Index-Linked Wages, Purchasing Power and Social Conflict between the Wars: the Belgian Approach (Internationally Compared)

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A number of completely new phenomena appeared in western Europe during and immediately after the first world war. One of these was huge money inflation. The costs of the war so expanded the money supply that runaway inflation arose and prewar parities with the gold standard were abandoned. Prices rose irrevocably.[1] One aspect of this inflation was particularly sensitive in that wages lagged behind prices and buying power was consequently curtailed. Each country faced up to the resulting social tension in its own way, depending on the rate of inflation, the level of economic development, the relationship between social and political forces and the part played by the state. But in general, the aftermath of war meant the break-through of a new process of wage determination in which indexation of wages to the cost-of-living index played an important role.[2] Wage determination formed the centre of the new, institutionalized and conventionalized class relations.[3]

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[1] The mechanism of this inflation is dealt with by, a.o., H. VAN DER WEE, "A contribution to the study of inflation in the interwar period", in: N. SCHMUKLER & E. MARCUS, eds., *Inflation through the ages.* New York, 1983, p. 677-685; G. FELDMAN, C.-L. HOLTFRERICH, a.o., eds., *Die Anpassung an die Inflation* (Beitrage zu Inflation und Wiederaufbau in Deutschland und Europa, 1914-1924). Berlin, 1986; T. BALDERSTON, "War finance and inflation in Britain and Germany, 1914-1918", in: *Economic History Review*, 1989, p. 222-244.

[2] T. HATTON, "Institutional change and wage rigidity in the U.K., 1880-1985", in: *Oxford Review of Economic Policy*, 1988, p. 84.

[3] Following R. BOYER & A. ORLEAN ("Les transformations des conventions salariales entre théorie et histoire"; in: *Revue Economique*, 1991, p. 233-272) who emphasize the institutional organization, this then was the start of an entirely new stage in society's development.

In this, Belgium was breaking new ground: many countries began to employ large-scale wage indexing in the late 1930s, but mostly only during the inflationary run of the early 1950s (Korean war) or of the 1970s (oil crisis), while the Belgian formula had been in use since 1920.

This article aims to analyze the economic, social and political context in which the indexation of wages emerged in Belgium and to study the consequences of the system's application for labour relations and industrial real wages. The Belgian experience will be compared with developments in other European countries.

Belgium's Galloping Inflation

Inflation was worldwide, affecting not only the belligerent countries but also those that had not been directly involved in the conflict. The rate of inflation, however, varied according to specific conditions in each country. The extent to which this experience of inflation varied is shown by table 1.

Price rises in the first year of the war were not dramatic. In 1915, Germany, Belgium, France, Sweden, Holland, the UK and Switzerland had price rises running at about 20%. Italy had little or no inflation. This picture changed dramatically in 1916, with Belgium well to the fore and only Germany and the UK anywhere near it. This particular development was a logical sequel to the German occupation of Belgium from August 1914; the occupying power imposed an extremely heavy war tax with which the existing Belgian money supply could not possibly cope and new money had to be printed daily. Germany also introduced a large quantity of depreciating marks at a fixed prewar exchange rate of BF 1.25 to 1 mark, thus dragging the Belgian currency into the inflation vortex.

In 1917 Belgium led the inflation field with a record 240% in terms of 1914 prices. German inflation, which was the motor behind the Belgian, was much lower (150%). Italy and the UK lagged well behind Germany. In the last year of the war, Belgian inflation was disastrous: at 430% of 1914 prices, it was far in advance of any other country. The country with the second highest inflation rate, Germany, registered about half the Belgian figure. Price levels in most countries (the UK, Sweden, Switzerland, Italy and France) were "only" about double what they had been before the war, while certain countries (e.g. Holland) had a limited cumulative inflation of about 60 to 70%.

The pronounced rise in Belgian prices originated primarily in the measures introduced by the occupying power but these then combined with a second factor, namely supply and demand of consumer goods. Belgian territory was included in the blockade of the German Empire introduced by the allies in August 1914, with the result that vital supplies of goods were withheld. Domestic food production was naturally incapable of compensating for the loss, amongst other reasons because of the lack of manpower and of fertili-

Table 1

INFLATION IN VARIOUS COUNTRIES, 1914-1920 [4]

RETAIL PRICE INDEX FIGURES, [1914 = 100]

	Brussels	FRANCE	GERMANY	ITALY	HOLLAND	SWEDEN	SWITZERLAND	U.K.
1915	128	117	125	109	117	115	113	123
1916	189	135	169	136	128	139	129	146
1917	343	159	252	179	137	166	155	175
1918	534	205	301	268	165	225	191	203
1919	497	259	413	272	177	261	219	214
1920	542	359	1016	359	192	269	227	249

zers, and the disruption of domestic trade by the occupation. The supply of goods on offer fell dramatically and prices rose accordingly. International aid (in the form of food convoys from the USA) went only a little way towards alleviating conditions. A black market, which steadily expanded and in which prices reached extreme heights, was soon established.

The gradual restoration of international trade in 1919 and government policy depressed Belgian prices: the black market disappeared and prices of some products fell considerably. This explains the 1919 fall in prices as compared to the previous year. None of the other countries considered here, however, experienced a decrease in prices and some of them (France, Sweden and of course Germany) suffered a new inflationary wave. Only the UK and, to a certain extent, Italy escaped further inflation in 1919. For a brief period there was hope in Belgium that prices would continue to fall, but by the end of 1919 they began to rise again under the influence of the international shortfall in supply. Belgian prices rose appreciably again in 1920, as did the British, French and Italian. The German inflation of 1920 was primarly fuelled by exchange rates.

The chaos created by inflation between 1914 and 1920 had effects in all countries that could be felt right up to the outbreak of the second world war. Belgian prices fluctuated greatly, with rapid increases in the 1920s, and sharp falls in the early 1930s (see the price index figure in appendix 2). The Belgian franc became a weak currency, constantly depreciating against sterling and the dollar. This devaluation obviously had an effect on domestic prices and led not infrequently, as in 1923 and certainly in 1926, to price rises that were completely incomprehensible to the general public. The policies of successive Belgian governments consequently aimed desperately at the restoration of fixed exchange rates. The devaluation of October 1926, following the collapse of the franc on the currency market, finally led to a degree of stability.[5]

Coping With Social Tension: The Spread of Collective Bargaining in Belgium

As a result of the turbulent period from 1914 to 1920, governments, investors and the public had to face up to prices that were on average three to four times their prewar level. A first reaction to this was an attempt to bring

[4] Brussels: P. SCHOLLIERS, "Koopkracht en indexkoppeling", in: *Revue Belge d'Histoire Contemporaine*, 1978, p. 354; Switzerland: A. ZEHNDER, *Die Inländische und auländische Kaufkraft des Geldes in den Jahren 1914 bis 1922*. Konstanz, 1923, p. 35; others: B.R. MITCHELL, *European historical statistics, 1750-1970*. London, 1975, p. 743-746.

[5] Belgian monetary history has been studied by L.H. DUPRIEZ, *Les réformes monétaires en Belgique*. Brussels, 1978. Floating exchange rates were also abandoned by other countries in or around 1925 (DM in 1924, sterling in 1925, French franc in 1927).

prices back to their prewar levels and prices in a number of countries were therefore controlled (price ceilings, credit restrictions, regulated rent increases) while attempts were made to stabilize the currency.[6] These measures had only limited success.

In the meantime, inflation continued to undermine purchasing power. The Belgian working class, which had seen its buying power decline for the previous five years,[7] demanded wage adjustments in line with price increases. This was a purely defensive demand, aimed only at the restoration of real wage levels, which probably explains why it was so strongly expressed as something that in all fairness should be considered as a right. Wartime sufferings were evoked in support of the demand but this appeal to better feelings seemed to little avail.

Working-class discontent was expressed in demonstrations, riots and strikes. Many countries underwent a wave of strikes in the years 1918-1920,[8] while in others there were revolts and revolutions.[9] It looked for a short time as if Belgian workers too were about to revolt, but the movement was limited in scope, although it did have one important consequence in that it convinced the ruling classes that a revolutionary potential also existed in Belgium. The ruling classes were in constant fear from November 1918 to March 1919[10] and were prepared to grant concessions whether they liked it or not. One such concession was the introduction of the one-man-one-vote principle (for men) in May 1919, to replace the previous system of plural male suffrage (since 1893, every male citizen older than 25 had one vote and could add one,

[6] A. MADDISON, "Economic policy and performance in Europe 1913-1970", in: C. CIPOLLA, ed., *Fontana economic history of Europe:* 20th. century, part 2, p. 457. For the UK in particular: S. HOWSON, *Domestic monetary management in Britain 1919-1939.* Cambridge, 1975, p. 20-22.

[7] Taking the 1914 figure as 100, real wages fell to 84% in 1915, 59% in 1916, 34% in 1917 and 26% in 1918! A similar decline seems to have taken place in France, though to a lesser extent (cf. T. KEMP, *The French economy, 1913-1939.* London, 1972, p. 41).

[8] This was the case in Britain, Italy and Sweden. See W. GALENSON, "The labour force and labour problems in Europe, 1920-1970". In: C. CIPOLLA, ed., *Fontana economic history of Europe:* 20th century, part 1, p. 151-162. See also J.A. DOWIE, "1919/20 is in need of attention", in: *Economic History Review,* 1975, p. 429-450, who focussed on British developments.

[9] October 1918 in Vienna, November 1918 in various German cities, the winter of 1918/19 to some extent in Holland.

