Sticky or flexible? Wages in Finland during the Great Depression

1. Introduction
Nominal wage stickiness is one of the great themes of the research on the Great Depression. Why did nominal wages adjust so slowly to falling prices and causing decline of output and massive unemployment? According to the sticky-wage hypothesis the slow adjustment of wages raised real wages above the market-clearing level, to which employers responded by cutting their labour force.\(^1\) Despite the popularity of the hypothesis as an explanation for the gravity of the Great Depression, the stickiness of nominal wages is still quite a puzzle. According to Ben S. Bernanke it is difficult to reconcile the tardy adjustment of nominal wages adjustment during massive unemployment “with the postulate of economic rationality”. He states that “[w]e cannot claim to understand the Depression until we can provide a rationale for this paradoxical behavior of wages”.\(^2\)

Various explanations have been offered for this paradox – but many of them have also been disputed. Collective bargaining and the power of trade unions is a reason often presented, but its explanatory power has been contested by noting that most of workers were outside the system of collective bargaining and that not in all countries did unionization rates grow during the interwar years. Internal labour markets of key sectors is one possible explanation for nominal wage stickiness in USA, but it hardly applicable to European labour markets. Unemployment benefits have been often seen as an important or even the uppermost cause for wage stickiness Yet several studies (e.g. on UK and Germany) have shown that benefits had a minor role in boosting unemployment and as a result making wages inflexible.\(^3\) A further explanation is “coordination failure”, i.e. unwillingness of workers to accept nominal wage cuts, when there is no guarantee that other wage or income earners are willing to make concessions too. Klas Fregert has found coordination failure to be a plausible explanation for nominal-wages stickiness in Sweden during the depression.\(^4\)

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\(^1\) Bernanke 1995; Bernanke & Carey 1996; Bordo et al. 2000.
\(^2\) Bernanke 1995, 2.
\(^3\) Eichengreen 1992, 217–8, 226–8.
\(^4\) Fregert 2000.
This paper examines nominal wage stickiness in Finland during the depression. The paper is organised as follows. Following section discusses problems of defining and measuring wage flexibility. Section 3 describes the structure of the Finnish economy in the 1920s and the 1930s and draws general outlines of the Great Depression in Finland. Section 4 examines the development of nominal and real wages in Finland during and after the depression focusing on manufacturing industries. Concluding section 5 puts Finnish wages in a comparative perspective and discusses possible causes for divergent experiences.

2. Measuring wage stickiness

It is somewhat paradoxical that the flexibility of nominal wages must be measured by real wages, although labour was not sold and bought at real but nominal prices, i.e. money wages (W). The variable used in gauging wage stickiness during the Great Depression has been nominal wage deflated by wholesale price index (WPI)\(^5\) or by GNP deflator\(^6\), which are used as a proxy of producer prices. When we deflate nominal wage by producer price we get real product wage, on which demand of labour depends. According to sticky-wages theories nominal wages did not fall as fast as producer prices and as a consequence pushed real product wages over the pre-depression level and as a result demand for labour diminished.

Yet from the point of view of labour supply relevant measure of real wage is not the product wage (e.g. \(W/WPI\)) but the real consumption wage, i.e. nominal wage deflated by consumer price index (CPI), i.e. \(W/CPI\). This distinction is irrelevant, if producer and consumer prices move concurrently, so that nominal wage changes transform identical real wage changes from the point of view of labour demand as well as supply. However, this was not the case during the Great Depression, since producer prices (measured by WPI) fell more than consumer prices. WPI fell in 15 European countries and USA by 27% on average from 1929 to 1932, while CPI declined “only” by 16%.\(^7\)

The effect this imbalanced price change on labour market is illustrated in Figure 1, where hypothetical short-term labour demand and supply curves are plotted. Let us assume that labour market was in equilibrium in 1929 with nominal wage level \(W_{1929}\). As a response to declining product prices labour demand curve would have shifted downwards so that in 1932 new nominal wage corresponding the market-clearing real product wage of 1929 would have been \((W^d, 27\%)\).

