Labour Immobility and Exchange-Rate Regimes: An Alternative Explanation for the Fall of the Interwar Gold-Exchange Standard

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Beyond the respective functioning of the classical gold standard and the interwar gold-exchange standard, one of the main differences between both periods was the degree of labour mobility. While the pre-1914 world was characterised by massive migration flows, the interwar years were marked by a dramatic fall in labour movements, owing to the adoption of restrictive immigration policies in the main receiving countries. As a result, labour mobility could no longer play the adjustment mechanism role that it did during the classical gold standard. Indeed, the existence of a number of adjustment constraints, including wage rigidities and factor immobility, led those countries with fixed exchange rates to adopt counterproductive adjustment mechanisms, such as trade protectionism, that resulted in both internal and external imbalances. Against this background, the return to flexible exchange-rates was the only credible option.

> *"It is easy to sum up the conventional wisdom that quickly emerged in response to the problems of the global economy. Everything that was moving across national boundaries – whether capital, goods, or people – really had no business to be doing that and should be stopped. If it could not be stopped, it should be controlled, in accordance with a definition of national interest."*
>
> Harold James (2001:187)

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1. Introduction

The two decades between the First and the Second World War are also known as the period of the "end of the globalisation" (James, 2001): trade flows significantly slowed down in comparison with the pre-war years, capital mobility was strongly constrained, barriers to international labour mobility increased, and all the attempts to stabilise currencies failed. Even though the 1929 crash and the Great Depression that followed it sparked off the globalisation backlash, they are not the only factors responsible. The adoption, during the 1920s, of several protectionist measures probably induced – and sped up – the crisis of the 1930s, while the widespread renunciation of fixed exchange rates after 1931 was in keeping with the non-cooperative policies at that time. In that sense, the international trade and monetary cooperation that marked the classical gold standard period was replaced by a logic of strong economic nationalism.

In fact, the protectionist temptation, which went well beyond trade measures, appeared with the first significant restrictions on immigration implemented in the United States at the beginning of the 1920s. Such border controls marked a turning point compared to the pre-war years, characterised by massive population movements between the European countries and the New World. It is also likely that they contributed, at least indirectly, to the fall of the interwar gold exchange standard. Indeed, maintaining fixed exchange rate regimes implies the existence of a number of adjustment mechanisms – more or less automatic – that enables the offsetting of exchange rate rigidity, in the event of disequilibria. In that respect, labour mobility plays an important role in the adjustment process.

The idea that labour mobility could serve as an adjustment mechanism for countries that opt for a fixed exchange-rate strategy was developed by Mundell (1961) within the framework of the optimum currency area theory. As a matter of fact, international migration can help to solve both internal and external imbalances. Labour flows from countries that suffer from unemployment to countries with inflation contribute to reducing competition in the labour market of the former

and then reducing unemployment rates, and to curbing the overheating of the latter economies thanks to more competition in the labour market, that is, less wage pressures. By the same token, current account disequilibria can be mitigated by a rise in migration movements. Indeed, labour outflows from deficit countries are followed by a drop in domestic demand that entails a reduction in imports. On the contrary, aggregate demand increases in receiving countries, with the result that imports grow. The upshot is that deficit countries import less and export more, while surplus countries import more and export less, which fosters the return to the current-account equilibrium position. Besides, migrants are inclined to send money to their family and their remittances also contribute to absorbing external imbalances.

The classical gold standard period (roughly between 1880 and 1914) constitutes a good illustration of the contribution of international migration to the adjustment process within fixed exchange-rate regimes. The price-specie-flow mechanism that was supposed to restore the current-account equilibrium was restrained by the existence of wage and price rigidities. Moreover, capital mobility, which takes part in the balance-of-payments adjustment, was chiefly steered to the "core" countries of the gold standard, i.e. France, Germany, the United Kingdom and the United States. Countries that belonged to the "periphery" had a more limited access to international capital markets and needed other adjustment mechanisms. It is noteworthy that, during the period, economic policies aimed to avoid fiscal deficits and stabilise exchange rates. In the absence of countercyclical fiscal and monetary policies, labour mobility hence remained the only adjustment mechanism available for many countries. As a matter of fact, labour mobility played an important role in the balance-of-payments adjustment: the correlation between changes in the current account and variations in the emigration rate was positive and significant for the countries that belonged to the gold standard. In other words, an increase in the emigration rate was followed by an improvement in the current-account situation. On the contrary, there was no correlation between both variables in flexible exchange-rate countries. Indeed, these could rely on exchange-rate fluctuations to solve external imbalances (Khoudour-Castéras, 2005).

After World War I, many countries tried to restore the convertibility of their currency into gold or, at least, into strong foreign currencies like the pound sterling, the French franc and the U.S. dollar. But the gold exchange standard that arose from the Genoa Conference of 1922 suffered from severe disturbances that were linked to the lack of credible and efficient adjustment mechanisms, and notably to the new labour immobility that characterised the interwar period. Actually, several traditional receiving countries, in particular the United States, under the double pressure of trade unions and nationalist movements, decided to strengthen their migration policies and to increase border controls. At the same time, the population decline that followed World War I, together with the implementation of social insurance mechanisms in several northern and western European countries, reduced surplus labour in Europe. The upshot was a dramatic fall in international migration flows. As a result, labour mobility lost the function of an adjustment mechanism that it had during the classical gold standard period. In particular, there was no longer any connection between changes in emigration rates and business cycles.

In order to show how the end of labour mobility could have been at the origin of the fall of the gold-exchange standard, the remainder of the paper is organised as follows. Section I considers different explanations for the failure of the adjustment process during the gold-exchange standard, focusing particularly on sterilisation policies, and shows the possible repercussions of labour flows in this process. Section II presents the evolution of international migration policies. The aim is to understand the mechanisms that led the United States, together with most of the countries that were traditionally open to immigration, to implement restrictive measures. Lastly, Section III tries to establish how the lack of labour mobility could have been harmful to the gold-exchange standard: the existence of a number of adjustment constraints, including wage rigidities and factor immobility, led the countries with fixed exchange-rates to adopt counterproductive adjustment mechanisms, such as trade protectionism, that resulted in both internal and external imbalances. Against this background, withdrawing from the gold-exchange standard was the only credible option.

2. Labour Mobility and the Adjustment Problem of the Gold-Exchange Standard

One of the main problems of the gold-exchange standard lay in the inability of public authorities to cope with economic disturbances and to restore their current-account equilibrium: *"Weak-currency countries like Britain were saddled with chronic balance-of-payments deficits and haemorrhaged gold and exchange reserves, while strong-currency countries like France remained in persistent surplus."* (Eichengreen, 1998: 48). This situation was the result of the lack of efficiency of the adjustment mechanism that was supposed to govern the prevailing international monetary system.

