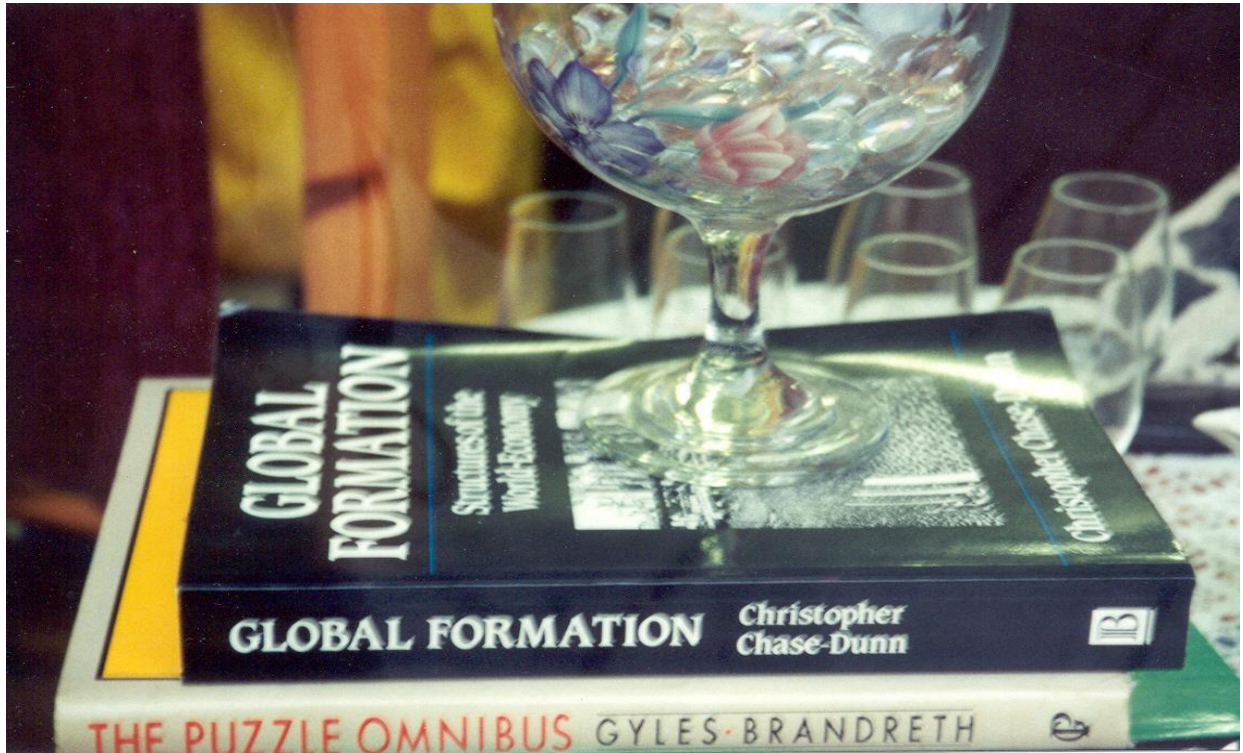


## Chapter 13: World-System Fluctuations Pp. 271-294 of Christopher Chase-Dunn, *Global Formation: Structures of the World-Economy* Cambridge, MA: Basil Blackwell, 1985, Revised Second edition published in 1998 by Rowman and Littlefield.



The window of a Curio shop in London about  
1995

This chapter examines empirical studies of world-systemic cycles and arguments about their causes and effects. Early theorizing about relationships among world-system processes posited both temporal models showing the relations among different cycles over time and models depicting causal relations among variables (e.g., Chase-Dunn, 1978). Subsequent empirical work has confirmed some of the original hypotheses and exposed others as overly simplified or completely wrong. This chapter reviews the state of a field which is rapidly changing because so much new empirical work is being done, and yet much more needs to be done before we will have a clear picture of the causal nature of world-system processes.

As was discussed in Chapter 9, the distribution of competitive advantage in commodity production in the core of the world-system varies from a situation of hegemony, in which one core state has a clear advantage, to a situation in which profitable production of core products for the world market is more evenly distributed across the core states. For analytic purposes we can refer to the former situation as

hegemonic and the latter as "multicentric." In chapter 9 we discussed the causes of the rise and fall of hegemonic core powers the national-level and world-system dynamics which result in the cycle of core competition. We will now examine how this fluctuation between hegemony and multicentricity affects the structure of control and exchange between the core and the periphery.

One of the features of the core/periphery relationship which is hypothesized over time is the fluctuation between a multilateral system of "free" trade between the various core states and the various peripheral areas on the one hand, and a more bilateral system of colonial empires on the other. These two hypothetical structures are graphically represented by figure 13.1.

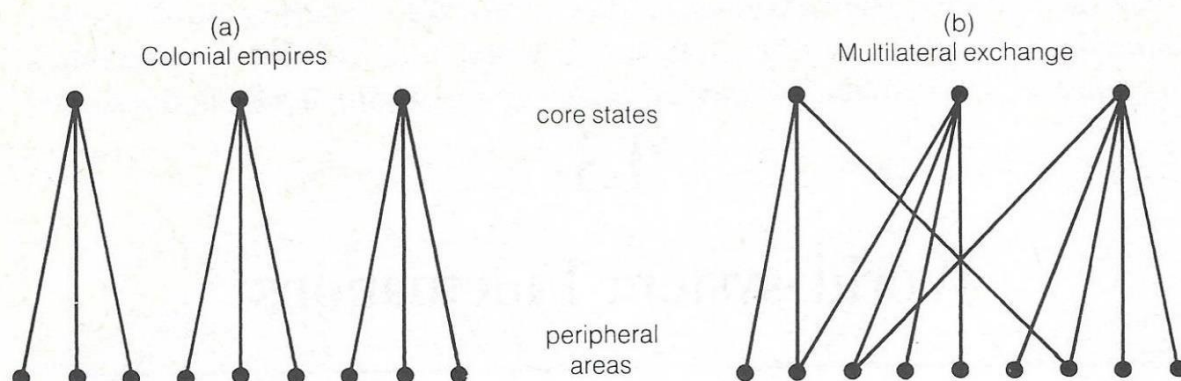


FIGURE 13.1 *Structures of core/periphery exchange*

This figure illustrates two different idealized structures of control and exchange between core states and peripheral areas. In a system of colonial empires each core state monopolizes exchange with its own colonies and excludes other core states from this trade. In the multi-lateral structure trade is less controlled by mercantilist state policies and the exchange comes closer to the ideal of a free world market. These schematic alternatives are, of course, only roughly approximated in complex reality. Some core countries never have formal colonial empires or have only small ones; truly price-setting international markets in which commodities exchange between core and periphery without regard to bilateral political considerations have never been completely realized; and, of course, the composition of the core and the periphery changes over time with the rise and fall of different regions and the incorporation of new regions into the modern world-system. Nevertheless, the above hypothesized structural types may have analytic utility.

Two additional features of the core/periphery relationship will be considered in this discussion. The first is expansion. The European world-system expanded to incorporate and peripheralize formerly external arenas in a series of waves since the sixteenth century. The nature of this incorporation varied depending upon the type of society being incorporated, as well as the features of capitalist accumulation and political organization which were current in the core at the time of incorporation (See chapter 10). Nevertheless, we may note that the rate of incorporation of new populations and territories varied over time such that incorporation occurred in waves. And another feature of the core/periphery relationship which has varied over time is the amount of resistance to core domination from peripheral areas. These variations can and should be studied in particular contexts to understand the conjunctural elements which nuance each situation; but here I want to examine them as features of the world-system as a whole.

The following discussion also incorporates two other cyclical variations which we have noted operating in the world-system: Kondratieff waves (K-waves); and the cycle of the severity of war among core powers. These cycles and variable features will each be discussed in turn below before we consider the temporal and causal relations among them.

As discussed in earlier chapters, in my view the core/periphery hierarchy plays an important role in the reproduction of capitalist accumulation. Let us now examine some of the ways in which the structure of domination between the core and the periphery changes and is changed by the process of capitalist accumulation in the core. Intensive and extensive development are alternatives for capital, and their relative profitability is determined in part by the level of resistance which is encountered. Thus, one reason that capital is exported to the periphery, and that colonial expansion is undertaken, is that resistance to capitalist exploitation is often weaker in the periphery than in the core. Also, expanded reproduction in the core creates demand for food products and industrial raw materials which can be cheaply produced in the periphery. And core producers seek market outlets in colonial areas to realize additional profits on product lines originally introduced in core markets.

