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ARTICLES

The economics of wages and wages policy in the depression and recovery period: distinctive elements in the New Zealand debate, 1931-1936

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This article discusses distinctive features of the New Zealand debate on the economics of wages and wages policy from 1931 up to the restoration of compulsory arbitration in 1936. Local economic orthodoxy proffered advice which, consistent with Keynes (1936), turned on the need for a general real wage reduction effected mostly through currency devaluation, rather than through further money wage cuts. Dissenters were critical of currency devaluation; they stressed excessively generous unemployment relief, real wage 'overhang' and structural real wage distortions. Tentative estimates of both aggregate real product wage and labour productivity changes demonstrate, prima facie, that at least one strand in the dissenting argument was defensible.

1. Introduction

As James Holt (1986, pp.185-89) explained, the nadir of the first 40 years of compulsory arbitration in New Zealand was reached in 1932 when the Industrial Conciliation and Arbitration Act was amended radically to replace compulsory arbitration with voluntary arbitration and compulsory conciliation. Holt stressed the social and political nature of the events connected with wages and wages policy up until and including 1932. He did not advance beyond some cursory observations on real wages, on employment and on their interconnections with contemporary macroeconomic policy. Indeed, contemporary debate on the economic consequences of wages policy in the depression and early recovery period has been neglected in the literature hitherto dominated either by historians (e.g. Stone 1963; Holt 1986) or by commentators with a prime interest in the evolution of the industrial relations system *in vacuo* (e.g. Hare 1946; Woods 1963).

In the closing pages of his book *Compulsory arbitration* Holt (1986, pp.185-86) referred to the "appalling" wage-cutting policy proposals implemented in 1931 as being due to the "employers' persuasive power [and] also [to] the persuasive power of economic orthodoxy". In doing so, he overlooked the importance of distinguishing real wages from money wages. He related civil service money wage cuts, in particular, to the intellectual shackles forged on the minds of policymakers and their economic advisers - both of

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whom were obsessed with a balanced government budget in what he described as a "pre-Keynesian age". However, it was not Holt's intention to thoroughly evaluate the substance of arguments for wage-cutting formulated by 'economic orthodoxy'. I shall demonstrate that the Belshaw-Copland-Tocker orthodoxy in New Zealand economics was entirely consistent in its wages policy advice with Keynes' prescriptions for wage and labour market adjustment in the years up to 1936 and in the *General theory* (1936) itself.

This article proposes to provide an intellectual history of distinctive features of the New Zealand debate on the economics of wages policy from 1931 up to the restoration of compulsory arbitration in 1936. Reference will be made to relevant, although severely inadequate, contemporary data on prices and wages. Furthermore, I shall provide tentative estimates of real product wages and of labour productivity with a view to comparing and contrasting the accuracy of various contemporary claims made about the impact of wage levels and wages policy during this period (see Hawke, 1985a, chapter 7 for discussion of the broad contours of New Zealand's economy from 1931-1936).

2. Orthodox wages policy advice in New Zealand in the early 1930s: its consistency with Keynes' proposals

At first glance, what is striking to anyone familiar with New Zealand economic thought on wages policy during the inter-war period is the scant attention given to the contemporary, highly amplified real wage - employment debate in Britain (Casson 1983; Garside 1987). Some reasons for such local neglect might have been that in Britain, unlike New Zealand, trade union membership was high and there was no centralised wage fixing institution. Also, the British economy, compared with the New Zealand economy, was not as dependent on export income. As is well known, Keynes' *General theory* dealt predominantly with the closed economy case.

Keynes (1936, pp.262, 270) insisted firstly, in respect of money wages, that if:

> we are dealing with an *un*closed system, and the reduction of money-wages is a *reduction relatively to money-wages abroad* ... it is evident that the change will be favourable to investment, since it will tend to increase the balance of trade. [Keynes' emphasis].

Secondly, he maintained that while "a stable general level of money-wages is on a balance of considerations, the most advisable policy for a closed system" such a conclusion would not hold good for a more open economy unless "equilibrium with the rest of the world can be secured by means of fluctuating exchanges". On the basis of these 2 observations alone, given both New Zealand's small open economy in the 1930s and its stable exchange rate regime, policy-induced reductions in the general level of money wages or fluctuations in money wages could still be regarded as solutions Keynes would have offered to insufficient investment and mass unemployment, other relevant factors (e.g. the foreign exchange rate) remaining unchanged.

Turning to Keynes' position on real wages before and after publication of the *General theory*, it is clear that he fully accepted the microeconomic basis of pre-Keynesian or classical labour market doctrine. That is, Keynes accepted the proposition that, given other factor inputs, the marginal product of labour would diminish as employment expanded (Keynes, 1936, pp.17-19). Therefore, with diminishing returns raising the supply price of increased output, further employment required real wage reductions. Keynes (1936, p.17) did *not* dispute the key classical postulate that "an increase in employment can only occur to the accompaniment of a decline in the rate of real wages". The issue for Keynes was how best to bring such a reduction about. However, this statement should not be made without equivocation. It was not until the late 1930s that Keynesians, especially Joan Robinson, came to emphasise that in an economy operating well below capacity and possibly in conjunction with rapid technical change, the marginal product of labour could rise (and its marginal cost fall) as output expanded. Increasing returns to labour might then yield a *positive* relationship between employment and the real wage (see Garside 1987, p.80).