2.1 Traditional explanations for the adjustment problem of the gold-exchange standard. There are many – and contradictory – explanations for the failure of the adjustment process during the gold-exchange standard. One of the most common lies in the existence of wage and price rigidities, which would have prevented current accounts from returning to their equilibrium position. Actually, the interwar period was characterised by downward wage rigidities, not only in Europe, where the improvement in working conditions that followed World War I implied nominal wage guarantees in labour contracts, but also in the United States, where employers themselves considered that they had a role to play to avoid the propagation of crises: *"Manufacturing firms became convinced, following the trauma of 1920-1922, that maintaining wage rates during a downturn was necessary if precipitous sales declines were to be avoided."* (O'Brien, 1989: 729).

The problem with this argument is that it does not explain why the countries that ran a current-account surplus, for instance France or the United States, maintained their surplus despite significant wage increases (since wages were not rigid upwards). Nor does it enable us to understand why the countries with current-account deficits did not restore the situation through a reduction in aggregate demand. Even though wages were rigid, the deficit should have induced a drop in money supply and then in domestic expenditure, which in turn should

have affected imports. Likewise, a current-account surplus should have been offset by an increase in imports, which derived from the rise in money supply and domestic demand. But: *"The persistence of external deficits indicated that the predicted adjustment of nominal spending was not taking place. Something was preventing balance-of-payments deficits from reducing domestic money supplies and thereby compressing domestic expenditure."* (Eichengreen, 1992: 204).

One of the reasons put forward for this adjustment problem is that the convertibility of the currencies into gold only concerned external convertibility, whereas internal convertibility was subject to numerous restrictions. The lack of real constraint in terms of internal convertibility hence implied that market mechanisms were not in a position to play their adjustment role, in particular since the gold-exchange standard allowed credit movements to be disconnected from gold movements (Rueff, 1964). Thus, the United States could export capital to Europe and at the same time maintain their gold at home. European countries benefited from international lending, which permitted them to avoid deflation policies in the event of a deficit. Eventually, international credit fostered the increase in world money supply, which encouraged speculative movements. Although this explanation is convenient for deficit countries, which tried to avoid the implementation of restrictive policies, costly in terms of output and employment, it does not suit surplus countries. Actually, according to lack-of-constraint logic, the U.S. money supply should have increased since capital outflows were not accompanied by gold outflows.

Therefore the explanation for persistent disequilibria has to be sought elsewhere and most probably in the intervention of the monetary authorities on capital markets (Eichengreen, 1992). Thus, what happened when, due to the overvaluation of the pound vis-à-vis the dollar[1], the United Kingdom ran a deficit and the United States a

[1] Following the return of the United Kingdom to the gold standard, Keynes (1925) maintained that the pound was overvalued by 10% at the pre-1914 parity of 4.86 dollars. Although there have been many debates on this issue, there is today a consensus on the overvaluation of the pound, but not yet on its magnitude or even its impact.

surplus? While the price-specie-flow mechanism implied that governments did not have to intervene in the current-account adjustment process, the monetary authorities decided to offset the impact of the movements of gold and exchange reserves on money supply: the British central bank bought government securities so that it could increase the domestic money supply, whereas the Federal Reserve used open-market sales to lower the American money supply. By sterilising reserve flows, the latter tried to avoid inflation pressures caused by the increase in money supply, while the former aimed at fighting both deflation and unemployment[2].

It is noteworthy that the adoption of a restrictive monetary policy in the United States came with an increase in real interest rates, which contributed to the attraction of foreign capital; on the contrary, the fall in the British real interest rate tended to drive capital out of the country. The additional flows of capital compelled both central banks to use new sterilisation policies, which further deterred the adjustment process. Indeed, in the United Kingdom, the actual money supply stood above its "optimal" level, that is, the level that would have allowed the return to the balance-of-payments equilibrium. Domestic prices and national expenditure were also above their "optimal" level and the United Kingdom remained with its deficit. In the United States, the inverse process occurred.

Finally, the impossibility for prices and demand to adjust explains why current-account disequilibria could not be solved during the gold-exchange standard years. Obviously, the breaking of the "rules of the game" undermined the credibility of the system and the only question was how long the gold-exchange standard would resist the lack of international cooperation and the structural adjustment problem.

2.2 Possible repercussions of labour mobility in the adjustment process. Among the many explanations for the adjustment problem of the gold-exchange standard, the most pertinent seems to be the frequent use of

[2] Eichengreen (1990) shows that, during the interwar gold standard, sterilisation policies were as frequent in deficit countries as in surplus countries.

sterilisation policies by the interwar monetary authorities. Yet, it is also conceivable that the lack of labour mobility during that period added to the balance-of-payments problem. As a matter of fact, the reason why deficit countries chose to implement sterilisation policies, that is, expansive monetary policies, was the recessive impact of the automatic adjustment mechanism. The return to the equilibrium position indeed lay in the fall in domestic prices. But the fact that wages were rigid downwards slowed down the adjustment process and brought about an increase in unemployment, worsened by the fall in national spending that followed the current account deficit. The countries that enjoyed surpluses aimed at reducing inflation pressures that came with the increase in money supply caused by the current account surplus. If migration movements would have been free, as they were before World War I, it is likely that the increase in emigration would have reduced the need to use sterilisation policies.

What would have been the possible repercussions of labour flows in the adjustment process of the interwar gold-exchange standard? As seen previously, the United Kingdom and the United States ran current account imbalances and international reserves moved from the former to the latter. But now let us assume that British workers had the option to migrate to the United States. The first upshot of the migration process would have been an increase in the British wage level, owing to less competition in the labour market. As a result, prices would have increased, offsetting the deflationary impact of the reduction in the money supply. Moreover, the departure of part of the labour force would have given rise to a decrease in aggregate demand, in addition to the impact of the fall in money supply. But, labour outflows would have contributed to reducing British unemployment, and then the repercussions of the decrease in demand would not have been as important as before. The consequence is that monetary authorities would not have to worry about deflation and unemployment since the effects of capital and labor outflows on prices would have cancelled each other out, and the fall in demand would have been compensated (and also caused) by emigration. Therefore, the use of sterilisation policies seems useless, or at least less necessary than without migration

movements. By the same token, labour inflows in the United States would probably have helped to avoid inflation thanks to a higher degree of competition in the labour market, allowing the Fed not to interfere in capital markets. Thus demand expenditure could have increased thanks to the rise in money supply and the arrival of immigrants. Consequently, imports would have grown in the United States whereas they would have decreased in the United Kingdom, which means an increase in the demand for British products and a fall in the demand for American products, fostering the return to the current-account equilibrium in both nations.

3. A New World of Labour Immobility

The transit from a world with free labour mobility to a closed world did not occur suddenly: *"Contrary to conventional wisdom, there was not one big regime switch around World War I from free (and often subsidized) immigration to quotas, but rather an evolution toward more restrictive immigration policy in the New World. Attitudes changed slowly and over a number of decades rather than all at once."* (O'Rourke and Williamson, 1999: 186). However, the most drastic measures were adopted during the interwar years, putting an end to the mass migration phenomenon that characterised the pre-1914 era. Under the double pressure of trade unions and political movements, most of the receiving countries closed their doors to migrants. What is remarkable in this process is that it happened mainly before the Great Depression, in other words, in a context of relatively good economic health.