According to Rosa Luxemburg (1968) the motive of market expansion is the key reason for imperialism, as capital seeks to escape the market saturation resulting from cyclical overproduction of commodities. All the above processes: desire for expanded investment opportunities, desire for commodity markets, and the rising demand for cheap food and raw material inputs stimulate capitalist core states to use political/military power to sustain the property relations and other institutional supports which facilitate core exploitation of the periphery. This general tendency is influenced by the cycles of economic growth, uneven development, periodic warfare, and hegemonic rise and fall which emanate from the arena of competition and conflict within and among core states. Economic and political competition among core states

often produces defensive expansion in the periphery, a kind of "anticipatory colonialism" which appears to be unmotivated by existing economic opportunities, but which can be understood in terms of the "strategic" interests of competing core powers.

## A Hypothetical Model of Temporal Relations

This section focuses upon a specific world-system level process: the way in which competition among core states and their national bourgeoisies affects the relationship between the core and the periphery. The descriptive form of the hypothesis is that a hegemonic distribution of productive advantage in the core, in which the bourgeoisie of a single core state is hegemonic in the world economy, leads to a relatively multilateral structure of exchange and control between the core and the periphery, and the relaxation of political controls over core/ periphery exchange. Conversely, a more multicentric distribution of competitive advantage in the core leads to a bilateral structure of exchange and control between core states and their colonial empires, and to the expansion of colonial empires into new territories.

The aggregate rate of growth in investment and production which varies over time to produce the Kondratieff wave is an average for the world-system as a whole, at least in principle. But development is, of course, uneven among core states, between the core and the periphery, and within the periphery as well.

So-called "rounds of accumulation" based on the expansion of new types of production are obviously not uniformly distributed across space. And the overall rates of economic growth, as well as the levels of slowdown and stagnation, vary from country to country, and regionally within countries. Thus, capitalist development is spatially uneven, and it is this which produces the hegemonic cycles and the upward and downward mobility of countries in the core/periphery hierarchy. But let us ignore these spatial variations for a moment to focus on the average levels of growth and the overall system-wide variations in the severity of competition and conflict among core states.

In my 1978 article I argued that the K-wave and conflict among core states were inversely related (Chase-Dunn, 1978).

This was before Goldstein's (1988) research, which shows that the severity of wars among core states varies not inversely but conjointly (with a small lag) with the K-wave. My earlier reasoning was influenced by my study of tariff politics. I argued that in periods of economic expansion capitalists are less likely to support state intervention, while during periods of stagnation they are more likely to support the use of state power to protect or extend their interests. A recent study of nineteenth century tariff politics (McKeown, 1983) agrees with my supposition that K-waves and tariff protectionism are inversely related. Goldstein's results show that warfare is most intense during K-wave upswings, while McKeown (1983) concludes that

protectionism increases during down-swings.

Apparently, some kinds of competition are greater during upswings while other kinds increase during downswings. These leads to different sorts of state intervention.

The concentration of productive advantage in a single core state means that commodities are being produced at a low cost and in enough volume to invade the markets of competitors and to create new markets by affecting consumption patterns. When the price of these commodities is low enough, and demand in other core countries is high enough, the political barriers to trade across state boundaries are likely to be lowered, and a period of relatively free trade ensues. Stephen Krasner (1976) first described this consequence of "hegemonic stability" in his study of tariff barriers and trade patterns in the world economy during the nineteenth and twentieth centuries.

In the nineteenth century the period between 1820 and 1870 was one in which tariff barriers among core states were generally lowered. The Anti-Corn Law league carried on an extensive program of propaganda and political mobilization to abolish Britain's tariff protection and to convince other states in the international market to follow suit. French prohibition of imported British yarn had led to extensive smuggling as weavers demanded fine cotton and worsted yarns either not available or too expensive in the home market (Clapham, 1966).

Napoleon III was convinced by economic liberals and French consumers that open competition would stimulate industrialization in France. Even the United States, which was protectionist during most of the nineteenth century, dramatically lowered its tariff barriers between 1846 and the Civil War (Chase-Dunn, 1980). Tim McKeown's (1983) study of nineteenth century British international economic policy and diplomacy shows that the British state was not a consistent or insistent propagator of free trade among the core states, contrary to Krasner's argument. My own explanation for the rise and fall of free trade among core states focuses on the vectors of political support for state policies which come from internal producers and consumers in the context of the world market. The British state was much pushier in "opening" the colonies of other core states and external arenas such as China and the Ottoman Empire. This "imperialism of free trade" was a major factor in the extension and multilateralization of the world market.

There is a constant tendency for all states to have protective tariffs because the returns to the protected producer are great, while the loss to individual consumers is small.

Political policy is thus subjected to the influence of strongly motivated interests seeking protection, while the interests of consumers are dispersed and difficult to mobilize. But if the gap between home market prices and international market prices becomes too great either smuggling will occur, or political pressures will be brought to bear to lower tariffs. An additional element is the overall rate of economic growth. Producers are more adamant about protection during periods when profits are falling,

and alternative investments are difficult to find.

Just as tariff barriers among core states were lowered, barriers constraining core/periphery trade within colonial empires between an individual "mother" country and its colonies tended to relax as the advantages of buying cheap imports came to outweigh the forces supporting colonial trade monopolies.

Consumers within core states wanted cheap sugar, for example, and the political support for monopoly faced strong opposition as the difference between the price of protected sugar and world market sugar grew. Similarly, consumers in peripheral areas had an interest in buying their imports from the core power that sold them most cheaply, and this tended to disrupt bilateral colonial exchange monopolies. Both colonial monopolies and home market monopolies were politically attacked during a period of overall economic growth of the world economy.

The diffusion of technological innovations from the hegemonic core state (Henderson, 1965) and the stimulus to more efficient production resulting from core competition leads, in combination with the right domestic political conditions, to the expansion of industrial production in other core states and in some semiperipheral states. In the nineteenth century these were the United States, Belgium, Germany, and France (Maddison, 1982; Senghaas, 1985). This resulted in a more even distribution of competitive advantage across the core.

The expansion of production of processed goods in the core caused the demand for raw materials to rise. Raw material production was more dependent on "natural" factors such as climate and the location of natural resources, so the geographical distribution of extractive production was necessarily more widespread than the production of manufactured goods. This dependence on natural conditions also slowed technological improvement in the production of raw materials relative to that which was possible in manufacturing production, which is more easily amenable to reorganization. In addition, the increased accumulation of capital in the core stimulated an organized labor force demanding higher wages and other amenities. This provided an incentive for capital to utilize cheaper peripheral labor when possible. All these factors expanded and intensified the economic exploitation of the periphery.

The evening out of competitive advantage across the core led to increased competition among producers for access to markets and raw materials. This was manifested within the core by the reemergence of protective tariffs around home markets, and between the core and the periphery in the tightening of colonial monopolies and the expansion of colonial empires to new areas. The core/periphery trade network shifted back toward a more bilateral (colonial) structure. This "new" mercantilism and "new" imperialism occurred because the overall growth rate of the world economy slowed down and so competition increased, and groups intensified their utilization of state power to maintain shares of a shrinking "pie". Each core country increased its ties with its "own" colonial empire, and trade among core

countries declined in importance (Woodruff, 1967).

Colonial expansion and economic penetration of the periphery mutually reinforced one another, although formal colonization was fiscally expensive and was often a defensive (or even preventive) result of core competition over access to peripheral resources and markets. The scramble for sub-Saharan Africa which culminated in its division among the imperial powers in 1885 was largely the result of anticipatory economic and political competition.

A period of conflict and disorganization of the world- economy brought about by increasing competition among core states created room for the emergence of peripheral resistance. Similarly, but during a different phase of the world-wide Kondratieff, the increased demand for raw materials improved the market position of producers in the periphery and thus may have encouraged peripheral resistance. Peripheral independence movements received support from those core powers in a position to benefit from breaking down the colonial monopolies of other core powers. British support for Spanish American independence movements is a case in point.

Decolonization and resistance from the periphery increased the costs of exploitation, and this forced core capital to reconsider the possibilities for more intensive exploitation at home. The creation of formally independent states in the periphery, although their sovereignty was compromised by neocolonial forms of core/periphery domination, nevertheless increased the cost of exploitation. It created barriers to further colonial expansion (or recolonization), and multilateralized the structure of trade as peripheral states obtained some latitude to play off core countries against one another. As in the core, however, opposition from one area drove capital to where opposition was less, and this provided the motive force for the continual expansion and deepening of capitalist exploitation.

Before reviewing some of the empirical studies that have been done, let us describe another model, this time in the form of a set of hypotheses about directional causal effects. The model below was presented in Chase-Dunn (1978) and a related version was formulated by Pat McGowan (1985) based on the arguments contained in Bergesen and Schoenberg's (1980) study of waves of colonialism.