\(^7\) Sources: Finland, Hjerpe 1989; Sweden, Edvinsson & Söderberg 2010 and Statistisk årsbok för Sverige 1940; other countries, Mitchell 1998 a–c. European countries included in then average are Austria, Belgium, Czechoslovakia, Denmark, Finland, France, Germany, Hungary, Italy, Netherlands, Norway, Poland, Romania, Sweden and UK.
below W1929). If labour supply would not have reacted and nominal wages would have remained unchanged, the result would have been a decline of employment from E1929 to E'. Suppose then that labour supply curve would have adjusted to price changes but according to CPI so that the real consumption wage would have remained on 1929 level. This wage (W*, 16% below W1929) would have resulted in employment E'' higher than in case of sticky nominal wages (E') but lower than before the depression (E1929). In the new equilibrium nominal wage would have been W* and employment E*, still below pre-depression level because of the unequal change of producer and consumer prices and, hence, unequal change of real product and real consumption wages. Finally, if labour demand would have adjusted to falling prices “accepting” wage W*, the real product wage would have risen by 15% from 1929 level and, respectively, if labour supply would have adjusted to wage Wd, the real consumption wage would have fallen by 13% from 1929 level according the average deflation percentages mentioned above.

According Ben S. Bernanke and Harold James, given “the presumption that the general public was aware that prices, and hence the cost of living were falling, it is hard to understand how
nominal wages could have been so unresponsive”. They too measure nominal wage stickiness by calculating real product wages (W/WPI) and implicitly assume that producer and consumer prices moved in tandem, although – as we have seen above – they did not. It would be perhaps easier to understand the unresponsiveness of nominal wages and the disequilibrium of labour markets, if we take into account also the unequal effects of deflation on labour demand and supply.

Besides the choice of proper deflator, there are various empirical problems related to the measurement of nominal and real wages during the depression. Should we focus on e.g. hourly wages, although number of hours worked per week, month or year may have varied a lot from pre-depression levels? From the point of view of labour demand the problem here is that because of reduction of working hours and of labour hoarding, the real product wage may be “a poor measure of marginal cost of labour”. From worker’s point of view, again, less working hours mean less earnings, which makes the real consumption unit wage (e.g. real hourly wage) a poor measure of real income and standard of living. These questions are discussed below in the light of Finnish wage data, but before that a sketch of the course of depression and recovery is presented.

3. The Great Depression and recovery in Finland

The 1920s and 1930s has been characterized by Olle Krantz as the period of Finland’s “industrial breakthrough” – a process that Sweden according to him had experienced already in 1890–1910. And in European comparison Finland was still a more latecomer in the process of industrialization. Even though manufacturing industries grew fast during the interwar years, the structure of the economy was in the end of the 1930s still notably agrarian (cf. Table 1). A peculiarity of the Finnish economy was the great importance of forestry, which was closely linked to the agriculture proper. Farmers owned most of the forests, which were an important source of income for them. Furthermore, employment in logging and floating was very important for the rural economy. Since forest industry (sawmills, pulp and paper industries) was the most important manufacturing industry, we may say that the “wide forest sector” – forestry plus forest industries – was the key sector of the Finnish economy. This was an important factor also in shaping the course of the Great Depression in Finland.

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8 Bernanke & James 2000 [1991], 84.
9 Bernanke & James 2000 [1991], 86.
Table 1. Finland’s GDP and employment by economic activity 1925–1927 and 1936–1938 (%)