As early as 1931 Keynes agreed that in the short-term general money wage cuts could not easily be used to reduce real wages (Casson, 1983, p.162). Instead he favoured a rise in the general level of consumer prices above the rate of money wage growth (Keynes, 1936, p.264). The lesson for policymakers following Keynes' prescription was to engineer a rise in product demand or, alternatively, find some other mechanism (e.g. an exchange rate devaluation), which would raise output prices relative to money wages. Real wages would then fall and employment increase (Garside, 1987, pp.77-79).

Economic orthodoxy in New Zealand, represented by the Economic Committee convened in 1932, held that a general real wage reduction was a prior condition for recovery and a rise in employment. The Committee comprised economists Hight and Tocker (Canterbury), Copland (Melbourne), Belshaw (Auckland) and Park (Treasury). To ensure a real wage reduction they prescribed state regulated money wage cuts together with a package to deflate domestic prices and a devaluation of the New Zealand currency (Park dissenting on the latter).[1] The *Report of the Economic Committee [REC]* (1932) reinforced wage policy initiatives taken during 1931. These initiatives, the accompanying government rationalisation as well as contemporary debate, deserve a brief review.

The Finance Act 1931 empowered the Arbitration Court to amend all awards at intervals of 6 months until expiry of the Act in late 1932. The Court was required to take into account "economic and financial conditions" affecting New Zealand. Accordingly, after considering workers' and employers' submissions, the Court issued a general order reducing money wages and awards by 10 percent. The workers' submissions generally "showed no real grasp of real wages as opposed to money wages"; they "did not realise or would not admit" that provided consumer prices fell commensurately with wages, purchasing power would remain unaltered (Belshaw, 1934, pp.47-50). The report of the No Wages Reduction Conference (New Zealand Alliance of Labour, 1931) confirms these observations. Some concern was shown for casual workers who had already suffered substantial reductions in working hours, although the logic advanced - that no wage sacrifices were warranted for those fully employed because casual workers were already making sacrifices - was hardly credible or consistent with a fair distribution of burdens *within* the labour movement (ibid., pp.12,14). In one submission to the Court, the Secretary of the Amalgamated Society of Carpenters and Joiners was on firmer ground when he speculated, without supporting numerical data, that real wage stabilisation through a money wage reduction did not compensate workers for recent or continuing increases in labour productivity. Other effective submissions pointed to the negative psychological impact of wage reductions on workers' productivity, and on the efficiency of employers who, with general wage reductions, would have less incentive to reduce other costs (Belshaw, 1934, pp.49-50).

The Arbitration Court had not expressly wanted to reduce real wages; it desired merely to stabilise them. The Government, according to the 1931 Budget, was faced with rapidly rising unemployment, substantially lower national income and a continuing decline of consumer prices and export prices. Contemporaneously, money wages had

1 For an account of the development of economic policy advice up to the formation of the Economic Committee see Endres (forthcoming). At one point Holt (1986, p.187) observed that Auckland economist Belshaw "put forward convincing rebuttals" of the argument that the Arbitration Court's award structure "raised costs by keeping wages high". This correctly reported Belshaw's views up to 1931. Belshaw along with other orthodox economists favoured state dictated real wage reductions from 1931.

been maintained, and wages could prospectively be increased further in real terms if the Court did not act. The *REC* estimated that real national income fell by 10-15 percent during 1930 and 1931. The unemployment rate more than doubled from approximately 5 percent of the labour force to 12 percent in that time. Between 1928 and 1932 export prices fell by 43 percent and retail prices by 11 percent. On the other hand, *without* the 10 percent statutory wage reduction of 1931, money wages would have declined by 2 percent between 1928 and 1932 (Economic Committee, 1932, p.81). The question for policymakers, therefore, was

> whether a steadily increasing number of men were to receive higher real wages while a large and increasing number of their fellow workers were to have no wages at all, or whether real wages were to be *kept at the same level as heretofore, with a consequent revival of business and employment* (New Zealand Government, 1931, p.14, emphasis added).

In mid-1931 then, the Government's aim was to *maintain* real wages rather than allow them to rise as product prices declined further. Such a policy was predicated on the supposition that real wage maintenance would stimulate investment and employment. The economic theoretic basis of this policy, if there was to be one, would hardly have been endorsed either by Keynes before 1936, or Keynes (1936), or by any so-called 'classical' economist including A.C. Pigou - all of whom prescribed real wage reductions (by differing mechanisms however), in such circumstances as New Zealand faced. New Zealand wages policy during 1931 had some resemblance to the Australian case where an attempt was made to fix real wages by legislation. Keynes (1936, pp.269-70) disapproved of the Australian strategy. New Zealand economist Condliffe, along with a group of 'Canterbury School' academics, were more sympathetically disposed toward the real wage maintenance objective, at least in early 1931 before further falls of export prices changed their view. Condliffe (1931, p.494), reporting guardedly to the International Labour Organisation, considered real wage maintenance possible but contingent on the prices of world agricultural commodities stabilising at their 1931 level. Further price declines would necessitate a fall in real wages. Canterbury economists (Hight, Tocker and Lawn) did not see a general real wage reduction as necessary or inevitable, at least in January 1931 (see the *Canterbury Chamber of Commerce Economic Bulletin*, No.72, 1931, p.3).