## A Causal Model

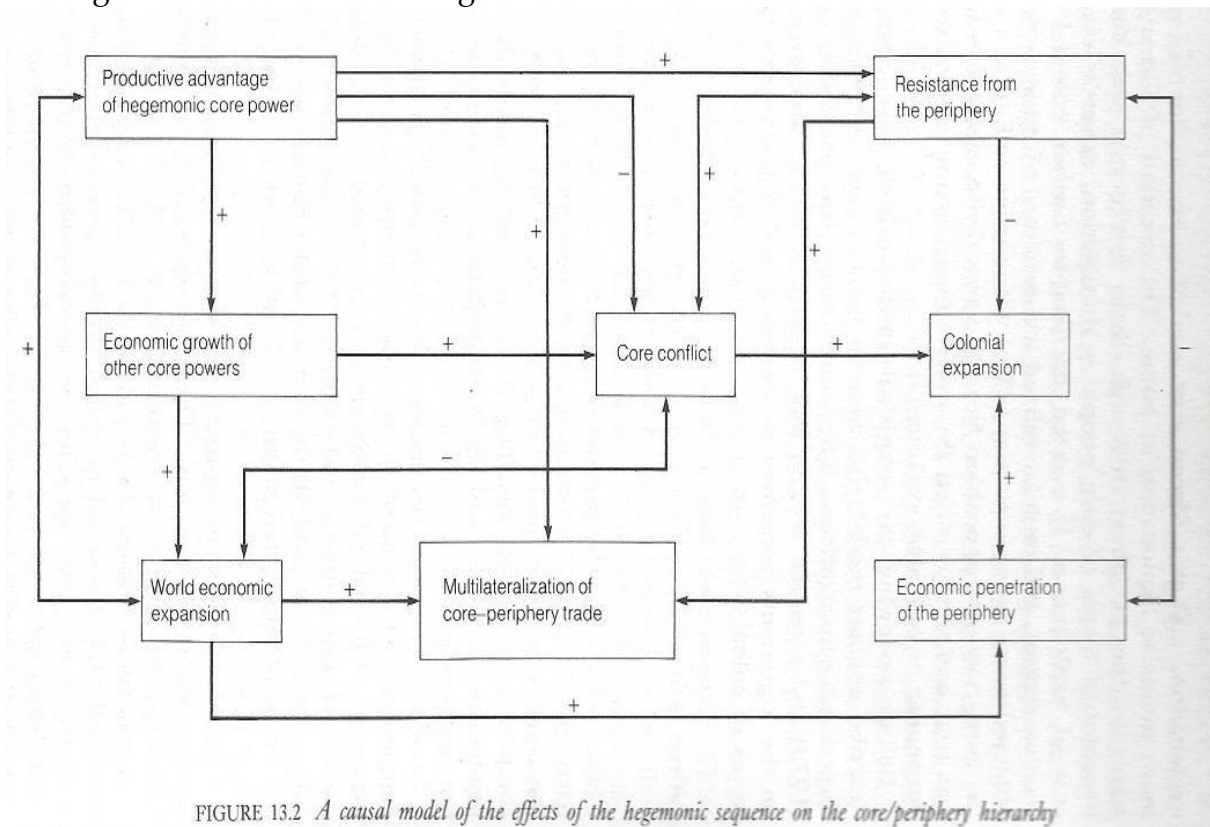
Let us decompose the process of uneven development in the core into three parts: (1) the growth of production in the hegemonic core state resulting from the concentration of productive advantages; (2) the growth of production in competing core states resulting from the evening out of the distribution of productive advantage; and (3) the aggregate rate of economic development in the world economy.

Similarly, we can decompose the core/periphery structure into four components: (1) economic penetration of peripheral areas by core firms; (2) expansion of formal colonial control by core states; (3) the oscillation between a bilateral and a



multilateral network of exchange and control between the core and periphery, and (4) the increase of peripheral resistance as manifested by decolonization movements and other forms of resistance to core domination.

The relationships among these variables are mediated in part by the level of conflict among core states. These variables and the hypothesized causal relations among them are illustrated in figure 13.2.



As specified, this model is not testable with quantitative data even if the proposed variables could be operationalized over a period sufficient to include meaningful variation in world-system structures because it is under-identified. Too many of the variables are endogenous in the sense that they are affected by other variables in the model. Nevertheless, each proposed effect is adduceable. The model is presented to clarify my arguments. Further specification needs to be done to make it testable, and of course there are difficult problems of data availability. For now, let us simply use this model as a heuristic tool.

## A Review of Existing Evidence

There have been several interpretive studies which assert dating schemes for various of the world-system fluctuations but only very recently have researchers begun to measure world-system variables and study their interaction over time. The pathbreaking study of waves of colonialism by Bergesen and Schoenberg (1980) has



been followed by several other efforts.

These are reviewed below and the implications for the above hypothetical arguments are discussed. Cycles in the Core

The findings from Goldstein's (1988) study of cycles of core war, K-waves, and the hegemonic sequence indicate that some previous world-system hypotheses were incorrect. Hopkins and Wallerstein (1979) argued that each hegemonic sequence was composed of two K-waves, but Goldstein concludes that the K-wave is related only loosely to the hegemonic sequence. Each hegemony contains a different number of K-waves and associated war cycles, but the hegemonies all begin after an unusually large peak in core war severity. These matters are still in some doubt, however, because of remaining controversies over the conceptualization and measurement of the hegemonic sequence (see Chapter 9).

Also, contrary to many earlier world-system arguments, Goldstein finds that war is more severe during K-wave upswings than during K-wave downswings, and so the K-wave and the war cycle vary conjointly rather than inversely. If it is true that tariff protectionism, on the other hand does vary inversely with the K-wave then the variable "core conflict" in the middle of Figure 13.2 needs to be decomposed into different types of conflict/competition among core states.

## Colonial Expansion

I propose a slightly different approach to that employed by Bergesen and Schoenberg (1980) in their study of waves of colonialism from 1415 to 1969. Measuring the expansion of the modern world-system is not a simple matter. Expansion is carried out by states through formal colonization, but also by private entrepreneurs, and some areas become incorporated into the world-system through trade or treaty which does not involve formal colonial subjugation (e.g., Hall, 1986). As David Henige's (1970) compilation shows, many colonies were settled first by private parties and later received official colonial status. Bergesen and Schoenberg's operationalization treats each newly established colony equally, but surely some were more important than others in terms of the amount of territory or number of people subjugated. Unfortunately, only rough estimates of the territorial or population sizes of the colonies are available for the earlier centuries (Bairoch, 1986; Taagepera, 1988). The use of the number of new colonies established is, however rough, the best continuous measure we have available at this time.<sup>1</sup>

Bergesen and Schoenberg devote most of their analysis to the net number of colonies, an indicator which shows the cumulative number of colonies established minus the colonies which have been terminated. This indicator reveals the two waves of colonialism, an earlier one in the seventeenth and eighteenth centuries, and a later one in the nineteenth century known to many students of colonialism as the "new imperialism."<sup>2</sup> Bergesen and Schoenberg should have paid more attention to the

expansion of colonial empires separately from their termination.

These are separate processes, one emanating mostly from the core and the other due largely to resistance from the periphery to core domination. Bergesen and Schoenberg present graphs of these phenomena separately (1980:2345), confirming what has also been noted by McGowan, that they have quite different patterns in time. Figure 13.4, from Bergesen and Schoenberg (1980:234), shows an 11-year non-cumulative moving average of the number of new colonies established.

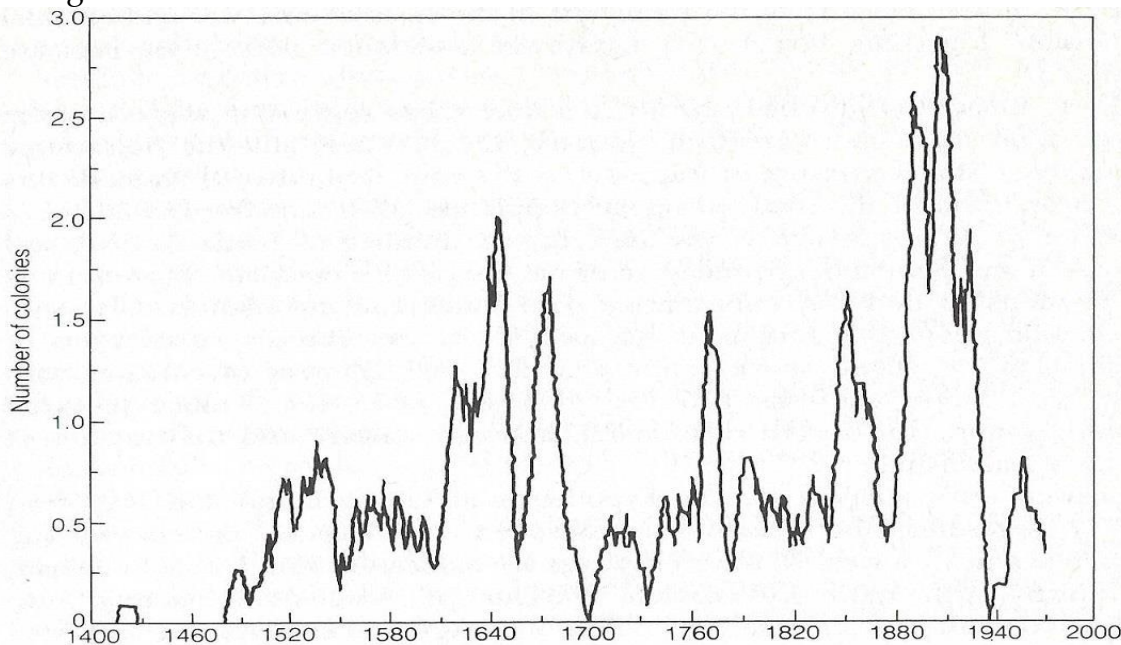


FIGURE 13.4 *An 11-year moving average of the number of colonies established, 1415–1969*

