



Paul Einzig, a London financial journalist, after a four week visit to New York, observed: "With few exceptions they [financiers] were convinced that the period of prosperity then being experienced was everlasting,....Although just then there was a minor slump in Wall Street...everybody I met was convinced that the boom would be resumed..." (London Financial News 4/9/26, cited in Davis, 1975:132) This would have been an accurate portrayal of the spring of 2000. But this observation was made in spring 1926.

To some analysts of the period, this was an era of optimism and miracles. After all, this was the period that the Gold Standard, the pillar of the world trade and financial system, was restored; Germany became a full member of the League of Nations, the international business index for major industrial and industrializing countries rose nearly 50% from mid-1924 to late 1929, international trade grew even between the West and the Soviet Union. "Everywhere in the Western world pre-war standards of prosperity had been surpassed....The average standard of living, even in Europe, was in 1928 higher than it had ever been." (Salter, 1961) With the boom of the economy came the boom of the analyses explaining economic miracles. This is especially true with analyses of the "American Miracle." Among the crucial factors that contributed to the miracle were traits of modernization: "the high premium on management and organizing capacity and the emergence of far-sighted management as a new profession"; "the open-mindedness of the American management" and "dominant national trait of optimistic energy." (Gay, 1929) This analytical approach was reminiscent of the fashionable analyses of the "Asian Miracles" and the "Asian Tigers" in the 1970's and 80's.

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However, this period would have been just a normal one and would not have attracted analysts with great historical hindsight if it were not because of what followed: the Great Depression. With the bust of the economy came the boom in analyses of its causes. With slight paraphrase, the traits that were attributed to contributing to the boom were now blamed for the Depression. Thus “trait of optimistic energy” became “speculative fever;” the “far-sighted management” was blamed for ignoring signs of problems such as “quality of credit” and failure to prepare for major demographic, construction, and consumer demand trends among other things. (Davis 1975) This analytical approach closely resembles the current intellectual trend of analyses of “Asian Crisis,” the antithesis of the “Asian Miracles.”

These two traditional approaches have dominated social “scientific” and historical studies in political economy in general. Although the phenomena scrutinized by these two approaches are antipodean, epistemologically, these two approaches embark on the same course.

In this article I also analyze this period but my approach departs from these traditional approaches. Instead of analyzing selected phenomenological variables as in the traditional approaches discussed earlier, I explore systematically a deep structure of the system in operation and its own logic and dynamics by employing world trade networks of the period as an indicator of the structure.

Specifically, by focusing on the world trade network in 1928 and 1938, I explore development of macro political economic systems and proto-systems based on power and/or exchange relations in this period, their exact configurations and the explicit and implicit logic and dynamics of the systems.

The 1920's and 30's were usually described as a period of transition in world history. In historical hindsight, the old British hegemonic system was disintegrating and a new U.S. hegemony was yet to come. However from the vantage point of the contemporaries of the booming late 1920's, especially from the point of view of the Wall Street financiers, (Einzig 1926) the future was roseate and the meltdown of the system was unforeseen.

But then another question could be raised: was the period characterized by divergence or “chaos”? i.e. a period for various international and inter-societal systems and proto systems to grow, in which the world-system as defined by Wallerstein (1974) was reduced to only one of the macro systems? By focusing on the world trade network in 1928 and comparing it with that in 1938, this paper explores the development of macro political economic systems and proto-systems in this “transition” period.

#### I. DEVELOPMENT OF MACRO SYSTEMS AND PROTO-SYSTEMS

In this article, a proto-system is defined as a macro political economic system based on actual international economic transactions in its early development stage

which may or may not develop into a fully grown system. Some proto-systems may evolve into fully developed systems and others may fade in their embryonic stage and still others may not evolve as fast. They may induce different outcomes of world political and economic and social changes.

What are some possible examples of development of systems and proto-systems? Although this exploratory research is not bound by existing theories, existing theoretical literature indicates that there were at least four systems and proto-systems: the liberal world economic system, world empires, regional systems and cultural-historical market systems.

#### 1. Liberal World Economic System

It is argued that while an autarkic economic course was taken by fascist powers during the 1930's, the liberal leadership role was assumed by the Great Britain in the late 1920's when it restored the Gold Standard and thus the liberal world economic system characterized by open markets and free trade. With the exception of Russia, the liberal world system, which was greatly damaged by the First World War, was back on its pre-war track. Even Germany, the formal adversary of the system dominated by the Great Britain, was fast integrated into the system. (Davis 1975)

When Great Britain abandoned its leadership role of the liberal system in the early 1930's, the U.S. failed to take over the role according to some analysts (e.g. Kindleberger 1973). According to others, however, the U.S. started to adopt such a liberal course in the mid-1930's (Gilpin 1987:130). The U.S. Reciprocal Trade Act of 1934 is regarded as such a symbol (Frieden 1988; Gilpin 1987; Haggard 1988). Hence from this perspective the economic version of the clash between the Allied and the Axis powers during the World War II is basically a conflict between imperial autarky and a liberal order.