It was not until February 1932 that orthodox economists in New Zealand came fully to propose a real wage reduction policy as part of a macroeconomic depression adjustment and recovery package. The adjustment strategy was designed to "secure a speedy and equitable distribution" of national income losses borne from 1929 to 1932 (Economic Committee, 1932, p.10). Some sectors of the economy, notably agriculturally based exporters, had shared disproportionately more of the burden than other income groups including rentiers, public servants and workers generally. A comparison between the trend of export prices and all domestic prices (including interest rates) up to 1932 formed the empirical basis for this conclusion. The *REC* therefore demanded imperiously that some semblance of equity be reached to ensure, using the contemporary euphemism, "equality of sacrifice" between various income groups. To effect the outcome, widespread state intervention in the economy was recommended to spread the burden of income losses especially toward non-exporting or 'sheltered' sectors of the domestic economy. Internal prices were to be deflated; rents and interest rates by 20 percent and money wages possibly by up to 10 percent in addition to reductions that had already occurred in 1931. An uncompromising conservative domestic deflationist programme was avoided by a recovery package which raised sales taxes by 10 percent and raised export prices expressed in local currency terms through a substantial devaluation of the New Zealand pound. (The example used in the *REC* was a 40 percent deviation from sterling parity). By raising exporters' money receipts the devaluation would both reduce the extent to which internal deflation (including money wage deflation) was necessary to spread income losses and encourage an export-led recovery in national income. Of course, export growth would be further enhanced by wage and interest rate reductions since exporters' costs would tend to fall. Real wages would also fall because with money wages held constant or cut further, domestic prices would tend to rise as a result of the sales tax and the devaluation. The recommendations in the *REC* were eventually implemented, although devaluation (of 25 percent against sterling) had to wait until January 1933. The National Expenditure Adjustment Act (May 1932) did not carry through the *REC's* suggestion of a general 10 percent money wage cut. It moved only to impose cuts in civil service wages on a graduated scale from 5 percent to 12.5 percent. Rents and a wide range of fixed interest charges were reduced by approximately 20 percent (Belshaw, 1933, pp.766-69). While complicated by some offsetting factors such as lower rents, lower mortgage interest charges and some downward price pressure on locally produced (and consumed) goods as real wage costs fell, the intended net effect of the *REC* policy package was a lower level of real wages.

A real wage reduction was intended by the *REC* for 2 main reasons. Firstly, for immediate crisis adjustment purposes, in keeping with the prevailing morality of 'equality of sacrifice', wage and salary earners should, on the *REC's* reckoning, share further in the burden, assist in internal cost reduction and thereby arrest the fall in national income rendered to the export sector. Secondly, for recovery purposes a real wage reduction had employment promoting benefits. The view of the Economic Committee was that the level of aggregate national income was "one of the main determinants of the wage level" (Copland, 1932, p.89). Micro-level, marginal productivity considerations (e.g., at the industry level) were important, but of less relevance in the crisis circumstances of 1932. A passage in the *REC* captures both crisis adjustment and recovery arguments for a general real wage reduction:

> Export prices have fallen much more than import prices... The real income of the community from the point of view of the consumer is the goods and services available for consumption. These goods and services are made up of home production less exports plus imports. The volume of imports has fallen substantially and for the present home-production... has declined. The latter may be restored, but the former cannot until import prices fall relatively to export prices. Hence the community has less real income... and the decline is still going on. In these circumstances it is clear that a decline in wages both money and real is inevitable at least for a time (Economic Committee, 1932, p.28).

It should be remembered that in the early 1930s nearly half the national income was produced by exporters (Economic Committee, 1933, p.4). Moreover, indirectly, the terms of trade were therefore a prime influence on the real wage level. The *REC* took for granted the centrality of export growth in any plan for recovery. With the exception of Fisher, no economist entertained the prospect of a consumption-led recovery and/or of home-production, including public works activity and extensive import substitution, leading New Zealand's recovery. Keynes did not see any prospect for basing New Zealand's recovery on these activities (Keynes, 1983, p.438).

Altogether, the position of New Zealand's economic orthodoxy may be characterised as follows. In the short-term, employment expansion in the crisis adjustment phase was predicated on cheaper money, lower internal costs, including a lower real wage level, and a devaluation. *Ceteris paribus*, national income, especially exporters' share of income, would then stabilise and recovery become more likely although not guaranteed. In the medium-term, employment would expand further in the recovery phase as aggregate demand increased initially as a result of beneficial foreign trade multipliers. Partly, such multipliers would be made favourable by the devaluation and partly by hoped for exogenous rises in agricultural commodity prices. A crucial pre-condition for real wage rises, according to orthodox economists, was an improvement in the terms of trade and an expansion of national income generated in the export sector.

3. Dissenters from orthodox wages policy advice: Murphy and Fisher

The 1932 amendment to the Industrial Conciliation and Arbitration Act removed compulsory arbitration from the statute books. The Act heralded the beginning of a process which eroded the award system until it was resuscitated by legislation in 1936. The economic advantages of this move were promoted by its (political) proponents as facilitating greater labour market allocative efficiency but these advantages were not considered important by orthodox economists (Ross, 1932). Belshaw (1933, p.766) (see also Riches, 1933, p.634 and Ross, 1932), for instance, railed against the amendment, maintaining in the case of strong unions that

> there is no reason to suppose that awards will be any more elastic ... Since trade unionism tends to be strongest in the more important industries, little advantage seems likely to accrue which could not have accrued equally under compulsory arbitration.

