

The "long twentieth century" in economic history

A inquiry into the usefulness of Braudel analysis

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The notion of a long century as the natural setting for the best apprehension of Economic History was first expressed by Fernand Braudel calling "*the long sixteen century(1452-1630)* the first stage of the Capitalist World Economy. About the same time Hobsbawm expressed a similar opinion in his "*Industry and Empire*" as he tries to match the two industrial revolutions and the rise of the British capitalist economy(a long nineteenth century, 1776-1914). In a similar vein, other economic historians are talking about a *long twentieth century* overlapping the former and beginning in the 1880's or even before with the beginning of the scientific industrial revolution and the depression of 1874.

If they are more than a convenient way of writing history, "long centuries" must at least be a useful historical construction the purpose of which is to highlight four aspects:

1/the interrelation between successive but partly overlapping stages of development. Each stage is distinguished by a particular structure of capital accumulation and utilisation.

2/ a scientific and technical mode of understanding the world and the process of production-distribution

3/ a more or less original structure of political and international economic relations.

4/ discuss the conventional wisdom about international leadership

This last point is particularly important since historians are facing, after the dead alley of a too simple anti-capitalism of some marxist historians, the emergence of what we can call *models of economic stability*. This last orientation is not new. We can find it in a book published in 1940 by W.A. Brown Jr¹ and later(1973) by Kindleberger. In their analysis they try to show that

- There is a narrow relation between the decline of the dominant economy and international monetary instability
- Instability in International economic relations can be related to the absence of a world economic leadership

¹ Brown Jr. W.A. *The international gold standard reinterpreted, 1914-1934*, 2vol,NY, NBER, 1940,

- International instability is generated in a transition phase between two international leaders

This has been put more specifically by Krasner; Keohane and recently Eichengreen² who suggest that

- International relations are stable when a power plays a determinant role in their management
- This country is able to oblige others nation to follow a set of principles, rules, norms and procedures in the various fields of international economic relations, hence the stability
- The leading country offers a "public bonus" to the whole world. But if we are "after hegemony", the international system lose its stabilising virtues.
- So (Jean Weiller³), the theory of Hegemonic Stability leads us to characterise the international economy as a web of dominations.

We are led to try to associate two questions. First how can we understand a "long economic century". Second; within this structure we have phases of hegemony and of transitions. Can the transition be explained by the weakening of a given hegemony into a period of instability? If so we should admit that Hegemonic economic(and political) hegemony is in the interest of every country.

We shall begin with the Mensch *Metamorphosis socio economic model*⁴ and its presentation of stages of capitalist development as overlapping sequential formations. Mensch abandon the notion that "*the economy has developed in waves in favor of the theory that it has evolved through a series of innovative impulses that take the form of successive S-shaped cycles*" This depicts long periods of stable growth with relatively short intervals of turbulence(pp.73-81) The stages overlap as the structures of each derive from the structures of the previous one. Nonetheless they constitute historically distinct periods. His model is derived and validated by the analysis of growth and innovations in carefully selected industries and national economies over time periods of 30-50 years by his S shaped curves. So his metamorphosis model can be

² Keohane, R.O. *After hegemony, Cooperation and Discord in the World Economy*, Princeton 1984

Krasner S.D. *State power and the structure of international trade in World Politics*, 28,N°3, pp.317-347

Eichengreen, B *Hegemonic stability theories of the International Monetary System*, in Cooper & alii, Can Nations Agree, the brookings Institution Washington D.C. pp 255-297

³ Weiller, J. *Problèmes d'Economie Internationale*, 2 vol.Paris 1946. Most of J.Weiller important analysis can be found in the Journal "Economies et Sociétés, Published by the ISMEA,Paris (at that time the ISEA man,aged by François Perroux)

usefully conceptualised and used to depict structural changes in the capitalist economy over the appropriate temporal unit of analysis.

In this analysis each curve or wave is assumed to depict the rise, expansion and supersession of a particular systemic structure of accumulation, utilisation and social legitimation. It tells us that the expansion of each structure is self-limiting by expansion itself. The longer and faster the expansion process, the tighter the constraints on further expansion. So expansion can only proceed along a path and with new structures that are relatively free or at least not subject to the type of constraints developed in the former.

If we try to define the S-curves, we can distinguish two phases. An "A" phase of acceleration and a "B" phase of deceleration (fig. 2). The novelty is that the more important sequence is that of overlapping between two waves enabling us to distinguish between periods of stable expansion and phases of "turbulence". The second, contrary to the first (the A and B phases are in the first) are periods in which expansion proceeds from the old and the new trajectories. In that case the B phase of the previous trajectory overlaps the beginning of the A phase of the new wave. But we must not confuse those phases with the Logistic phases of Rondo Cameron or even less the Kondratieff A and B phases. Even if these two as Mensch ones are empirical constructions.