3.1 The implementation of restrictive immigration policies in the United States. American trade-union organisation played a driving role in the process that led to the adoption of restrictive measures against foreign workers: *"The nationalisation of labour unions, that is their growth and institutionalisation in a national, and even international (many of them included Canadian branches) dimension, provided a new scale of intervention... They came to define what was the American standard of*

wages, and by the same token also imposed a national vision of the American workers' life style. They also established centralised decision-making and bureaucratic structures that placed them in a position to create a broad movement and publicise their demands." (Collomp, 2003: 240). It was in this context that the first waves of protest against foreign labour appeared. Unskilled workers were especially targeted: *"The pressure to stop immigration had little to do with the war. It was a result of the surge of immigration in 1900-1910, which had a discernible impact on the wages of less skilled workers."* (James, 2001: 173).

This affirmation is partly confirmed by Williamson (1996), according to whom the course of American real wages between 1870 and 1910 would have been 15% higher than their actual level, if immigration had not occurred. This is why the Dillingham Commission, formed in 1907 by the American senate to study the origins and consequences of immigration, believed that immigrants represented significant competition for national workers and considered necessary to limit entries (United States Immigration Commission, 1911). This position was widely accepted by American society, and by both the Democrat and Republican parties. However the main laws on immigration were not adopted during times of recession, as would be expected, but rather during the years of growth that followed World War I, which indicates that the protection of American workers was not the sole motive for refusing admission to immigrants.

Thus, nativism was a political movement that advocated a racial view of America and, therefore, opposed immigration, in particular migration proceeding from "non-Nordic" countries. This opposition to the American melting-pot began to develop about the middle of the nineteenth century, with the creation of several political parties (Native American Party, Know Nothing, Order of the Spangled Banner...) engaged in a desperate struggle against the Irish "papists", who arrived in large numbers after the famine that ravaged Ireland. Secondly, xenophobic agitation, especially on the West Coast, focused on the Chinese and Japanese, whose customs appeared to represent a social threat, and who seemed unable to integrate into American society. Parallel to this opposition to Asian immigration, "new migrants", from

western and southern Europe, were stigmatised by the "old migrants" who came from western and northern Europe.

American employers and politicians especially dreaded the spread of extreme left-wing ideas. In that sense, the 1886 Haymarket affair[3] in Chicago marked the starting point of an important wave of repression against "anarchists", which were associated with the Jews coming from eastern Europe. Restrictions against Jews were hence implemented in some professions, as well as in universities. After the October Revolution in Russia, the "Red Scare" quickly expanded, and arrests and deportations of foreigners increased. World War I also contributed to reinforcing the feeling of external threat, in particular from Americans of German extraction, and gave rise to a strong Americanisation movement that brought about, for instance, the spread of English classes for immigrants. It was in this context that the Immigration Restriction League, established in 1894 to provide a political platform for theories on the superiority of the Nordic races, undertook, along with the Ku Klux Klan, an active campaign against mass immigration. Most of the American legislation on border controls actually followed from this activism, and all means were good to exclude undesirable people: literacy tests, entry quotas, laws against anarchists or the poor.

In fact, it was really after World War I that the fight against immigration took on new dimensions. In 1917, after many fruitless attempts and despite President Wilson's veto, a literacy test was finally adopted: all foreigners who wished to settle in the United States had to demonstrate that they were able to read between thirty and eighty words, in the language of their choice. Furthermore, new migrants had to pay an eight-dollar tax. The 1917 legislation mainly targeted citizens from eastern and southern Europe, where literacy rates were low and poverty was high. In 1921, the first act on quotas was enacted and

[3] While Chicago workers had been demonstrating since 1st May in favour of the eight-hour day, and were violently opposed to the police, a bomb exploded in the middle of the policemen in Haymarket Square, on 4 May, 1886. The police answered by shooting at the crowd, killing seven or eight demonstrators and wounding about a hundred people. Seven anarchists, most of them of German extraction, were sentenced to death, even though there was no proof of their implication in the attack.

immigration became a function of the previous settlement of national communities on American soil: only 3% of the number of nationals already established in the United States during the 1910 census could enter. Moreover, from 1922, candidates for immigration had to pay nine dollars to obtain a visa (which had to be added to the 1917 tax). But these measures were not considered sufficiently restrictive, and so, in 1924, a second law on quotas was adopted. The reference year became 1890: this favoured northern and western Europeans, who had mainly arrived before this date. Besides, the new quota was 2% of established nationals during the 1890 census.

With the notable exception of Germany, the United Kingdom and Ireland, which all benefited from the quota legislation, most European countries were affected by the 1924 quotas (*Table 1*). Logically, countries with recent emigration to the United States, i.e. eastern and southern European countries, were particularly hard hit by the implementation of these quantitative restrictions. On the contrary, the changes did not affect Latin-American workers who, like their Canadian counterpart, were not subject to the quota laws. Indeed, landowners in southwestern American States, who started to use a Mexican labour force during the First World War, opposed them. Furthermore, such a preferential treatment was in keeping with the political logic of pan-Americanism: "*The restrictive immigration laws ... were essentially an expression of American revulsion from the Old World; and since, as a consequence of its isolationism, the United States tended to draw closer to other American countries, it was natural to place immigration from them upon a special footing.*" (Jones, 1992: 248). Yet, the so-called "good neighborhood" policy did not prevent the United States from implementing, in 1924, a border police along the Rio Grande in order to stop illegal immigration from Mexico (Mariage-Strauss, 2002). With the beginning of the Great Depression, controls became stricter. The financial standing of immigrants was carefully analysed and American consulates were in charge of pre-migration medical visits in countries of origin. Furthermore, close relations had to commit themselves to help the immigrant financially, if necessary. Finally, with the crisis, a great number of workers, *inter alia* lawyers, doctors and teachers, were

denied the right to practise their profession in the USA (Jones, 1992).

In total, border-control measures implemented by American authorities achieved their twofold purpose: firstly, to reduce total immigration; secondly, to affect specifically southern and eastern European countries. *"Discrimination exerts its effects. Countries such as Great Britain, Ireland, Germany, which benefit from a significant quota, do not fulfill it. In Greece, in Italy, in eastern Europe, lines grow longer in front of American consulates in order to obtain the precious visa. When the Nazi persecution pounces on the Jews, the State Department declares itself bound by the quota legislation and sparingly allowed those threatened by the worst extermination to enter."* (Kaspi, 1986: 19).