Wellington economist B.E. Murphy pursued the possibilities for greater labour market flexibility suggested by the 1932 amendment. His case was identical to that which he made in 1928 at the National Industrial Conference (Murphy, 1928). Small, weak unions of skilled workers as well as less enterprising employers would be disadvantaged by the amendment. Murphy (1932) implied that there would be some changes in wage relativities, possibly narrower margins for skill. Since real and money wages in Murphy's (1932, p.10) assessment were unacceptably rigid downwards, he seized on the opportunity to praise policies which potentially made wages both more variable and more responsive to labour productivity. However, he did not provide estimates of productivity changes to indicate how the Arbitration Court's wage setting procedures previously deviated from remunerating labour on a productivity basis. The compelling reason for mass unemployment which appeared in early 1931 was "a lack of adjustment between the market value of labour and the market value of the product of labour" (Murphy, 1931, p.7). Such a 'lack of adjustment' was in Murphy's estimation due to the upward push on the 'market value of labour' exerted by the Arbitration Act's award system. Employers responded to higher product wages in the 1930s by reducing their demand for labour.

Central to what Casson (1983, p.24) calls "pre-Keynesian" explanations of unemployment in inter-war Britain (offered by Pigou and Clay) were long-run real wage rigidity on the demand side and relatively high levels of unemployment benefits on the supply side. In New Zealand, Murphy's (1931, p.9) argument also turned on these factors, although it was modified to suit local institutions established to administer unemployment relief. Real wages were rigid downwards, so his argument proceeded, both because of compulsory arbitration and the associated award structure which focussed invariably on cost-of-living adjustments instead of productivity changes, and because of egregiously generous public unemployment relief schemes. Murphy forgot to mention that a flat, regressive levy on all wages had been used partly to finance these schemes up to 1932 (and fully to finance them from early 1932). (For a further analysis of unemployment policy in the 1930s see Endres and Jackson, 1989). According to Murphy (1930, p.5),

> the State, by elaborate and costly unemployment relief works, has made provision in great part for the needs of these [unemployed] men, and so far has succeeded in preventing their competition for jobs from breaking down standard [wage] rates.

To unemployment relief, Murphy attributed certain recidivist tendencies which accompany any "so called social services". Thus, such relief schemes "undermine the morale of our people, inhibit saving ... hinder habits of self-reliance" and raise workers' reservation wage (ibid., p.30 and 1931, p.6). A similar but less oblique supply side argument was recently made by Benjamin and Kochin (1979) which purported to show that a high unemployment benefit/wage ratio in Britain was responsible for much inter-war unemployment. Murphy (1931, p.9) was hostile not only to the general level of unemployment relief (rather than the benefit/wage ratio); he opposed many other forms of public expenditure. He asserted significant crowding-out effects on private spending. Murphy's supply side argument was strong on assertion, but weak by modern standards in demonstrating any link between unemployment relief and wage setting structures. More recent social and labour history research on the nature of unemployment relief in the 1930s provides an effective retort to this aspect of "pre-Keynesian" labour market analysis (e.g., Robertson, 1982). On the demand side, Murphy's view remains open to testing.

Although Murphy's supply-side argument might have been suspect, another dissenting perspective on the economics of wages and labour was more in tune with New Zealand's economic circumstances. A.G.B. Fisher, Professor of Economics at the University of Otago and sometime student of Edwin Cannan (a leading economist at the London School of Economics), offered an alternative analysis of labour market adjustment problems in the 1930s. In not sharing the aggregative outlook of economic orthodoxy, Fisher was led to develop an alternative structural disequilibrium perspective of the labour market.

Keynes (1936) argued that mass involuntary unemployment could be reduced by inflating product prices faster than money wages, thereby reducing real wages. The *REC* adopted this approach as early as 1932. Of course, Keynes (1936, p.17) assumed the existence of widespread money illusion and a given state of "organisation, equipment and technique" - assumptions that the *REC* was also implicitly to make for the New Zealand case. In reviewing the *REC*, Fisher (1932a) did not dispute that the average real wage was too high though he resolutely refused to accept first, that the Economic Committee had arrived at some scientifically acceptable formula for reducing real wages and second, that a blanket real wage reduction was economically desirable. His argument turned on microeconomic issues:

> A 10 percent all round reduction [in real wages] may be necessary, but it is better to admit that the proportionate reduction of income which is proposed [in the *REC*] is merely a matter of expediency, and not a means of ensuring equality of sacrifice. Nor ... is it clear why ... we should insist on exactly proportional wage reductions in all industries ... [Where] normal profits are being earned ... theory suggests no obvious reasons why wages should be as severely cut as in depressed industries (1932a, p.77).

Fisher's contribution to the wages policy debate stressed the need to promote far-reaching structural change. Unlike Murphy, Fisher (1933a, p.704) considered that the Arbitration Court's responsibility for "imposing rigidity on the industrial structure was often exaggerated". Unemployment was more often a result of policy induced sectoral real wage rigidity, a related insufficient mobility of labour engaged in depressed agriculturally based industries and, more fundamentally, world-wide secular decline in the prospects for agricultural commodity production. Abolition of compulsory arbitration was not in Fisher's view economically consequential. More serious was the mistaken advice in the *REC* which, indirectly, bolstered the demand for agricultural workers - a sector which was in secular decline. Resources on the margin would flow into the agricultural sector especially if devaluation was implemented. Politically, vested interests would be supported by such a move and economically, further obstacles created to making productivity and technological improvements in agriculture (necessitated by the older, higher exchange rate). Furthermore, advice in the *REC* would slow the movement of labour into potentially more productive and more highly remunerative work in urban tertiary industries. In the crisis of the 1930s, exhorting workers to go 'back to the land,' coupled with policies designed to provide incentives for them to do so, were in Fisher's view not well-founded. The world economy was already weighed down by a glut of raw agricultural commodities and the demand for such commodities was both price and income inelastic (Fisher, 1932a; 1932c). Fisher believed that the economic crisis heralded a permanent structural change rather than a temporary fluctuation in the fortunes of agriculture.