One can only mention that phases of turbulence are periods of continuous change. When the supersession is achieved, a new phase of stable expansion begins. Of course this is only an abstract sketch that cannot be easily translated in the real historical movement, most of the data are not available in a relevant form, especially when they come in the form of econometric series since the weighing of the elements in any individual combined structure poses index number problems of difficult solution. Those solutions are often very weak since they are the result of the combination of many flimsy hypotheses. Moreover the overlapping of the curves means that we would have difficulties in individualising the variations of the still dominant-structures and the growth of the emerging one.

So we need only, if we want to show the reality of the long period, to identify the symptoms of the turbulence. In this case we can focus, before analysing the more complex problem of the 20th century, on Braudel's study of Dutch withdrawal from commerce to specialise into banking. In this case we may take our ideas even more from Michel Morineau⁵ obviously less known but more precise studies. As we know the sketch presented by Braudel in different

⁴ Mensch, G. *Stalemate in Technology*, Cambridge, USA, 1979

⁵ Morineau M, *Pour une Histoire économique vraie*, Lille, 1985

works, and sustained by Morineau for the 18th century, is that a financial expansion is preparing and accompanying a withdrawal from trade and industry.

This was the case of the Florence bankers in the fifteen century, but also of the *nobili vecchi* of Genoa who were more interested in lending to the kings of Castille and Aragon than continuing the risky business of international trade.

What we are going to discuss is the tentative of Braudel in extending this to the British stage of the 1870-1914 period when, in his own words (forgive the translation): "*The fantastic venture of the industrial revolution created an overabundance of monetarised capital*" for Braudel: "*every capitalist development of this size seems, by reaching the stage of financial expansion, to have in some sense announced its maturity, a sign of autumn*"⁶.

Does this way of presenting the historical facts help us to understand the meaning and usefulness of the "long century" idea? can this add something to the Theory of hegemonic stability and the succession of leadership?

Shall we believe that a wide financial expansion can signal the end of the material expansion of an economic construction in a given structure of accumulation and indicate at the same time the transition to a new type of economic relations? In that case, we admit for the financial sector a dominant position of *deus ex machina*, we would have what Wallerstein try to explain: an historical capitalist world system with transitions from one regime to another, but with a sole time span from the fifteen century until today.

Leaving aside the discussion about the passing over from the Dutch (and why only them) to the British economic superiority (taking a title of a book by François Crouzet) I am going to concentrate my analysis on the transition of the late nineteenth British and French superiority to the first fruits of German dominance, rapidly superseded by the USA.

If we follow the Braudel pattern, these transitions began when the groups that had been playing the leading role in the ongoing expansion of the time switched most of their investments from manufacture (whatever its form) and trade toward financial intermediation, and income providing assets. Giovanni Arrighi⁷ stated, a decade ago that the transition comes to an end when the centre of finance is occupied by new groups and organisations that have the strength and capabilities to lead a new phase of economic and material expansion. However we must discuss before going into the centre of our subject, Braudel definition of Capitalism followed by the Wallerstein group of The Fernand Braudel centre of NY State University. In his *Civili-*

⁶ Braudel, 1984

⁷ *Financial rebirths and systemic Cycles of capital accumulation. 1350-2000* Third ESRC conference, Cambridge (UK), Sept. 1990. We are not an adept of these millenium analysis, but some ideas are really suggestive.

*sation Matérielle, Economie et Capitalisme XVème XVIIIème siècle*⁸, Braudel admitted that his attribution (in a 1977 conference) to Sombart the fatherhood of the term was inaccurate, but insisted that Sombart gave it its academic baptism, because Marx never used that word. But Sombart himself recognised his debt to Marx in his introduction to his *Moderne Kapitalismus*, writing : "*I admire without any restriction the theoretician and historian of Capitalism*". The link between Sombart and Braudel is obvious, even if , later, the second criticised the nationalist orientation of the first. The big difference is that for Sombart the modern capitalism is born in the nineteenth century, while Braudel , as well as Sayous and Pirenne believe that capitalism begin in Medieval Europe. As clearly stated by Morineau : "*from middle ages until the next three centuries, Braudel believe in an authentic capitalism, fully grown and to be studied for itself. In that case it means that for Braudel, who acknowledged his intellectual debt to the sixteen century, capitalism is more than less a simple utilisation of capital*".

For us this cover a laxity, more, an anachronism giving to the word Capitalism a retroactive value without relation to a precise state of economic life. Do we admit, as Braudel stated in the hommage session in his honour answering a question by Alberto Tenenti : "*capitalism is a chameleon, but there is a fundamental model of capitalism*". The question remain open as this long parenthesis is only to explain why of all the transitions that can be studied from Braudel to Mensch, we are centering on the nineteen-twentieth century. No that we adhere to Sombart analysis. As rich as it is it is, its too industrial leaning are often outdated. But he remains, as well as Schumpeter, one of the main pillars of the comprehension of the period. And if Braudel had the original perception of a long economic century, his vision of capitalism cannot help us to prove that we have a long nineteenth or twentieth century and even less the problems of hegemony and transition.