3.2 The worldwide extension of border controls. As in the United States, the first restrictive measures adopted by Canada and Australia in terms of immigration targeted Asian populations. Thus, in 1885, the Canadian Parliament introduced a lump-sum tax of fifty dollars for all Chinese immigrants. In 1900, the sum amounted to one hundred dollars, then five hundred dollars in 1905 (Daniels, 1995). In other respects, Canadian authorities promulgated a decree, in 1908, forbidding the entry into Canadian territory of every immigrant who had put into port during his arrival journey. Although never stated, this decision was directed at Indian immigrants who, due to the lack of a direct shipping line between India and Canada, were forced to travel via Japan or Hong Kong to go to Canada (Buchignani et al., 1985). In 1901 Australia passed a law aiming at limiting the entry of Asian immigrants through a literacy test: when immigration agents required it, migration candidates had to take a dictation test of fifty words, but only in a European language (Markus, 1979).

In a general way, measures adopted before 1914 did not affect European immigration, even though British colonies tended to favour immigrants proceeding from Great Britain. On the contrary, the nationalism that followed World War I, combined with the economic problems of the interwar period, brought about the strengthening of border controls in most of the immigration countries. Thus, in 1923, Canada passed a law that formally banned Chinese immigration. Then,

in 1933, the Canadian authorities decided to limit the entry of southern and eastern Europeans, who could have access only to farm and domestic work (James, 2001). On the other hand, natives from Belgium, Denmark, France, Germany, The Netherlands, Sweden and Switzerland belonged to the "preferred countries" list and had the same advantages as British subjects. Similarly, in 1925 Australia passed a law that restricted the entry of non-British migrants into its territory, through the adoption of citizenship and occupation criteria. The province of Queensland went further, by forbidding foreigners to buy land or to work in certain industries (de Lepervanche, 1975). Such policies reflect the anti-immigrant atmosphere at the time, in particular against these coming from southern Europe: *"Southern Europeans who came to Australia in the 1920s were treated with suspicion. Immigrant ships were refused permission to land and there were 'anti-Dago' riots in the 1930s."* (Castles and Miller, 1998: 62).

Faced with the upsurge of border controls in Anglo-Saxon countries, candidates for migration headed for Latin America. Thus, although not reaching the pre-war levels, the volume of immigration remained high in Argentina: an annual average of 140,000 immigrants during the decade 1921-1930 as against 177,000 between 1901 and 1910 (239,000 during the decade 1904-1913). Brazil received more immigrants after World War I (an annual average of 84,000 entries during the decade 1921-1930) than during the decade 1901-1910 (70,000 entries). Mexico and Uruguay also drew a larger number of immigrants during the 1920s (46,000 and 17,000 average entries, respectively, for Mexico and Uruguay during the decade 1921-1930) than at the beginning of the century (respectively, 40,000 and 11,000 entries for the period 1904-1913).

Similarly, the few European nations open to immigration became more attractive as the rest of the world closed its doors. Eastern and southern Europeans, in particular, for whom it had become difficult to move overseas, opted for Belgium or France. The latter recorded a migratory net balance of about two millions of persons during the 1920s, whereas it was only 250,000 during the decade 1900-1910 (Bairoch, 1997). At the end of the decade, France hence succeeded the

United States as the main receiving country in terms of European migration. A private institution, the *Société Générale d'Immigration* (SGI), was in charge of recruiting abroad, mainly for the farming and mining sectors, and of establishing contracts between foreign workers and domestic firms (Castles and Miller, 1998). Belgium received about 140,000 foreigners during the 1920s. Italians and Polish, followed by Spaniards and, to a lesser extent, by Portuguese, Czechoslovaks and Yugoslavs represented most of the migrants within the European continent (Kirk, 1946).

However the 1930s crisis gave rise to a new series of border-control policies that put a definitive end to the free movement of persons on a worldwide scale. Thus, in 1930, South Africa decided to ban the entry on its territory to the citizens coming from the "non-preferred" countries i.e. non-Anglo-Saxon ones. Latin America countries, particularly affected by the shock wave of the Great Depression, also decided to restrict immigration. Thus, while the number of immigrants was, on average, 140,000 in Argentina, 123,000 in Canada and 84,000 in Brazil during the decade 1921-1930, it only was 31,000; 16,000 and 39,000, respectively, during the years 1931-1940. Likewise, Australian immigration dramatically fell during the second half of the 1920s, with a drop of 86% in the immigration rate between 1927 and 1932. The number of entries thus decreased from an annual average of 42,000 during the decade 1921-1930 to 14,000 between 1931 and 1940.

Likewise, European nations began to reinforce their own migration policy during the 1930s. Switzerland, for instance, after 1932 began to require that candidates for immigration fulfill several financial conditions. The same year, France implemented a quota system with the aim of reducing the number of foreign workers in French firms. Later, the French government authorised the dismissal of immigrants in sectors affected by the crisis and chose to deport part of them (Weil, 1991). Hitler's Germany adopted a strict border control policy by limiting the possibilities of recruiting foreign workers, by opting for "national preference" in terms of employment, by punishing firms that resorted to clandestine work, and lastly, by deporting undesirable foreigners (Dohse, 1981).

Finally, it is to be noted that, after World War I, several countries implemented exit control measures. The former Soviet Union, for instance, expressly prohibited the emigration of its nationals, with some exceptions. Similarly, Mussolini's Italy tried to control migration outflows by giving permission to emigrate only to labour contract holders or to persons who could be hosted by a close relative.

4. Impact of Labour Immobility on the Fall of the Interwar Gold-Exchange Standard

It is likely that the success of the classical gold standard before World War I was indirectly the result of the labour shortage in New World countries. These countries' development potential was constrained by the lack of labour, and they generally had very active immigration policies in order to fill the fields and the factories with foreign manpower. On the contrary, the nineteenth-century population explosion in Europe brought about a huge labour surplus that could be solved only with the departure of a large number of workers for the far shores of the Americas or Oceania. This migration process was made easier by the existence of significant wage differentials between sending and receiving countries. Besides, labour movements were strongly sensitive to business cycles and changes in employment conditions: a rise in foreign economic activity and/or a decrease in the domestic economy entailed a surge in migration, whereas a recession in the receiving countries and/or an expansion at home resulted in fewer movements. Furthermore, the countries that belonged to the gold standard could rely on labour mobility to mitigate the effects of exchange-rate stability (Khoudour-Castéras, 2005). But, after World War I, when there was a surplus of labour in the main host countries, potential migrants had to stay at home, with the consequence that adjustment became more difficult. The gold-exchange standard could not withstand this new situation.

4.1 The lack of relationship between labour mobility and business cycles. The combined action of restrictive migration policies in the New World and social reforms in Europe had the effect of reducing

international migration flows. As a result, labour mobility stopped playing the adjustment mechanism role that it had before World War I. Thus, in the United States, while the correlation coefficient between the GDP growth rate and the immigration growth rate was 0.7 for the period 1891-1913 (the growth of the GDP entailed a rise in immigration), it was only -0.3 for 1920-1940. The correlation coefficient between unemployment and immigration growth rates was -0.6 for the first period (an increase in the unemployment rate brought about a fall in the immigration rate), and 0.2 for the second one.