Policies of labour transference in the 1930s were allegedly inimical to the long-term development of urban industries in New Zealand. They focussed on shifting the burden of urban unemployment relief toward demeaning land-based subsistence work schemes with little or no skill acquisition component. The structural adjustment problem was therefore likely to be compounded, especially in the economic recovery, since most of the unemployed remained unskilled (Fisher 1930; 1932a, p.86). Public investment in human resources was the main long-term remedy for structural mal-adjustment since it enhanced labour mobility. Moreover, more tertiary education had favourable income distribution effects because it tended to compress wage differentials for skill in the long-term (Fisher, 1932b).

According to Fisher, sectoral real wage rigidity was the most formidable problem facing New Zealand's labour market in the 1930s. The macroeconomic policy package proposed in the *REC* and implemented by the Government, reinforced these rigidities, initially favouring movement of labour into relatively low-paid work in agriculture, to the detriment of workers' living standards in the long-term. Microeconomic policy in the labour market was underdeveloped and lacking in vigilant authoritative government initiatives where they were most needed, namely in reducing the costs and expanding the supply of educational services. In reviewing Hicks' *Theory of wages* (1932), Fisher (1933b, pp.140-41) encountered "complete neglect of the factors which limit the supply of labour for the more remunerative types of work" and he questioned the validity of assuming wage equalisation for workers of equal efficiency in different occupations. Hicks devoted too much attention to the interference of trade unions in the "normal adaptations" of labour markets to the forces of supply and demand and too little attention to correcting "the dislocating effects of the chronic restriction upon the supply of highly-paid labour which are imposed by narrow social and education policy".

Fisher's ideas were never in the ascendancy in policy debate during the 1930s. Their empirical validity was difficult to falsify, then as now. His assertion that real wages were too high *ex post* (or even *ex ante*) in the 'declining' agricultural sector might be assessed by comparing unemployment/vacancy ratios by industry in the 1930s. However, the relevant data are non-existent. It may be established from qualitative sources that there was significant structural unemployment and 'surplus' subsistence labour in the 'declining' sector and at the same time, comparatively few vacancies in the urban secondary and tertiary industries. Of course, the latter would be contrary to Fisher's observations on the labour market in the 1930s. That would not invalidate Fisher's assertion of downward, sectoral real wage rigidity. Structural unemployment and 'surplus' subsistence agricultural labour may persist while unfilled vacancies in the more buoyant sectors of the economy are eliminated by upward wage movements. Moreover, in the case of upward wage rigidity, 'pre-Keynesian' labour economics (of the kind developed by Pigou, Clay and Cannan) would have asserted that there was 'surplus' subsistence labour in the 'declining' sector which choked off demand for labour in other sectors ripe for recovery through the spillover effects of lower incomes (Casson, 1983, p.11).

Overall, cogent arguments which dissented from orthodox economic advice in New Zealand were offered but not generally accepted by policymakers. These arguments had 3 main features. Depression unemployment was:

(i) caused by real wages set by the Arbitration Court being well above the level of labour productivity (Murphy);

(ii) caused by public expenditure on unemployment relief which remunerated labour in excess of equivalent market rewards for work of the same nature and which displaced more productive private employment by crowding out private spending (Murphy); and

(iii) inter-connected with the problem of the real wage which was acute in the declining sector of the economy. Specific macroeconomic policies aimed at nurturing primary commodity exports combined with ineffective microeconomic policies exacerbated the structural real wage problem (Fisher).

4. Review and tentative compilation of available evidence

In prescribing an across-the-board real wage reduction the Economic Committee was well aware that the positive impact of a suggested devaluation of the New Zealand pound on exporters' incomes and ultimately on employment growth may have been neutralised by wage bargaining.[2] Presumably that is why the *REC* suggested a further 10 percent general money wage reduction to take effect in 1932. The fate of the Arbitration Court and the award system was not sealed when the *REC* was compiled. Once compulsory arbitration was abolished later in 1932 it was perhaps reasonably assumed by policymakers that the *REC*'s money wage cut suggestion was redundant since it could be effected by allowing private employers to breakdown awards in an ad hoc manner. The second report of the Economic Committee (1933, p.22) saw in the abolition of compulsory arbitration an opportunity to minimise money wage reductions by relying on an exchange rate devaluation to effect a reduction in the average real wage. With only compulsory conciliation in force, failure of either party to agree in an industrial dispute resulted in a lapsed award. It is not clear from the evidence presented below whether, as the *REC* wished, real wages were in fact reduced by "a further 10 percent" (Economic Committee, 1932, p.28) between 1932 and 1936. As Table 1 shows, real product wages fell by about 7 percent between 1932 and 1935 and real income wages probably fell by no more than 2 percent after allowing for tax increases from 1932 to finance unemployment relief. By real product wages we mean the cost of labour to producers, that is, weekly ordinary time money wages adjusted for the movement in output prices. By real income wages we mean weekly ordinary time money wages adjusted for changes in retail prices and changes in income tax rates. From 1932 and before 1937, average real income wages for males declined to their lowest level in 1935, but still only 0.58 percent below their 1932 level; and for females in 1935, only 0.092 percent below their 1932 level. The impact of a higher unemployment relief tax in mid-1932 would hardly

2 This is not the place to consider the devaluation neutralising effects of other factors. Economic recovery following devaluation was also retarded by the passing of the Banks Indemnity Act (1933). For the latest evidence on this crucial matter, see Maguire (1988).