For our purpose we begin with the transition of the mid nineteen sixties and marked by the 1866 crisis. It was in the course of the 1850-1860 decades that the banking organisations which had played a leading role in the economic expansion of the world since around 1810-1820(The Baring;(in England) the Rothschild (England and France)and the Pereire brothers in France, who encompass the two leading financial places of the world, switched their ressources from commercial and industrial business to financial intermediation. This must be precised, since most leading British and US economic histories are completely out of tone

⁸ Paris 1979, Vol.II pp.205 and sqq.

about the French case. The presentation is relatively true of the City of London⁹, but in France the problems are different and must be presented concisely¹⁰.

- The 1866 crisis has been very deep. The collapse of the Spanish economy where France had invested billions of francs, the failure of the real estate market in all main cities of France, above all Paris, led to a succession of banks failures. Even the Rothschild had to close some of their foreign subsidiaries and the Pereire were liquidated (with the interested help of the Rothschild and the Banque de France). The French industry never fully recovered before the 1870 war.

- Following the defeat The Banque de France suspended until 1878 the gold convertibility of the Franc. Paris lost a major part of its international financial role which passed to London.

- From 1881-2, the country underwent a long deep depression, which lasted until the second half of the nineties. It was illustrated by the collapse of Lyon's stockmarket (the second in France) and a new succession of bank failures. From this moment, the French banks modified their involvement in industry (which was very important before, including the Rothschild and the Crédit Lyonnais). But the links were never severed. This is a big contrast with Britain and, in some way is intermediary between the City case and the so called German model.

If we now return to the well known British case, 1870 is, in the opinion of Mensch, a switch marked by the *signal crisis* of the British way of accumulating capital. The turning point from stable expansion to turbulence. The turbulence began, as several financial historians saw it, with the Great Depression of 1873-1896. A very special depression since, with the notable exception of France and, during a shorter span of time Italy, we had a precipitous and persistent fall in prices of commodities and industrial goods, combined with an unprecedented economic growth in volume. Even in Britain the importance of the depression is debated (S.B.Saul: *The myth of the Great Depression*). Of course this fall in the prices of commercial products exercised a strong downward pressure on the rate of profits but global industrial profits grew as a rule. We can see the impact of the traditional view in David Landes slightly overstated expression: "*this was the most drastic deflation in the memory of man, what was now recognised*

⁹ Cassis, Youssef, *Les banquiers de la City*, Genève, Droz, 1982

¹⁰ For more details Y. Breton, A. Broder, M. Lutfalle, edit. *la longue Stagnation en France*, Economica, Paris 1996. Broder .A. *Histoire économique de la France au XIX^e siècle*, Ophrys Gap, 1995 *Histoire Economique de la France au XX^e siècle*, Ophrys, Gap, 1997

*as periodic depressions seemed to drag on interminably. The economic system appeared to be running down*¹¹

In the mid 1890's the movement of prices was reversed due to the closing of the agricultural frontiers in the USA and Imperial Russia(especially after the 1905 Revolution), but also by a notable slowing of the rates of technological change and a diminution of the rate of growth of productivity, while, at least in north western Atlantic and central European industrial countries, the growth of salaries and the slow reduction of the working week, led to growing variable costs that could be , now, included in selling prices.

Anyway, this, coinciding with the third Kondratieff phase A, help to explain a serious growth of income and even more of profits during a period known as the *Belle époque* . But we cannot deduce that the world economy entered a period of stability with such important changes.

Three tendencies can be distinguished that lead theoretically to new form of stability

- 1 The change in educational pattern
- 2 Modifications in Industry and trade.
- 3 Change in the control over the balance of power,(not only military)

In the eighteen seventies, the Japanese government sent a mission in the north western industrial countries in order to choose where to send students so as to get the more accurate technical and scientific higher education. A hand written translation of this text can be found in the French National Archives(Ministry of Public Instruction Record). Travelling from west to east the authors of the survey recognise that the best agricultural education is given in the US states colleges east of the Mississippi. English higher education is good for the making of Gentlemen(Oxford, Cambridge) but scientific education is limited and too theoretical. The same can be said of France where the best schools are civil service oriented and where the best education appear in the faculties of medicine law and humanities. So the only real place to study applied sciences, technology, engineer formation is Germany with, indicate the report, some isolated but highly recommendable institutions in Austria(Vienna) and Switzerland. It is true that Britain has been very late in awakening to technical education, France is above all concerned to have the best(or so they think) civil service in the world : Paris Polytechnics, certainly the most competitive school in Europe until the second world war is (still today) a military school preparing for the technical corps(artillery, engineers) and the state administration of Public Works(via the Schools of Mines and of Public Works, both established in the

¹¹ Landes, David,*The unbound Prometheus, technological change and Industrial development in Western Europe from 1750 to the Present*,CUP, Cambridge, 1969, p.231

18th century). In both countries the scientific laboratories are more or less private as in the case of Britain where the fathers of the German dye industry learnt their trade (i.e. Justus Liebig).