Was the world marketplace dominated only by the liberal world-system and its logic and dynamics during the first half of the period, as indicated by analysts of the period? During the second half of the period, i.e. the period of Great Depression, was there really such a dichotomy between the imperial autarky and a liberal order led by the U.S.? Did the U.S. have the material interest and the global reach which might enable its policy makers to push for a liberal world economic order?

#### 2. World Empires

This view regards the establishment of formal autarkic empires as a further development of economic autarky or proto-empires. In other words, the economic autarkic proto-empires are the bases for development of formal empires. Hirschman (1969) analyzed the German case during the period before the Nazis took power and strived to establish a formal empire. McCormick (1989) also pointed out the existence of domestic forces in the U.S. pushing for such an imperial proto-system

during the transition period. Did proto-empires flourish during the transition period? While there have been numerous analyses of the Third Reich, the Japanese Empire, and the British and French colonial empires in the second half of this period, the key questions are: (1) were the prototypes of these empires a strong trend in the first half of the period; (2) was the U.S. also developing its proto-empire in this period?

### 3. Regional Systems

The third view points out the development of regional blocs during the transition period, especially during the later years of the period (Condliff, 1950; Kindleberger, 1973). This view, however, tends to confuse two types of regional blocs. One type includes hierarchical regional blocs which involve major powers and which are often the prototypes of empire blocs such as the Yen and Sterling Blocs, and the other is a true regional bloc which involve more or less equal partners based on comparative advantage. This alliance can also be construed as the arms-length extension of the nationalism of small or medium independent countries with complementary economic structures. Since the rise of economic nationalism was described as one of the most powerful features of the period (Kindleberger 1973) were there true regional blocs emerging in the transition period? Policy blocs aiming at regional coordination and cooperation were constructed such as the Oslo Group of nations which comprised Denmark, Sweden, Norway, Finland, the Netherlands, Belgium, and Luxembourg. The Rome Agreements of 1934 which involved Italy, Austria and Hungary is another example (Kenwood and Lougheed 1992). However these policy blocs only suggest "real" blocs based on actual trade flows. How powerful was the real regional proto-system during the transition period as the world economy was disintegrating?

### 4. Historical and Cultural Market Systems

Economic activities such as economic transactions are regarded as socially and culturally embedded (Granovetter 1985) There is evidence that economic transactions are based on historical and cultural bonds, which are difficult to sever. For example, even under formal British and French colonial rule, in the 1920's the trade of Hong Kong carried out by indigenous merchants with merchants in French Indo-China, China, and Thailand was just as important, if not more, as trade with colonial powers and newly industrializing powers such as Japan. This old historical web was established by merchants in the area for over hundreds of years and even formal colonial governance could hardly break it. Furthermore, old colonial ties could evolve into cultural and linguistic ties. For example, in 1938 the volume of

Portuguese trade with Brazil was greater than its trade with all the developing countries in Asia and Latin America combined.

How important was this cultural prototype in the transition period as the world political economic system under British hegemony was decaying? Was there a revival of historical market systems such the trade webs in West Africa, the Mediterranean, Central Asia and Southeast Asia and other parts of the world?

During this period under study, was the world marketplace dominated by any one of four systems or proto-systems, as described above, or by combinations of the systems and proto-systems? If there were combinations, what were the exact configurations? All the questions raised above can only be addressed by analysing real trade flows in 1928 and 1938.

## II. DATA AND METHODS FOR TRADE NETWORK ANALYSIS

### 1. Data

International trade data in 1928 and 1938 provide the primary source of information for a systematic exploration of the systems and proto-systems discussed above and other possible proto-systems. I analyze trade flows among 99 countries and regions in 1928 and 100 in 1938 which had such information. The data for both years are derived from the League of Nations' *Network of World Trade* (1942). The countries and regions in both years are identical except the case of Manchuria. In 1928 it was classified as part of China and in 1938 it became an independent unit of accounting after the Japanese invasion in 1931.

A focus on country by country trade flows produces two symmetric matrices (a 99 by 99 matrix in 1928 and a 100 by 100 matrix in 1938) with each cell containing the dollar volume of the trade between two countries.