[10] E.g. the following quotation from December 1918: "*J'éprouve les appréhensions les plus vives quant au maintien de l'ordre public*" (I am extremely apprehensive about the maintenance of law and order), letter from de Broqueville, Minister of the Interior, to Prime-Minister L. Delacroix, Algemeen Rijksarchief, de Broqueville papers, no. 601, 7.12.1918. This sort of apprehension was a western European phenomenon and was, for example, acute in the UK (see B. BERCUSSON, *Fair wages resolutions.* London, 1978, p. 152).

two or three votes as a head of the family, as a holder of a university degree, as an owner of real estate etcetera; the Belgian labour movement considered the abolition of the plural system as a main issue before the first world war).

If the threat of a Belgian revolution did not genuinely exist, there was nonetheless pronounced social and political tension, in which the huge inflation rate played a dominant part. With the aim of lessening this acute tension, different forces worked to provide a forum where contradictions could be discussed rather than (literally) fought out on the streets and in the factories.

What were these forces? To answer this, it is first necessary to look at the nature of contemporary government. At the time of the German invasion in August 1914, E. Vandervelde, the "grand old man" of the Belgian socialists, had been included in the government.[11] By November 1918 there were three socialists in the three-party war cabinet, the *"union sacrée"* (this was the first time that the socialists had been in the government). The Belgian socialist party had conformed to the German social-democrat line since the 1880s and had plans of reforming the capitalist state. Backed by a very strong parliamentary group from 1919 onwards, the socialist ministers were able to push through a number of measures such as the strict control of rents in 1919, the generalization of the eight-hour working day in 1921 and the promotion of collective bargaining. Their major preoccupation was to arrive at a better standard of living for the workers by means of wage increases. At the end of the war, they were leading proponents of the attempt to limit the revolutionary upsurge. As early as 11 November 1918, the party appealed to the population *"to help maintain public order, which is indispensable for reconstruction after the havoc"*. This was the keystone of the socialist party's strategy from the Armistice until well into the 1920s and was in line with the party's wartime attitude as part of the *"Comité National de Secours et d'Alimentation"*, which had involved cooperation between the socialists and representatives of the highest industrial and financial circles.[12] There was, in a word, uniformity with the catholic and liberal ministers on the theme of economic reconstruction in a tranquil social context.

The government was willingly supported by the Belgian trade-unions. Just as in other western-European countries, the unions (partly as a result of their role in organizing material help for the population between 1914 and 1918) were being swelled by thousands of new members. It did not take long for these mass organizations to become slow-moving and bureaucratic, often

[11] The government had fled to France, and was accommodated in the Le Havre area.

[12] On the importance of this collaboration: M. LIEBMAN, *Les socialistes belges, 1914-1918. Le Parti Ouvrier Belge face à la guerre*. Brussels, 1986, p. 17-19 (the "*Comité National*" was a private large charitable institution, distributing food imported by the "Commission for relief in Belgium" (see H. HOOVER, *An American epic*. Vol. 1. *The relief of Belgium and Northern France, 1914-1930*. Chicago, 1959).

more concerned with the development of institutions than with social and economic (not to mention political) demands.[13] The unions too preferred to channel the worker's dissatisfaction in directions that would find their logical expression in negotiations with management.

Management, for its part, was prepared to make concessions. Besides the fact that the general climate was in favour of social and political changes, the strikes in the winter of 1918-1919 had been extremely inconvenient, since the postwar return to normal economic relations had fuelled expectations of an industrial resurgence. So the balance of power in wage bargaining was in favour of the workers. Industrialists too preferred the social tension to be directed into more convenient channels, where labour and wage conditions could be discussed.

There were, therefore, considerable forces working in the same direction to contain the social and political unrest. The extension of collective bargaining and of negotiated agreements on wages appeared to offer a suitable solution. Collective bargaining and boards of conciliation had existed in Belgium before the first world war but nothing like the scale on which it had existed in Britain, for example. In the spring of 1919, at a time when widescale strikes were breaking out,[14] the Minister of Labour and Supply, the Walloon socialist J. Wauters, launched a number of new initiatives to encourage negotiated settlements. He set up negotiating bodies with equal numbers of workers and employers for each branch of industry, to be chaired by a ministry official but which were often presided over by Wauters himself. The mines, the iron and steel industry, machine construction, the glass industry and other less important branches of industry were provided with a *national* negotiating body, of which seven were set up in 1919 and five in 1920. Wauters even dreamed of "*une grande commission nationale pour régler les salaires*"[15], but this remained no more than a dream. These "*comités paritaires*" were set up by royal or ministerial decree but were not rooted in parliamentary legislation. They had a *de facto* existence.

Collective negotiated settlements (particularly with respect to wages) were also encouraged outside the scope of the national negotiating bodies. In March 1919, Wauters instructed the factory inspectorate (civil servants who were expected to mediate in cases of conflict) to promote such agreements. Wauters could back his policy with the threat of arbitration, by which a person appointed by the government (e.g. a mayor or senior civil servant) was

[13] See in this context A. Fox, *History and heritage: the social origins of British industrial relations system.* London, 1985, p. 436, where an analogous situation is described.

[14] The number of strikes was 366 with 158,000 strikers in 1919, while the average for 1909/13 had been 149 strikes with 33,700 strikers.

[15] *Parlementaire Handelingen, Kamer van Volksvertegenwoordigers* (Parliamentary papers-commons), 8 Feb. 1921, p. 563.

empowered to adjudicate on a conflict and (morally) to condemn either the management or the workers. Finally, the government could blackmail employers or employees into negotiation, since if the workers refused a negotiated settlement, they could be denied public financial or food support, and where the employers refused to negotiate, the workers would be given government assistance. In the circumstances it is not surprising that 66% of the 366 strikes in 1919 ended in a negotiated compromise solution.

This development of negotiated settlements in Belgium fits perfectly into the broader western European context.[16] The postwar period in many countries was characterized by the setting up of an institutional framework for collective bargaining that was intended to resolve social and political conflict. The employers made concessions and the labour movement was accorded social and political recognition. In this way, the economic power that been wielded by the western European labour movement between 1918 and 1920 was "exchanged" for a less dangerous and more controllable form of power.[17] In this, the part played by the Belgian government was not exceptional. Many governments were pursuing an active policy aimed at avoiding conflict, often involving setbacks to the immediate interests of certain groups. In other words, the state developed a degree of autonomy in the short and medium term[18]. There should, however, be no doubt about the fact that its foremost preoccupation was to preserve the existing economic fabric.

Coping With Inflation: Pegging Wages To The Price-Index Figure

As stated above, Belgian negotiators arrived at numerous collective agreements in 1919. Far and away the most important element in these was the adjustment of wages to inflation, but there was widespread disagreement on what precisely the rate of inflation was. Everyone had their own assessment of rising prices and the need for a neutral and official yardstick was clearly felt. The socialist party requested the government in April 1919 to establish an official measurement. The competent minister, the same J. Wauters, immediately ordered the setting up of a price index. As early as May, the first official retail price index was published for the metropolitan area. Two things were clear from this index: (a) the general rise in prices was higher than was suspected, from which the labour movement concluded that its wage demands since November 1918 had been too modest, and (b) from January to

[16] See G. COOMANS, *1929. La crise en France, Belgique, Grande-Bretagne*. Grenoble, 1989, p. 58ff.

[17] For this view, see also J. ZEITLIN, "Shop floor bargaining and the state: a contradictory relationship", in: S. TOLLIDAY & J. ZEITLIN, *Shop floor bargaining and the state: historical and comparative perspectives*. Cambridge, 1985, p. 2 ff.

[18] See on this: P. LANGE, "Unions, workers and wage regulation", in: J.H. GOLDTHORPE, ed., *Order and conflict in contemporary capitalism*. Oxford, 1984, p. 120.

the end of May 1919, the price index had tended to fall, from which the employers concluded that they would need to limit wage demands. Things became more confused and social tension rose. Negotiations reached deadlock.

From July 1919 on, however, prices (and the new price index) started to rise again and therefore became an argument on the side of the labour movement. After a series of strikes, threatened strikes and new negotiating rounds, wages in many branches of industry were then adjusted in some degree to the rate of inflation.

This was still not enough to resolve social tension, since the price index rose even faster after the autumn of 1919. Many collective agreements had to be revised, which again involved pressure from strikes or at least from threats to the brittle social situation. A spiral was being established of strike threats, tension and negotiations, so that the aim of the introduction of bargaining mechanisms had clearly not been achieved.

When the official national price index was published in January 1920, it was hoped that the endless round of negotiations and strikes would come finally to a halt. Instead of meeting regularly in order to adjust wages to prices, which in itself created tension, a number of parity-based negotiating bodies were moving, under pressure from the workers, towards the introduction of an *automatic* adjustment by which wages were to be pegged to the official index figure.[19] If, for example, the price index rose by 5% then wages would rise accordingly. Agreements in the branches of mining, ship repairing, building, printing and the civil service all envisaged some form of wage indexing in 1920 (see appendix 4).

Strikes, however, do not appear to have decreased. There were even more strikes in 1920 than there had been in 1919. Should we conclude from this that the introduction of index-adjusted wages had missed its effect? This is not, in fact, the case, since the 1920 strikes had different causes from those of 1919. Most demands made in the 1920 strikes complemented the existing framework of negotiating bodies, collective agreements and wage indexing and included, for example, the effective application of agreements or minor revisions to them. If the 1919 wave of strikes gave rise to the extensive introduction of negotiated agreements, that of 1920 introduced and extended to a wider area the principle of the adjustment of wages to the price index. Compared to the prewar period, content and aims of strikes had clearly changed.