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<tbody>
<tr>
<td>Agriculture, hunting</td>
<td>22.1</td>
<td>17.1</td>
<td>46.8</td>
<td>39.6</td>
</tr>
<tr>
<td>and fishing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forestry</td>
<td>14.5</td>
<td>16.0</td>
<td>10.4</td>
<td>10.2</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>22.1</td>
<td>24.3</td>
<td>16.9</td>
<td>20.6</td>
</tr>
<tr>
<td>Construction</td>
<td>6.0</td>
<td>5.5</td>
<td>4.3</td>
<td>4.5</td>
</tr>
<tr>
<td>Transport and</td>
<td>5.4</td>
<td>5.8</td>
<td>5.4</td>
<td>5.5</td>
</tr>
<tr>
<td>communication</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Services</td>
<td>29.9</td>
<td>31.3</td>
<td>16.2</td>
<td>19.6</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
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</tbody>
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The Finnish economy had been an open economy already since the 1870s and had an exports-to-GDP ratio of 20–25% at the beginning of the 20th century. After the fall caused by the First World War Finland returned in the 1920s to her old exports-to-GDP level. Therefore exports had an great effect on the course of the Great Depression in Finland. Forest industry was the dominant or practically the only major export industry during the interwar years: the share sawn goods and other wood industries products alone was over 40% of exports in 1926–1928 (cf. Table 2). Therefore fluctuations in export volumes and prices had a great and direct effect on the incomes of farmers as well as forestry workers and on rural economy at large. The Great Depression and the economic recovery of the 1930s caused a notable structural change in Finnish exports as pulp and paper industry became the largest export industry surpassing sawmill industry, which however maintained its important position.

Table 2. Finland’s and exports by industry, 1926-28 and 1936-38 (%)

<table>
<thead>
<tr>
<th></th>
<th>1926–28</th>
<th>1936–38</th>
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<tbody>
<tr>
<td>Agriculture</td>
<td>10.7</td>
<td>8.3</td>
</tr>
<tr>
<td>Forestry and wood</td>
<td>42.9</td>
<td>42.6</td>
</tr>
<tr>
<td>industry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pulp and paper</td>
<td>28.6</td>
<td>40.4</td>
</tr>
<tr>
<td>industries</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mining and metal</td>
<td>2.4</td>
<td>3.4</td>
</tr>
<tr>
<td>industry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other industries</td>
<td>15.3</td>
<td>5.3</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Statistical yearbook for Finland (Suomen tilastollinen vuosikirja).

The export of sawn goods reached record levels in 1927, diminished by more than a tenth in 1928 but increased slightly in 1929 before slumping in 1930–1932 to 58 per cent of the 1927 level.
Export started to grow again from 1933 onwards but remained below the pre-depression level the rest of the decade.\textsuperscript{13} Exports of pulp and paper came in 1929 to a standstill and also 1930 was a recession year, but after that exports spurted to so fast growth that and volume doubled by 1936. Total export of goods exceeded already in 1933 the level of 1929 as did GDP, too.

![Figure 2. Finland's GDP and exports, 1926-1936](image)

If we measure the depth of the Great Depression and the speed of recovery by GDP volume, Finland was – together with Sweden – clearly a top performer among the European economies. Finnish GDP declined only by 4.1\% from 1929 to 1932. After the depression recovered rapidly and surpassed rather quickly the pre-depression level of GDP. However, measured by real personal consumption expenditure the depression was truly great in Finland. Consumption fell in Finland almost as much as in USA, where also real GDP slumped. Yet also consumption recovered in Finland but notably slower than GDP; in this respect Finland fell behind Sweden.\textsuperscript{14}

Rapid bounceback of exports was the key for Finland’s quick recovery, and the depreciation of the Finnish \textit{markka} again was a central factor in boosting exports. Finland abandoned the gold standard in October 1931, two weeks after Britain and Sweden, Denmark and Norway. Britain was the main export market for Finland, so it was quite natural to follow sterling to assure

\textsuperscript{13} In fact the July 1927 record level of sawn timber was exceeded only in the 1970s.

\textsuperscript{14} I have compared Finland’s and Sweden’s recovery in Heikkinen 2011.
competitiveness in the main export market. As exchange rates were stabilized in 1933 markka, had depreciated by 15% against sterling and by 9% against the Swedish krona. Hence, Finland’s exchange rate policy improved the competitiveness also against Swedish exporters. Yet both countries were among the sterling area countries, which – as Barry Eichengreen and Jeffrey Sachs have pointed out – recovered from the depression better than gold block or exchange control countries.  