The next step was to percentage these matrices, creating new matrices. These new matrices are asymmetric because for each trade relationship between two countries there are two ratios. For example, the trade in 1928 between the United States and Mexico accounts for 64.6% of Mexico's foreign trade while it only accounts for 2.5% of U.S. foreign trade. A high percentage on either side may suggest an important relationship. Although the trade between Mexico and the U.S. only accounts for a relatively small share of America's foreign trade, the high percentages on the part of Mexico not only suggest Mexico's dependence on the trade but also indicate American market share and the extent of its political-economic leverage.

The next step was to construct a matrix of significant trade relations (or adjacency matrix) for network analyses. What is a significant trade relation? In order to carry out network analyses consistently, it is necessary to establish a cutting point. Since there are 99 countries in 1928 and 100 in 1938, the random trade level would

be around 1%. The analysis is performed at the 10% level, indicating a high trade engagement or a significant trade relation. Thus any percentage equal to or above 10% is recoded as "1" and that below 10% as "0." This new adjacency matrix of "1"s and "0"s, is the input for network analyses.

## 2. Methods: Networks and Graph Theory

Network methods as used in social science are an extension of graph theory in discrete mathematics. They are designed to ascertain patterns of relations (edges) among actors (vertices). This study uses two major techniques in detecting patterns of network relations: centrality and subgraphs (or network groups) with the emphasis on the latter.

The degree of centrality is simply the count of significant relations of an actor with others in the network. It is a proximate measure of power. I employ this technique to identify major trade powers. However my focus is not on this aspect of network analysis, but rather on identifying meaningful structures in world trade networks in the transition period.

Previous studies on trade networks (Su and Clawson 1994; Su 1994, 1995a, 1995b) revealed that major trade network structures consist of elementary structures. Those studies mainly rely on two elementary structural concepts: clique and structural equivalent groups. While the concept of the structural equivalent groups is a useful one in other areas of social research, for our analysis it has its limitations as it does not identify the actors (vertices) that constitute the definition of a structural equivalent group. These actors in trade network analyses are important to identify as they usually occupy central positions in the structures of the network. Furthermore, the four basic structures I will discuss below are all "structurally equivalent" by definition. However, they are simply not "equivalent" in their construction of the larger systems.

In the following I will discuss these meaningful elementary structures that may give rise to larger structures.

### a. clique or cohesive sets

A clique is a group where every member of the group is tied to every other member of the group by whatever criterion is selected. More technically, a clique is a maximal complete sub-graph (Alba 1973). Theoretically, the number of vertices ranges from three to infinity. In other words, theoretically it is possible that a network is simply a clique, signifying a structure of complete "interdependence" or "globalization." The trade flows among the UK, South Africa and Egypt in 1938 constitute such a clique. There are two types of cliques in trade network analysis: one which involves major trade powers with small or medium countries and the other involving countries with more or less equal trade relations.

### b. centripetal sets

A centripetal group resembles a planet-satellite structure with only an actor in the center connecting to other actors. Although this is one of the graph patterns identified by Trudeau when the number of actors (vertices) is three (1993), theoretically, the number of vertices ranges from three to infinity. It is theoretically possible that a network is simply a centripetal group suggesting a situation of complete centralization. The trade of France with its colonies in Africa and Asia in 1938 and the trade of Hong Kong with its neighbors in 1928 fits this pattern.

### c. dyadic sets

In trade network analysis, this represents incidence of isolated bilateral trade. Although it is a pattern identified as one when the number of vertices is four (Trudeau 1993), it can have the number of actors ranging from four to infinity, suggesting a very decentralized structure.

### d. null sets

This pattern only consists of non-interactive actors. In trade network analysis, this could mean that the actors involved have very evenly diversified trade relations with others or completely isolated actors. Theoretically, the number of actors involved in this pattern can range from two to infinity, suggesting a complete decentralization or the situation of total chaos.

### b. trade blocs

A trade bloc is defined as a large trade group which combines cliques and centripetal groups. What potential trade bloc configurations are possible? There are at least three.

- (1) Exclusive major power blocs. These blocs include small-sized cliques and centripetal groups revolving around major powers. These blocs do not overlap with one another. This is usually the empire autarkic economic arrangement referred to by economic historians. (Kindleberger 1973; Hirschman 1969)
- (2) Overlapping major power blocs. These major core power blocs overlap with one another. Limited overlapping areas may suggest intensified competition and conflict for market and resources. Large overlapping areas together with significant relations between major powers suggest a fairly open economy for major core powers.
- (3) Coexistence of major power, regional and cultural blocs. Regional or cultural blocs may emerge if trade cliques only consist of non-major-power countries or these cliques are sufficiently large so that the major power influence is diminished even though the cliques may overlap with a major power bloc.

What were the trade structures in the transition period? Did they consist of the combination of trade blocs and other structures such as dyadic and null structures? What was the configuration of the structures? If trade blocs dominated the period, what were their nature and their relations?