[19] Pegging wages to some sort of yardstick was not new. Something like this, e.g., had been in operation in the Welsh mining industry since 1875. Wages here, however, were geared to the price of coal, which was a completely different approach (cf. H. PHELPS BROWN, *The growth of British industrial relations*. London, 1965, p. 132 ff.). This form of wage indexing existed in Belgium too, but on an extremely limited scale (cf. H. ROLIN, *Les institutions ouvrières des charbonnages de Mariemont et de Bascoup*. Brussel, 1903). The term "wage indexing" as used here refers exclusively to a sliding scale of wages linked to the retail price index.

1921 was a year of international economic recession. Unemployment rose and all the other economic indicators pointed to a downturn. The appreciable fall in prices created confusion within the system of collective bargaining. Should wages now follow falling prices? The problem quickly became the crucial question in the labour movement. A left wing minority resisted wage cuts while the majority regarded it as fair that wages should fall at the same rate as prices did. This controversy was one of the concrete reasons why the left wing split away from the socialists to become a part of the communist party. The government — still a three-party cabinet — was also of the opinion that wages should remain pegged to the (falling) price index: the principle of the system with all that wage indexation involved (negotiation, agreements) was indeed very valuable to the government in maintaining stable industrial relations.

The employers themselves began increasingly to insist on the inclusion of wage-indexing formulae in collective agreements as a way of adjusting their wage bills to economic circumstances quicker than ever before.[20] What only a year before had been regarded as a victory for the working class, now seemed to be an instrument in the hands of the employers. Since the government, the unions and managment all approved of wage indexing, this was applied with steadily increasing success. Where there had been 14 collective agreements in 1920 (13% of the total) that had included wage indexing, there were 34 in 1921 (39% of all collective agreements - see appendix 4). Many of these agreements were reached in the export trades where, moreover, many "*comités paritaires*" reached national agreements. The fact that indexation was generally more widespread in these trades can be explained by factors such as high degree of unionization, "modern" industrial relations and the necessity for the employers to have a flexible wage cost.

This general consensus on pegging wages to the price index in 1921 was a crucial factor in the continued use of the system between the wars. It was here that Belgium distinguished itself from other countries. Whereas Belgium had not been alone in trying out an automatic adjustment to prices as an alternative to social conflict immediately after the first world war, it does appear to have been the only country to have retained the system on such a large scale. A list for 1921 compiled by the Intenational Labour Office reveals that wage indexing formulae existed in Germany (January 1920), Austria (December 1919), Canada (July 1918), Denmark (April 1920), the USA (1917), Norway (March 1919), Poland (1920), the UK (1917) and Sweden

[20] E.g., wage indexation was used in the British electrical industry in order to regulate wage reductions in 1921: the initiative came from the employers. See H.F. Gospel, "The development of bargaining structure: the case of electrical contracting, 1914-1939", in: C. Wrigley, ed., *A history of British industrial relations*, vol. II, 1914-1939. Brighton, 1987, p. 291.

(June 1919).[21] Although this list makes no mention of Australia and France, there, too, there were agreements with a wage indexing clause.[22] These countries did not all practise wage indexing to the same extent and it was probably most widepread in the UK, where not only the railway workers, the wool workers and the dyers but also (established) civil servants and policemen were automatically compensated for price fluctuations.

The economic recession of 1921/22, however, and the calmer course of prices after 1923 both contributed to the elimination of price-adjusted wages from labour relations in most countries. This was the case in Denmark, Canada, Poland and the USA.[23] In the USA, moreover, wage indexing was generally little appreciated by the workers: "*it means putting progress in chains*".[24] The disastrous inflation in Germany in 1922/23 simply made any system of wage adjustment impossible. In France, where price evolution was similar to that of Belgium, the indexing of wages had a relatively limited success: about 10% of the collective agreements provided for an adjustment of wages to prices between 1919 and 1923, increasing to an average of 18% between 1924 and 1928. This was, however, mainly limited to two sectors, i.e. docks and the typographic sector. The relative failure of wage indexing in France seems to have been influenced by the stringent and unbending legal tradition, badly drawn-up contracts and an inadequate and much contested price index.[25]

In the whole interwar period, however, wage indexing did have some modest success outside Belgium. Mainly during the depression of the 1930s it made a comeback in the UK,[26] Luxembourg[27] and, to a greater extent, in France. As in Belgium in the 1921/22 recession, price-adjustment was here used as a means to reduce wages. In France, however, it was the general strike of 1936 that led to a break-through in wage indexing.[28]

If we look at a list of the countries applying price-adjusted wages on the eve of the second world war, examples are rather thin on the ground. Central

[21] "L'adaptation des salaires au coût de la vie", in: *Revue Internationale du Travail, 1921*, p. 160-176. More information with regard to Great Britain, see: S.N. Broadberry, *The British economy between the wars.* A macroeconomic survey. Oxford, 1986, p. 89-90; T. Hatton, *Institutional change, op. cit., p. 76-77.*

[22] R. Thomas, *L'échelle mobile des salaires.* Paris, 1939, p. 113.

[23] Bureau International du Travail, *L'indexation des salaires dans les pays industrialisés.* Geneva, 1978.

[24] Resolution by representatives of the A.F.L. in 1920, quoted by J. Backman, *Wage determination.* Princeton - Toronto - New York, 1959, p. 145.

[25] A. Sauvy, *Histoire économique de la France entre les deux guerres,* vol. 1. Paris, 1965, p. 328-330.

[26] N. Branson & M. Heinemann, *Britain in the nineteenth-thirties.* St-Albans, 1973, p. 155.

[27] Bureau International du Travail, *L'indexation des salaires,* op. cit., p. 36.

[28] R. Thomas, *L'échelle mobile des salaires,* op. cit., p. 113 & 130.

and eastern European countries were no longer using the system. In the USA there were only thirty collective agreements with "escalator clauses" out of 1,895 agreements (i.e. 1.5%) in 1938.[29] Finally, in north-west Europe, only Belgium, France and the UK had price-adjusted wages to any extent. It is, moreover, not easy to determine how many workers were involved. About 1.5 million British workers had wages pegged to the retail price index in 1939,[30] while about 0.7 million Belgian workers of different industries had such a system.[31] In addition, Belgian public sector employees had their wages indexed from 1919 to 1929 and from 1935 until May 1939, thereby adding a further 168,000 workers to the total (education, armed services, public services and central administration). In terms of the total active population in both countries, 11% of the British workers and 38% of the Belgian had wages that were linked to the price index. The impact of wage indexing in Belgium was widespread during the interwar years: every month, tens of thousands of Belgian wage-earners kept a watchful eye on the publication of the new figure, the press commented on it and it was discussed at length in meetings and in cafés!

Debating the Price Index Figure and Indexation: Discontent with the New Practice

Although the indexing of wages in Belgium was common practice, there was considerable controversy over the reliability of the retail price index itself. A minority of both workers and management, of fluctuating size and influence, questioned the validity of the index and refused to contemplate linking wages to it.[32] Their point of view was under permanent fire from those in favour of the index and of indexation. Successive governments revealed themselves as fervent proponents of the system, going so far as to set up a special negotiating body at the highest level, the "*Commission de l'index des prix de détail*".[33] This commission was an important step in the inauguration

[29] Bureau International du Travail, *L'indexation des salaires*, op. cit., p. 36.

[30] Ibid., p. 55.

[31] P. Scholliers, *Loonindexering en sociale vrede*. Brussels, 1985, p. 174.

[32] The official price indices were also contested in Germany, France and the UK (cf. G. Bry, Wages in Germany, 1871-1945. Princeton, 1960, p. 260; A. Sauvy, *Histoire économique de la France entre les deux guerres*, vol. 2, p. 100; N. Branson & M. Heinemann, *Britain in the nineteenth-thirties*, op. cit., p. 154).

[33] The comparison with France is revealing. Since February 1920 there were a "*Commission centrale du coût de la vie*" and "*Commissions régionales ou locales*" composed of employers, workers and civil servants and empowered to establish their own index figures, which led to intensive argument and relatively unreliable index figures. The aim of the French bodies was therefore entirely different from that of the one Belgian commission (cf. A. Sauvy, *Histoire économique*, op. cit., vol. 1, p. 321-323).

of a negotiation system across different branches of industry, a process which was happening more or less throughout Europe at the time. For this reason it is relevant to look at the controversy around the index and index-linked wages together with the setting up of this "index commission". Crucial dates were the years 1921 and 1930, when the influence of those opposed to the index and indexation became very important.

It is clear from a speech in the Chamber of Representatives (lower house) that there was some criticism of the retail price index as early as July 1920. This swelled into a wave of criticism when the index started to fall, from October 1920 to June 1922. The criticism came from the workers and was expressed at the 20th Conference of the Socialist Union in July 1921, where a significant minority repudiated the index's validity and was in favour of abolishing index-linked wages.[34] There were few concrete arguments to support this case, which was more of an emotional appraisal. One representative for example, later a member of the Belgian communist party, expressed his dissatisfaction in the words, "*Comrades! Recession, parity committees, index figures, arbitration... this can all be summed up in one word: capitalist reaction*"! Some workers argued that the official price index figure and its use involved a betrayal of the class struggle. The majority of the conference, however, adopted a different, pragmatic stance in which, since it was generally desirable that wages should be pegged to retail prices, it was considered only reasonable that they should follow the downswing. Purchasing power, after all, would not be affected. Moreover, there was no yardstick other than the official retail price index by which wages could be adjusted. This attitude carried the day, but this did not, however, signify the end of the dissatisfaction of part of the labour movement with the index and index-linked wages. As a matter of fact, growing sections of the working class did indeed start to doubt the reliability of the price index during the 1930s. This culminated in the wave of unrest coinciding with the economic upswing of 1935/1936 (see below). By 1937, tension around the retail price index had reached such a point that provision was made for a revision of the index.