The course of the depression and the shape of the recovery were very different in the main industries. The bottom was hit in manufacturing industries in 1931, and growth was rapid from 1933 onwards – thanks to fast growing pulp and paper industries. Production fluctuation in forestry followed to a great extent those of sawmill industry. Yet recovery was slightly better, since demand of wood grew in pulp and paper industries. In agriculture the problem was not declining volume but sinking prices – they fell by a third from 1928 to 1931 and did not really rise before 1937. In construction industry the depression was deepest. The overheated boom of the late 1920s that peaked in 1928 was followed by a dramatic decline and the depression was not

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16 Statistical yearbook of Finland, various years.
really over before 1935.\textsuperscript{17} This variation in the production of different industries was reflected also in their wage levels.

4. Employment, hours, wages

Data on wages in Finland during the depression comes from several different sources, since Bureau for Social Research started the systematic collection and publication of wage statistics just after the depression (1936 onwards). Although wages data is somewhat fragmented, the big picture is, however, clear enough. It is presented in Figure 4 that shows that nominal wages were very much flexible in Finland during the Great Depression. Average hourly wage in manufacturing industries fell from the peak to trough (1929–1932) by 21\% but in forestry average nominal daily wage was cut by total 38\%. Hourly wages of construction workers in Helsinki fell according to Matti Hannikainen by 40–50\% and piece rates even more (50–70\%).\textsuperscript{18} Thus, we may say (cf. Figure 3), that the relative decline of wage level in different corresponded quite well with the development of output.

\textbf{Figure 4. Nominal and real consumption wages in forestry and manufacturing, Finland 1928-1936}

* = hourly wages; ** = daily wages
Real wages = nominal wages deflated by consumer price index.
Source: Author’s calculations.

\textsuperscript{17} Hannikainen 2008.
\textsuperscript{18} Hannikainen 2008.
Fall in real consumption wages (W/CPI) was less dramatic. In manufacturing industries real hourly wage was in 1932 only 1.5% below 1928 level – yet 12% below 1930 peak. In forestry, too, real consumption wage hit the bottom in 1932, when it was 26% below 1928 and 28% below 1930 level. Real hourly wages of construction workers in Helsinki declined by 25–35% from the pre-depression peak to the trough of 1932. A comparison of output and wages show that at the outset of the depression real wages were both in forestry and in manufacturing countercyclical, as the decline of nominal wages was more than compensated by the fall in cost of living. In 1931 and 1932 real wages fluctuated procyclically, i.e. fell together with output. Upswing started in production in 1933 and in real wages a year later. In the following wages of manufacturing industries are given a closer scrutiny. This is partly for reasons of data availability but also because of possibilities of international comparison, since most of the studies on wages during the depression examine solely manufacturing wages.

![Figure 5. Production of manufacturing industries, 1926-1936 (volume indices)](source: Sahavirta 1959)

Finnish industrial output volume increased rapidly in 1927 and 1928 and still a little in 1929 (cf. Figure 3). In next two years (1930–1931) output declined a total of 15% of 1929 levels. Volume increased slightly in 1932, and the following year saw a rapid growth path. The pre-depression level of output was exceeded in 1934. The depression did not, however, hit all

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manufacturing industries with the same force (cf. Figure 5). Paper industry (in the following a shorthand for wood pulp, pulp, paper and paperboard industries) deviated from the all-manufacturing average most, and its output grew through the depression years. This was possible because of the success in export markets (cf. Figure 2). Yet paper industry differed also from the other main export industry, woodworking industry (e.g. sawmill and plywood industries), where post-depression growth was exceptionally short: output grew in 1933 and 1934 but declined again in 1935. Recovery would have been still more modest without plywood industry’s growth, since sawmill industry did not truly get back to growth track.

