and self-imposed discipline of central bankers that has replaced the disciplining effect of gold in the current monetary system, with a small caveat: 2% inflation as opposed to 0% inflation, in other words central banks have chosen to err on the side of inflation, rather than deflation. Third, the development of futures markets since the late 1970s, has created a mechanism that warns private market participants and central bankers of impending dangers when the wrong monetary course is being taken. For example, if a central bank allows the money supply to grow too fast the futures market will cause the futures price of the currency to fall, or cause the long-term bond prices to fall and interest rate yields to rise, thus sending a signal to the central bank to correct its course before further damage is done. Finally, the chaotic inflationary experience of the 1970s following the collapse of the gold exchange standard taught market participants and central bankers many valuable lessons that dissuade them from repeating old mistakes.

- More and more countries that occupy the same geographic region or conduct a high degree of trade with each other set their currencies at levels similar to those of their geographic or trade partners. Perhaps the best example of an optimal currency area is the European Union and the eurozone in particular. The establishment of the euro was preceded by the European currency mechanism, the “snake”. Before fixing the value of their currencies together they set a target trading range that they were obliged to follow to qualify for euro eligibility. Non-EU countries like Turkey, Algeria and Morocco adjust their currency to the euro since they conduct most of their trade with euro-block countries. More currency coordination and convergence within optimal currency areas helps bind the exchange rates and economic policies of

these countries more closely together and has an effect similar to that of the gold standard.

In conclusion, central bank targeting of price stability, monetary coordination and central bank independence have succeeded in replicating the beneficial effects of the gold standard while avoiding the restrictive effects of the gold standard on the use of monetary policy and deflation. In the process, this development has elevated central bankers to a status that rivals, if not surpasses even that of presidents and prime ministers. It is my view that today central bankers command more power and respect than politicians, a power similar to that attained by the high priests of Ancient Egypt.

8. Key institutions

1- The **International Monetary Fund** (IMF) based in Washington, D.C., was established in 1945. The IMF was established in order to oversee the gold exchange standard system of fixed exchange rates, and provide advice and financing to countries experiencing acute balance of payments crises. When the Bretton Woods system of fixed exchange rates broke down in 1971-73, the IMF evolved into a lender of last resort to countries facing macroeconomic and financial crises, and has been involved in many episodes including those of the Latin American debt crisis of 1980s, the Mexican Peso crisis of 1994, The South East Asian and Russian crises of 1997 and1998, the Turkish crisis in 2001 and the Argentinean collapse of 2002. More recently, it has become increasingly involved with debt problems of developing countries. The IMF has often come under criticism for the conditionality of its support to member countries. Although it has not always been prefect in its recommendations, the problems it has been called upon to solve originated with unsound economic but populist entitlement policies that governments have offered their population to buy their vote. When these policies fail, governments are powerless to go back on their word and solve the problems they have created and they blame the international investment community and capitalists for their ills. When their financial systems collapse, then they carry out the necessary reforms under the excuse that they are imposed on them from the IMF in exchange for the badly needed financing.

2- The **World Bank** (WB), based in Washington, D.C, established in 1946. The World Bank has three main branches: the International Bank for Reconstruction and Development (IBRD), the International Development Agency (IDA) and the International Finance Corporation (IFC). It aims to promote economic development in the world's poorer countries through technical advice, project financing, long-term lending

at rates below market interest rates averaging around $30 billion a year and spread over 100 countries.

3- The **World Trade Organization** (WTO), based in Geneva, established in 1995, that has succeeded the General Agreement on Tariffs and Trade (GAAT), based in Geneva, established in 1995. The WTO was established following the Uruguay Round of multilateral trade negotiations, that were concluded in 1993. This organization should have come to life in the 1940s along with the other two, under the name International Trade Organization (ITO). The US Congress failed to ratify the agreement so the organization never came to life, rather the less formal Secretariat of the GATT was created instead. The WTO is the institution that governs international trade, setting international standards and the rules of trade. Started with 132 members it now has 150 following the admission of Vietnam in January 2006.