### III. TRADE NETWORK STRUCTURES

#### Centrality

Trade networks in both 1928 and 1938 are highly concentrated. The U.K., the U.S., Germany and France are the most central players in the networks. They are the only ones that have significant trade relations with more than ten countries. From 1928 to 1938, the trade networks of all the major powers contracted except that of Germany. The U.K.'s significant trade relations decreased from 66 in 1928 to 60 in 1938 and those of France dropped from 21 to 15. The significant relations of the U.S. plunged from an extensive 56 in 1928 to 39 in 1938. It ranked number two in 1928 but yielded that position to Germany in 1938. The only major power that had gained ground in extending its trade relations was Germany. Its number of significant trade relations increased from 48 to 52.

The aggregate centrality measures indicate economic influence of these major capitalist powers. However they are not very informative about the structure of the trade networks and the major power trade spheres and their relations.

Were there major alternative structures other than the major power trade spheres developing in this period? What were the structural relations among major powers and their trade spheres? What structural changes took place in this transition period?

#### Structures

Although dyadic and null sets are theoretically possible, our empirical exploration of the trade networks in 1928 and 1938 failed to find their existence. Hence any network configuration can only be based on the combination of clique and centripetal sets.

Structural analyses based on clique and centripetal set detection techniques indicate that major powers dominated the networks. In 1928, the U.S., the U.K., Germany and France were the most important trading powers in the network. Furthermore all four major trading powers had close trade ties with one another except that between the U.K. and Germany. One hundred and seventeen cliques were found for the trade network in 1928. The largest size of any clique is four. All the cliques except one involved one or more of the four major trading powers. There are relatively small exclusive centripetal sets surrounding major trading powers, the

U.K., the U.S., Germany, and France. In addition, a Hong Kong set emerged with three alters.

The combination of cliques and star sets produces four major trading power spheres and a rather small trade sphere around Hong Kong.

As in 1928, the four most central players in 1938 were the U.K., Germany, the U.S. and France. Sixty-two cliques were found for the 1938's trade network and the largest size of the clique is four. None of the cliques found did not involve one of the three major trading powers: the U.K., Germany, and the U.S. The largest centripetal sets were the ones surrounding major trading powers.

The combination of the clique and centripetal star sets shows the development of four major power trade blocs. Another striking feature of the network is the absence of close trade ties among the major trading powers except that between the U.S. and the U.K.

The empirical structures in 1928 suggest three types of systems and proto-systems, which I call the old, the new and the ancient regimes respectively. While both the old and new regimes can be regarded as a combination of liberal and imperial (or proto-imperial) systems, the major difference between the new and the old regimes lies in the way that their imperial or proto-imperial sectors are organized. While the old regime's imperial sectors were penetrated by other major trading powers, the new regime powers were able to keep exclusive their proto-imperial sectors. The ancient regime can be construed as the revival of a historical market system. However in 1938 the ancient regime disappeared and imperial order dominated the world.

In the following I will discuss these three regimes respectively in 1928 and the imperial order in 1938.

### IV. THREE REGIMES IN 1928

#### 1. The Old Regime: The Cases of the U.K. and France

The U.K. sphere was the most global in 1928. It had significant trade relations with 15 countries and regions in Africa, 10 in Asia, 19 in Europe and 22 in the Americas. The French sphere largely concentrated in Africa and Europe in 1928.

In 1928, both Great Britain and France maintained two economic sectors in their trade spheres: the imperial sector and the market sector. About half of the countries in their spheres were their colonies in 1928. My focus in this paper is on the imperial sector, as it is the difference in this sector that distinguishes the old and new regimes and it is the structural differences here that led to the imperial order of the following two decades.

While the French colonial sector exhibits a simple centripetal hierarchical structure, the U.K. colonial segment clearly shows a combination of a simple centripetal structure and cluster hierarchical structures, which are combinations of cliques and simple centripetal sets.<sup>1</sup>

In 1928, cluster hierarchical structures dominated the U.K.'s imperial segment. In this typical cluster not only did the U.K., the core, maintain its centripetal relations with smaller colonies but also its regional core, such as India, tied closely with those colonies. In 1928 the U.K. imperial segment had six such clusters. Other than the U.K.-India cluster, there were the U.K.-South Africa, the U.K.-Egypt, the U.K.-Canada, the U.K.-Malaya, and the U.K.-Australia-New Zealand clusters. With minor variations, all these clusters resemble the U.K.-India hierarchical cluster. This clear cut pattern of cluster hierarchical structure reflects British imperial geopolitical and geoeconomic strategy and planning. This cluster hierarchical pattern is not as obvious in the non-colonial or the market sector of the U.K. trade sphere.

Were these mainly exclusive imperial sectors? Were they free from penetration by other major powers?