There was criticism, too, from the management side. A minority of employers rejected indexation from 1920 onwards because it curtailed the freedom to determine wages and labour relations. Index-linked wages seemed a devilish mechanism by which Belgian industry would price itself out of the market. Also, the index itself was considered to be unrepresentative and misleading and therefore both worthless and dangerous. Those opposed to the system continued to adhere to the principle of the XIXth-century economic liberalism. This "doctrinaire" attitude came to the fore in 1930, in state-

[34] Similar criticism came to the fore in Great Britain in 1921 and 1922: "*there were calls for the government to set up a public inquiry into how the index was constructed*" in: C. WRIGLEY, "THE TRADE UNIONS BETWEEN THE WARS", IN: C. WRIGLEY, ed., *A history of British industrial relations*, op. cit., p. 91.

ments by the president of the *"Banque Nationale"* and by the chairman of the employers' federation, and was immediately adopted by the conservative press and by numerous employers. What had happened?

In the autumn of 1929 the index of wholesale prices began to fall, as opposed to a rise in the index of retail prices. The contradictory trends for the two indices led employers to harden their attitude and move over to an anti-index strategy. The motive behind the shift was clearly a desire to reduce wages immediately, which was being prevented by having wage levels linked to the retail price index. Between October 1929 and March 1930 — the moment at which the worldwide economic crisis made itself felt — numerous articles appeared in the press attacking indexed wages and the retail price index. The polemical note increased steadily, while an increasing number of employers became convinced of the shortcomings of the index.[35] A conservative newspaper referred to the index as *"le cancer de notre vie économique"*. For Belgian management, the causes of the economic difficulties could suddenly all be brought down to the question of the price index. The labour movement came immediately and unconditionally to the defence of the index. At the latter end of 1930, the price index was without a doubt the most important topic in the media and in social life. In 1931, however, this was pushed aside by the preoccupation with unemployment. The shift in emphasis was the result not only of the massive scale of unemployment, but also of a relatively sudden resolution of the controversy around the index. From December 1930 onwards, this had begun to fall rapidly, so that wages also fell. The employers' objections were quickly dissipated. Just as in the 1921 recession, there was in the period from 1931 to 1934 a consensus amongst both employers and employees on the use of the price index to determine wage cuts.

What was the attitude of the state to repeated heavy criticism of the retail price index in 1921 and 1930? As has already been stated, the various governments concerned worked hard to preserve the new mechanisms by which social conflict could be contained. They were patently aware of the fact that the whole system of index-linked wages would stand or fall by the credibility of the index figure itself. Successive governments, both conservative and progressive, made use of various means to preserve or restore this credibility. At the first surge of criticism in 1921 the Socialist Minister of Labour did not hesitate to put pressure on the left-wing union minority, via the pro-government press amongst other things, in order to limit the union controversy around the retail price index.[36] The government also answered cri-

[35] An identical controversy existed in France with regard to the difference in the evolution of wholesale and retail prices in 1930 (see A. Sauvy, *Histoire économique*, op. cit., vol. 2, p. 394).

[36] E.g. in *Le Peuple* (Belgian socialist party newspaper) of 27 April 1921 and 11 November 1921 (the latter an article by J. Wauters himself).

ticism directly, in parliamentary speeches by the Minister of Labour, although it also appears to have been aware of shortcomings in the system. The most important criticism was directed at the lack of a weighted average, since all the products included had an equal share in determining the retail price index. In response, it was decided to calculate a weighted figure, the "cost of living index". This was published from September 1923 up to November 1939 but was never included in wage-indexing formulae.[37] Since the evolution of the weighted cost of living index strongly resembled that of the unweighted retail price index, the protagonists of the simpler figure used this as an argument to support its validity.[38]

The controversy of 1930, however, worried the government so much so that it was feared that the index would be abandoned. Some members of the conservative government went so far as to contemplate its abolition. In June 1930, then, the government set up a commission to inquire into the reasons why the retail price index should lag behind falling wholesale prices, the "*Commission pour l'étude de la vie chère*". A similar commission had been set up previously, in 1929, at a time when an attempt to carry out a minor adjustment of the index (a change in the reference period) had given rise to friction within the cabinet on the subject of the index's validity. To smooth this out, a commission composed of civil servants was set up in June 1929 and concluded after three sittings that the Belgian index figures were above all suspicion.[39] The conclusion was widely publicised and the brief excitement around the index disappeared completely. The episode was significant for the way in which the conflict had been dealt with, by referring it to a special commission.[40] A similar approach was tried again in 1930 when the em-

[37] There were various reasons for this. The new index was more complicated, less sensitive to short-term price fluctuations and less familiar than the traditional index figure that had been in use for a number of years. Moreover, it was based on the year 1921, which prevented comparison with the prewar situation.

[38] E.g. the opinion of a highly-placed civil servant at the Ministry of Labour, "*Cette équivalence prouve qu'il n'y a pas d'inconvénient à employer l'index officiel des prix de détail dans l'établissment de l'échelle mobile des salaires*" (this equivalence proves that there can be no objection to using the official price index to determine the sliding scale of wages), A. WIBAIL, "L'évolution comparée des index-numbers des prix de détail et coût de la vie", in *Revue du Travail*, 1938, p. 1920.

[39] P. SCHOLLIERS, *Loonindexering en sociale vrede*, op. cit., p. 147. This involved friction between Christian-democrats and conservative catholics and their respective supporters.

[40] Special commissions were set up during the 1930s to deal with other problems. In August 1930, the "*commission économique*" was created with important persons from various ideological backgrounds, in order to advise the government. In July 1932 a mixed commission was wet up to look into the reduction of the working week. In February 1935 the "*Commission Nationale du Travail*" was composed of representatives of the major political parties. They all failed (cf. F. BAUDHUIN, *Histoire économi-*

ployers were revealing their impatience with the retail price index. Representatives of the employers, the workers and the government were included in the new commission together with statisticians. The whole was under the chairmanship of a university professor who had been Minister of Labour. This commission was undoubtedly a step towards setting up a system of negotiations above and beyond the boundaries of a given industry. The commission's strategy was to attempt an immediate softening of the sharp contradiction between capital and labour by taking up a position in favour of the index; in other words, it was the commission's intention to block the continuing management offensive. The commission's findings were widely reported in the press and referred to extensively in parliament. Once the employers' dissatisfaction had been overtaken by events (early 1931), the commission no longer deliberated on the price index.

Some years later, when the situation again became tense because of the growing criticism of the working class, a new commission was set up, which after several months of *de facto* existence was given a legal basis in April 1935.[41] Its job was to look critically at the index figure, to approve or reject it each month and, if necessary, to suggest reforms. This latter aspect seemed necessary since the index figures in 1934 and 1935 had been subject to increasing criticism from all sides, but most of all from the rank & file of the labour movement, for whom the official index figures had less and less credibility.[42] The government of the day was primarily interested in restoring this lost credibility and one way of doing this appeared to be the installation of the "index commission", composed of employers' and workers' representatives, statisticians and civil servants. The commission was under the chairmanship of A. Julin, the former top civil servant at the Ministry of Labour and the compiler of the first index in 1919. All the members of this commission were defenders or even fervent supporters of the index. It is not surprising, then, that the commission adopted an attitude of unconditional defense of the index.

In the winter of 1935/36, the index continued to lead to increasing discontent, as more and more people were convinced that it had become unreliable. Large numbers of workers of most industries came to the conclusion that they had lost a lot of buying power as a result of inaccurate index figures. The "index commission" met frequently and discussed possible reforms. The union leadership encouraged the workers to wait for the commission's findings and not to do anything in the meantime. As might have been expected,

que de la Belgique, 1914-1939, vol. 1, 1946, p. 295, 299, 300). In response to the 1936 general strike, a "*Conférence Nationale du Travail*" was convoked in June 1936, with representatives from the employers and the workers. After world war II, such national conferences were given a permanent character.

[41] Royal decree of 2 April 1935. This commission is still in operation today.

[42] The reasons for this are dealt with later.

the "index commission" subsequently found that the retail price index could not be faulted, but neither the commission nor the union leadership was able to stem the tide of social unrest. In the summer of 1936 a general strike broke out, largely directed towards wage increases and a reduction of the working week. The price index was totally ignored, only to make a comeback when in the wake of the general strike, at the end of 1936, new collective agreements were concluded that included index-linked wage formulae. Also, paid vacations and the forty-hour week with no reduction in pay were instituted by the government.[43] The 1936 strike seems to have been necessary in order to raise general wage levels; once a new level had been reached, wages could be pegged once more to the fluctuations of the price index.[44] Once the shock had passed, the "old" negotiating structures could be called into play again. The "index commission" reacted to events by concentrating on a rapid replacement of the old, disputed index by a new index that would be acceptable to all parties. Its proposals appeared in the course of 1937 and the new index figure was first published in April 1939.

The controversy over the index was fuelled mainly by fluctuations in retail prices. Whenever there were sudden drops or rises, the dissident minority among either the workers or the employers (we may as well refer to them both as the "doctrinaire" faction) found wider support and social tension would increase. At such times the state would concentrate all its efforts on avoiding conflict. One way to do this was to set up special commissions that gradually became important landmarks on the road to a negotiating structure that transcended the boundaries of a given industry.