The consequences of migration barriers were also felt by European countries, especially by those that tried to maintain both the stability and the convertibility of their currency, especially the "gold bloc" countries. *Table 2* shows that when the members of the interwar gold-exchange standard were affected by an economic crisis, the emigration rate did not follow the expected pattern. Indeed, instead of increasing, as it did during the gold- standard period, emigration in Europe tended to fall after a depression. Thus, a drop in the GDP was followed by a decrease in the emigration rate in 30 out of 37 cases (81% of cases), while an increase in the unemployment rate was accompanied by a fall in the emigration rate in 21 out of 27 cases (78% of cases).

Ultimately, this is confirmation of the fact that labour mobility can play the role of a safety valve in fixed-exchange-rate regimes only if there are enough employment opportunities in at least one country. It is because the New World in general and the United States in particular were able – and eager – to absorb a large amount of labour before World War I that European workers could settle abroad when domestic conditions worsened. But it was not until 1938 that the American GDP attained its 1929 level again; and the unemployment rate had an annual average of 18.3% between 1930 and 1939, which clearly meant that foreign workers were not welcome in the United States, as confirmed by a speech made by Franklin Roosevelt during the 1932 presidential campaign: *"Our last frontier has long since been reached, and there is practically no more free land. More than half of our people do not live on farms or on land and cannot derive a living by cultivating their own property. There is no safety valve in the form of a Western prairie*

to which those thrown out of work by the Eastern economic machines can go for a new start. We are not able to invite the immigration from Europe to share our endless plenty. We are now providing a drab living for our own people." (Roosevelt, 1932).

4.2 The limitations of capital as an alternative adjustment mechanism. Capital mobility theoretically represents an alternative to international migration in the current-account adjustment process: short-term capital flows enable the financing of imbalances in deficit countries, while long-term movements contribute to boosting the production capacity and the technological progress of the receiving countries, thereby enhancing the competitiveness of their external sector. Thus, before World War I, capital mobility was high and then took an active part in the smooth functioning of the classical gold standard. On the contrary, the interwar period was marked by the existence of low levels of capital mobility, which constituted a strong impediment to the stability of the gold-exchange standard. In fact, while the correlation coefficient between domestic saving and investment was, on average, 0.50 during the period 1880-1913 (0.37 during the decade 1904-1913), it was 0.81 between 1918 and 1939, which, according to the financial integration indicator designed by Feldstein and Horioka (1980), is a confirmation of the strong movement of "financial disintegration" (Flandreau and Rivière, 1999) that occurred after World War I, especially during the 1930s (*Figure 1*).

This breakdown in the financial integration process was fundamentally due to the implementation of capital control policies after 1914. France and Germany, in particular, tried, from the beginning of the conflict, to prevent gold withdrawals from their territory. This is the reason why public authorities of both belligerent countries not only suspended the convertibility of their currency into gold, but also, mirroring Great Britain, forbade gold outflows. With the spread of the conflict and notably with the entry of the United States into the war, capital controls (and not only controls on gold exports) increased: European countries aimed to avoid the worsening of their currency depreciation, while the American government saw a way to prevent international lending from financing the enemy's war effort. At the end

of the war, heavily indebted countries were subject to the temptation of using seignorage, which produced speculative movements that the European governments tried to stop by reinforcing controls.

The stabilisation of most of the European economies a few years after the end of the war and the return of the main currencies in the gold-standard system in the middle of the 1920s furthered the progressive elimination of capital controls and then the recovery of financial flows on an international scale (Obstfeld and Taylor, 1998). But, the American Stock Exchange crash in 1929 had international repercussions that entailed the implementation of new barriers to capital mobility: "*The world economy went from globalized to almost autarkic in the space of a few decades. Capital flows were minimal, international investment was regarded with suspicion, and international prices and interest rates fell completely out of synchronization. Global capital (along with finance in general) was demonized, and seen as a principal cause of the world depression of the 1930s.*" (Obstfeld and Taylor, 2003: 125). Actually, the liberalisation of capital flows gave rise to the crisis becoming rapidly worldwide: American authorities reacted to the perturbation that affected Wall Street by increasing their interest rates, which forced other countries, concerned about maintaining the stability of their currency, to increase their own interest rates in order to avoid massive capital outflows.

However, faced with the extent of speculative movements on both sides of the Atlantic and after the international exchange crisis that followed the collapse of the Austrian Credit-Anstalt in 1931, capital controls were established in most western countries, and first of all in Germany. The international conference held in London in July 1931 in order to prevent a new depreciation of the mark had, indeed, formed the "Standstill Committee", whose mission consisted in studying the feasibility of a project aiming at immobilising capital in Germany: "*The decision to set up the Standstill Committee was to have unforeseen, far-reaching consequences. It was to represent a definite turning point in the development of Western civilization, which so far had been based on respect for contracts and monetary freedom; and it would be possible to follow an internal inflationary policy without depreciating*

the currency. In fine, it was the first step towards the institution of exchange control." (Rueff, 1964: 11-12).

These measures then spread because the governments at the time did not consider any other countermeasure to deal with the flight of capital than financial movement controls: *"As in the past, applied controls consist in defending or stabilizing exchange rate quotation, in having an influence on foreign loans, etc. But control policies also aim to isolate the domestic economy in order to be able to implement recovery measures. ... National policies aiming at steering investment flows by sectors therefore come with controls that enable significant interest differentials to be kept. Thus, governments can apply autonomous objectives. This is the 'Big Transformation'."* (Flandreau and Rivière, 1999: 25).

4.3 Resurgence of protectionism and rise in unemployment. In view of the impossibility for public authorities to cope with economic disturbances and current-account imbalances, most of the countries decided to compensate the lack of labour and capital mobility by resorting to trade protectionism. Against this backdrop, the signing of the Smoot-Hawley Act by President Hoover, on 17 June, 1930 constituted the starting point of the resurgence of protectionism worldwide. Actually, whereas American tariffs represented on average 31.3% of total imports during the period 1920-1925 and 40.3% in 1926-1930, they amounted to 55.3% during the years 1931-1933 (59.1% in 1932). Such a rise ran counter to the conclusions of the international conference held in Geneva on May 1927, in the course of which participating countries committed themselves to a "tariff peace" (Bairoch, 1997). American trade partners felt betrayed and decided, as a reprisal, to increase their own tariffs and/or to implement quotas on some American products (Jones, 1934).