Table 1: *Wages, prices and labour productivity 1921-1936*

1926 = 1000

Year (December)	Nominal Wages	Wholesale Prices (all groups)[1]	Real Product Wages[2]	Labour Productivity[3]	'Overhang'[4]
1921	1008	1250	806	821	-1.83
1922	974	1072	908		
1923	956	1029	929		
1924	972	1074	905		
1925	988	1048	943		
1926	1000	1000	1000	1000	0
1927	1020	952	1071		
1928	1051	961	1093		
1929	1053	958	1099		
1930	1053	933	1129	873	29.3
1931	975	867	1125		
1932	894	835	1071		
1933	862	842	1024	829	23.5
1934	869	856	1015		
1935	888	892	996		
1936	899	874	1028	1037	-0.9

Source: *New Zealand Official Yearbook* (various) and *Report of the Economic Committee* (1932 p.41).

Notes:
1. Limitations of this series as a measure of output prices are explained in the *New Zealand Official Yearbook* (1937, p.657). Exclusion of transportation and electricity prices is particularly limiting.
2. Nominal wage index divided by wholesale price index.
3. An index derived from Table 3 (below) taking real GDP per person employed in 1926 = 1000.
4. Percentage deviation between the real product wage and labour productivity.

have decreased real income wages by more than 2 percent (Hare 1946, p.103, Table 1). The Economic Committee (1933, p.22) in its second report, estimated that in January 1933 "the real wages of workers in full employment are now about the same as 1929." I am driven to conclude that from 1932 notwithstanding, despite both further cuts in civil service wages and salaries and the abolition of compulsory arbitration, real wages probably did not decline sufficiently to avoid neutralising some of the potential employment promoting benefits of the 1933 devaluation.

My tentative estimates of the trend of real wage 'overhang' in the period under review deserve more detailed consideration. Following Pope (1982, p.114) I define 'overhang' as the deviation between the real product wage and productivity, which may be written without time derivatives:

$$OH = \left(\frac{W}{P} - \frac{Q}{N}\right)$$

where

where	OH	=	real wage 'overhang'
	W	=	money wage rate
	P	=	product (output) prices
	Q	=	real GDP
	N	=	employment

This is monotonically related to effective labour cost (ELC) that is, the real wage adjusted for changes in the productivity of labour - a direct index of 'overhang':

$$ELC = \left(\frac{W}{P}\right) \div \left(\frac{Q}{N}\right)$$

The 1931 10 percent money wage cut was the catalyst for a continuing reduction in the real cost of labour to employers up to 1935. Combined with any real wage reducing effects of abolishing compulsory arbitration, my estimates demonstrate that the trend of real product wages was downwards from 1931, but it was probably not enough to eliminate rising real wage overhang which persisted throughout New Zealand's depression and early recovery years. Real GDP per person employed, which acts as our measure of labour productivity in Table 1 above, declined steadily from 1926 to 1933. Official data on weekly hours of work of the employed workforce do not seem to have been affected significantly by the economic crisis (*New Zealand Official Yearbook*, 1937, pp. 673-74). If actual hours of work had fallen this would have required a downward adjustment to our employment estimates, and therefore increased estimated productivity from the levels extrapolated from Table 1. It is likely, although no research evidence is yet available to support this supposition, that some of the decline in productivity can be explained by employers opting to 'hoard' labour during the depression because of plant indivisibilities, re-hiring costs and market uncertainty, despite a fall in product prices and product demand. Nonetheless, at the level of aggregation in these estimates, the positive percentage deviation of real product wages from productivity is remarkably large and not likely to be reversed by further upward revisions of the employment data (e.g. if data were available on the Maori employed workforce, 1921-36, our employment series would have been higher and productivity lower).

At a lower level of aggregation, Hawke's (1985b, pp. 21-24) estimates show that there were differences among industries - some, for example butter and cheese factory workers, could pass a large wage 'overhang' burden on to farmers while maintaining output and employment. In the boot and shoemaking industry, by contrast, a 'moderate' wage 'overhang' was created despite wage reductions which to some extent lowered the effective labour cost; employment was maintained at a relatively high level in the face of a decline in output prices. Murphy's strenuously argued conviction that rising effective labour cost had been a major factor responsible for weak labour demand and persistent unemployment in the early 1930s seemed to be based on a feeling about aggregate movements - about average effective labour cost relative to its level in the 1920s. My estimates in Table 1 show that Murphy's view was defensible. (To be sure, the micro-level picture may have been more complicated. Murphy did not use the terms effective labour cost or 'overhang' although his disquisitions on wages contain notions of equivalent conceptual content). In Murphy's view, then, changes in the average effective labour cost had been detrimental to the employment of labour during the early depression years. He could be excused for ignoring the possibility that 'overhang' may have been largely a by-product of output fluctuations, since that issue may be regarded as beside the point given high unemployment and the need immediately to propose a solution.