Not only were there negotiations at the highest level between management and the unions, but both the employers' organizations and the unions began increasingly to employ a strategy that concentrated on the workings of these commissions. By their existence they were able to counteract much of the criticism of the index figure and consequently to contribute to a defusing of the situation. The fact that they occasionally faced up to "unruly elements" (as in their condemnation of the employers in 1930 or of the workers in 1921 and 1935) was a logical extension of their founding principle. The "*comités paritaires*" for each branch of industry, with wages pegged to the price index and the "index commission", could not, of course, wipe out class contradictions, as is borne out by the 1936 general strike and the many local

[43] These innovations were part of an international movement towards "socialism in many countries" (using P. TEMIN's expression in *Lessons from the Great Depression*. Cambridge (Mass.), 1989, Lecture 3, and with regard to earnings and working conditions, p. 89, 119-120 and 124-125), referring to new policies in order to "expand and manage the economy" (p. 90).

[44] The price index climbed significantly from August 1936 onwards, which encouraged the workers and the unions to opt for an index-linked system.

strikes or national strikes in individual branches of industry.[45] On the other hand, a lot of effort was directed at veiling class antagonisms. A serious attempt was made to reshape class conflict along the lines of a debate and the controversy over the index is one illustration of the way in which this was done. In the press, in parliament and in the negotiating bodies there was a lot of talk about the reliability and credibility of the index, but the underlying conflict was always about wage levels. The price index and index-linked wages lent this ancient opposition between capital and labour a technical aspect that obscured its true nature.

A Crucial Point: The Validity Of The Official Price-Index Figure

At the centre of the controversy over the index and index-linked wages lay the question of the validity of the index figure itself. Neither the unions nor the employers ever attempted to set up an alternative index, since both parties considered this to be superfluous to the work of the "index commission" and its watchdog function. It is naturally relevant here to know how accurate the official Belgian index figure really was. Such research has never been undertaken. There is no alternative price index for Belgium as there is, for example, for the UK.[46] It is therefore necessary to try to set up an alternative measurement. An idea of the precise evolution of the cost of living is not only necessary in order to assess the existing index and so to determine precisely what it was that wages were linked to, it is also necessary in order to establish a new estimate of the way in which purchasing power evolved.

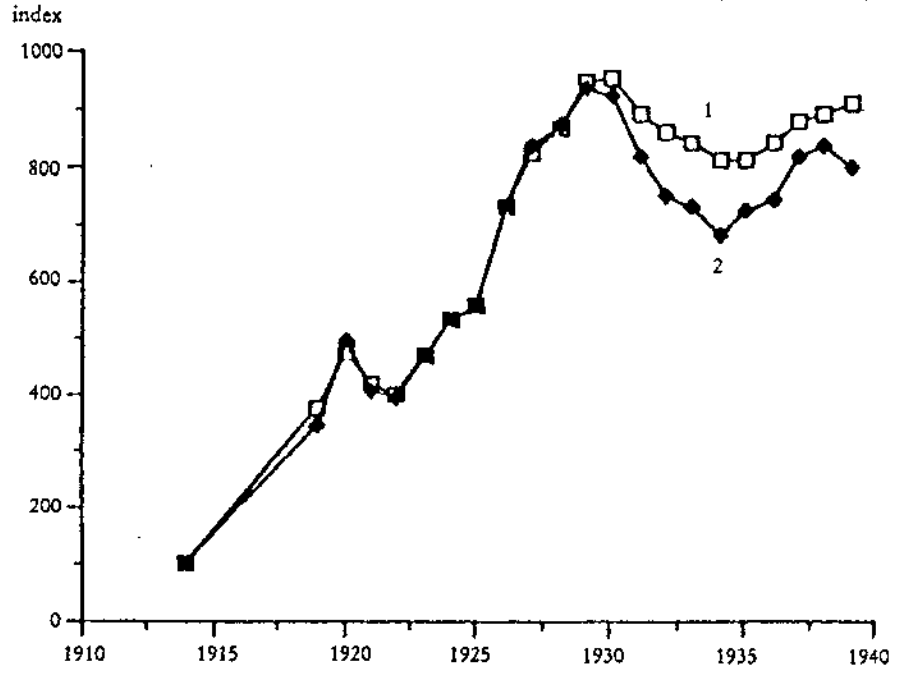
A new price index was calculated on the basis of a representative sample of 118 products and services, with a weighted coefficient for each of the 118. To accommodate large-scale fluctuations that would lead to shifts in the pattern of family spending, "sliding weightings" were used to correspond to changing consumer patterns. The formula is reliable, the reference period is postwar and is based on a full year with relatively stable prices. In virtually every respect the calculation is different from that of the official index figure (for the calculation, see appendix 1).[47] Graph 1 shows the official price index against this alternative index (for the figures, see appendix 2).

[45] E.g. the railways in 1923, the port of Antwerp in 1928, the typographic trades in 1931 and the mining industry in 1932.

[46] R. Stone & D. Rowe, *The measurement of consumers' expenditure and behaviour in the United Kingdom, 1920-1938*, vol. 2, Cambridge, 1956, p. 111.

[47] The official retail price index contained 56 products, including completely redundant ones (like clogs and bowler hats), but did not include expenditure on rent, transport or leisure. It was not weighted, had a distant reference period, was arrived at by an inadequate formula (simple arithmetical average) and was, moreover, repeatedly manipulated in order to avoid sudden fluctuations. For a complete presentation of the alternative index, see P. Scholliers, *Loonindexering en sociale vrede*, op. cit., p. 153-163.

Graph 1
EVOLUTION OF THE OFFICIAL PRICE-INDEX [2]
COMPARED WITH THE "ALTERNATIVE" PRICE-INDEX [1] (1914 = 100)



Source: original calculations (see appendix) and *Annuaire Statistique de la Belgique.*

In general terms, both indices moved together during the 1920s but deviated in the 1930s. The relative deviation in the 1920s is between an absolute minimum of 0.3% in 1925 and 3.7% in 1920 and 1930. From 1931 onwards, however, this increases steadily from 9.4% in 1931 to 19.5% in 1934! The relative deviation declines from 1935 onwards. It is remarkable that R. Stone's alternative price index for the UK shows exactly the same relationship to the official price index,[48] although there the extent of the deviation in the 1930s was less, with a maximum of 4.6% in 1933. The large discrepancy between the two Belgian indices during the recession can be largely explained by the non-inclusion of rent in the official index. While prices in general were falling, rents rose from 1929 to 1932,[49] so that the proportion of income spent

[48] R. Stone & D. Rowe, *The measurement of consumers' expenditure*, op. cit., p. 114. See too N. Branson & M. Heinemann, *Britain in the nineteenth-thirties*, op. cit., p. 155-157.

[49] The index figure for rent evolved as follows (1914 = 100); 1929 = 390; 1930 = 509; 1931 = 576; 1932 = 605; 1933 = 580 (source: P. van den Eeckhout &

on housing increased (from about 10% in 1929 to 20% in 1936). If this increasing item of expenditure is taken into account, then the fall in the cost of living in the 1930s naturally appears to be much less.

This comparison leads directly to two conclusions. First, criticism of the official index figure seems to have been justified. The official figure pointed throughout the 1930s to a fall in the cost of living that was not a reflection of reality, but which was reflected by a corresponding drop in wages by means of the system of wage adjustment. Second, this evolution led inevitably to loss of buying power. This was clearly felt by the workers, which led firstly to their contesting the reliability of the figures and by 1935, or certainly by 1936, to a (temporary) rejection of the whole system.

A New View Of The Development Of Industrial Real Wages

The figures from the new cost of living index naturally have repercussions for the calculation of real wages. It is obvious that estimations of purchasing power are much lower when these figures are used as a basis. Estimates of Belgian real wages go back to research in 1943 that was based on the official price-index figures.[50] The picture that emerges on this basis is very similar to the evolution of purchasing power in France, i.e. a rising trend with ups and downs in the 1920s, an appreciable rise in the crisis of the 1930s and stagnation before the outbreak of war. If the corrected index is used to calculate real wages, however, a completely different picture emerges: a very gradual rise in the 1920s, followed by an appreciable drop in the 1930s. The difference between the two real wage estimates is most clearly illustrated by the fact that their relative deviation for 1932 is as high as 32%!

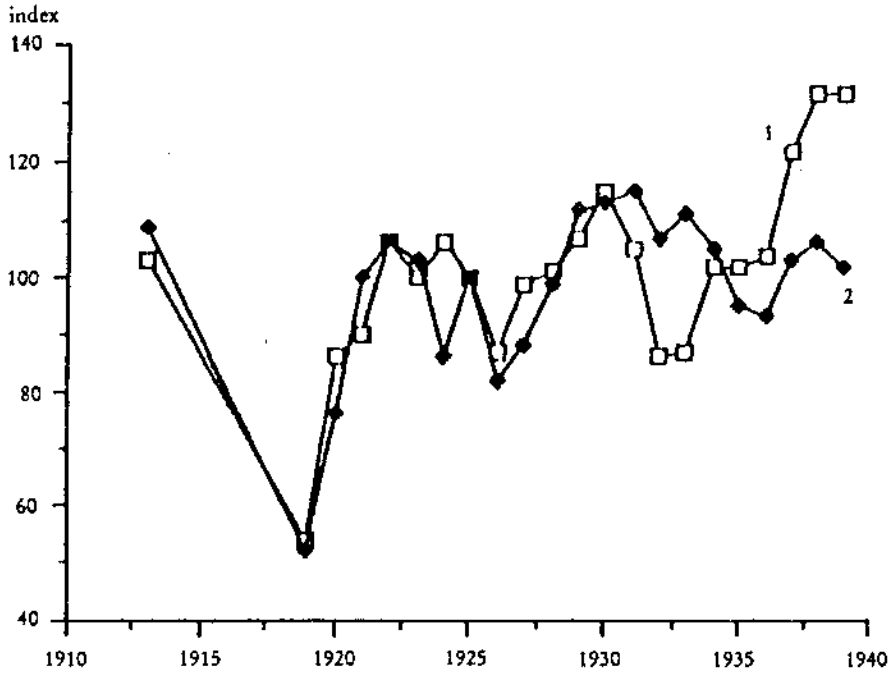
We shall now look more closely at the evolution of Belgian real wages on the basis of the alternative cost of living index and yearly (wherever possible) wages for different categories of workers.[51] Based on wages of various industries, three (weighted) series were calculated: a series for workers in the so-called competing industries (or "international sector"), such as metals or textiles, that are sensitive to international market conditions; a series for workers in the so-called sheltered industries (or "domestic sector"), such as food or

P. Scholliers, *De Brusselse huishuren, 1800-1940*. Brussels, 1979, p. 136; rent was controlled untill December 1929).

[50] M. Neirynck, *De loonen in België sedert 1846*. Louvain, 1943. Other estimates too make use of the official price index, including Statistiques du niveau général des salaires, in: Revue Internationale du Travail, 1943, p. 772.