First let us examine the U.K. imperial sector. As shown in Table 1, the U.K.'s imperial sector was heavily penetrated by other major trading powers, which means that the U.K. not only faced competition in its market sector but also challenges in its own bailiwicks. The largest penetration came from the U.S.. In about 45% of the countries and regions in the U.K. imperial sector a U.S. commercial presence was found. The percentage of countries that the U.K. was able to maintain exclusive relations with was only about 23%. Germany and France also penetrated the British imperial sector. A scrutiny of the penetration into different U.K. imperial clusters reveals its intensity. Where the U.S. penetrated into every one of the U.K. imperial clusters, Germany focused on the U.K.-South Africa cluster and the U.K. simple centripetal group in 1928 as the penetration ratios are 75% and 100% respectively.

In 1928 France was better than the U.K. in maintaining its imperial sector, as it kept exclusive trade relations with about 44% of its colonies, shown in Table 1. However, its imperial sector was also penetrated by other major trading powers: the U.K., the U.S. and Germany.

<sup>1</sup> These simple and cluster hierarchical structures are not easily detected as the members in the structures were also entangled in their relations with other major trading powers. However once we remove their relations with other major trading powers, the pattern becomes very clear based on elementary structures. We then consider the relations between these members and other major trading powers, which will be discussed later in the paper.

**Table 1 – Overlap between Imperial Clusters and Major Power Trade Spheres in 1928**

<u>Imperial Cluster</u>	<u>Major Power Trade Spheres</u>			
	UK	US	Germany	France
UK Imperial Clusters (n=32)	22.6%*	45.2%	22.6%	6.5%
UK-South Africa (n=5)	25.0%*	25.0%	75.0%	0.0%
UK-Egypt (n=5)	75.5%*	25.0%	0.0%	25.0%
UK-Canada (n=9)	12.5%*	75.0%	0.0%	0.0%
UK-India (n=8)	71.4%*	28.6%	0.0%	0.0%
UK-Malaya (n=3)	50.0%*	50.0%	0.0%	0.0%
UK-Australia -New Zealand (n=4)	33.3%*	66.7%	0.0%	33.3%
UK-others (n=5)	0.0%*	50.0%	100.0%	0.0%
French Imperial Cluster (n=10)	33.3%	11.1%	11.1%	44.4%
German Proto-Imperial Cluster (n=7)	0.0%	0.0%	100.0%	0.0%
US Proto-Imperial Cluster (n=4)	0.0%	100.0%	0.0%	0.0%

The percentages included in this table are overlap ratios which are calculated as follows:

$$\text{Overlap ratio} = [M / (n-1)](100/100)$$

where

M = number of members in the overlapping area between a major power's imperial segment and another major power's bloc;

n = number of members in the imperial segment.

\* These ratios indicate the percentages of members exclusive to an imperial or proto-imperial cluster.

The penetration into the imperial sectors of the old regime powers such as the U.K. and France may not be very surprising as there were forces attempting to liberalize global trade even in the imperial sectors of the old colonial powers. However it is quite a contrast once the old regime's imperial sectors are compared with the imperial sectors of the new regime powers such as Germany and the U.S.

## 2. The New Regime: The Cases of Germany and the U.S.

Although Germany did not have formal colonial possessions, it was able to cultivate a cluster centripetal group as part of its trade spheres. This could be construed as a proto-imperial sector. (Hirschman 1969) This cluster centripetal group, which

is part of German trade spheres in 1928, is very much like the typical U.K.-India cluster with Austria playing a similar role as India. All the countries found in this cluster were located in Central and Eastern Europe. While engaging in competition with the U.K. in Africa and Europe in its market sector, Germany was moving towards a “proto empire,” an exclusive trading bloc in Central Europe and the Balkans as early as 1928. This was before the Nazis took power and before the Great Depression. Hitler wrote: “We stop the endless German movement to the south and the west, and turn our gaze towards the land in the east. At long last we break off the colonial and commercial policy of the pre-War period and shift to the soil policy of the future.” (Hilter, *Mein Kampf*, pp. 598, cited in Broszat 1989:56) One has to wonder if this was simply his reflection of the reality before his time or his original design for the future.

The U.S. in 1928 also maintained a small imperial or proto-imperial sector which included the Philippines, Panama and Mexico in addition to its large market sector.

Again we can ask the same questions about the imperial sectors of the new regime as we did about the old regime: Were these mainly exclusive imperial sectors? Were they free from penetration by other major powers?