During the first half of the century Germany register a growing number of Polytechnic schools, later transformed into Higher Technical Schools, able to form doctorate students and with a number of students out of comparison with the two main industrial countries.

Membership in Engineer Professional Societies

	1860	1880	1910
England	1300	5500	23900
Germany	350	10750	37900
France	1100	4200	22200

Source Lundgreen for UK and Germany, own calculations for France

Higher education budget 1897 in millions gold francs

France	16.769	Germany	26.833
Of which Universities	10500		18.000

Source Broder 1987-1990

This, added to the early organisation of a national institute for scientific research(The *Physikalisch Technische Reichanstalt*(1887) helped Germany in four ways :

easing the opening of new scientific departments in Universities as well as in schools, public or private(Siemens in berlin, Zeiss in Iena),

facilitate the recruitment of engineers in growing industries(French and British were marred by the lack of them added to a too theoretic training), but also in industrial laboratories from chemical and electrical to optical industries.

last but not least all this help the surge of industrial and practical patents which explain the German insistence in the 1880 and 1890 for a growing role of the international patent control and a more precise international *Patent Recht*.

So it is easy to understand that, long before any statistical or econometrical data can show it, just by the number of schools, the level of students(and the details of the curriculum) and the change of the international patent right, the balance of control over European but also world economic power is changing. Even if in some cases(machine tools but above all the electro technical industry) we have also the irruption of the USA. In the case of the electro technical industry the world production and market is under a bicephalous industrial and technical duopoly ¹².

¹² Broder A, *La multinationalisation de l'industrie électrotechnique Française*, Annales; ESC,1982

This was confirmed when Owen Young¹³, General Electric chairman participated in the U.S. delegation at Versailles in 1919 and that the German electrical patents were excluded from the Reparations while the chemicals one were included. At that time G.E. was one of the two principals shareholders of the A.E.G. and had crossed patents rights as well as common interests(as in the French Thomson Houston or in Spain and Italy).

This led, long before the first war, to a change in the world industrial and trade power which slipped from the British to the German decision makers.

This can be explained by two cases studies :

-The constitution of international cartels and ententes. The first ones in heavy industries : iron and steel, rails, locomotives. Each of these cartels is dominated by the Germans. Generally the national German cartel is the founding father of its international *alter ego* and faces loose national ententes either because unity is weak(Britain) or legally forbidden if tolerated(France). In some sectors the German control is even stronger due to its domination of the sources(Alkali cartel), of the market(Metallgesellschaft and its Anglo-American subsidiaries Merton in non ferrous metals in Europe), or of the world production (Organic chemicals). Forbidden after the first war, most of these cartels are again in activity like the steel cartel, the lighting bulb cartel after 1925 and the heavy electrical industry cartel in the thirties(the two last in neutral Geneva).

- the development of an international financing system of world expansion. Beginning with the creation in the early 1870 of the German bank for overseas(*Deutsche Ueberseeische Bank*) and its subsidiaries either in Latin America, Asia or Africa, the German system became more sophisticated with the creation of financial holdings companies industrially oriented and situated in neutral countries (Belgium, Switzerland) so as to be able to tap capital from relatively hostile countries(Great Britain but above all France) and manage industrial or public services enterprises in the world.

That this situation survived the first war and well into the second can be seen by the upholding of the financial relations between The USA and Germany well into the war and after, in spite of allied resolutions¹⁴, the treaties between I.G.Farben and DuPont which lasted until december 1941 and the activities of international cartels like *Phoebus*. In 1924 The G.E.

¹³ He was later the author of the Young plan to reduce the German reparations's burden

¹⁴ Broder. A.*Les mouvements de capitaux dans l'Entre deux Guerres: l'Allemagne, la France , les Etats Unis et les Pays Bas*, Economies et Société, N°2,1991, pp.7-39

merged his lamp unit in France with the one of the C.G.E giving birth to a near national monopoly (the *Compagnie des lampes*) which was obliged to accept the rules of Phoebus, sharing the French market with the US Sylvania, the Dutch Philips and the German Osram while being forbidden to export in those countries. This led to a near disparition of the French production of radio diodes and triodes with grave consequences in the French army equipment in 1939. A less stringent rule was applied to the U.K.