Spain represents one of the most significant examples of the international reaction to the Smoot-Hawley tariff, since it adopted the Wais tariff on 22 July, that is, barely one month after the American tariff. Car imports were primarily targeted: 473 American cars were imported in 1932, as against 7,415 in 1920, which corresponds to a drop of 94%. Similarly, Italy intended to protect the Fiat company by adopting a tariff

on American cars, whose price hence increased by about 135%. Canada implemented on 17 September, 1930 the Canadian Emergency Tariff that brought about a 50% increase in most of tariffs. The upshot was a 50% decrease in imports from the United States. Finally, Switzerland launched a boycott campaign that entailed a significant reduction in imports of American products.

After this first wave of reprisals, international trade was already seriously hit, but the entry of France and the United Kingdom in the trade war precipitated the international crisis. France, in fact, opted for a quota policy that was aimed more specifically at American firms, while the United Kingdom increased its tariffs and developed an "Imperial Preference" policy. At the same time, several countries, including France and Spain, transformed cereal imports into a state monopoly. In that respect, agricultural protectionism was one of the most important at the time, and this contributed to worsening the situation of the main cereal-exporting countries, i.e. primarily Argentina and the United States. The consequences of such protectionist policies are well known: international trade fell considerably (see *Figure 2*) and the economic crisis grew worse.

At the same time that the international crisis and protectionist policies developed, unemployment increased in most western countries. Indeed, the development of border controls and the slowdown in international movements meant that unemployed persons had to stay in their home country, which further increased the excess labour supply. It is also likely that the implementation of unemployment insurance mechanisms in some European countries during the interwar period contributed to raising the unemployment rate, as in England where the number of unemployed persons was permanently above one million between 1919 and 1940. This would explain not only the increase in cyclical unemployment during economic crises, but also the development of structural unemployment from the beginning of the 1920s (*Table 3*): *"It is normal that the two countries where the 1920s were negative on the economic level, that is, Germany and the United Kingdom, were characterised by higher unemployment than before the war. But, what is significant is that the phenomenon affected many*

countries. In fact, in addition to the case of the United States, a 'low unemployment country', only Belgium and Switzerland escaped the phenomenon of what it is possible to call structural unemployment." (Bairoch, 1997: 48).

Of course, the 1929 crisis and the use of non-cooperative policies that came with it contributed to strongly increase unemployment in affected countries. Thus, the American unemployment rate was 8.7% in 1930, as against 3.6%, on average, during the period 1923-1929. After the collapse of the economy at the beginning of the 1930s (-8.9% in 1930, -7.7% in 1931, and -13.2% in 1932), it reached 23.6% in 1932 and 24.7% in 1933 (its historic record). In the same way, many European countries registered unemployment rates above 10% during the years 1931-1933: 10.2% in Norway (1931), 11.9% in Belgium (1932), 15.3% in the United Kingdom (1932), 16% in Denmark (1932), 16.3% in Austria (1933) and 17.2% in Germany (1932). Australia (19.1% in 1932) and Canada (19.3% in 1933) were also affected by the increase in world unemployment. As a result, contrary to the three or four decades that preceded World War I, when mass migration permitted surplus labour to be absorbed, the Great Depression did not offer many alternatives to job-seekers, who came up against the anti-migration legislation implemented all over the planet after 1918.

4.4 The fall of the gold-exchange standard. From the time that the absorption capacity of the American labour market vanished, labour mobility lost its regulation function and the stability of exchange rates became a more difficult objective to reach. At the same time, wage flexibility and capital mobility, which represent traditional substitutes for labour mobility in the adjustment process of fixed exchange-rate regimes, were greatly limited. To deal with the Great Depression, many countries that tried to maintain the stability of their currency opted for protectionist policies, but the only result was the worsening of the international crisis. Consequently, unemployment rates increased dramatically and the defence of the gold-exchange standard was economically, socially and politically untenable. Obviously, the triggering of the 1929 crash speeded up the decay process of the interwar international monetary system.

Thus, after the first attacks on Wall Street in October 1929 and the bursting of the speculative bubble on American markets, European markets became affected and 1931, notably, was a year of bank runs and massive capital withdrawals. Faced with speculation movements, several central banks decided to suspend the international convertibility of their currency. The Bank of England, in particular, had to abandon the convertibility of the pound on 21 September, 1931, which caused *ipso facto* the depreciation of the British currency. Afterwards, some twenty other countries opted for relinquishing the stability of the exchange-rate. When, in 1933, the newly-elected American President, Franklin Roosevelt, decided to devalue the dollar, the trade partners of the United States, including the "gold bloc" countries, had no other option than to renounce the prevailing monetary system. In 1937, the gold-exchange standard no longer existed (*Figure 3*).

Faced with the impossibility of absorbing the shock of the Great Depression by means of labour and capital mobility, public authorities preferred to abandon the objective of exchange-rate stability rather than to seek a concerted international solution. As a matter of fact, flexible exchange rates helped to release the constraint that lay with the Central Banks. They also contributed to improving economic conditions in the countries involved, as revealed in *Table 4*, which shows the economic performances of the United States and the main European nations one year before the end of convertibility, the year of convertibility itself, and three years after.

In most cases, the return to flexible exchange rates came with a higher GDP growth rate the same year (seven countries out of twelve) and/or the year that followed the adoption of the measure (nine countries out of twelve). Sometimes the change was dramatic as in the United States (-13.2% in 1932, -2.1% in 1933; +7.7% in 1934) or in Norway (-7.8% in 1931, +6.7% in 1932). Three years after the first devaluation, almost every country (Belgium and Switzerland being the exception) had recovered positive growth rates. The return to flexible exchange-rates was also beneficial to unemployment rates, since these noticeably decreased in the two or three years that followed the end of

the gold-exchange standard. In fact, three years later, only Danish and Swedish unemployment rates were above their level in the year of devaluation. However, the unemployment level in most countries was still quite high (in general, above 8%), which confirms that it had then became more structural.

Even though this improvement in economic performances is partly related to the adoption of internal recovery policies, in particular the New Deal in the United States, the return to exchange-rate flexibility probably played a key role, since it fostered the return to equilibrium: *"The problem was not that devaluation took place; it was that the practice was not more widespread and that it did not prompt the adoption of even more expansionary policies. Abandoning the gold standard allowed countries to regain their policy independence. And by devoting some of that independence to policies of leaning against the wind in currency markets, they were able to do so without allowing the foreign exchanges to descend into chaos."* (Eichengreen, 1998: 90).

5. Conclusion

The brief experience of the gold-exchange standard during the interwar period seems to confirm the existence of a trade-off between labour mobility and exchange-rate fluctuations in the balance-of-payments adjustment process. The countries that opt for fixed exchange rates need adjustment mechanisms to offset the loss of the exchange-rate instrument. In the absence of wage flexibility and capital mobility, international migration constitutes an appropriate mechanism for solving both internal and external imbalances. In sending countries, labour outflows contribute to reducing unemployment and also further the reduction of current-account deficits, since they imply a decrease in aggregate demand and then in imports. In receiving countries, immigration enables inflationary pressures to be curbed at the same time as stimulating demand and thereby imports. Countries with flexible exchange-rates can rely on the exchange-rate flexibility to make the adjustment process easier.