In the two main branches of the domestic market industry – textiles and metal industry – production diminished notably during the depression. There were differences in timing of the depression with textile’s fluctuations heading those of metal industry by a year. Production of the textile industry peaked in 1928 and hit the bottom in 1931. In metal industry 1929 was the year of output peak and 1932 was the trough. There were also differences in the depth of the depression. Also there were differences in depth of the recession. Output of metal industry, which had grown rapidly in 1928 and 1929, declined during the depression far more the production of textiles, which again had been quite stagnant during the boom of the late 1920s.

On the basis of employment figures the start and the bottom of the depression in manufacturing can be dated by quarter, since manufacturing statistics of Finland collected the number workers four times in a year: January, April, July and October. Employment of
manufacturing industries reached record level of the 1920s in July 1928 and hit the lowest figure in January 1932. As Figure 6 shows, seasonal variations were considerable especially on the countryside, where employment in sawmill industry fluctuated considerably during the year.

In the development of employment there were considerable differences between the manufacturing industries – differences which were not caused merely by the trend and the fluctuations of output. In woodworking industry, i.e. mainly sawmills, number of the workers decreased in five years (1927–1932) by 43%: from over 50,000 workers to less than 30,000. After the depression the number of employees rose up to 44,000 in 1936. The decline of employment was notably lesser in other manufacturing industries but yet significant. In the metal industry number of workers diminished by 22% (1929–1931) and in the textile industry by 15% (1928–1931). In both industries employment improved fast and evenly as recovery started. Paper industry was a case of its own also with regard to employment trend and fluctuations. Even though production increased evenly and with speed, the number of employees did not increase significantly implying a notable growth of labour productivity. During the depression number of the workers diminished also in the paper industry: by 16% from 1927 to 1932.
Reducing the number of workers was not the only method to adjust labour input to the diminished output. Also the number of working days per week or month and the number of hours per week or month varied. This was pointed out e.g. by Ben S. Bernanke in his study on US manufacturing industries during the Great Depression.\textsuperscript{20} If weekly, monthly or annual working hours are changed notably, so did also the ratio of hourly wages to earnings, which again makes the use of wage rates a bit problematic, at least from the standard-of-living point of view.

In Finnish manufacturing industries, too, weekly working hours varied during the depression. In this respect four industries analysed above were divided into two. In textile and metal industries the number of working hours per week was reduced notably during the depression and increased again during recovery. In other word, in these industries labour was hoarded. In woodworking and paper industries, instead, the number of weekly working hours remained quite constant during the depression. There were, however, considerable differences between a woodworking and paper industries. Firstly, working week was in paper industry about five hours longer than in woodworking industry. In a fast growing industry such as paper industry the problem was no how to hard labour but rather how to intensify the use of it. Woodworking industry in contrast was hit hard by the depression. There labour input was adjusted to declining

\textsuperscript{20} Bernanke 1986.
demand harshly: mills were closed (their number fell by 44%, 1928–1932) and workers were sacked. In textile industry and metal industry the number of the plants did not actually diminish; these industries adapted to the depression by reducing labour force and also weekly working hours. It is probable that the length of the working week would also have been shortened, if its production had contracted in the same way as in textile industry and metal industry. Paper industry was large-scale industry, where hoarding of the skilled labour during the depression can be rational employer policy.

Figure 9. Hourly nominal wages in manufacturing industries, 1926-1936

Nominal hourly wages fell within all the four manufacturing industries examined, but the steepness of fall varied. As one might expect, wages declined most in woodworking industry, where nominal wages were cut by more than a quarter. Hourly nominal wages fell noticeably also in metal industry and also in paper industry, although output developed there much more favourably than in other industries. In textile industry hourly wages fell least (cf. figure 9).

Picture changes slightly, when we explore weekly instead of hourly wages. It should be emphasized that curves plotted in Figure 10 do not reflect the actual weekly earnings, since they are calculated by multiplying the average hourly wage with the number of working hours per week length (cf. Figure 8). Working week shortened most in textile industry, a little less in metal and
very little in woodworking and paper industries. As a result, variation in weekly wages is smaller than in hourly wages. And same applies, logically, also to real wages.