This figure, I will argue, shows the periods in which the world-system is being territorially expanded due to colonizing by core powers. The figure reveals ten peaks of expansion since 1500, and visual inspection suggests that these may be related in a lagged fashion to the Kondratieff waves and war severity cycles demonstrated by Goldstein (see Figure 8.1 above).

Pat McGowan (1985: Table 4) analyzed the Bergesen and Schoenberg data using the method of time series regression analysis. McGowan finds no relationship between the measure of new colonies created and the Bergesen and Schoenberg coding of the existence of a war. McGowan tested for a simultaneous correlation examining the correlation between war and expansion within each single year. There are two problems with this finding. The hypothesis that wars and colonial expansion should occur in the same year sounds faulty to me. I would not expect expansion by core powers in peripheralizing areas to occur simultaneously with war among core powers. Bergesen and Schoenberg seem to suggest that these variables are correlated within larger blocks of time with a time lag between them. My guess is that the making of war with other core powers does not leave resources free for extensive

adventures in the periphery. We know that some colonies change hands during or just after a core war, but these cases should be deducted from a measure of system expansion (see note 1 above).

The three different factors theorized to be behind system expansion are: demand for cheap raw materials; need for new investment opportunities due to the declining rate of profit on investments within the core; and the glut of core markets resulting in the search for new effective demand in the periphery. These three factors are most likely to occur at different points in the Kondratieff cycle. Increased demand and rising prices for raw materials occur during an upswing when production is expanding. The need for new investment opportunities and markets occurs at the peak and during the downswing. In addition, Walter Goldfrank (personal communication) points out that during downturns there are pressures for new areas of settlement for the unemployed, thus pushing toward expansion at the frontiers.

McGowan's finding of no simultaneous relationship between the creation of new colonies and the presence/absence of core war may be due to the contradictory operation of the above factors, or it may be due to the crude measure of core war used by Bergesen and Schoenberg. Goldstein's (1988) findings are based on the severity of core wars, the number of persons killed. This measure shows the intensity of core conflict as well as its presence/absence. My guess is that the simultaneous time series correlation between core war severity and the expansion of colonial empires will be shown to be negative or zero because of the trade-offs in the costs of core war and colonial expansion. I predict, however, a significant association when time lags are analyzed.<sup>3</sup>

Terry Boswell (1986) has performed a time series regression analysis of the relationship between colonialism, warfare, the K-wave, and the hegemonic sequence. Using a measure of war intensity, the annual number of battle deaths as a proportion of the total European population (different from Goldstein's measure of severity which is the unweighted number of battle deaths) and Bergesen and Schoenberg's measure of net cumulative colonies, Boswell finds no relationship between wars among core states and colonialism. My main reservation about this finding is the use of the net cumulative measure of colonialism. As stated above, combining the establishment of colonies with their termination confuses two very different processes. Future research should examine the lagged relationship between warfare and the number of colonies established.

Boswell finds support for the hypotheses in Chase-Dunn and Robinson (1977) regarding the relationship between colonialism, the hegemonic sequence, and K-waves. K-wave upswings are associated with less colonialism and downturns with more colonialism. Periods of "hegemonic victory" are associated with less colonialism. These findings are encouraging but they suffer from the same defects mentioned above: the net cumulative number of colonies was used, and the "measure" of

hegemony is a set of dummy variables based on the dates asserted by Hopkins and Wallerstein (1979).

It is important to remember Goldstein's (1988:176) argument that sequential "cycle time" rather than strictly stationary periodicity is the appropriate form of analysis for many social phenomena. We would not expect, for example, a constant lag of exactly X number of years to characterize the relations among world-system variables in each period. A test for lagged relationships should allow for this by utilizing at least five- year blocks of time. The methods problems associated with time series analyses of world-system processes are considered in Chapter 15.

## Resistance From the Periphery

Regarding the notion of resistance from the periphery we should examine another figure produced by Bergesen and Schoenberg (1980:235) of the number of colonies terminated. Remember that resistance has taken many forms from labor slowdowns, flight to refuge regions, demonstrations, strikes, banditry, tax evasion, protectionism, import substitution, expropriation, armed rebellions which were quashed, and successful rebellions which expelled the colonial power, such as occurred in the U.S., Haiti, and the Spanish colonies of Latin America in the late eighteenth and early nineteenth centuries. The conditions for resistance were and are always present in the periphery, so why should we expect peripheral resistance to temporally cluster across many very different and geographically separate peripheral situations? Andre Gunder Frank (1978) has argued that resistance in the periphery clustered during core wars and high levels of core competition because the level of control by core powers was diminished. Also, it may have been easier for peripheral countries to play core powers off against one another in such periods.

Another factor which may produce the clustering of successful peripheral resistance in time is related to the hegemonic sequence. A rising hegemon often supports the liberation of the colonies of other core powers. This situation produces the spectacle of a policy of "liberation" which supports anti-colonial movements in other colonial empires while simultaneously extending its own (in the name of free trade) by force. Robinson and Gallagher (1953) described this aspect of British policy in the first half of the nineteenth century as the "imperialism of free trade." A milder, but functionally equivalent, version was United States anti-colonialism after World War II.

Observing figure 13.5 we see that the termination of colonies does cluster over time, with the biggest peaks being the decolonization of the Americas in the late eighteenth and early nineteenth centuries, and the decolonization of most of the rest of the African and Asian periphery after World War II.

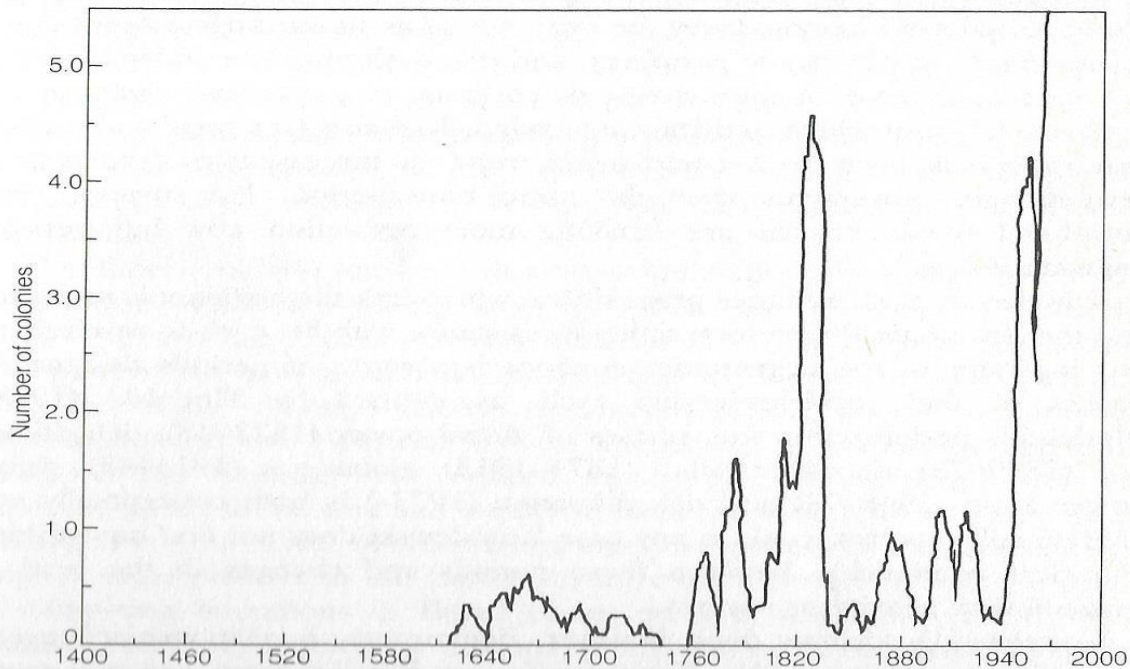


FIGURE 13.5 *An 11-year moving average of the number of colonies terminated, 1415–1969*  
Source: Bergesen and Schoenberg (1980:235)

While the British fought hard to retain the thirteen colonies which became the United States (and these new states were aided by a contending core power, France) it was not much later that these same British aided the national liberation movements of Latin America against Spain, thus contributing to the first big wave of decolonization. After World War II it was the United States, the new hegemonic core power, which, again in the name of free trade, supported the dismantling of the empires of other core powers. The Dutch hegemony did not produce such an upsurge, perhaps because, though the Dutch too espoused a liberal international order, no one thought to apply this idea to the pagans and Moslems of the East Indies. Rather a policy of "armed trade" prevailed in which Portuguese colonies were either taken by force or burned to the ground lest they compete with nearby Dutch establishments. Much of this action occurred in areas which, according to Wallerstein (1974), were still external arenas outside the boundaries of the European world- economy. Plunder and pillage have become somewhat less frequently employed by core powers over the centuries and this may partly account for the rising success of peripheral resistance movements in obtaining formal state sovereignty.