4- The **Bank for International Settlements** (BIS) was established in 1930, is based in Basel, Switzerland and serves as a bank for central banks and international organizations. The BIS is the oldest international financial organization established originally following the end of the First World War to facilitate the war reparations payments of Germany. In addition to being a clearing house for central banks, the BIS conducts research and facilitates the coordination of central bank policies and standards. The BIS is the author of the 1988 *Basel Capital Accord* and the Basel II revision. These accords establish minimum risk adjusted capital adequacy requirements (Tier I and Tier II capital) that internationally active banks should follow to reduce the risk of bank failures and enhance the resilience of the global banking system.

9. Current Challenges and Future Prospects

There are numerous challenges facing the international monetary system today. Two of the most important challenges today are the following:

The integration in the international monetary system of major emerging economies such as Brazil, Russia, India, and China (BRIC). Today's international monetary system is not that homogenous. The leading industrial countries such as the United States, the European Union, Japan, Canada, Australia among others have adopted flexible exchange rate regimes. Other countries, most notably China, have maintained a fixed exchange rate system whereby they have fixed the value of their currency against major currencies, principally the U.S. dollar. North African countries link their currencies to the euro. Still others maintain a managed float, that is they allow their currencies to fluctuate within a target range set by a basket of currencies of countries with whom they conduct most of

their trade. For example, India and Turkey follow such an approach. For the international monetary system to function properly you need a large degree of uniformity were all countries -at least the major players- follow the same approach and play by the same rules. A measure of how well the system functions, for example, is the avoidance of major imbalances which can create stress that can lead to a break up of monetary crises like the ones experienced during the Asian crisis, the Mexican or the Argentinean crisis.

Some of the problems, therefore are that a) not all countries rely on floating exchange rate regimes, the principal example here being China and the Gulf Cooperation Council; b) not all countries' central banks have become independent from the executive branch of their government, the principle examples here are the central banks of China, Russia, Brazil, Argentina and Turkey, among others; c) the financial markets of different countries do not have the same degree of development, breadth and depth, market instruments and degree of openness required to allow their currency markets to function properly. For example, it is only recently that China has set up futures and derivatives markets and they are still inexperienced and untested; d) economic information on reserves, capital flows, asset prices, budget and trade balances are not always publicly available and when they are it is with considerable delay and sometimes concealed from the public. To function properly, markets need timely information and data if they are to perform their policing and adjustment role effectively. When governments conceal crucial bits of information from markets, problems are allowed to simmer until it is too late and then markets are caught by surprise and they over react, resulting in financial crises.

Another problem is that not all countries play by the same rules. Some countries use the guise of fixed exchange rates and even floating exchange rates to pursue neo-mercantilist policies. The chief examples here are the Asian economies, mainly Japan and China. Japan has been on flexible exchange rates since 1971. However, instead of allowing their currency to trade freely and find its own level (a clean float) they have been very active in manipulating the value of their currency (a dirty float) in order to maintain its value at a competitive level vis a vis the U.S. dollar. The objective of this manipulation, of course, is to give their exporters a trading advantage in the huge US market. This way they have maintained large chronic trade surpluses against the United States. As a consequence they have accumulated huge US dollar reserves that they lend back to the USA. This is not how the system is supposed to work. When you experience trade surpluses, the value of your currency should rise until the trade surpluses have become reduced and vice versa when you experience a trade deficit. Another example is China. By maintaining the Chinese Yuan at an artificially low fixed parity against the US dollar (1

USD = 8.28 Yuan), China makes its exports competitive against US products and ensures a trading advantage. As long as China was small and developing you could afford to overlook such mercantilist practices. Now that China has emerged into the world's third biggest economy, (behind the USA and the EU and ahead of Japan), the continuation of such currency manipulation creates instability in the international financial system. Since 2005 China has been facing increasing pressure from other countries to adjust its currency higher, either by outright revaluation, or by floating it and letting market forces push its price higher. Responding to this pressure, China has ended the fixed parity with the US dollar and has announced that it will tie the value of the yuan to a basket of currencies of countries with which it conducts most of its trade. However, the composition of this basket has not been disclosed so markets do not know on what basis the currency is supposed to move. Moreover, the appreciation of the yuan has been so minimal (around 5% so far) that it undermines the credibility of Chinese government authorities. What matters most here is that sooner than later China allow its currency to start floating more, and to let its currency appreciate at least by a reasonable degree to reduce the stress that is building up in the international monetary system. Such a move does not only benefit the countries that are suffering trade deficits against China, like the USA, but it also benefits China. A stronger yuan will act as a check against inflation in China and reduce the risk of a housing bubble, and the need to raise interest rates, but also expand the global buying power of Chinese consumers and producers who will be able to buy finished goods and resources (e.g. oil) more cheaply from the rest of the world! Some flexibility can go a long way to the benefit of all players.