[51] I have used weekly and monthly but mostly yearly wages as effectively paid out. Such data, mainly from wage accounts, take account of regularity of work, strikes, premiums, fines, overtime and paid holidays. Wages from the following industries were used: mining, metalworking, textiles, building, food, printing, transport and the public sector.

Graph 2
EVOLUTION OF REAL WAGES IN COMPETING (1) AND SHELTERED (2) SECTORS (1914 = 100)



Source: original calculation.

typography, that are almost exclusively orientated towards the domestic market; and a weighted average (per numbers employed) for all branches of industry together (see appendix 5).

With respect to the weighted average for all industries, it is clear that buying power in the 1920s was below that of 1914, moving from half the 1914 level in 1919 to about 70% in 1920. In the recession of 1921/1922, real wages rose as a result of the sharp drop in prices and the relatively minor decline, or even stability, in wages (in spite of already being pegged to the index in many industries). Buying power remained relatively constant from 1922 to 1925, which points to the efficacy of the index-linked system. Steady inflation was in fact raising prices in 1923 and 1924, but wages kept pace quite well. Accelerated inflation and the 1926 devaluation, however, reduced buying power considerably, by some 16% in comparison with 1925. Real wages rose again between 1926 and 1930, reaching a level slightly above that from before the war. In view of the phenomenal expansion of Belgian industry at the time, however, the new level may be regarded as being on the low

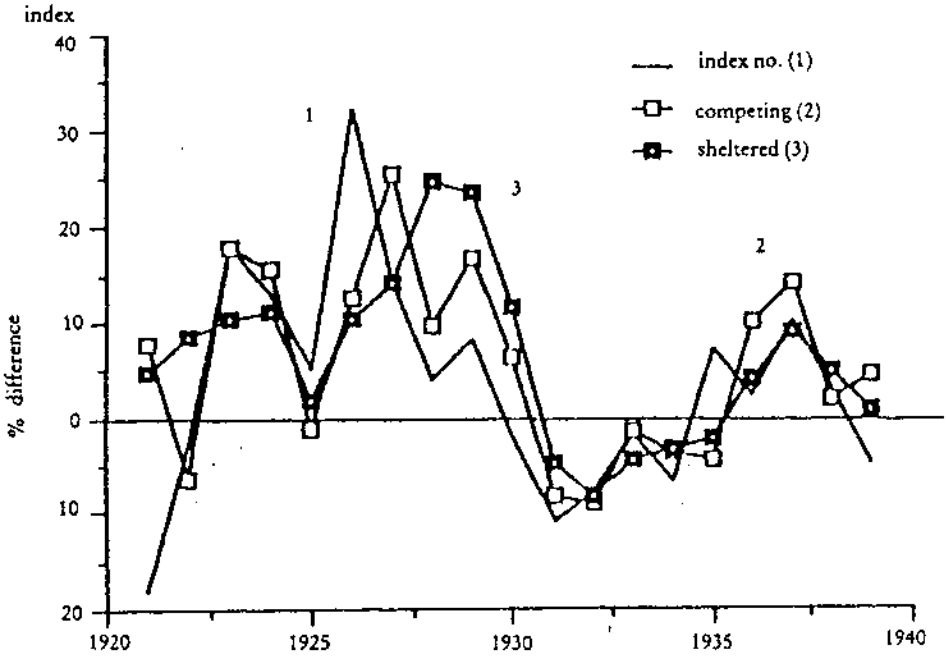
side. The first year of the depression (1931) led to only a minor reduction in buying power, mainly because falling prices preceded wage cuts. The reverse was true of 1932, as incomes fell more rapidly than the cost of living and led to the lowest level of purchasing power of the whole of the decade. The rapid fall in wages can be explained by the reduction in the working week on the one hand and, on the other hand, by wages being pegged to the inadequate index figure. Real wages recovered from this low point in 1933 and 1934, to be followed by another drop in 1935, as nominal wages lagged behind the new rise in prices. The 1935 decline came across all the harder as the economic upturn became clearer. The discrepancy between the two trends gave rise to the general strike in the summer of 1936. In 1937 and 1938, purchasing power was brought to its highest point between the wars. Finally, stagnating wages and rising prices whittled away some 6% of this purchasing power in 1939. Real wages in these few years never at any point rose higher than 5% to 10% more than before the first world war.

The evolution of the real wages of workers in sheltered industries differed from that of the workers in competing sectors (see graph 2 and appendix 5). This is particularly clear in the early 1930s, with a more pronounced decline in purchasing power in the competing sector between 1930 and 1932 followed by a much stronger rise after 1933. Buying power in the sheltered sectors evolved more gradually. Its lowest point of the decade, for example, was reached in 1935, after the crisis. Real wages for the workers in competing industries increased considerably after 1936, while those for the workers in sheltered sectors stagnated. The discrepancy, in other words, increased. By 1939, real wages in competing sectors were about 30% higher than in 1914, while those in sheltered sectors were more or less at their 1914 level.

Much of the divergent evolution can be explained by the fact that wage rates in the competing sector were more often pegged to the official price index (see appendix 4). During the 1920s, nominal hourly wages in the competing sector followed the official price index number quite closely, whereas wage rates in the sheltered sector did not.[52] Also in the early 1930s, wages in the competing sector automatically and quickly followed the fall of the price index, sometimes preceding the fall and sometimes keeping up with it. When the index started to climb in 1935, wages followed the increase, although not at once and not to the same degree. The strike of 1936 and the ensuing new policy of the government led to many agreements with index clauses in this sector. On the other hand, wages in the sheltered sector were not as often linked to the index and reacted more slowly than other (industrial) wages. This led, e.g., to the limited fall of buying power during the crisis. But when prices rose in 1935, wages in the sheltered sector lagged behind and some in-

[52] I. Cassiers, *Croissance, crise et régulation en économie ouverte.* La Belgique entre les deux guerres. Brussels, 1989, p. 134.

Graph 3
YEAR-TO-YEAR VARIATIONS (IN %) OF NOMINAL HOURLY WAGES IN THE TWO SECTORS AND OF THE OFFICIAL PRICE INDEX NUMBER



Source: I. Cassiers, *Croissance*, op. cit., p. 233-4.

dustries even abandoned the indexation (e.g. printing). But here too, the strike of 1936 introduced indexation in many wage agreements.

Graph 3 shows the year-to-year variations (in percent) of the official price-index number and the nominal hourly wage in competing and in sheltered industries, indicating the closer link between the index and nominal wages in the competing sector. This graph makes clear that, although indexation obviously was a strong wage determinant, it was not the only one. Wages in the sheltered sector were particularly influenced by labour market conditions. So, hourly wages rose quite sensationally in 1928 and 1929, when domestic demand for consumer goods was high and unemployment almost non-existent; but wages grew only slightly after 1935 as a consequence of the decreased demand and very high unemployment. On the other hand, the devaluation of 1935 benefited the competing sector much more than the sheltered sector[53] and the growth of wages in the former sector exceeded both the wage increase in the sheltered sector and the growth of the index number.

[53] I. Cassiers, *Croissance*, op. cit., p. 198-199.

But in general, wages in all industries followed the course of the index number (and therefore, of the general economic conjuncture), which — compared to the prewar period — was totally new as far as wage development in most sheltered industries was concerned. The close link between the development of hourly wages and the price index shows the important impact of the indexation practice. It was only the unreliability of the index number itself which made the whole system shaky, leading to huge fluctuations of the purchasing power (as shown in graph 2) and contributing to social unrest.

It is useful, finally, to compare purchasing power in Belgium with that in other countries. The comparison is limited here to published data with regard to France and the UK. Graph 4 shows the evolution of industrial real wages in the three countries (figures in appendix 5).[54]

The evolution of Belgian real wages is clearly anomalous. Wide fluctuations with a number of sharp downswings are absent both in France and the UK. In both these countries, purchasing power appears to have progressed to a point in 1939 that was some 30% to 40% higher than in 1914. This is a generally recognized fact, which was associated with various other social aspects. This increased purchasing power would lead, amongst other things, to increased leisure time and smaller families.[55]

The question here, however, is how to explain the anomalous development in Belgium. Within the framework of this article, it is possible only to hazard certain suggestions, which will probably pose more questions than they answer. One of the causes of the rise in French and British real wages has been sought in the appreciable increase in productivity.[56] Another important factor would appear to be the downward price trend.[57] The part played by the unions seems to have been rather marginal.[58] The specifically Belgian

[54] United Kingdom: J. Stevenson, *British society, 1914-1945*. Harmonsworth, 1984, p. 117; France: A. Sauvy, *Histoire économique*, op. cit., vol. 1, p. 11 & vol. 2, p. 522. A critical view on published data with regard to British and French real wages series is provided by P. Scholliers, "A methodological note on real wages during the inter-war years", in: *Historical Social Research-Historische Sozialforschung*, 41, 1987, p. 40-50.