What we describe here are only cases studies of the transformation of the industrial economy. From the 1870 onward the new industries are creating a new type of enterprise. In chemicals, electro technical, but also in steel we note the formation of integrated groups. In Germany but also at a much lesser degree in France, Italy and even Russia, three types of integration appears under the same management. A full line of the product from basic goods, half products and customer goods. That is the case of Thyssen, of AEG from foundries of copper to electric bulbs, complete power stations and power lines equipment (and building companies), but also an automotive factory (albeit short lived), and in association with Siemens, the Telefunken radio factory. Siemens kept its original telegraph concern and was also very active in telephone, railway equipment (including steam locomotives in Alsace), cinema from production equipment to film studios. Siemens as AEG developed household equipment divisions in the inter-war period. The variety of industrial productions and markets the world over centrally controlled by a very strong centralised management. No branches was really autonomous and we have no holding type company like G.E or General Motors. But the control of the foreign subsidiaries is often exercised in cooperation with the associates banks;

In this aspect the theoretical model of Bank controlled industry is outdated. The links are strong in both directions. Recent studies of big industrial groups and banks show that, from the 1890's on, not only the German industry did not need the well known "transformation credit" since more than 80% of its investments were auto financed, and the banks needed the industrial daily business more than the other way round.

This can be observed at the same time on a more limited level in Switzerland and much later but before the first war in Italy (especially Pirelli and its association with the swiss Brown Boveri in Motor) and in France with the Schneider group extending from steel to automobiles and lorries, electro technical goods, construction and the ownership of one of the most important French business bank extending its activities in the Austrian and Russian Empires.

This system resisted the 1929 depression in itself. I am not sure, because we don't have enough case studies that the totalitarian regimes either long living(Italy) or short living (Hitler's Germany extended for only eleven years and five of military peace) changed the pattern. The breakdown of the system born in the 1870 began really with the post 1914-18 warstructural change in Europe. The partition of the continent with the installation of the soviet type of economy is a milestone. Another is in the west the nationalisation process. Particularly in France with the state taking over of 80% of the credit system, the power industry and deciding to plan centrally the growth of the national economy . This led to a reorganisation of the industry but even more of its international structures. The dominance of the German type of industrial cartels disappeared while the influence of the USA began to dominate not so much the often unchanged management than the way economists and historian apprehended it.

As the Anglo-French system of capitalist enterprises showed its limits in the 1870's, it was superseded by the German one, derived from forces less financial than scientific and educational. The development of the new industries cannot be directly related to the depression in prices. Quite the opposite. First they opened new markets, developed the workforce with better salaries. Second helped the old industries to fight decreasing unit revenues with gains in productivity(better and cheaper energy, permanently improved machine tools, chemical products giving better and cheaper results as dyes, pharmaceutical products, better communications..). Nor can we find in the French or German cases an illustration of Braudel theory concerning the banking system disengagement from industry and trade.

Somewhat later, in the decade before the first war, a different system of industrial management appeared that caught the eyes of modern scholar, given the weight not only of the USA but of some of their academic achievement (Chandler's *Visible Hand*)

If we take its main industries(not all since it doesn't appear in textile), the US system prospered with the establishment of a interlock between the vertical integration of mass production with the processes of mass distribution within a single business organisation. As Chandler wrote in 1977 :"*Almost non existent at the end of the 1870's, these integrated enterprises came to dominate many of the most vital industries within less than three decades*¹⁵.

For most historian, this acquired a real significance right from the 1880's. as some of these enterprises created almost immediately a international network of subsidiaries engaged sometimes only in marketing, more often in production. Here too statistical data can be misleading. Following Myra Wilkins¹⁶ we note the amount of 7% of the US GNP for American invest-

¹⁵ Chandler, op.cit. p.285

¹⁶ Wilkins, Myra, *American Investments Abroad and The Eemergence of Multinational Enterprises*

ments abroad. But, apart from mining and investments south of the Rio Grande, the picture is as different from the European investments as the German are from Anglo French ones. In Europe US investments are mostly industrial based on patents. But unlike Germany they rarely create direct subsidiaries, the best known being Singer sewing machine C^o and some Agricultural machines factories like Mac Cormick. Either they rent their patents to local industries (as in the case of U.S. the Shoes machines C^o) or they take a blocking minority in the paid up capital, exchanging the use of patents for shares, the liquid capital being furnished by local associates. The case of Westinghouse is limited and was not a great success. On the opposite, as in the case of G.E. interests in Britain and France, we find local enterprises, managed in the local pattern, with US citizen on the Board but not in the day to day operations. It is difficult to accept the idea that in 1914 US industry established an international pattern of management. Few US enterprises moved toward the creation of a multinational network of subsidiaries. Apart from specific industries they didn't have the technology. But above all they were short of adequate personnel to send abroad and even more of money. One must remember that the US Balance of Account was positive only with the beginning of the 20th century. The credit system was not in a position to finance a world expansion at the level of the British, French ,German or Swiss one. Not only the European mode of capital accumulation was functioning smoothly, but in the twenty years before the first war the process of capital distribution and investment allotment was near a timely perfection. At least for the benefit of European industrial countries.