As we discussed before in 1928, Germany and the U.S. heavily penetrated the imperial sectors of the old regime powers, especially that of the U.K. However the remarkable thing is that they were able to maintain their complete exclusive trade relations with countries in their imperial or proto-imperial sectors. As shown in Table 1, both Germany and the U.S. kept their exclusive trade relations with 100% of all the countries in their imperial or proto-imperial sectors. This is in striking contrast to the old regime’s imperial sectors, where the U.K. and France could maintain exclusive trade relations with fewer than half of the countries. It is this difference in the imperial sectors that distinguishes the old and the new. While the old was unwilling or unable to keep exclusive their imperial sectors, the new was able to penetrate the imperial sectors of the old regime while keeping exclusive their own imperial or proto-imperial sectors. The new regime powers not only applied their neomercantilist strategies with regard to their respective national markets, but also their imperial sectors with great success. It is clear that if the trend continued, the old regime powers would not even be able to prevent their imperial sectors from being taken over by the new regime powers, let alone their market sectors. The trend contributed to the secular decline of the U.K., the hegemonic power, and its decision to abandon its liberal regime in favor of a consolidated empire in the early 1930’s.

### 3. The Ancient Regime: the Case of Hong Kong

In 1928 Hong Kong, the British colony, did not have significant trade relations

with any major trading powers including the U.K.. However it was at the center of a centripetal group which involved China, Thailand and French Indochina. This trading position suggests the revival of a long-term historical market system in the region. It revived during the period of the World War I, when the U.K. and other major powers focused their attention on war in Europe and other areas. And in the post-WWI 1920’s this ancient regime maintained its momentum and prospered. However I should point out that compared with the other two regimes, it was rather weak, limited in scope and short-lived. In 1938 the U.K. resumed its predominant trade tie with its colony and the ancient market system of 1928 ceased to exist.

### V. THE IMPERIAL ORDER OF 1938

Great Britain’s abandonment of the Gold Standard in September, 1931 removed a great barrier for it to consolidate its empire. From then on it could concentrate its resources to reclaim its empire, which was heavily penetrated by other major powers in 1928. This autarkic empire building was followed by other empire builders: France, Germany, and to a great extent, the U.S. The imperial order reigned, which seems to be the only regime in the late 1930’s. There were no other competing systems or proto-systems. The only alternative system, the ancient market regime centered around Hong Kong in 1928 simply ceased to exist in 1938 when Great Britain consolidated its control over its empire. But then two crucial questions could be raised about the imperial order of the period: While it is not surprising that Germany, Japan, Great Britain and France engaged in autarkic empire building, extensively covered in the scholarly literature, was the U.S. also building its own autarkic empire? How successful were the powers in consolidating or building their empires?

During the “transition” period, the world economic system headed towards a system of world empires. This argument is not surprising in the case of Germany, Japan and even the UK, France and other colonial powers. Germany and Japan had formal “domestic” and “colonial” imperial political economic institutions and the UK and others had only formal “colonial” imperial political and economic institutions while maintaining “democratic” domestic ones. What about the U.S.?

It is clear from the trade network analysis that although the U.S. trade bloc in 1938 contracted in size as compared with 1928, it expanded its proto-imperial centripetal sector. In 1928 this sector was rather small consisting of only three countries: the Philippines, Panama, and Mexico. In 1938, however, this proto-imperial star sector expanded to include Panama, the Philippines, Mexico, Ecuador, Colombia, Guatemala, Honduras, El Salvador, and Turkey. Furthermore despite its retreat from other parts of the world, the U.S. still managed to penetrate the U.K.-Canada cluster, which was largely centered in the western hemisphere. In fact, the penetra-

tion ratio increased from 75% in 1928 to 100% in 1938. Besides its large presence in the western hemisphere, it also extended its reach to Southeast Asia. This structure is also consistent with the Grand Area design, an autarkic imperial plan designed by the U.S. policy makers and advisers in the early 1940's.

As soon as war broke out in Europe, the Council on Foreign Relations (CFR) organized a study group, working with the U.S. State Department, to plan what the world should be like after the war was over. The war was understood as a European war rather than "World War II." The post-war, in the minds and words of U.S. policy makers in the early 1940's referred to the situation in which several empires might coexist after Germany won the European war on the continent. (Shoup and Minter 1977; Marshall 1995) The CFR analysis explicitly considered the relative self-sufficiency of the German bloc as compared to the U.S. bloc. The question they posed was: as the Western Hemisphere was endowed with abundant resources, if the U.S. were confined to the Western Hemisphere, would it be able to rival the German Bloc? They decided that Germany was in better shape than the United States because it could get a higher proportion of the materials it needed to dominate the world from within the countries it controlled. In order to match Germany, the U.S. needed to control the Asia-Pacific area as well. Accordingly, the Council on Foreign Relations, in conjunction with the State Department, started planning a "life space" called the "Grand Area," which initially included the western hemisphere and Asia-Pacific area and later incorporated the United Kingdom as well. (Shoup and Minter, 1977) ) U.S. policy makers were contemplating the possibility of the coexistence of a German bloc and the American "Grand Area," a U.S. proto-empire.