A time series analysis of peripheral resistance has been carried out by David Kowalewski (1991) who has coded the existence and success of revolutionary movements in 34 peripheral and semiperipheral countries between 1821 and 1985. Kowalewski demonstrates the existence of an upward trend over time in revolutionary activity in the periphery, and this is shown to be independent of the secular increase in the amount of coverage of peripheral events in the news media

from which activities are coded. Kowalewski's results also show that there has been no accompanying trend in the amount of success of revolutionary movements over the same period. He surmises that peripheral revolutionaries are "making more revolution now but perhaps enjoying it less."

Kowalewski also examines propositions which link the hegemonic sequence and the Kondratieff wave to peripheral resistance with his data on revolutions. His indicator of the hegemonic sequence is a series of periods designating phases of the world-leadership cycle as defined by Modelski (1978).

Modelski's periodization into phases of global power (1822-48), delegitimation (1849-73), deconcentration (1874-1913), global war (1914-45), global power again (1946-73) and delegitimation (1973-) is both conceptually and operationally controversial. In any case Kowalewski does not find any striking empirical relationship between these periods and changes in the level of revolutionary activity or success.

Kowalewski's analysis does, however, demonstrate a relationship between revolutionary activity and the Kondratieff wave. Revolutionary activity is much more likely to occur during three upswings of the Kondratieff wave than during four downswings. Revolutionary success was not found to be regularly related to the phases of the Kondratieff wave. Further research needs to be done using better measures of resistance and better measures of world-system cycles before we can know about the causalities involved, but the surmise that periphery-wide waves of resistance exist and are related to larger world-system processes is supported by Kowalewski's findings.

### Protectionism and the Colonial Regulation of Trade

Another set of related hypotheses about cycles in core/periphery relations refer to the political regulation of trade through colonial monopolies and protectionism. We know that Johan DeWitt, the seventeenth century mayor of Amsterdam, wrote pamphlets about the universal benefits of international free trade; and Hugo Grotius, the Dutch legal philosopher, formulated the doctrine of the free use of the seas (which became the basis for the international law of the sea) during the Dutch hegemony. At this same period the English were becoming more nationalistic, expelling Jewish merchants, and attempting to protect their woolen textile industry against cheap Dutch imports.

Later, during a period in which competitive advantage begun to turn in favor of the British, Adam Smith developed his theory of market-regulated exchange in which the general welfare would be maximized by the abolition of state interference in economic transactions. Somewhat later, during the industrial boom based on cotton textile production, Cobden and Bright campaigned for British and international reduction of tariffs. And the Americans followed suit. After remaining protectionist during nearly its whole period of upward mobility in the world- system, the US finally became the advocate of free trade after World War II, establishing the GATT



agreements.

The above narrative indicates that hegemonic core powers like free trade, while those with less market power most often favor protection. About this there is little disagreement.

Stephen Krasner (1976) has added that smaller core powers that have small home markets and are dependent on imports also favor free trade, although Dieter Senghaas (1985: 23) points out that only Switzerland and the Netherlands have maintained a continuous free trade policy. It has likewise been noticed that peripheral capitalists, who are exporting goods to the core and importing from the core, also favor free trade, although here the matter of colonial monopoly sometimes cuts a different way. English sugar planters in the Caribbean were often unable to beat the prices of competing operations in Brazil or on the less soil-depleted Caribbean islands. Thus, they lobbied for colonial quotas and price supports. US cotton planters exporting to England were, on the other hand, staunch defenders of free trade.

Again, we see that different groups have different interests, and the particular way in which each is inserted into the complex mosaic which is the world-system is going to weigh heavily on the decision to support protectionism or free trade.

Stephen Krasner (1976) examined three indicators of openness versus closure in the world-system: protectionist taxation by states; the ratio of the average size of the national domestic market to foreign trade; and the degree of concentration of trade within regional areas or colonial empires.

Based on these three features Krasner concluded that the structure of trade and political regulation of trade has alternated between periods of relative openness and periods of relative closure. Examining the nineteenth and twentieth centuries, he designated five periods (Krasner, 1976:330):

Period I (1820-1879): Increasing openness. Tariffs were generally lowered; trade proportions increased. Data are not available for trade patterns. However, it is important to note that this was not a universal pattern. The United States was largely unaffected: its tariff levels remained high (and were increased during the early 1860s) and American trade proportions remained almost constant.<sup>4</sup>

Period II (1879-1900): Modest closure: tariffs were increased; trade proportions declined modestly for most states. Data are not available for trade patterns.

Period III (1900-1913): Greater openness: tariff levels remained generally unchanged; trade proportions increased for all major trading states except the United States. Trading patterns became less regional in three out of the four cases for which data are available.

Period IV (1918-1939): Closure: tariff levels were increased in the 1920's and again in the 1930's; trade proportions declined. Trade became more regionally encapsulated.

Period V (1945-c.1970): Great openness: tariffs were lowered; trade

proportions increased, particularly after 1960. Regional concentration decreased after 1960. However, these developments were limited to non-communist areas of the world.

Krasner suggested that a new period of protectionism might begin in the 1970s, but this did not happen.

As mentioned above, a more recent study by Tim McKeown (1983) disputes Krasner's argument that the decline of protectionism among core states is due to the action of the hegemonic state. McKeown shows that the British state did not aggressively pursue a policy to induce other core powers to lower their tariffs. Nevertheless, the hegemons adopted free trade earlier and held to it longer than competing core states. Suzanne Frederick's (1987) critique of Krasner and the other theorists of "hegemonic stability" argued that free trade breaks out during periods of instability following the beginning of a hegemon's decline. Certainly, the motives of the hegemon and the competing powers differ, and perhaps we should pay more attention to the timing, location, and degree of changes in protectionism than Krasner has done. But Frederick's conclusion about the "instability of free trade" is dependent on her use of Modelski's dating of the power (hegemonic) sequence rather than any quantitative measures of relative economic and military power.

The idea of a cycle of the core/periphery exchange structure from bilateral to multilateral exchange might predict a shift back toward a more bilateral pattern of trade in the recent period since 1970. This should have shown up in rising levels of export partner concentration (the percentage of exports going to a single other nation). But Table 13.2 shows evidence to the contrary. Except for the OPEC nations, every category of countries experienced a decline in export partner concentration between 1970 and 1980, indicating that the international trade matrix was continuing to become more multilateral in this period.

TABLE 13.2 *Recent trends in export partner concentration, 1970–1980*

<i>Type of country</i>	<i>Number of countries</i>	<i>1970 (%)</i>	<i>1980 (%)</i>
Industrial	18	24.2	24.1
Centrally planned	6	33.6	29.0
OPEC	6	33.4	37.3
NICs	8	28.4	25.8
Middle income	25	31.0	28.7
Low income	20	37.6	30.9
All countries	83	31.1	28.6

Source: Müller (1988)

It

may be that the increase in OPEC partner concentration was due to heightened levels of competition among core powers for access to oil that was exacerbated by the OPEC oil cartels decrease in oil exports. This probably encouraged a more bilateral politically determined structure of exchange in the world oil market and set the stage for a new era of resource wars.

While some of Krasner's periods correspond with well-known phases of the Kondratieff, others do not -- for example the long period between 1820 and 1879. It is, of course, possible that variations of smaller amplitude occurred within the long period in the middle of the nineteenth century, but the current crude level of measurement is inadequate to detect them. A more quantitative approach to the measurement of the average height of protectionist barriers is desirable, and feasible.