In that sense, the development of border controls after World War I did not allow labour flows to play their adjustment mechanism role in the countries that chose to defend the stability of their currency. Since during this period wage flexibility and capital mobility were also limited, the economies that suffered the effects of the Great Depression had no other option, in a context of economic war and increasing unemployment, than to abandon their fixed exchange-rate policy. In fact, trade protectionism was first used as an alternative to factor mobility, but the outcome of such a strategy was counterproductive since it eventually resulted in a severe contraction of world trade and a dramatic rise in unemployment rates. On the contrary, exchange-rate flexibility fostered the return to growth and contributed to lowering unemployment levels.

Does this mean that, if labour had been able to enjoy greater freedom of movement, the gold-exchange standard would have survived longer? It is rather difficult to answer this question since the 1929 crash was a shock that is not easy to put aside in a counterfactual analysis. Yet it is possible to provide some elements of response. First and foremost, it has been underscored in this article that many restrictive immigration policies were not adopted in a context of economic recession, but rather in a context of economic expansion. As a result, border controls produced a misallocation of factors that probably slowed down global economic development. Besides, the underconsumption problem that partly led to the Great Depression of the 1930s could probably have been mitigated by the increase in demand that traditionally comes with increased immigration. Moreover, labour flows would have saved the monetary authorities from having to resort to counterproductive sterilisation policies. Indeed, by intervening in capital markets, central banks try to avoid inflation when there is a current-account surplus, and deflation in case of a deficit. In fact, labour movements have precisely this effect: emigration from deficit countries prevents wages and then prices from falling, since there is less competition on the domestic labour market; conversely, labour inflows in surplus countries contribute to reducing wage pressures i.e. inflation pressures. In addition, labour mobility causes

changes in aggregate demand that lead to variations in imports and exports, hence in current-account positions. Finally, all the money that migrants send home also plays a part in the adjustment process, since remittances help to finance the current-account deficit. In that respect too, higher levels of international migration would have certainly made the balance-of-payments adjustment easier and would have improved the functioning of the interwar gold-exchange standard.

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Appendix

Labour Immobility and Exchange-Rate Regimes: An Alternative Explanation for the Fall of the Interwar Gold-Exchange Standard

TABLE 1: Number of Immigrants to the United States by Decade

Region of Origin	"Old Europe"	"New Europe"	Total Europe	All countries
1901-1910	1,910,035	6,146,005	8,056,040	8,795,386
	22%	*70%*	*92%*	*100%*
	24%	*76%*	*100%*	
1911-1920	997,438	3,324,449	4,321,887	5,735,811
	15%	*60%*	*75%*	*100%*
	23%	*77%*	*100%*	
1921-1930	1,283,296	1,179,898	2,463,194	4,107,209
	31%	*29%*	*60%*	*100%*
	52%	*48%*	*100%*	
1931-1940	197,964	149,602	347,566	528,431
	38%	*28%*	*66%*	*100%*
	57%	*43%*	*100%*	

Note: "Old Europe" refers to traditional immigration countries i.e. western and northern European countries: Belgium, Denmark, France, Germany, Ireland, The Netherlands, Norway, Sweden, Switzerland and the United Kingdom. "New Europe" includes recent immigration countries, i.e. eastern and southern Europe: Austria, Czechoslovakia, Greece, Hungary, Italy, Poland, Portugal, Romania, Russia, Spain, Yugoslavia.
Source: U.S. Immigration and Naturalization Service (2003).

TABLE 2: Depression and Emigration during the Interwar Gold-Exchange Standard

Country	GES Years	Depression Years *(year t)*	GDP Growth Rate *(year t)*	Unemployment Growth Rate *(year t)*	Emigration Growth Rate *(year t+1)*
Austria	1923-1931	1923	-1.0%	n.a.	-82.6%
		1930	-2.8%	+27.3%	-38.3%
		1931	-8.0%	+38.6%	-19.5%
Belgium	1925-1935	1929	-0.9%	+33.3%	+0.8%
		1930	-1.0%	+175.0%	-35.2%
		1931	-1.8%	+209.1%	-5.9%
		1932	-4.5%	+75.0%	-12.0%
		1934	-0.8%	+11.3%	-12.7%
France	1928-1936	1930	-2.9%	n.a.	-50.7%
		1931	-6.0%		-53.3%
		1932	-6.5%		-33.1%
		1934	-1.0%		+23.6%
		1935	-2.6%		-7.1%
Germany	1924-1931	1929	-0.4%	+56.0%	-24.0%
		1930	-1.4%	+16.8%	-64.0%
		1931	-7.6%	+52.3%	-22.3%
Hungary	1925-1931	1926	-4.2%	n.a.	-5.9%
		1930	-2.2%		-76.0%
		1931	-4.8%		-47.0%
Italy	1927-1936	1927	-2.2%	n.a.	-30.2%
		1930	-4.9%	+47.1%	-17.2%
		1931	-0.6%	+72.0%	-32.5%
		1933	-0.7%	+1.7%	-24.9%
Netherlands	1925-1936	1930	-0.2%	+35.3%	-35.0%
		1931	-6.1%	+87.0%	+1.6%
		1932	-1.4%	+93.0%	+6.0%
		1933	-0.2%	+16.9%	+5.9%
		1934	-1.8%	+1.0%	+7.6%
Norway	1928-1931	1931	-7.8%	+34.3%	-50.3%

continue

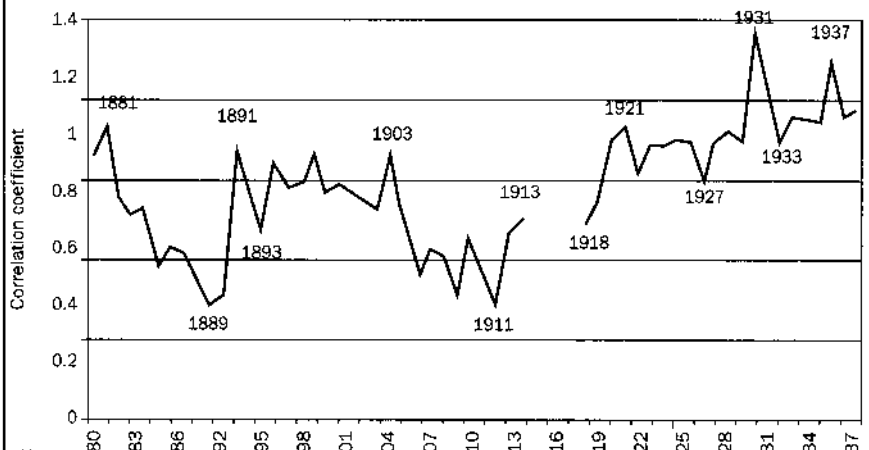
continued

TABLE 2. Depression and Emigration during the Interwar Gold-Exchange Standard

Country	GES Years	Depression Years *(year t)*	GDP Growth Rate *(year t)*	Unemployment Growth Rate *(year t)*	Emigration Growth Rate *(year t+1)*
Sweden	1924-1931	1931	-3.6%	+45.5%	-30.3%
Switzerland	1925-1936	1930	-0.6%	+75.0%	-53.1%
		1931	-4.2%	+71.4%	-23.9%
		1932	-3.4%	+133.3%	-8.1%
		1935	-0.4%	+27.3%	+53.4%
United Kingdom	1925-1931	1926	-3.7%	+11.4%	-8.2%
		1930	-0.7%	+53.4%	-63.0%
		1931	-5.1%	+34.8%	-21.7%