Furthermore the argument between the so-called "internationalists" and "nationalists" of the time was not about whether one should engage in free international trade or national isolation and protectionism. From the rhetoric of their debate, it was obvious that it was about the extent and scope of the "proto-empire." While the America Firsters, the "nationalists," argued that the U.S. should keep itself within the western hemisphere to achieve "self-sufficiency," the designers of the "Grand Area" and other so-called "internationalists" argued that the western hemisphere was not large enough for "self-sufficiency." (Marshall 1995) Both sides were concerned about a "self-sufficient" empire. "Free trade," the cornerstone of the liberal world system, was an outmoded phrase associated with a bygone era.

One could detect an urgency in the designs of U.S. policy makers in planning a proto-autarkic empire. Why was it so urgent? Our trade network analysis reveals that as far as empire building is concerned, like Great Britain, the U.S. was on the losing side. Compared with 1928, the U.S. trade bloc in 1938 was rather limited. It was largely confined to the western hemisphere. But even here it could not exercise its domination. It is true that the U.S. expanded its centripetal proto-imperial sector in the western hemisphere. However, it could not impose exclusive control over this

**Table 2 – Overlap between Imperial Clusters and Major Power Trade Spheres in 1938**

<u>Imperial Cluster</u>	<u>Major Power Trade Spheres</u>			
	<u>UK</u>	<u>US</u>	<u>Germany</u>	<u>France</u>
UK Imperial Clusters (n=29)	35.7%*	28.6%	28.6%	10.7%
UK-South Africa (n=4)	0.0%*	33.3%	100.0%	0.0%
UK-Egypt (n=3)	50.0%*	0.0%	50.0%	0.0%
UK-Canada (n=7)	0.0%*	100.0%	0.0%	0.0%
UK-India (n=8)	71.4%*	0.0%	14.3%	14.3%
UK-Malaya (n=3)	50.0%*	50.0%	0.0%	0.0%
UK-Australia -New Zealand (n=4)	50.0%*	0.0%	0.0%	50.0%
UK-others (n=7)	33.3%*	0.0%	50.0%	16.7%
French Imperial Cluster (n=10)	0.0%	0.0%	11.1%	88.9%
German Proto-Imperial Cluster (n=7)	16.7%	0.0%	83.3%	0.0%
US Proto-Imperial Cluster (n=10)	0.0%	22.2%	66.7%	11.1%

The percentages included in this table are overlap ratios which are calculated as follows:

$$\text{Overlap ratio} = [M / (n-1)](100/100)$$

where

M = number of members in the overlapping area between a major power's imperial segment and another major power's bloc;

n = number of members in the imperial segment.

\* These ratios indicate the percentages of members exclusive to an imperial or proto-imperial cluster.

sector as it was heavily penetrated by Germany. As shown in Table 2, Germany penetrated into 67% of the countries in the U.S. centripetal proto-imperial sector while the U.S. could claim exclusive control in only 22% of the countries in this sector; in 1928 this ratio was 100% for the U.S. In 1928, the U.S. was able to penetrate every imperial cluster of the U.K., while in 1938, it was only able to maintain its presence in three of them. In other words U.S. leverage in the U.K. clusters had greatly declined, and at the same time the U.S. faced a fierce challenge from Germany in its own backyard. Given the German challenge as described above, whether the U.S.

was able to consolidate its own proto-imperial sector in its “own” hemisphere had become a serious question with great urgency. Facing a serious challenge from other powers, especially Germany, the U.S. would probably have been content with an intact autarkic proto-empire.

Another loser in this rivalry for empire building was the U.K. Given the released resources the U.K. had used to buttress the world-system as the hegemon, the U.K. could very well have consolidated its exclusive control over the empire. In fact in 1938 the U.K. was able to maintain the cluster hierarchical structures which existed in 1928. While these structures still dominated the U.K.’s colonial segment, its simple centripetal structure expanded. However the success in rebuilding the British empire was very limited. The percentage of the members in the U.K. imperial sector with which the U.K. maintained exclusive ties was only about 36%, as shown in Table 2. Although this was an increase from the ratio of 23% in 1928, it was very low compared with Germany’s and France’s ratios, which were 83% and 89% respectively. As shown in Table 2, rivalry in the U.K. imperial clusters had become concentrated and intensified. In its South African, Egyptian and simple hierarchical clusters, the U.K. was challenged by Germany. In every country in the U.K.-Canada cluster, the U.S. commercial presence was found. The U.S. also extended its reach to the U.K.-Malaya cluster. Even France penetrated into the U.K.-Australia cluster. Although a number of policies and strategies were deployed to keep the empire exclusive, such as the currency arrangement known as the Sterling Bloc, the evidence from actual trade flows showed that the U.K. was simply not successful in keeping its empire intact.