## Core/Periphery Cycles in the Terms of Trade

Raul Prebisch's (1949) important work on the unequal returns to gains in productivity in the core and periphery emphasized the long-term deterioration of the terms of trade for peripheral exports. However, Prebisch's claim that the terms of trade for peripheral exports always decline was disproven. Michael Barratt-Brown (1974) first presented evidence showing cyclical variations in the terms of trade between core and periphery, and this was further supported by data analyzed by Paul Bairoch. Bairoch (1986:205-8) found that "between the 1870s and the 1926-29 period the terms of trade for primary products relative to manufactured goods improved by some 10-25 percent..." This is contrary to the results of the League of Nations study by Folke Hilgerdt (1943) which Prebisch and, much later, Rostow (1978:98) used as evidence of changes in the terms of trade. Bairoch argued that the main problem with the League of Nations study was that it employed only British data on import and export prices and the import prices include a large component of transport costs, which were falling throughout the period. Bairoch also noted that export prices of British manufactures were rising more rapidly during this period than those of other competing core powers (due to falling productivity in Britain), which also biased the terms of trade figures when only British prices were used. Bairoch went on to observe:

The fact that the terms of trade, or in more precise and 'technical' terms the net barter terms of trade of less developed countries have improved, does not mean that this is necessarily a positive development. It would have been so if this had been accompanied by a rise in wages and in other incomes as has happened in the developed countries. While the real wages of primary-goods producers in the Third World remained stagnant between the 1870's and the 1920's the real wages of the producers of manufactured goods in the developed world increased by some 100-160 percent in the same period. This implies that in 1926-29 an

average Third World worker could buy with his average wage 10-25 percent more manufactured goods than his grandparents could around 1875, while an average worker in the developed world could buy with his average wage 80-130 percent more primary goods originating from the Third World than had been possible for his grandparents. In more technical terms, this means that the factorial terms of trade for primary goods from the Third World declined. (1986:206)

Bairoch presented a table (1986:207; Table 13.6) which showed that the net barter terms of trade of the peripheral countries improved from 1938 to 1950-54 and then deteriorated until 1960-64, then improved until 1970 and then deteriorated again until 1983 when the data series ended. Excluding the major oil exporting countries, the terms of trade of the peripheral countries tended to vary inversely with those of the core countries until 1970. After that the terms of trade of both core and peripheral countries worsened together and inversely with those of the oil exporters.

Bairoch noted the paradox that the post-World War II worsening of the peripheral terms of trade coincided with the decolonization and political independence of many of the peripheral countries. He attributed this to several causes: the slowdown in demand and increase in supply of many primary products; the development of core-produced synthetic substitutes; tariffs on the importation of some tropical goods; and technological progress that reduced the input coefficients of raw materials in manufacturing industries and, last but not least, what has been called the Singer-Prebisch thesis. This thesis suggests that due to weaker organization, the unequal relationship between the developed and the underdeveloped worlds leads to a situation where, in the case of primary products, the gains in productivity are translated into a decline in prices, while in the case of manufacturers, those gains are translated into higher salaries and profits. The irony is that, to a certain extent, political independence could mean a freer hand for big purchasing companies to press for lower prices because the local social situation has little impact on the developed countries and their firms (1986:207).

Bairoch also mentions the possibility that part of the terms of trade deterioration since the 1950's could have been due to productivity increases in tropical agriculture which were greater than the increases in the productivity of manufactured goods.

While evidence of cyclical variations in the net barter terms of trade is convincing, the variations noted do not seem to correspond in any simple way with other world-system cycles. The improvement noted in the late nineteenth century occurs during the upswings and downswings of K-waves and during the generally declining phase of British hegemony, while the variations noted after World War II occur during the golden age of US hegemony and the beginning of its decline.

Hopkins and Wallerstein (1979:496) outline a more complex model which posits a set of shifts in the demand for core (high wage) and peripheral (low wage) products over a pair of K-waves. The hypothesized changes in core/periphery terms of trade as applied to the two twentieth century K-waves do not correspond well with the changes found by Bairoch.

What is still at issue is the matter of the factorial terms of trade, which considers changes in wage differentials. Data are not presently adequate for the detection of cycles. But according to Bairoch the factorial terms of trade worsened during the period around the turn of the century at the same time as the net factor terms improved. This worsening probably continued after World War II when the net factor terms declined. This is further indication of a secular trend in the direction of an increasing relative gap in the purchasing power of core and peripheral workers; both groups have increased their purchasing power, but at different rates.

## Cycles of Capital Exports to the Periphery

Capital exports and colonization are very different kinds of expansion toward the periphery, yet the model presented above hypothesizes that both are related to the hegemonic sequences and the K-wave. Recent work by Ulrich Pfister and Christian Suter (Suter, 1987; Suter and Pfister, 1986; Pfister and Suter, 1987) focuses on the cyclical features of the international financial system which links the core and periphery. Pfister and Suter (1987) posit a theory which links the Kondratieff wave to capital exports from the core, capital imports by peripheral countries, and international financial crises which are triggered by defaults in the periphery. Suter (1987) also hypothesizes that international financial crises will be more severe during multicentric periods of the hegemonic sequence because no single hegemonic financial center is able to perform the role of "lender of last resort." He examines data on core capital exports, peripheral imports of capital, and financial crises to determine the cyclical nature of these and their relationship to Kuznets cycles, Kondratieff cycles, and the hegemonic sequence.

Summarizing the theoretical argument made by Pfister and Suter (1987), Suter (1987:6) wrote:

...capital flows into the periphery occur in later stages of the long wave when markets of the core are saturated and profit rates begin to decline due to the exhausted innovative potential. Since returns on equity investment are low, capital tends to flow into the more profitable financial assets. This rising supply of international liquidity meets a corresponding demand from peripheral countries, which have not been fully integrated yet into the development process of the long wave. Structural constraints, however, such as shortfalls in export earnings, low returns on external capital, and consumptive uses of external

resources due to legitimation pressures on governments, cause low-income effects of imported capital. This means that the profits from investments financed by external resources do not match debt service obligations linked with these capital flows. Thus, peripheral borrowers tend to incur large debts towards the end of a long wave. Therefore, the international financial system is over-extended and increasingly prone to disruption and crisis.

Suter noted that the above theory, along with the long wave explanations of Mandel (1980) and Mensch (1978), predicts a clustering of international financial flows from the core to the periphery towards the end of a Kondratieff upswing and during the beginning of the downswing phase. In contrast, Rostow's (1978) theory of K-waves as driven by changes in the terms of trade between raw materials and manufactured goods predicts that capital imports of sovereign borrowers occur during the upswing of the Kondratieff price cycle.

Suter and Pfister's (1986) findings about cycles of capital exports from the core were based on general surveys of the issuance of government-backed bonds. They concluded that there had been seven boom periods of capital exports since the beginning of the nineteenth century (Suter and Pfister, 1986: Table 1). These occurred in the early 1820s, the late 1830s, the 1860s and early 1870s, the 1880s, the decade before World War I, the 1920s, and the 1970s.<sup>5</sup>

Suter (1987) also presented two case studies of cycles of capital imports, one for Peru and one for the United States. Peru illustrates the prototypical model of dependent underdevelopment in which Kondratieff-related periods of externally financed investment booms in extractive exports failed to stimulate much long-run economic growth and were followed by economic crisis and default. The US is, of course, a different story. It also imported capital cyclically and the individual state governments defaulted on foreign loans, but the overall outcome was much different. The US succeeded in establishing autocentric accumulation and a dynamic of capital-intensive growth which was oriented toward production for the domestic market, thus moving into the expanding core of the world-economy. Suter and Pfister (1986) closely examine four other cases: Liberia, Argentina, Turkey, and Spain.

Suter argues that the patterns of capital exports and capital imports that he observes can be explained by understanding different periods as phases of the expansion process of the capitalist world-system. The first half of the nineteenth century does not reveal cyclical patterns of international finance because, he argues, the mechanisms of international finance produced by industrialization are yet insufficiently developed.<sup>6</sup>

During the second half of the nineteenth century Suter finds both Kuznets and



Kondratieff waves of development affecting international financial cycles. He interprets this as involving two different processes. The Kuznets cycle -- a 15- to-25-year business cycle -- allegedly operated only within the sphere of the growing "Atlantic economy" (an inner circle of recent settlement in which population migrations, housebuilding, and railroad building booms are important). Brinley Thomas's (1954) analysis of the inversely related British and US Kuznets cycles was the original work which set off a tradition of research on inversely related economic cycles. While Rostow (1978) declared that the Kuznets cycle has no general validity, being a process, which is revealed only under special circumstances, Suter disagrees. He argues that the Kuznets cycle existed within the expanding inner circle of core capitalist growth, and he claims that evidence of it can be seen not only in the late nineteenth century but also in the interwar period. In the postwar period only the Kondratieff wave is evident in international financial cycles. Amin (1974) and others have argued that the shorter cycles have been dampened by the counter-cyclical Keynesian economic policies employed by states, but that the longer cycle remains because it flows from an international dynamic not controllable by any state.