With the British slowly awakening to the new industrial course, the French recovery in full speed(after 1902 the French rate of industrial growth is higher than the German, but the value of the production only reaches 2/3 of the latter), Russia and Austria-Hungary rapidly industrialising, the German hegemony was resented and discussed. However the pattern of industrialisation follow more or less the German model. The new French groups are being built on this pattern either in electro technical¹⁷ or in the chemical industries. The same can be said when one study the structures of the numerous recently created Science departments in Universities or Engineers Schools, as well as the research laboratories public or industrial.

Even in such nationally sensible matter as banking we find a real similarity. The Sofina in Brussels is a German American French financial and management structure which bears a definite German tone. When Schneider of France want to establish an international in-

¹⁷ Broder A; F.Gambrelle & Alii: *Alstom Alcatel, Histoire de la Compagnie Generale d'Electricité*, Paris 1985.

vestment and managerial holding in Switzerland, the FSIE in Geneva follow exactly the pattern of the SSIE(Siemens in Basel) the Elektro Bank(AEG-Deutsche Bank) or the Swiss bank for railroads(Deutsche Bank) both in Zurich. The same can be said of Motor(linking Swiss banks, Brown Boveri of Switzerland and Pirelli of Italy).

Only the British banks are staying apart, the international strength of the City and the distance from political bickering on the continent limiting the need of original structures.

War and between the wars and Hegemonic Stability

There is a curious superposition when we consider the economic balance of power before the first war. A important group of historians consider that the first world war forced the UK to acknowledge its loss of control over the European (and by extension the world) balance of power. The reality is basically different. Even the City was losing its grip over the world finance. The great German banking conglomerates¹⁸, the growing diversification of the Paris market with the renewed activity of its great banks, the internationalisation of the Brussels and Swiss markets are not fully integrated in most English language publications. We are not discussing the London domination of the international transactions business, nor the fact that numerous state and industrial reserves are investing in British short term paper. But this is the result of a long history that allowed the City to build up huge technical facilities, a none to be encountered elsewhere abundant highly trained personnel, and the world most important commodities and metal markets. But since the 1880's it is difficult to notice something really new. It is business at it best but nothing unusual. New markets are challenging London like New York for green coffee. Important metal long term contracts are realised in MetallGesellschaft offices in Francfort with London being an central indicator. Time passing, London is in a way to appear the *primus inter pares* of investment markets. The growth of German foreign investments is getting as strong if not stronger than the French and British . The difference come from anteriority, not from new flows.

¹⁸ Riesser, J. *Die Deutsche GrossBanken*, 1910 There is a slightly abridged american edition 1911. We have a great number of Doctorate dissertations published in german between the wars and some after the second war

Situation of international investments in 1914 in %

Principals investors

United Kingdom	41.6%	United States	8,0%
France	19.9%	Belgium Netherland Switzerland(a)	12.6%
Germany	12.4%	Japan, Portugal, Russia Sweden & al	5.6%

Investing zones

Europe	27.3%	Central and South America	19.3%	Africa	10.7%
North America	23.9%	Asia	13.6%	Oceania	5.2%

Geographical repartition of British, French and German investments

Britain %

Empire 47.2% Rest of the World 52.8%

Repartition of "Rest of the World" : USA 38.0% Argentina 16.1% Brazil 7.4% Russia 5.5%

France %

Empire 8.9% Europe(Russia excluded) 28.7% Russian Empire 25.1% Ottoman Empire 7.3%

North America 4.4% Latin America 13.3% Asia(China) 4.9%

Germany ,%

Europe(Russia excluded) 37.9% Russian Empire 7.6% Ottoman Empire 7.6% Asia 4.2%

Latin America 16.2% North America 15.7% Africa(mostly South Africa and German colonies) 8.5%

Source : Elaboration from W.S and E.S. Woytinsky *World commerce and Governments, trends and outlook*, Baltimore 1955 pp. 191-195

If we look into the monetary policy, the strength of the £ had to be maintained through a constant manipulation of the bank rate and at least two times after 1900 with the help of the huge and in my opinion excessive Banque de France gold reserves¹⁹. We just have a time extension of the unequivocal dominance of the Victorian banking and monetary system of the 1840-1870's. But this is challenged by an adverse trade balance, an insufficient investment home banking system and the definitive loss of industrial dominance after 1890. The war was not the final blow to the capabilities of victorious Britain to rule the world, but the revealer of the end of a long process. Britain didn't bear the principal burden of the war in the winning team and the situation in 1919 was more the rise of the curtain than a revolution. As we know, much of the financial business in London was already on behalf of continental powers who bought the services of the City. The same can be said about the actual role of the London financial place.

After the war and for all the inter war period, foreign operations in London(either borrowing or shares selling)were in excess of the balance for current accounts. This means a desinterlocking between capital and goods whose origin stem from the end of the relative British hegemony of the British economy. Until the first war this hegemony expressed itself through its position of first ranking international creditor and the surpluses of the service and invisible balances. The constant deficits of the basic balance after 1924 is a manifestation of the efforts

¹⁹ Supra note 9, *La longue stagnation* pp.193-225

to be still accepted as the dominant economy. The contemporary negative balances of the USA and , at a much lower level, France show that this policy is not only contested, but denied.