Certainly Murphy did not claim that wage 'overhang' instigated the depression. He never favoured exchange rate devaluation as a route to recovery, so his argument was confined to insisting on the need to reverse the trend of rising average effective labour cost in order to increase the demand for labour.

Table 2: *Employment estimates*[1]

	1921	1926	1930	1933	1936
Population[2]					
Males, 15-64	396282	445625	484920	503815	512812
Females, 15-59	365777	411209	444468	461567	472642
Workforce[3]					
Males	398602	435852	474252	492731	502624
(Participation rate percent)	(100.6)	(97.8)	(97.8)	(97.8)	(98)
Females	107691	110988	120988	126931	136878
(Participation rate percent)	(29.4)	(27)	(27.2)	(27.5)	(29)
Total Workforce	506293	546840	595240	619662	639502
Unemployment[4]					
(estimated and rounded)	13000	13000	20000	65000	55500
Employment					
(rounded)	493500	534000	575000	554500	584000

Notes: 1. Here I strictly follow methods of estimation and estimates derived by Keith Rankin, who kindly supplied these with his referee's report on an earlier version of my article, and whose expertise in this field is far greater than my own. However, it should be emphasised that he does not agree that any of the above estimates are a valid representation of the period under review.

2. Sources: *NZ Census* 1921, 1926, 1933; estimates for other years *NZ Population and Building Statistics*, annual average, Europeans only.

3. Sources: Bloomfield (1984, p. 144), which does not include the small employment 'unspecified' class, for 1921, 1926, 1933. Bloomfield compiles his data directly from the *NZ Census*. For 1930 and 1933 the same participation rates as1926 for males and females are used (see Macrae and Sinclair, 1976, pp. 38-40). The female workforce interpolations for 1930 and 1933 use Macrae and Sinclair in 2 ways. First, for 1930, 10,000 (2500 *per annum*) are added to the 1926 workforce figure. Second, for 1933, the Macrae and Sinclair participation rate of 27.5 percent is used.

4. Census estimates for 1921, 1926 and 1936. For 1930 a conservative interpolation (20,000) is made of unemployment between 1926 (13,000) and 1936 (55,500). A less conservative estimate which added (say) 20,000 *more* to the un-

employment total in 1930 would lead to a correspondingly lower employment figure for that year but would *not* significantly alter the wage 'overhang' trend as measured in Table 1.

At the macro-level, there is evidence in the real product wage trend of a sharp real wage rise in advance of the depression (1926-1929) and a real wage fall in advance of recovery in 1932-1933. The fall measured prior to recovery was initiated by the Arbitration Court's general system of wage regulation - the 1931 10 percent general wage cut - but subsequent falls to 1935 were largely the result of leaving wage fixing to free wage bargaining, that is, to numerous sectional decisions unfettered by compulsory arbitration. It is ironic that if the government had accepted the *REC's* suggestion for a further 10 percent money wage cut in 1932 *without* diluting the powers of the Arbitration Court, wages would have been statutorily cut by another wage order. A reduction of this magnitude in 1932 would have been much greater than money wages were in fact reduced from 1932 up to the end of 1933, in a period when the Arbitration Court had been rendered near impotent. In short, greater utilisation of the Arbitration Court's powers to make general wage orders could have facilitated greater aggregate wage flexibility than in fact occurred. Nominal wages fell by only 0.67 percent between 1932 and 1935 inclusive in a period *without* compulsory arbitration (Hare, 1946, p.103). In Australia, by contrast, the centralised system of wage regulation throughout the 1930s was instrumental in securing nominal wage reductions large enough to preserve the exporter and encourage the manufacturer (see Gregory *et al.*, 1988, pp.400-404). What obtained in the depths of the depression and in the early recovery period was the creation of an incomes policy designed to give exporters an immediate income boost through devaluation. Labour was exposed to market-led wage bargaining; cost of living adjustments were dispensed with. The actual aggregate outcomes for employed labour - only slight money wage flexibility and only slight real wage reductions - were certainly not those intended by policymakers. Hare (1946, p.110) concluded that there was "no great decline in labour's share [of national product] after ... 1932, which suggests that the Court of Arbitration had not been instrumental in keeping up wages at an artificially high level". However, Hare did not provide any estimates of productivity and wage 'overhang'. His argument also presumed that decentralised wage bargaining from 1932 would have quickly reduced wages below any 'artificial' level previously created by the Arbitration Court.

Between 1926 and 1933, employment did not vary proportionately with output. Available employment estimates (see Table 2, above), coupled with nominal GDP estimates (Lineham, 1968), indicate respectively, that total employment increased by 3.75 percent while GDP fell by 23 percent between 1926 and 1933 (and 1926 cannot be regarded as a year of exceptionally high capacity utilisation). While the output reduction was smaller in real terms (-7 percent), these data are revealing because the fall in output did not result in a fall in total employment. Change in nominal GDP is calculated from Table 3, below.