## Cycles of Financial Crisis

Suter also studies debt crises, defaults, and international loan reschedulings. His chart 6 (Suter, 1987:21) graphs the number of countries in default, the number of occurrences of default from 1815 to 1950, and the number of loan reschedulings from 1950 to 1984. This graph reveals that debt crises were highly correlated with Kondratieff waves, with high default levels occurring during downswing periods, as the theoretical approach taken by Pfister and Suter predicted. The most interesting finding, however, is the combination of the analysis of the cycles of debt crises with a regional specification of the countries experiencing the financial difficulties (Suter, 1987:22, table 2). This shows that the areas accounting for the major financial crises shifted from period to period while the cycle of debt crises varied regularly with the Kondratieff wave of the world economy. In the crisis period from 1825 to 1840 the areas most affected were nine US states, Portugal, Colombia, Venezuela, Ecuador, Mexico, Spain, Brazil, and Greece. Suter points out that not only do the regions involved vary, but the combination of factors which contributed to the debt crises varied. In the 1820s the decolonizing Latin American countries employed their external financing to make anti-imperial war on Spain, an investment which apparently did not result in big financial returns for the core financiers whose money was used. A similar use was made of external financing by Greeks rebelling against the Ottoman Empire. Suter categorizes these as "consumption expenditures," but our knowledge of the hegemonic sequence and strategic political/military competition suggests that there may have been long term political paybacks to these "investments."

In the debt crisis period from 1875 to 1882 the major defaulting countries were

Turkey, Egypt, Peru, Mexico, eleven southern US states, Tunisia, Uruguay, Costa Rica, Honduras, Venezuela, and Colombia. Some of these were the same countries which defaulted before, but several others were new. In the period from 1932 to 1939 the defaulters were Germany, Chile, Brazil, Cuba, Peru, Bolivia, Uruguay, Colombia, Yugoslavia, Greece, Mexico, Bulgaria, and Panama. The presence of Germany shows that even core states can get caught in the debt trap.

And in the period of reschedulings during 1982 and 1983 the countries involved were Brazil, Mexico, Venezuela, Argentina, Chile, Poland, Peru, Yugoslavia, Ecuador, Turkey, and Romania. The earlier discussion of clusterings in time despite variations across space is demonstrated by these findings, which indicate that strong world-system-level processes are operating to produce overall core/periphery patterns even though the circumstances of peripheral countries vary somewhat independently in determining the experience of each area. The contention that debt crises occur only in countries which have attracted core capital for the first time (Ford, 1968) or which are weakly integrated into the world economy is contradicted by the existence of many countries which repeat the debt crisis cycle.

Suter also hypothesizes that international financial crises will be more severe during a period of multicentricity in the hegemonic sequence, and this is borne out by the numbers for the 1930s compared to earlier crises and more recent ones.

Pfister and Suter (1987) have also argued that the ability of the contemporary international financial system to avoid (or postpone) collapse is due to the increased ability of international financial institutions to coordinate debt rescheduling. Suter contended that the greater integration of international organizations such as the IMF freed the international financial system to some extent from dependence on a hegemonic core power to perform the role of supplying world money as the "lender of last resort." He also points out that in earlier crises upwardly mobile semiperipheral countries were often able to weather financial crises without collapsing. Some of the countries that had debt problems (i.e. Spain, South Korea, and Algeria) are seen as able to service their debts and avoid collapse while for others the situation was much more grim.

## Conclusions

What can we conclude about cycles in core/periphery relations? Of course, more work needs to be done, as suggested several times above. We still have much to do at the level of discovering the temporal relations among variables. Measurement of variables needs more work to specify cyclical variations. It is much easier to determine long-term trends. The existing research confirms that there are indeed cyclical variations, but we are still uncertain about the true relations in time among many of these features. The core/periphery trade network, including trade partner concentration, tariff barriers, and colonial trade

monopolies is found to vary from period to period, and is related in a general way (but not simply) to the hegemonic sequence. The waves of decolonization, one form of resistance from the periphery, occur during the upswing and peak of the hegemonic sequence when the hegemon supports the break-up of the colonial empires of the other core states. The K-wave is less tightly related to the hegemonic sequence than we have earlier supposed. Waves of colonization are likely to be related to the K-wave and core war severity cycle, but we do not know the exact timing of these relationships. Flows of capital from the core to the periphery have been related to the K-wave, occurring approximately at the peak of an upswing, and international financial crises which were triggered by defaults in the periphery occurred during Kondratieff downswings. As noted in Endnote 5, visual comparison of the graphs of waves of capital exports with the waves of colonial expansion suggests that these two types of expansion were not simply related to one another across time.

Evaluation of the causal model presented in figure 13.2 is impossible at this point. Our review of the few studies which have tried to examine core/periphery cycles does, however, suggest some changes. Different sorts of expansion (capital exports versus colonialism) may have somewhat different causes, as might the three indicators of core/periphery trade structure used by Krasner. Protectionism, trade partner concentration, and the average ratio of domestic production to foreign trade probably have somewhat different causes. And "core conflict" must be differentiated to distinguish between economic protectionism and warfare.

It is premature to produce new causal models before we have done additional data-gathering and made more empirical progress on the temporal relations among variables. A summary of the main conclusions reached in Part III on the core/periphery hierarchy is contained on pages 14-16 of the Introduction. We now turn to a consideration of the metatheoretical assumptions and empirical methods used in world-system research.

## Notes

### Chapter 13: World System Fluctuations

1 . Bergesen and Schoenberg sensibly do not include reorganizations of existing colonies as instances of expansion. Thus, they exclude 22 new Spanish governors sent to head "intendencias" during the decentralization of the Spanish empire in the late seventeenth and eighteenth centuries. I would also want to exclude instances in which European colonial powers acquired colonies from one another, either by force or through treaty. As table 13.1 shows, there were 61 cases of this kind in David Henige's data, and they were unevenly distributed over time, peaking in the

eighteenth century. These are probably more an indicator of contention among core powers than an indicator of territorial expansion of the world-system.

TABLE 13.1 *Colonial governors sent, 1415–1969*

<i>Century</i>	<i>Expansion</i>	<i>Traded or taken</i>	<i>Divided or consolidated</i>	<i>Totals</i>
15th	6	0	0	6
16th	49	1	1	50
17th	76	11	5	91
18th	47	25	17	89
19th	100	11	2	113
20th	53	13	0	66
Totals	331	61	24	415

Source: Henige (1970)

My examination of the Henige data also suggests interesting differences between core powers in the timing of their colonial expansion. Despite Bergesen and Schoenberg's insistence that we look only at characteristics of the whole world-system, Figure 13.3 shows colonies established by each core power by centuries. Countries with few colonies, such as Sweden, Denmark, Russia, Italy, Japan, and the United States, have not been included.

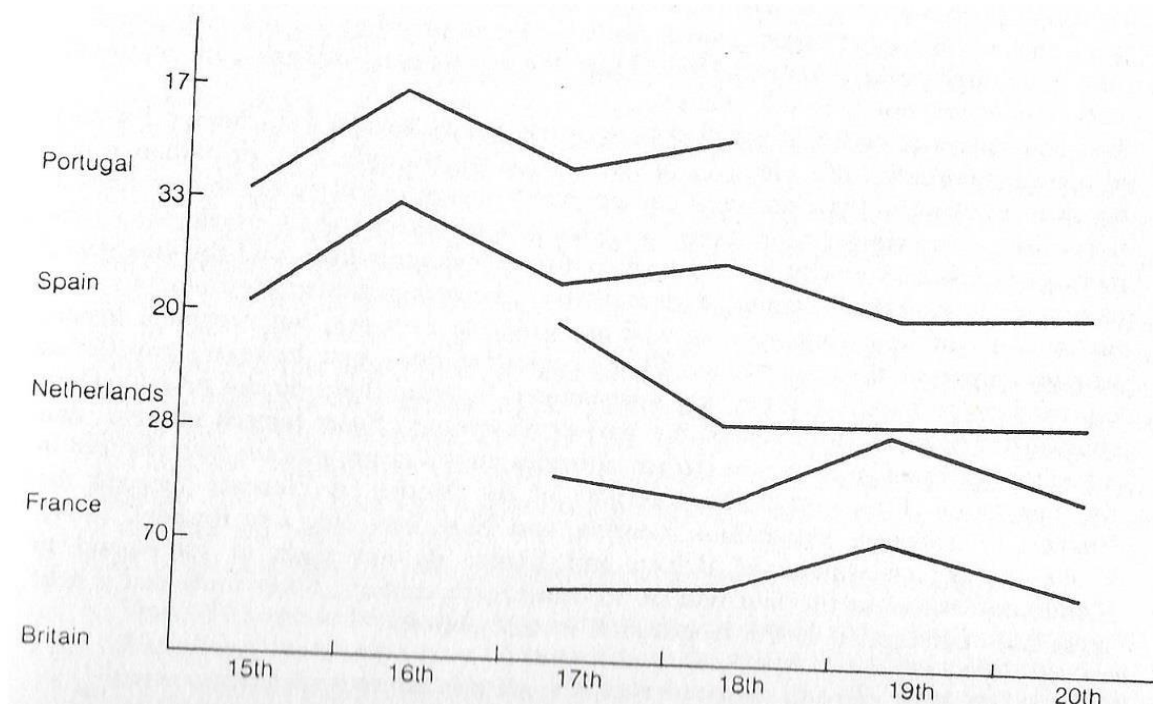


FIGURE 13.3 *New colonies established by separate core states*

Figure 13.3 shows what all students of colonialism know the first wave was the work of Spain and Portugal with the Dutch, British and French joining in later, and the