Two phenomena are strongly representative of this period :The strong US investments between 1919 and 1932, the monetary stabilisations of the 1920's.

The department of Commerce statistics indicate that between 1927-29,158 US concerns invested 160 millions of \$ in foreign countries, in 1930-32 more than 100 millions of \$ and, for the whole 1919-1932 period around 250,3 \$ millions a year..

On a 1937 basis we have a total of 1398.9 million of 1934 \$, 18% in the UK, 26.9 in Germany (the biggest part), France, Belgium and the Low Countries²⁰.

The growing role of the US can also be seen in the discussion around the European countries national currencies stabilisation. From the Genoa Conference of 1922 to the Dawes plan , the US are strongly opposed to any tentative by Britain to turn the Gold Exchange Standard into a *succedané* of the former Sterling exchange system called the Gold System before 1914. If the US helped the return to par of the pound the motivations seems to derive from the decision to

- Have a Gold standard limiting the role of any currency other than the dollar
- Formalise the permanent participation of the NY Reserve Bank in any international monetary meeting.

Since 1925 the Sterling is under strong international pressure. The problem centre around the interest rate of other central banks and particularly the FRB of NY and the Banque de France. From august 1925 the bank of England is reducing its rates while the Us rates are rising, both illustrating the real national economy. To help the pound a tripartite concertation begins in 1927. While France is succeeding in stabilising its devaluated franc and want to have an independent monetary policy, The Pound is now under US control. It is clear that the US want a international currency circulation in dollars and as less as possible in sterling. This, in the opinion of US authorities will help the exportation trade²¹.

²⁰ Hérisson, C.D. *Les migrations internationales d'entreprises américaines à l'étranger ou l'établissement de succursales à l'étranger*, Paris, l'Actualité vEconomique,1937, Vol.1 n°2, pp.117-146

Participations in stabilisation decisions

<i>Stabilisation</i>		<i>France</i>	<i>United Kingdom</i>	<i>United States</i>
Austria shilling	1922	SDN	++++	+
Pound Sterling	1925	no		++++
Belgium Franc	1925	++	++++	++++
Italian lira	1925-27	++	++++	++++
Poland Zloty	1925-27	+++	++	++++
Romania Lei	1928	++++	++	++++

++ participation without help +++ active participation ++++Leadership

Source Allegret, J.P. Centre Monnaie Finances Banque, University of Lyon II

So we can see that, in the financial spectrum, we have the superposition of the last decades of a long 19th century (beginning with the French Revolution and Napoleonic Wars) and the growth of a new system of financial power. What is interesting here is that the effect of the war altered the way things were changing. Any observer of the financial transformation just before the war would have bet on the developing web of the German banks with their strong foothold in Brussels, Amsterdam²², their extension in Latin America and China, their near century long, often family, links with New York investments banks not mentioning London. This rested on a strong and modern industry, with a system of very nationalist world companies (the word multinational is totally inaccurate here) One only has to remember the strong nationalist tone of Emil Rathenau at AEG shareholders meetings or even more of Albert Ballin, director of the Hamburg Amerika Line who made the German commercial navy second to the British one. This also reminds us that, given the growth of its industry, Germany was rapidly superseding Britain as the main market of foreign minerals.

The cost of the war, the disruption of the continental economy with the appearance of a communist Russia, several poor and unstable states in lieu and place of the Austro Hungarian Empire shattered the German system who became so weak that even the short recovery of 1924-29 was insufficient to restore the former links. Even if, during the twenties, the conglomerates (I.G.Farben) and Cartels grew again, this was counterbalanced by failures (the Stinnes Empire). What was more evident was the growth of US interests in Germany (see above) either by well known loans or by investments: loans from G.E. to Siemens and A.E.G, majority shareholding as in the car, petroleum and rubber industries.

So we may understand why, with the obliteration of the pre 1914 situation, in the 1920's if any state could be said to be in control of the balance of economic power it was no longer

²¹ Costigliola, F. *Awkward dominion, American political economic and cultural relations with Europe 1919-1933*, Ithaca, Cornell, 1984. The citation is taken from Allegret.

²² Supra note 10

Britain, no more than Germany who was a total failure, but the US. What's more while imperialism, whose dynamics began in the 1880's with the Berlin congress of 1885), was beginning to face the challenge of increasingly active national movements in the colonies, and with a long lasting rupture of the world financial balances, the British model of international trade was definitely out of fashion. Just as the Protectionist movement began in the 1870's with the US, and gained momentum in Europe Germany (1879), Austria, France Italy Russia and Spain. Britain was still, with the Low Countries the sole adept of Free Trade instituted in the 1840 which culminated with the treaties of the 1860's. Just as the UK had lost the capability of controlling the world political balance of power, it has lost the capacity to reproduce and to occupy the centre of the world-encompassing web of trading transactions. The slump of 1930-31 and the subsequent end of the Gold Exchange Standard destroyed most of what was left of the Victorian built dominance, and Britain abandoned its commitment to Free Trade while the Low Countries joined the short lived French *gold block*. As Hobsbawm wrote : "*the world abandoned Britain*".