The scrutiny above shows that the flexibility of wages during the Great Depression had, at least in Finland, is a complex phenomenon, which could not be measured by one single indicator. Different industries had their own idiosyncrasies also with regard to wages and labour policy. We can add the complexity by examining wages in relation to productivity. This is done in table 3, where the development of output, employment and wages is summarized by comparing year 1932, the bottom of the depression, with 1928.

The first line of the table tells us that output declined in all four manufacturing industries with the exception of the paper industry. Rows 2–4 show, how industries adjusted to the changes in production. In woodworking industry the number of both plants and employees decreased dramatically, but the working hours per week were not reduced. In metal industry employment decreases, but working week was not shortened. In textile industry again both methods of adjustment were utilized: fewer workers worked less hours per week. In paper industry working week was instead slightly prolonged, while the number of employees fell slightly. Labour productivity (line 6) from 1928 to 1932 increased substantially in paper industry and notably in woodworking industry, too. Yet the sources of productivity growth might have been quite
different. There were many sawmills, a huge part of which were shut down because of the depression (cf. row 2). If those that were left had higher than average productivity, the average labour productivity rose. In paper industry, were there fewer factories, almost all of which continued production despite the depression, productivity growth must have been a result of genuine increase of productivity. In textile industry labour productivity increased a bit, whereas in metal industry it declined by a fifth.

Table 3. Output, employment, productivity and wages in manufacturing industries in 1932 (1928=100)

<table>
<thead>
<tr>
<th></th>
<th>Woodworking</th>
<th>Paper</th>
<th>Textile</th>
<th>Metal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Output</td>
<td>72.6</td>
<td>128.6</td>
<td>83.3</td>
<td>68.8</td>
</tr>
<tr>
<td>2. Number of plants</td>
<td>69.5</td>
<td>95.5</td>
<td>94.2</td>
<td>94.7</td>
</tr>
<tr>
<td>3. Employment</td>
<td>59.0</td>
<td>91.3</td>
<td>85.9</td>
<td>86.5</td>
</tr>
<tr>
<td>4. Workweek (=3·4)</td>
<td>98.7</td>
<td>101.7</td>
<td>90.9</td>
<td>99.1</td>
</tr>
<tr>
<td>5. Labour input (=3·4)</td>
<td>58.3</td>
<td>92.8</td>
<td>78.1</td>
<td>85.6</td>
</tr>
<tr>
<td>6. Labour productivity (=1÷5)</td>
<td>124.7</td>
<td>138.1</td>
<td>106.8</td>
<td>80.3</td>
</tr>
<tr>
<td>7. Hourly nominal wage</td>
<td>74.8</td>
<td>82.9</td>
<td>97.6</td>
<td>85.6</td>
</tr>
<tr>
<td>8. Weekly nominal wage</td>
<td>73.7</td>
<td>84.2</td>
<td>88.8</td>
<td>84.8</td>
</tr>
<tr>
<td>9. Hourly real consumption wage</td>
<td>90.0</td>
<td>99.7</td>
<td>117.5</td>
<td>102.9</td>
</tr>
<tr>
<td>10. Weekly real consumption wage</td>
<td>88.8</td>
<td>101.4</td>
<td>106.8</td>
<td>102.0</td>
</tr>
<tr>
<td>11. Hourly real product wage</td>
<td>98.9</td>
<td>106.1</td>
<td>99.8</td>
<td>86.6</td>
</tr>
<tr>
<td>12. Hourly real product wage / labour productivity (=11÷6)</td>
<td>79.3</td>
<td>76.8</td>
<td>93.5</td>
<td>107.8</td>
</tr>
</tbody>
</table>

Nominal wages decreased in all industries, but most in woodworking industry. Because of falling consumer prices real wages were in 1932 slightly above the level of 1928 with the exception of the woodworking industry, where the real consumption wage declined by about 10%. The picture changes, if we switch the angle from labour supply to demand and explore changes in real product wages, which should in principle measure changes in average cost of labour. Row 11 shows that in woodworking and textile industries real product wage was in 1932 practically the same as in 1928. In paper industry real product wage was 6% higher than in 19228, whereas in metal industry it dell by 13%. Finally, comparison of real product wages and productivity turns tables once more. The row 12 shows that the real unit cost of labour declined very much (23%) in paper industry, almost as much in woodworking (21%), slightly (6%) in textile industry; only in metal industry real product wage rose, if we take into account all the relevant changes.