second wave was almost entirely the job of the French and the British, both of whom weighed in heavily in the nineteenth century. The older core powers joined in for the second wave, as did several new core powers and upwardly mobile semiperipheral countries, but they were all minor partners compared to the British and the French. In terms of totals the British account for the greatest portion of colonialism with a total of 172 for the whole period covered by Henige. The French and the Spanish are far behind with 65 and 59, followed by Portugal (38), Netherlands (23), the United States (8), Germany (7), Italy (5), Japan (5), Denmark (3), Belgium (2), Sweden (2), and Russia (1).

2. Pat McGowan (1985:488) notes that Europe also had an earlier wave of colonial expansion "beginning with the Crusades of the twelfth century, that established the Crusader states in the Holy Land and that culminated in the commercial empires of Venice and Genoa in the Levant in the fourteenth and fifteenth centuries, including the colonies of Crete, Cyprus, and many Black Sea ports."

3. McGowan (1985: Table 4) does find a positive relationship between the cumulative net number of colonies and Bergesen and Schoenberg's measure of war, but I do not give this finding much importance because both the measure of colonialism, which includes both cumulative colonies and colonial terminations, and the measure of war have serious problems, as discussed above.

4. The United States joined in the free trade movement between 1846 and 1860, lowering tariff barriers during a period in which

Southern control of the Federal state and the presidency was at its zenith. The election of Lincoln brought in a new coalition which supported renewed protectionism and provoked the secession of South Carolina (Chase-Dunn, 1980).

5. It should be noted that visual inspection indicates that this periodization of the expansion of capital exports is not closely related to the cycles of the number of new colonies established as revealed in figure 13.4 above. The 1860s/1870s boom of capital exports appears during a trough of colonial expansion, while the pre- and post-World War I periods of capital export growth occur on the downswing of a colonial expansion wave which had peaked in about 1890. Thus, the two types of expansion are apparently neither in phase nor inversely related.

6. The conception of cycles of world-system development described in chapter 3 would, of course, contradict this claim in many ways. First, the industrial revolution which began in England in the eighteenth century was the most extensive (up to that time) of several previous "revolutions" in which rapid technological development, the increase in capital intensity in both manufacturing and agriculture, and the emergence of new lead "industrial" sectors, had occurred. The earlier industrial revolutions were undoubtedly of less magnitude as well as harder to measure, but economic history strongly supports their existence. This perspective does not, however, provide an explanation for Suter's finding that inter

national financial flows do not reveal cyclical characteristics in the first half of the nineteenth century. Suter himself observes that international financial centers in earlier centuries moved geographically with changes in the hegemonic leader from the centrality of the Medici in Florence through the Fuggers to Antwerp, Amsterdam, London, and New York (see also Braudel, 1984). While the capital exports of Britain and France do not seem to correspond to Kondratieff waves in the first half of the nineteenth century, Suter finds that a debt crisis does correspond to the Kondratieff in that period.

## References

- Bairoch, Paul 1986: "Historical roots of economic underdevelopment: myths and realities" In Wolfgang J. Mommsen and Jurgen Osterhammel (eds) *Imperialism After Empire: continuities and discontinuities*, London: Allen and Unwin,
- Barrat-Brown, Michael 1974: *The Economics of Imperialism*. London: Penguin.
- Bergesen, Albert and Ronald Schoenberg 1980: "Long waves of colonial expansion and contraction, 1415-1969." In Albert J. Bergesen (ed.), *Studies of the Modern World-System*, New York: Academic Press, Boswell (1986)
- Chase-Dunn, C. 1978 "Core-periphery relations: the effects of core competition." In Barbara H. Kaplan (ed.), *Social Change in the Capitalist World Economy*, Beverly Hills: Sage
- Chase-Dunn, C. 1980 "The development of core capitalism in the antebellum United States: tariff politics and class struggle in an upwardly mobile semiperiphery" In A. Bergesen (ed.), *Studies of the Modern World-System*, New York: Academic Press  
<https://irows.ucr.edu/cd/papers/ustariffpol.htm>
- Chase-Dunn, C. and Richard Robinson 1977: "Toward a structural perspective on the world-system." *Politics and Society*, 7(4), 453-76
- Clapham, J.H. 1966 *Economic Development of France and Germany*. Cambridge: Cambridge University Press.
- Ford, Alec George 1968: "Overseas lending and international fluctuations: 1879-1914." In A. R. Hall (ed.), *The Export of Capital from Britain 1870-1914*, London: Methuen
- Frank, Andre Gunder 1978 *World Accumulation, 1492-1789*. New York: Monthly Review Press.
- Goldstein, Joshua S. 1988: *Long Cycles: prosperity and war in modern age*. New Haven: Yale University Press
- Henderson, 1965
- Henige, David P. 1970: *Colonial Governors from the 15th Century to the Present*. Madison: University of Wisconsin Press



Hilgerdt, Folke 1943 "**The Case for Multilateral Trade**" *The American Economic Review* Vol.33, No.1, Part 2, Supplement, Papers and Proceedings of the Fifty-fifth Annual Meeting of the American Economic Association (March), pp. 393-407

Hopkins, Terence and Immanuel Wallerstein 1979 "Cyclical rhythms and secular trends of the capitalist world-economy" *Review* 2(4), 483-500. Reprinted in T. K. Hopkins and I. Wallerstein (eds), *World-Systems Analysis*, Beverly Hills: Sage, 1982,

Kowalewski, David 1991 "Periphery Revolutions in World-System Perspective, 1821-1985" *Comparative Political Studies* 24,1 <https://doi.org/10.1177/0010414091024001004>

Krasner, Stephen D. 1976 "State power and the structure of international trade" *World Politics*, 28(3), 317-47.

Maddison, Angus 1982 *Phases of Capitalist Development*. New York: Oxford University Press.

Mandel, Ernest 1980: *Long Waves of Capitalist Development: the Marxist interpretation*. London: Cambridge University Press.

Mensch, Gerhard 1978: *Stalemate in Technology*. Cambridge: MA., Ballinger.

McGowan, Pat 1985 "Pitfalls and promises in the quantitative study of the world-system: a reanalysis of Bergesen's 'long waves' of colonialism." *Review* 8(4), 477-500.

McKeown, Timothy J. 1983: "Hegemonic stability theory and 19th century tariff levels in Europe." *International Organization* 37, 1

Modelske, George 1978 "The long cycle of global politics and the nation-state" *Comparative Studies in Society and History*, 20(2), 214-35

Muller, Georg 1988: *Comparative World Data: a statistical handbook for social science* Baltimore: Johns Hopkins University Press

Pfister, Ulrich and Christian Suter 1987 "International financial relations as part of the world system." *International Studies Quarterly*, 31(3),

Prebisch, Raul 1949 *The Economic Development of Latin America and its Principal Problems*. CEPAL (E/CN. 12/89/Rev. 1).

Reprinted in *Economic Bulletin for Latin America*, 7 (1), 1962.

Robinson, R. and J. Gallagher 1953 "The imperialism of free trade." *Economic History Review*, 6(1), 1-14.

Rostow, W. W. 1978 *The World Economy: history and prospect*. Austin: University of Texas Press.

Senghaas, Dieter 1985: *The European Experience: a historical critique of development theory*. Dover, New Hampshire: Berg Publishers Suter

Taagepera, Rein 1978: "Size and duration of empires: systematics of size." *Social Science Research*, 7, 108-27.

Thomas, Brinley 1954 *Migration and Economic Growth: A Study of Great Britain and the Atlantic Economy*. Cambridge: Cambridge University Press.