After 1918 no continental power was able to take the place of Britain, the after war provoked a sudden acceleration in the on-going relocation of control over the world monetary and financial resources from the City of London to Wall Street in New York, from the Baring to the House of Morgan, from the Bank of England to the Federal Reserve Bank of New-York. As a consequence of this change, world finance came to be characterised by a dualism of power that undermined Britain's capability to regulate the world supply of money and credit.

The monetary crises in France and Germany forbade any of these two countries to take any initiative. As we said France tried to play its own partition between 1926 and 1935, without great results but with a subsequent storm of criticism from British and American economists until today²³. The capacity of the US financial system and of its operators to bear the weight and manage the new situation is open to investigation. But the question must be evoked as was done by Kindleberger²⁴. On the industrial side, we have the evidence that from the first war until the end of the second, we witness the rise to influence and application of what is called, after Chandler *the US model of managerial capitalism*.

²³ Among the recent ones Barry Eichengreen

²⁴ Kindleberger; C.P. *A history of Financial Crisis, Manias, Panics and Crashes*, NY 1978 , *The World in Depression 1929-1939*, NY 1973 .

of special interest for the pre 1914 period :Michie, R.C.,*The London and N Y Stock exchanges, 1850-1914*,London 1987

This can be partly explained by the fact that, during this period, the US came to enjoy a large protection rent since they were geographically and politically isolated from the devastating effects of dictatures and war, even when they were, more or less voluntarily, dragged into the conflict. From 1914 until 1950, the more state rivalries escalated in and from Europe, the more the US economy benefited from this insulation. The more Europe is in trouble, the more Europeans look at the USA as the only anchor of last resort. It can be stated that the American business world had been able to capitalise this protection rent thanks to the organisational revolution that had given rise to managerial capitalism.

This led at the end of the Second World War to the establishment of a world economic hegemony. Quite apart from any political question, US managerial capitalism can be perceived as the only alternative to underdevelopment in war torn western Europe. And a way to catch new technologies while raising the middle and lower classes consumption.

For about thirty years after the end of the second World war the new regime of accumulation and economic modernisation delivered much of what was expected. The regular re-investment of profits in the further expansion of the international networks of production and trade reorganised along the US Great Corporation model promoted a new phase of acceleration expansion on a unprecedented scale, But the industry was still following the late 1880 model.

Sometimes, in the middle 1960's three fundamental switches appeared. First the awakening of a North-Pacific economy, with a switch in US industrial dynamism toward the west coast. This was accompanied by the greatest challenge met by the industries of the two industrial revolutions. The crisis and near collapse of the traditional heavy or job intensive industries : textile, metallurgy, an accrued competition on a near saturated market for chemicals, electrical heavy equipment, cars and audio visual goods. US multinationals and banks began switching their surpluses from investment into financial speculation, helped by the growing dollars surpluses in Europe and Japan. The expansion of the *Eurodollar* market and the subsequent flotation of the US currency inaugurated a phase of monetary instability that is still developing.

This phase of turbulence began around 1967-70 and may constitute a third phase of a long twentieth century, the first being the phase of turbulence during which the German model of industrial development came into being and the second the long phase of US growth to economic superiority through the agitated inter war and the subsequent phase of stable expansion and western world prosperity?

This would project us into historical guessing since the last quarter of the 20th century is also witness to a completely new revolution in industry born with the computer, the genetic bio-sciences as well as a completely new world of capital flows obliterating the states as principal agents while free trade is becoming (for how long?) the unique law of world trade.

So are we in a new stage of a long twentieth century? Or can we just think that the 1970's are the benchmark of a new economic revolution. In that case we would see the succession of time as a non calendar reality. The First Industrial Revolution, 1760(circa) 1860-70, the age of Britain and, as the permanent challenger, France; 1870-1970 the age of scientific industrial revolution, the passage from know how to knowledge with the aborted try by Germany and the converted try by the USA., and since 1970 a new epoch.

This doesn't teach us new things about the history of industry, technology or even business. Its interest lies somewhere else : forcing us into comparative international economic history, review our traditional opinion on British superiority after the 1870 and remind us of the role of continental Europe in the transformation of the world economy, as well as, its responsibility in the collapse of a certain model of economic system.

A long twentieth century on the economic side of history ? May be. But on the balance of gains and risks, the second is more important. It may leads us into the blind alley often followed by political and diplomatic history. Forgetting the strong political implications of economic facts, and *vice versa*. As a young assistant professor of history, I had some problem in explaining Braudel views to first year students. I try not to forget that.