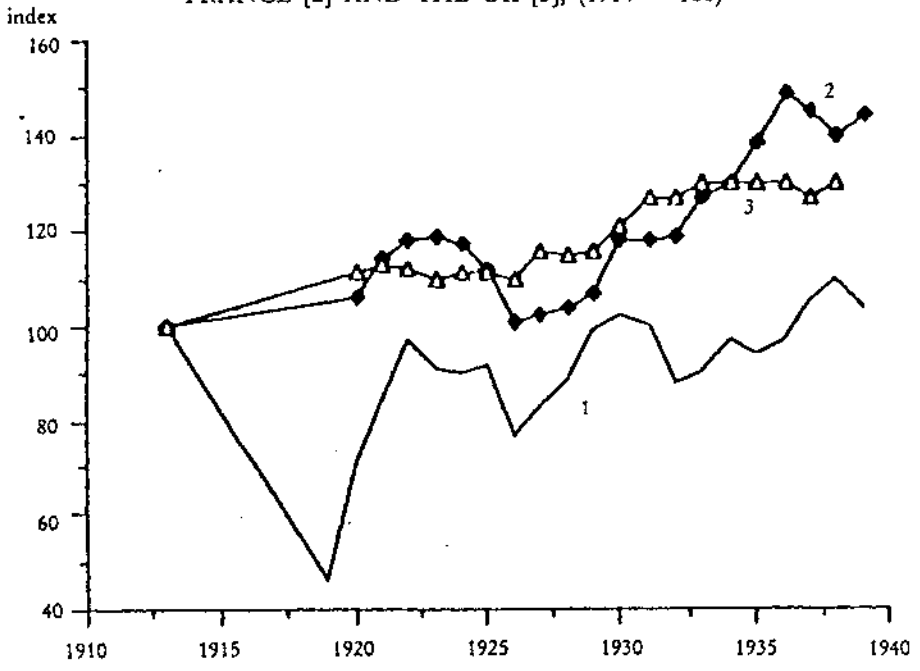
[55] E.H. Phelps Brown & M.H. Browne, *A century of pay* (the course of pay and production in France, Germany, Sweden, the UK and the U.S.A., 1860-1960). London - New York, 1968, p. 345 ff.

[56] Ibid., p. 263.

[57] J. Lhomme, "Le pouvoir d'achat de l'ouvrier français au cours d'un siècle: 1840-1940", in: *Le Mouvement Social*, 1968, p. 66-67.

[58] E.H. Phelps Brown, "Levels and movements of industrial productivity and real wages internationally compared, 1860-1970", in: *The Economic Journal*, 1973, p. 62. See too D.H. Aldcroft, *The inter-war economy: Britain 1919-1939*. London, 1970, p. 355-357, but also: D.H. Aldcroft, *The British economy*. Vol. 1. The years of turnmoil, 1920-1951. Brighton, 1986, p. 152 & 159, explaining increasing real wages by (amongst other more decisive factors) the resistance of unions to nominal wage cuts.

Graph 4
EVOLUTION OF PURCHASING POWER IN BELGIUM [1], FRANCE [2] AND THE UK [3], (1914 = 100)



Sources: UK: J. STEVENSON, *British Society*, p. 117; France: A. SAUVY, *Histoire Economique*, vol. 1, p. 511 and vol. 2, p. 522. Belgium: original calculations (see appendix 5).

evolution might of course reflect the system of index-linked wages, which nowhere else in the world was so generalized. Because of wages being pegged to retail prices from 1920 onwards, the influence of other factors — such as productivity — was excluded to some extent, so that purchasing power was simply unable to rise significantly. Index-linked wages were in themselves a significant factor in keeping purchasing power constant. The fact that wages were linked to an inadequate price index tended even to reduce buying power!

On the other hand, it is possible that the explanation should be sought at another level entirely. If correcting the calculation of Belgian real wages can lead to significant new data, it is possible that similar work might lead to new insights with regard to the British and French tables of real wages. Are the series of prices and wages used of optimal value?[59] Similar corrections are

[59] R. STONE's and D. ROWE's index, for example, includes all social population categories, which raises questions as to its utility in calculating the purchasing power of wage workers.

regularly introduced into the famous "standard of living debate" in connection with the industrial revolution. Why then should they not be a fit subject for research with respect to the period between the wars?

Concluding Remarks

A study of purchasing power from 1918 to 1939 enables us to witness closely the shaping of new, institutionalized forms of wage determination. In Belgium, these forms involved the setting up of "comités paritaires", collective agreements, the official price-index number, *etcetera*. Pegging wages to the price-index number became of utmost importance.

In this process, price fluctuations and changing class relations were very important. In 1919 and 1920 — crucial years! — the labour movement held a very strong position; in 1921, employers regained influence. Government, the union leadership and most employers were prepared to go a long way to avoid social conflict in order to encourage economic (re)development and this remained so throughout the interwar years. Both employers and unions stuck to a system of wage determination which came into being as a response to huge price fluctuations and changed class relations. Formulae of indexation came to occupy a central position in the balance of social forces from 1920 onwards.

The "awkward squad" — on the workers' or employers' side who gained popularity at certain moments — came under various pressures to conform, although it was obviously impossible to eliminate periods of increasing class conflict altogether. These periods were frequently fuelled by the wage question (cf. the employers' stance in 1930 and that of the workers in 1921 and 1936). The new forms of wage determination came into being with difficulties, debates, frictions, antagonism and continuous small and large adjustments. In this, the price index had a strong symbolic value. Union policy came to be largely orientated towards the wage question, wage indexing and everything that this implied in terms of the official retail price-index and the "index commission". The latter can be seen as a clear precursor of a system of negotiation beyond industrial demarcation lines.

This pragmatic strategy had a certain effect on the evolution of purchasing power. Since attention was concentrated on linking wages to the price index, the influence of other factors that could have raised real wages was diminished (but did not entirely disappear). Consequently, little if any advantage was derived from rising productivity, the labour shortage of the 1920s or the very positive economic evolution from 1926 to 1929. Neither did the falling cost of living in the 1930s increase buying power, since wages followed the downward trend of the price index. Only in the latter half of the 1930s did purchasing power in certain industries rise perceptibly, to a level higher than before the first world war. If Belgian purchasing power in general did rise, this was primarily the result of an increasing number of jobs at the better-

paid end of the labour market and of increasing industrial labour by women. Is it possible in this respect to qualify Belgian union policy as too one-sided? The answer to this question is not simple. It must not be forgotten that the labour movement had to contend with difficult economic circumstances (e.g. the very high inflation in 1919/1920). It is possible that the labour movement was simply not strong enough to formulate other demands and that the promotion of wage indexing to a major point in its platform should be seen as a sign of its relative weakness.[60] On the other hand, wage indexation can be considered the result of the *modus vivendi* between two forces, where indexation was *"a means of mitigating the political consequences of rapid inflation"* and, therefore was *"an important element in ensuing the survival of a democratic, free-enterprise system"*.[61] So, wage indexation had far-reaching implications.

Still, the conclusion with regard to the relative weakness of the Belgian labour movement is reinforced by the international comparison of real wages. If we consider only Belgium and France (with their comparable price evolution and economic activity), then the disparate evolution of buying power remains striking. The generalization of pegging wages to the (failing!) price index number in Belgium then acquires a large measure of responsibility for the evolution of Belgian purchasing power in the period between the wars.

Finally, the interwar years should be situated within a larger historical context. Collective bargaining, which had already existed on a very small scale before 1914, became common practice, while wage indexation emerged as a pragmatic solution in order to cope with rapid price fluctuations and social tension. Both novelties implied negotiations (per sector and at the supra-industrial level) and involvement by the state. It is clear that the fixing of wages therefore differed fundamentally from the pre-1914 period. The main difference lay in the fact that wage indexation implied the recognition of a (albeit constantly debated) living minimum. Indexation markes a decisive step within the development away from the XIXth-century wage determination towards present-day wage determination (which emerged after the second world war and is characterized by national, supra-industrial negotiations dealing with productivity and buying power and of which wage indexation is an integral part). In this way, the inflationary waves of the 1920s, followed by the pragmatic reactions of those involved, took a leading part in the shaping of present-day industrial relations and society.[62]

[60] This opinion is shared by S. Page and S. Trollope, who suggest that a strong union movement is able to cope with repeated negotiations: *"Indexing is therefore associated with relatively weak labour movements"* (S. Page & S. Trollope, "An international survey of indexing and its effects", in: *National Institute Economic Review,* November 1974, p. 58).

[61] A. Romanis Braun, *Wage determination and income policy in open economies.* Washington, 1986, p. 206.

