THE IMPACT OF LABOUR MARKET DEREGULATION:
LESSONS FROM THE "KIWI" AND "POLDER" MODELS*

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Abstract
Unemployment remains a major economic and social problem in many developed economies. This paper provides theoretical and empirical perspectives on the impact of labour market deregulation as a means of combatting unemployment and of enhancing competitive wage determination. The paper focusses specifically on The Netherlands and New Zealand, two small open economies in which unemployment rates reduced to close to half of their respective post-1980 peaks. The labour market policies that contributed to these outcomes are referred to as the "Polder" model and the "Kiwi" model respectively. Despite some similarities, there are significant differences between these models. These are highlighted in the paper. It is found that the effects of deregulation are hard to separate out from other influences on the labour market. The success of the deregulation policies is easily overstated by a selective use of labour market indicators, or by making trough to peak comparisons along the business cycle.

Keywords: labour markets, flexibility, deregulation, international comparisons

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INTRODUCTION
The long-term drift upwards of the unemployment rate in many developed economies has been a significant economic and social policy concern. Persistently high rates of unemployment are particularly prevalent among European countries (for a survey, see e.g. Bean 1994). In the European Union, the average unemployment rate was 11.3 % of the labour force in 1997, compared with a 7.3 % average for all OECD countries. Reported unemployment rates among OECD countries (as at late 1997) varied from 2.9 % in Korea to 20.8 % in Spain (Figure 1).

Besides differences in measurement and differences in levels of aggregate economic activity, there are many structural differences between countries that can account for such a large variation in unemployment rates. A fundamental question, with important policy implications, is the extent to which various types of regulations and rigidities in the labour market have led to high unemployment rates. Coe and Snower (1997) identify a long list of institutional characteristics that could contribute to high unemployment. These include welfare programs with high benefit replacement rates, high taxes and social insurance premiums levied on firms and workers, job security legislation, powerful unions, collective bargaining arrangements and minimum wage laws. Using a formal model, Coe and Snower (1997) argue that policies to remove these labour market distortions are complementary. That is, they have a greater impact when implemented simultaneously rather than on their own. From this perspective, persistently high unemployment can only be resolved by means of reforms that are both "broad" (covering a wide range of institutional arrangements) and "deep" (of substantial magnitude).

A reluctance to implement labour market reform may be due to an expected growth in earnings inequality and related social problems (Gottschalk and Smeeding 1997). Alternatively, if ailing firms receive public funding to ensure their survival, employment and wages may be greater than what they would be otherwise. There may then be a political reluctance to encourage labour market liberalisation, because it could result in layoffs among firms that cannot survive in a more competitive environment (Saint-Paul 1997). In any case, labour markets with rigid institutional structures may permit more flexible responses of firms than is commonly perceived. There is a range of strategies available to firms that wish to adjust the labour input into production. Even if there are high costs associated with an adjustment in employment through recruitment and layoffs, other forms of adjustment may be possible. Thus, when external numerical flexibility (an adjustment in the number of jobs) is low due to the high cost of such an adjustment strategy, there are alternatives. The firm may be able to resort to: externalisation (a smaller core business with contracting out to meet fluctuations in demand), internal numerical flexibility (adjustment in hours worked), wage flexibility (adjustment of overall remuneration - including bonuses, overtime rates etc), or functional flexibility (a
Thus the question arises to what extent deregulation indeed removes constraints which firms face, with payoffs for overall welfare and growth, or instead simply leads to a change in the nature of firms' responses to shocks but little aggregate gain to the economy. Countries that have experienced a significant degree of labour market deregulation can serve as a useful "laboratory" for testing the relationship between reforms aimed at labour market flexibility and labour market outcomes.

Two countries which have implemented policies aimed at enhancing labour market flexibility are New Zealand and The Netherlands. Following the introduction of such policies, both countries witnessed rapid declines in unemployment. In both countries unemployment rates decreased to close to half of their respective post-1980 peaks. These are the sharpest declines in unemployment among OECD countries, except for the United States where the unemployment rate has decreased recently to half the peak of 9.7% recorded in 1982 (see OECD 1997). However, the observed sequence of reform followed by unemployment decline is not necessarily evidence of a causal relationship, as other phenomena such as the business cycle may have played an important role. In this paper we shall investigate the impact of labour market reform on labour market outcomes.

The Netherlands and New Zealand are small open economies that are increasingly exposed to strong external shocks due to growing international economic integration and globalisation. Table 1 reports some key statistics for both economies. In real GDP terms (at the PPP exchange rate), the Dutch economy is about five times the New Zealand economy. Moreover, the Dutch economy is the more open of the two, with more than half of GDP being exported, as compared with 22% in New Zealand.