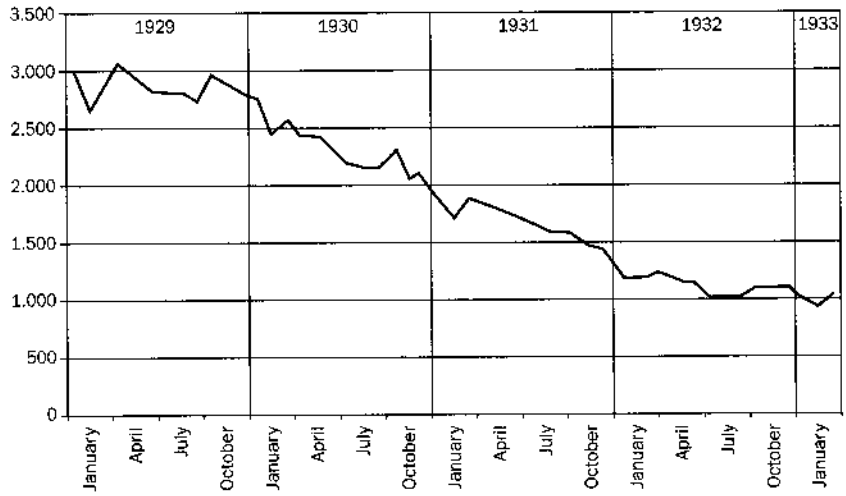
Sources: author's calculations based on Mitchell (2003) for emigration, Maddison (1991) for unemployment rates, and Maddison (2003) for population and GDP. The gold-exchange standard (GES) years are given by Eichengreen (1992).

FIGURE 1: Financial Integration: 1880-1939



Note: Financial integration is measured by the correlation coefficient between domestic saving and investment. The lower the correlation coefficient, the higher the degree of capital mobility.
Source: Flandreau and Rivière (1999).

FIGURE 2: International Trade: January 1929 - March 1933



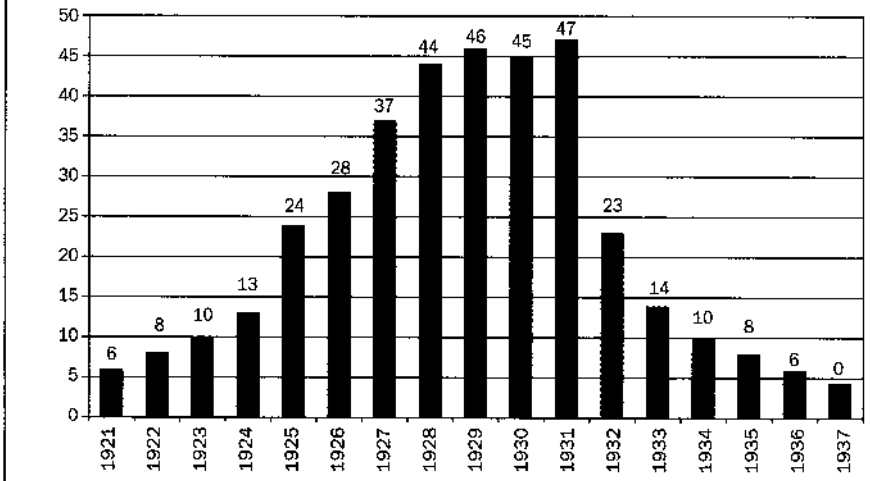
Note: The y-axis represents monthly total imports for 75 countries in millions of American dollars.
Source: Kindleberger (1986).

TABLE 3: The Evolution of the Average Unemployment Rate

	1920-1929	1930-1938
Austria	5.91	12.8
Belgium	1.52	8.7
Denmark	8.1	10.9
Finland	1.6	4.1
France	1.73	3.54
Germany	3.9	8.8
Italy	1.75	4.8
Netherlands	2.3	8.7
Norway	5.62	8.1
Sweden	3.2	5.6
Switzerland	0.45	3.0
United Kingdom	7.5	11.5
United States	4.8	18.2

Notes: 1: 1924-1929; 2: 1921-1929; 3: 1921, 1926 and 1929; 4: 1931, 1936 and 1938; 5: only 1929.
Source: Maddison (1991).

FIGURE 3: Number of Countries in the Gold-Exchange Standard: 1921-1937



Sources: Eichengreen (1992 and 1998).

TABLE 4: End of the Gold-Exchange Standard and Economic Performance

	End GES	GDP Growth Rate					Unemployment Rate				
Year	t	t-1	t	t+1	t+2	t+3	t-1	t	t+1	t+2	t+3
United States	1933	-13.2	-2.1	7.7	7.6	14.2	23.5	24.7	21.6	20.0	16.8
Austria	1933	-10.3	-3.3	0.9	1.9	3.0	13.7	16.3	16.1	15.2	15.2
Belgium	1935	-0.8	6.2	0.7	1.3	-2.3	11.8	11.1	8.4	7.2	8.7
Denmark	1931	5.9	1.1	-2.6	3.2	3.0	7.0	9.0	16.0	15.4	11.0
France	1936	-2.5	3.8	5.8	-0.4	7.2	-	4.5	-	3.7	-
Germany	1931	-6.1	-10.2	-9.3	10.5	7.7	9.5	13.9	17.2	14.8	8.3
Italy	1934	-0.7	0.4	9.6	0.2	6.8	5.9	5.6	-	-	5.0
Netherlands	1936	3.7	6.3	5.7	-2.4	6.8	11.2	11.9	10.5	9.9	-
Norway	1931	7.4	-7.8	6.7	2.4	3.2	6.2	10.2	9.5	9.7	9.4
Sweden	1931	2.1	-3.6	-2.7	1.9	7.6	3.3	4.8	6.8	7.3	6.4
Switzerland	1936	-0.4	0.3	4.8	3.8	-0.1	4.2	4.7	3.6	3.3	-
UK	1931	-0.7	-5.1	0.8	2.9	6.6	11.2	15.1	15.6	14.1	11.9

Sources: End gold-exchange standard (GES): Eichengreen (1992); GDP growth rate: author's calculations based on Maddison (2003); Unemployment rate: Maddison (1991) and Bairoch (1997).