The chronic US balance of payments deficit. The USA is experiencing a persistent and growing balance of payments (trade) deficit that has now risen to nearly 6% of its GDP, a level that would have caused a violent currency collapse and deflation in any other nation. There are a number of reasons for this problem. First, the undervaluation of the Chinese yuan is one of the factors, as we saw above, but it is not the only factor. Other Asian countries such as Japan, Korea, Taiwan, Hong Kong, Malaysia, Thailand and Indonesia are doing the same on the excuse that they cannot allow their currencies to appreciate too much against the Chinese yuan because it will damage their trade with China itself. What is needed here is that the entire South East Asian block of currencies appreciate their currencies vis a vis the US dollar and to a lesser extent the euro, the pound, the Canadian and other world currencies. To the extent that they revalue as a block, the smaller the percentage increase that will be required from China or any individual country to make, and the less disruptive such a move ends up being on the international monetary system.

But, Asian country currency manipulation is not the sole reason for the imbalance in the US trade. The United States is to blame as well. As we discussed earlier in this paper, this problem of chronic current account deficits is not new for the United States, it has been a built-in defect of the gold exchange standard since its inception at Bretton Woods. By making the US dollar an international reserve currency that central banks around the world need to maintain as a store of value to defend their currencies, there is a greater demand than supply of it which, keeps its value higher than it would otherwise be if it was just a normal currency. By keeping its value higher than the value required for external equilibrium, it prevents the US economy from balancing its trade balance. As long as the US dollar remains overvalued, imports from the rest of the world will be cheap while exports to the rest of the world will be dear. One might say that this is the price the United States pays for world hegemony.

A bigger issue, however, is how long can this situation persist and what happens when it ends? As long as the US keeps spending more than it earns, trade and budget deficits will persist which will push the US government debt-to-GDP ratio as well as the US external debt to GDP ratio to such high levels that at some point will undermine confidence in the US dollar, much as it did in the late 1960s which led to the breakdown of the gold exchange standard and brought an end to the fixed exchange rate system. If this imbalance is allowed to persist to that level, instead of an orderly, depreciation in the value of the Greenback we might see a new monetary crisis, with the US dollar in a free fall and the Asian block of currencies forced to revalue, much like Western Europe and Japan were forced to do in the early 1970s, and a renewed bout of global inflation and/or a jump in interest rates. Whatever form the reaction takes, it is sure to force a deep recession on the United States and at least temporarily on the Asian economies, which depend so heavily on exports to the USA to sell their products. To the extent that stock and real estate markets are sideswiped by this upheaval, we could see the outline of a global depression in the making. I do not believe that the situation will be allowed to get completely out of hand, as central banks and governments possess the knowledge (Keynesian macro economic tools) and the experience acquired from the Great Depression to prevent it. One thing is certain, the US and other economies like Canada that depend so much on the U.S. could experience a deep and prolonged adjustment of slow growth, high interest rates and inflation, while others like the Asian economies and China in particular will be forced to rely more on their own untapped domestic markets to maintain demand, and employment and less on the US and other external markets.

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Comments, feedback and discussion on this paper are welcomed and would be much appreciated by the author.

Dr. Kenneth Matziorinis
Professor of Economics,
Department of History, Economics & Political Science
John Abbott College, and
Adjunct Professor of Economics
Centre for Continuing Education
McGill University
Montreal, QC, Canada
E-Mail: **ken.matziorinis@mcgill.ca**