The change in real GDP (1926-1933) using 1926 as a base year, was -7 percent. Certainly, labour hoarding is suggested, as is a decline in the profit share of national income.[3] Official hours of work indices were derived for a full week's work as written into awards. These hours did not alter from 1932 to 1936. Job sharing within firms was

3 It may be proposed that an analysis of the degree of responsiveness of the profit share to changes in output (if the data were available) could explain wage 'overhang' as a mere by-product of output fluctuations. Evidence available for Australia on this matter for the 1920s and 1930s does not support this proposition (Pope, 1982, pp.116-124), although it is possible the New Zealand case may have been unique.

still important, however. The number of 'short-time' hours worked in factory production increased nearly 4-fold between 1930 and 1934 (Hare, 1946, p.127). Employers, along with the unemployed, bore a greater share of the burden of the output decline than the regular, employed workforce. Wage-fixing by those in regular jobs did not seem to be sensitive to the level of unemployment. Furthermore, my estimates suggest why employers "did not see quickly that in the 1930s production for the home market had risen in potential profitability relative to production for international markets" (Hawke, 1987, p.120). The expenditure switching benefits of the devaluation, for investment and for greater employment in domestic manufacturing production, were negated by persistent, historically high real wage 'overhang' (relative to the 1920s), as well as by the likelihood that employers were hoarding underemployed labour.

Table 3: *Employment, prices and real GDP 1921-1936*

Year[1]	Employment[2]	Nominal GDP (£ millions)[3]	Retail Price Index (1926=1000)[4]	Real GDP (£ millions)[5]	Real GDP per person employed (£)(Labour productivity)[6]
1921	493500	141.936	1024	138.53	280.7
1926	534000	168.803	1000	166.803	342.0
1930	575000	166.859	971	171.698	298.6
1933	554000	129.554	787	157.149	283.4
1936	584000	182.342	864	207.141	354.6

Notes:
1. Census years for employment; December years all other data.
2. See Table 2, above.
3. Source: Lineham (1968, p.16). Two year averages are taken of Lineham's data in order to make his data more consistent with the December year basis of price and wage data.
4. Source: *New Zealand Official Yearbook* (various).
5. Nominal GDP adjusted for changes in retail prices.
6. Real GDP divided by total number of persons employed.

That average real product wages were not more responsive to high levels of unemployment in the more decentralised wage fixing system prevailing between 1932 and 1936, might be explained as a short-run phenomenon to do with the characteristics of the unemployed. It is possible that the unemployed in the 1930s were not close substitutes for those in regular employment, and any possibility of substitution would have declined the longer the duration of unemployment. Fisher would doubtless have offered this explanation. As we saw, Fisher complained about the negligible skill acquisition opportunities provided by relief schemes. Unfortunately, industry specific unemployment data are not available for the 1930s. Extensive qualitative evidence suggests that the unemployed were mostly comparatively unskilled workers in the period under review.

In the absence of data on sectoral shifts in labour requirements in the 1930s, I am able only to review relative wage movements. This task was originally and thoroughly completed by Riches (1936, pp.735-49). Riches reported that, far from reducing the uniformity of wage movements across sectors, and far from widening wage rate dispersion, abolition of compulsory arbitration in 1932 was co-extensive with a narrowing of wage dispersion. Furthermore, while cancellation of many awards after 1932 "led to greater local variations in certain trades, the average dispersion of the wage rate indexes for different districts appear to have been little affected" (p.743). Nevertheless, as Murphy expected, margins for skill narrowed since smaller skilled unions were weakened without compulsory arbitration. On the other hand, Fisher's hypothesis that farm workers wages and wages in farm related industries would rise artificially relative to urban secondary and tertiary industries if the *REC's* recommendations were implemented, appears lacking in empirical foundation. Farm workers' wages fell faster than other groups up to 1933 and increased more slowly than other groups from 1934 (Riches, 1936, p.743 and *New Zealand Official Yearbook*, 1937, p.667). This trend of wages in agriculture relative to other sectors both in depression and recovery does, however, lend some support to his emphasis on the relative excess supply of agricultural labour. In Fisher's mind, agricultural workers' wages in the depression and recovery period may have still been relatively too high to encourage greater, more desirable urban drift. Maintenance of existing barriers to many forms of formal and on-the-job education would not have helped free unskilled labour from a near subsistence existence in rural areas. Data inadequacies do not permit refutation of Fisher's assertion that labour was being misdirected toward agriculture both by government unemployment relief and by the general direction of macroeconomic policy.

5. Conclusion

In this article I have demonstrated that there was much substance to the New Zealand debate on the economics of wages and wages policy in the 1930s. The line of orthodox economic argument which prevailed and was represented by the Economic Committee, favoured a large real wage reduction for crisis adjustment and recovery purposes. The advice of the Committee on this matter - to raise output prices (especially for exports) relative to money wages - was entirely consistent with Keynes' policy prescriptions for an open economy. The open economy case was not central to Keynes' deliberations in the *General theory*, but he nevertheless mentioned it frequently in passing.

Taken as a whole, minority dissenting arguments offered by Murphy and Fisher were never generally in the ascendancy in local policy debate during the period under review. However, my tentative estimates suggest that Murphy's concern for the problem of real wage 'overhang' was defensible even if his view on the excessive generosity of unemployment relief as a cause of mass unemployment was perhaps astray. There appeared to be some force in Fisher's concern for the structural real wage problem, particularly his suggestion that government policies were contributing to an undesirable relative oversupply of agricultural labour.

Research on the economics of wages and wages policy and on labour markets in New Zealand during the inter-war period is very much inchoate. In this article, I have been led by an historiographical interest to document competing arguments and, in the process, I have identified and assessed issues of the moment which moved those familiar with contemporary circumstances. Extending my line of inquiry into the era when Keynesian economic policies reigned supreme, especially the 1950s and 1960s, may also prove instructive.

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