Compared with the U.K. and the U.S., Germany and France were much more successful in their empire building. In 1938 Germany had surpassed the U.S. in the extent of its global trade web. It had the most extensive global reach next only to the U.K.<sup>2</sup> It not only successfully kept its proto-imperial sector exclusive, as the exclusive ratio was 83% shown in Table 2, but also was able to penetrate the U.K.’s imperial clusters in Africa and the U.S.’ proto-imperial sector in the western hemisphere.

In 1928, the French imperial sector was heavily penetrated by other major powers. By 1938, however, it had successfully reclaimed its exclusive control over its

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<sup>2</sup> It may be argued that the pattern of the German trade in 1938 is abnormal as it engaged in armament for war. However a comparison of the pattern in 1938 with that in 1935, for which I did a separate analysis, reveals a striking similarity. It is believed that Germany did not engage in serious armament until the beginning of the Four Years Plan in 1936 (Balfour 1992; Kindleberger 1973). Furthermore German stockpiling of raw materials for war did not seem to be the primary aim of German trade in 1938 as its stocks were very low in 1939. (Balfour 1992:61)

imperial sector. As shown in Table 2, in 88% of its colonies, it was able to maintain its exclusive trade relations, whereas in 1928, the percentage was only 44%.

## VI. CONCLUSION

Using trade networks as an empirical indicator, this paper could address a number of issues in the “transition” phase:

1. the structure of the global economic systems;
2. the decline of the U.K., the hegemon, and the material base for its decision to abandon the liberal world-system in favour of its empire; and
3. the material base for the U.S. to opt for a proto-empire in the late 1930’s and early 1940’s.

In 1928, there existed three types of systemic regimes: the old, the new and the ancient. While the weak ancient regime was clearly a revival of a historical market system, the other two were based on a hybrid of two systems: the liberal market system and the imperial system. While the old regime powers such as the U.K. and France were challenged in their own imperial sectors, the new regimes powers such as Germany and the U.S. successfully built their exclusive proto-imperial spheres. In 1938, the imperial autarkic system prevailed. It was the only order of the time with no competing systems. And this transition from a hybrid system to the imperial system alone was also reflected in the mainstream intellectual trend of the time. For Keynes (1973) the degree of profit decline and intensification of competition dictated the transition from world market to “national” market. Coase (1937) uses one variable, “transaction cost,” to justify such a transition from market to “hierarchy,” although he focuses on smaller units which constitute the larger system: the firms.

During booming 1926, the U.K. restored the Gold Standard and in the 1920’s it was still able to bail out Austria and Hungary in the name of the League of Nations. And yet in 1931 it abandoned the Gold Standard and engaged in consolidating an exclusive colonial empire by establishing the Sterling Bloc. While Kindleberger (1973) argues that the U.K. was not able to maintain the liberal world-system, others contend that it could have. The ensuing crisis of the world system was largely a policy crisis instead of a structural one: namely if the right policy had been adopted, the crisis could have been avoided and the system could undergo a smooth transition.

Our trade network analysis suggests that the UK had to abandon the system to concentrate on rebuilding its empire because it faced fierce rivalry not only in the world market but also in its colonies, which it tried to keep exclusive while competing in the world market. The neomercantilist U.S. and Germany had cut deeply not only into the market segment of the British sphere but also its imperial segment. If the U.K. had not abandoned the world-system to concentrate on its empire, it was

probable that the U.K. would have lost the economic battle in two areas, its market sector as well as its empire. Our trade network analyses suggest that there was an absolute secular decline of Great Britain. It not only declined as the hegemon of the world-system but also declined as an empire builder.

In 1938 the U.S. trade bloc contracted and its leverage largely retreated to the western hemisphere, where it expanded its proto-imperial sector. The U.S. trade web was largely regionally based. It did not have the global reach to push for a new liberal world-system. It even had serious problems in consolidating its own proto-empire, where it was challenged by Germany. Strategic planning by key U.S. policy advisers and makers and the debate between the “internationalists” and “nationalists” all tend to indicate that the U.S. aimed at building a self-sufficient proto-empire. From the point of view of a contemporary in the 1930’s and 40’s, the surprising thing was probably not that the U.S. was developing its proto-empire. Rather it was surprising that history changed its course when a new liberal world-system led by the U.S. replaced the blueprint of a U.S. empire in coexistence with other empires. The key to this historical mystery needs to be sought in the development of the second phase of the war and its impact on American strategy and economy, a discussion beyond the scope of this paper.

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