[62] The development of wage determination has been analyzed by the "régulation-

Summary

Belgium's response to inflation and deflation during the interwar years involved the setting up of a system of negotiated collective agreements in which provision was made for pegging wages to the retail price index. In this, Belgium was breaking new ground. Pegging wages to the price index came to occupy a central position in the balance of social forces. Strategies of employers, employed as well as of the state came to be oriented towards wage indexing. These strategies had an effect on the development of real wages. Little if any advantage was derived from rising productivity, the labour shortage of the 1920s or the very positive economic growth of the late 1920s. Neither did the falling cost of living in the 1930s increase buying power, since wages followed the downward trend of the price-index.

niste"-school. Three consequent phases of wage determination are suggested: 1) the "ancienne régulation" (-1850), 2) the "competitive regulation" (1850-1940) and 3) the "monopolistic regulation" (1940-) (see: R. BOYER, "Wage formation in historical perspective; the French experience", in: *Cambridge Journal of Economics*, 1979, 3, p. 104-105. For the more recent developments of the regulation theory: R. BOYER, *La théorie de la régulation: une analyse critique*. Paris, 1987). In terms of this theory, it appears that the Belgian experience with wages contained elements of both the "competitive" and the "monopolistic" regulation. The system of wage indexation was the mediator between the two. See, too, I. CASSIERS, *Croissance*, op. cit., and G. COOMANS, 1929. *La crise*, op. cit., with regard to the application of the "régulationnistes" theories on the Belgian situation.

Appendix 1
CALCULATION OF THE ALTERNATIVE PRICE INDEX

1) Calculation of four separate indices with reference periods respectively 1914, 1925, 1930 and 1935:

$$\text{a) } \Sigma_{wa^i} = \frac{p^i\,1914 \rightarrow p^i\,1925}{p^i\,1914} \qquad \text{c) } \Sigma_{wc^i} = \frac{p^i\,1930 \rightarrow p^i\,1935}{p^i\,1930}$$

$$\text{b) } \Sigma_{wb^i} = \frac{p^i\,1925 \rightarrow p^i\,1930}{p^i\,1925} \qquad \text{d) } \Sigma_{wd^i} = \frac{p^i\,1935 \rightarrow p^i\,1939}{p^i\,1935}$$

Here wa = weightings for the period 1914-1924
wb = weightings for the period 1925-1929
wc = weightings for the period 1930-1934
wd = weightings for the period 1935-1939

2) Linking the four indices by means of chains: e.g. calculation of the 1931 index figure:

$$\Sigma_{wc^i} \cdot \frac{p^i\,1931}{p^i\,1930} \cdot \frac{\Sigma_{wb^i} \cdot \dfrac{p^i\,1930}{p^i\,1925}}{\Sigma_{wc^i} \cdot \dfrac{p^i\,1930}{p^i\,1930}}$$

Appendix 2

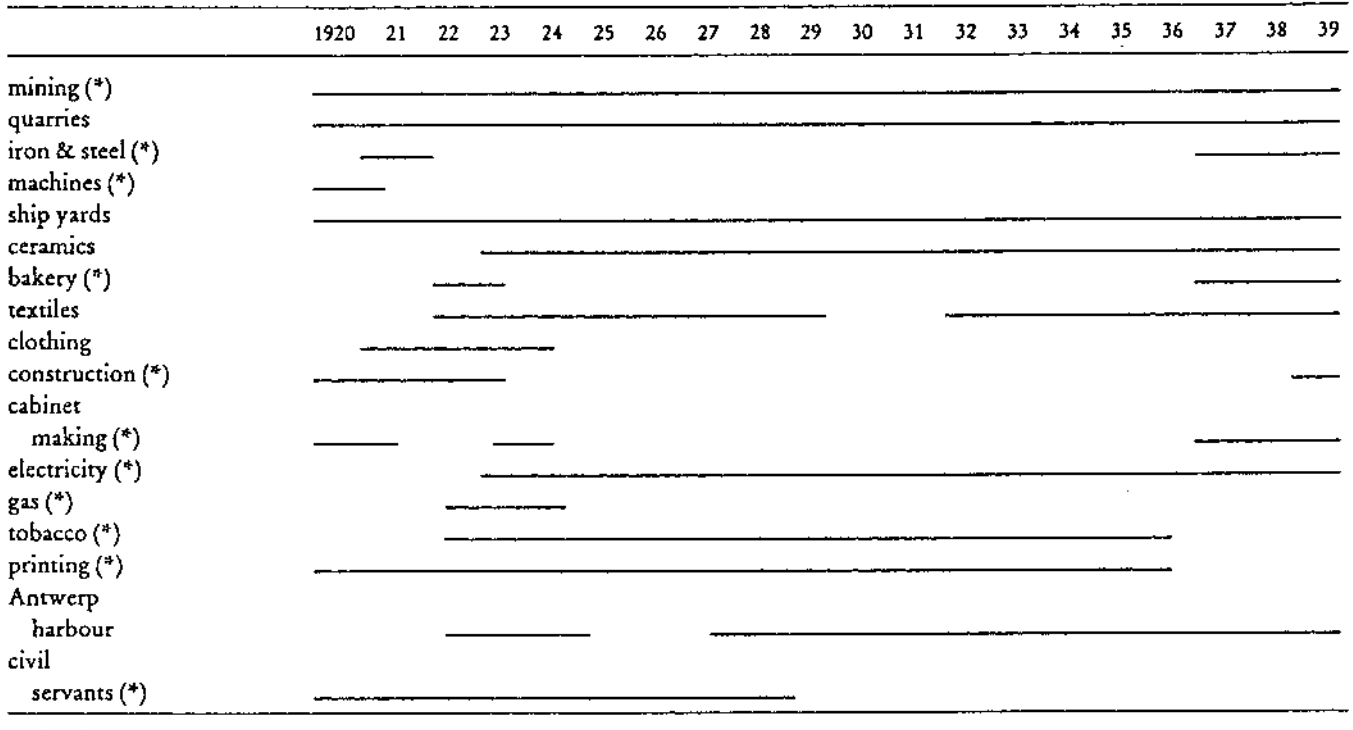
COMPARISON OF THE OFFICIAL PRICE INDEX FIGURES WITH THE CORRECTED SERIES [1914- = 100]

	Official price index (unweighted) [56 products] (A)	Corrected index (weighted) [118 products] (B)	% Δ A/B (C)
1914	100	100	—
1919	342	373	+ 9,0
1920	493	474	− 3,9
1921	406	419	+ 3,2
1922	394	397	+ 0,8
1923	468	469	+ 0,2
1924	529	532	+ 0,6
1925	555	556	+ 0,2
1926	734	729	− 0,7
1927	836	822	− 1,7
1928	873	867	− 0,7
1929	940	950	+ 1,1
1930	922	956	+ 3,7
1931	817	893	+ 9,3
1932	749	864	+15,3
1933	733	843	+15,0
1934	679	811	+19,4
1935	727	813	+11,8
1936	744	846	+13,7
1937	817	884	+ 8,2
1938	839	893	+ 6,4
1939	797	914	+14,7

Source: P. SCHOLLIERS, *Loonindexering en sociale vrede*, p. 332.

Appendix 3

SURVEY OF THE INDEX-LINKED WAGES IN BELGIUM
(PER INDUSTRY)



(*) National agreements.

Source: P. SCHOLLIERS, *Loonindexering en sociale vrede*, op. cit., p. 175.

Appendix 4

ACTUAL NUMBER OF INDEX-LINKED WAGE AGREEMENTS, 1920-1924, 1932 & 1938

	1920	1921	1922	1923	1924	1932	1938
mining	1 (*)	1 (*)	1 (*)	1 (*)	1 (*)	1 (*)	1 (*)
quarries	2	5	3	10	6	2	8
metal	2	3 (*)	2	2 (*)	1	4	3 (*)
glass	1	2	—	1	3	2	1 (*)
chemicals	1	4	2	5	2	?	9
textiles	—	4	4	6	2 (*)	2 (*)	4 (*)
leather	1	1	3	2	3	6	2
ceramics	—	—	1	2	1	1	4
food	2	—	1	5	3	2	2
clothing	—	2	—	8	6	1	1 (*)
construction	1	2	4	1	4	1	1 (*)
wood/cabinet making	1	6	2	9 (*)	6	2	2
tobacco	—	—	—	2 (*)	1 (*)	1	—
paper	1	—	—	1	—	—	2
printing	1 (*)	1 (*)	1 (*)	1 (*)	1 (*)	1 (*)	1 (*)
art and precision	—	1	1	1	—	1	—
transport	—	2	—	6	4	2	3
Total	14	34	25	63	44	29	49
this total as a % of total no. of collective agreements	13,2	39,1	50,5	62,4	73,3	?	?

Source: P. SCHOLLIERS, *Loonindexering en sociale vrede*, op. cit., p. 168.

Appendix 5

PURCHASING POWER OF BELGIUM, FRANCE AND THE U.K., (1914-1939)

	Belgium			France	UK
	competing sectors	sheltered sectors	all industries		
1913/14	100	100	100	100	100
1919	52.7	47.7	46	—	—
1920	83.8	69.7	70.6	105.7	111.3
1921	87.4	92.0	84.2	114.5	113.6
1922	102.5	97.1	96.6	118.7	112.5
1923	97.5	94.1	91.3	119.0	109.7
1924	102.4	78.5	90.2	117.0	110.6
1925	97.0	91.6	92.0	111.7	110.7
1926	84.7	74.7	77.1	101.2	110.1
1927	95.6	80.8	83.1	102.0	115.7
1928	98.1	90.8	89.5	104.7	114.9
1929	104.1	102.7	98.6	107.0	116.7
1930	111.2	104.0	102.0	118.2	120.8
1931	101.4	105.9	100.2	118.1	126.9
1932	82.9	98.3	87.8	119.3	127.6
1933	83.8	101.2	90.0	127.3	130.0
1934	98.6	96.1	97.1	129.9	130.5
1935	98.6	86.9	93.7	137.8	130.8
1936	101.3	85.6	96.8	149.4	130.1
1937	118.8	94.7	105.6	145.0	127.3
1938	127.9	97.2	110.7	140.6	130.0
1939	127.6	93.5	103.8	144.5	—

Source: Belgium: original calculation
UK & France: see note 53.