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21 Real product wages are calculated by deflating nominal hourly wages by relevant industry-specific price indices: export prices in case of export industries (woodworking and manufacturing) and domestic whole sale price indices in case of home market industries (textile and metal).
5. The peculiarity of the Finnish wages?

Wages were flexible (downwards) during the Great Depression – both in nominal and real terms. This was not the normal case, as Barry Eichengreen and Jeffrey Sachs already pointed out in their 1985 article comparing the post-Great-Depression recovery of European countries. Although Finland belonged to the group of sterling area countries, which recovered swiftly after depreciating their exchange rates, decline of real wages made her an exception.22

There are, however, more than one way to and measure wage flexibility. Firstly, we might examine the pure, say “nominal nominal”, flexibility of wages, i.e. wages measured in terms of money. If we use this as our yardstick, it is clear that wages were most European countries during the Great Depression: in gold block countries (with the exception of France), in exchange rate control countries and in Finland money wages fell. In fact only in sterling are (UK plus Nordic countries) “nominal nominal” wages were sticky – and even here Finland made an exception to the rule.23

Yet, as mentioned above, stickiness of nominal wages is not measured in money terms but in relation to prices, preferably to producer prices. This real wage, which should reflect marginal cost, shows whether wages have adjusted to the changes in demand. The price index most often used as a deflator is wholesale price index, which behaved quite differently from consumer prices, implying that real consumption and real product wages developed in different manner during the depression and the recovery.24

Figure 11 presents real wage development of five countries from 1929 to 1936. Real consumption wages (W/CPI) are plotted along the horizontal axis and real product wages (W/WPI) on vertical axis. The dotted diagonal line indicates the route, along which real wages should have moved if the relation of both kind of real wages would have remained unchanged. According these curves Finnish wages behaved truly exceptionally, since both real consumption and real product wages declined during the depression and even during the recovery (up to 1936) real product wages did not exceed pre-depression level, whereas real consumption wages rose from 1934 onwards. In all other countries both kind of real wages rose. In Netherland, which remained in the gold standard, real product wage rose very high but that happened also UK that left gold in 1931. Yet recovery was different in these two countries. Real product wage fell in both but in UK real consumption wage was in 1936 notably higher than in Netherlands. Sweden was a

case between them, whereas the USA, which left gold in 1933 seems to have followed a route of her own.

An obvious explanation for the peculiar flexibility of wages in Finland during the Great Depression is to be found in the politico-institutional setting of the labour market, the roots of which can be found in civil war of 1918. After it the power of trade unions was already quite limited and it abated still just before the depression, as political turmoil led to dissolution the central organization for trade unions. And although a new central organization was established, it was quite obvious that the Finnish labour market in the 1930s was dominated by the employers, who – especially in the manufacturing industry – refused categorically to enter into collective agreements with the trade unions. And since there were no public unemployment benefits, we may say that the Finnish labour market was very much a free market.25 The contrast with the neighbouring Sweden with her emerging “Swedish model”26 – and relatively sticky wages – could hardly have been greater. Besides politico-institutional explanations one might find reasons for

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26 Lundh 2010, 145–229. It might be, as Carl-Axel Nilsson has stated, that “Finnish employers were in no way unique in their thinking and modes of reaction. Their fundamental values were the same as those of their colleagues in Denmark and Sweden”, Nilsson 2001, 180. However, labour market outcomes – at least measured by wages – were quite different.
Finnish wage flexibility also in her economic structure. The importance of forestry and close link between main export industry and rural economy was an important factor shaping economic development in Finland during the interwar years.

**Bibliography**


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