Table 1 about here

Labour markets in small open economies must be responsive to external (and domestic) shocks in order to avoid the economic and social costs of high unemployment, hysteresis, unfilled vacancies, cost-push inflation, a declining competitiveness, etc. In both The Netherlands and New Zealand, a significant range of measures that aim to enhance labour market flexibility has been implemented since 1980.

Figure 2 shows that the unemployment rate peaked in The Netherlands in 1983 at 11.7%. This peak was followed by a gradual decline to 5.3% in 1992. After an increase in the unemployment rate between 1992 and 1994 (due to a short recession), slackness in the Dutch labour market declined again subsequently.

In New Zealand, the unemployment rate peaked much later at 10.9% in 1991 and declined to 6.1% in 1995. Since 1997, the New Zealand unemployment rate is again trending upwards. This is due to a decline in economic growth, with the economy entering into a

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1 This is the ratio of net income, when in receipt of a benefit, over the likely net pay when at work.
recession in 1998. The recession has been reinforced by the financial crisis in several Asian
emerging economies and the resulting economic downturn in that region. In both The
Netherlands and New Zealand, the post-1980 peak in the unemployment rate coincided with a
severe recession and the lowest point with a tight labour market.

Besides a decline in the unemployment rate, the Netherlands and New Zealand
witnessed both a rapid growth in total employment during the 1990s (Figure 3). Consequently,
the reduction in unemployment cannot be fully explained by a reduction in labour supply for
given labour demand or by a better matching of demand and supply. Employment growth in
The Netherlands was 1.8 % per annum over the period 1983-93, compared with an OECD
average of 0.4 % for the same period. New Zealand total employment growth for the period
1991-96 was 3.2 % per annum. Employment growth in The Netherlands was partly stimulated
by export-driven output growth and by a consensus of real wage restraint in bargaining
processes (e.g. Gorter 1998). Similarly, employment growth in New Zealand was generated by
a growth in the demand for output and a decline in the real wage.

The success story of the Dutch labour market has become known as the Dutch "Polder
Model". In the New Zealand case, Kasper (1996) referred to the "Kiwi job creation machine".
In this paper, we will simply refer to the New Zealand situation as the "Kiwi model".

How successful have these models been? As Freeman (1998) recently argued, there are
almost as many labour market "models" as there are nations (and, indeed, there are also a wide
variety of regional labour market initiatives). In each case, the links between the policy
measures and the array of labour market outcomes are complex and hard to quantify.
Moreover, even if analysts can distil the impact of certain discretionary labour market
measures, the question of which set of measures should be selected as the preferred model
remains an important normative problem. Although the impact of the "Polder" and "Kiwi"
labour market policy measures will be surveyed later in the paper, we must warn already at this
point that a particular stance can be easily supported by a selective choice of the available
statistics.

For example, Kasper's evidence for a "Kiwi job creation machine" was based on
measuring employment growth from the 1991 trough of the business cycle to the 1995 peak.
Yet the economic liberalisation process had already commenced in New Zealand in 1984,
although explicit labour market reform was relatively minor until 1991. Consistent labour
market statistics are only available since 1986 (when the quarterly Household Labour Force
Survey commenced). Total full-time employment growth over the longest time span of
comparable data, 1986-97, was only 0.1 % per annum. If there is a "success story", it is only confirmed in terms of employment growth by an increase in part-time employment (persons working 29 hours or less). The number of part-time jobs grew by an average of 3.9 % per annum over the 1986-97 period. Because part-time employment has nonetheless remained less than one quarter of total employment, the growth in full-time equivalent jobs, arguably the best measure of job creation growth, was 0.4 % per annum – about the same as the OECD average.

A coincidence of labour market reforms and favourable labour market outcomes is not a proof of a causal relationship. To quantify the effects of labour market deregulation is a very difficult task, both in terms of the required data and in terms of the design of appropriate econometric tests. In this paper we shall consider some of the empirical evidence to date on the impact of labour market reforms in The Netherlands and New Zealand. First, however, we will briefly introduce and contrast the institutional changes since 1980 in the labour market of the two countries.

LABOUR MARKET DEREGULATION IN THE NETHERLANDS

The Dutch economic experience of the last fifteen years can be regarded as a blend of wage moderation and (part-time) job growth. This development has coincided with a remarkable rise in female labour participation from 35 % to 53 % (reaching a level, however, that is still low in comparison with some other European countries). During this period, the Dutch government has essentially pursued the following socio-economic policies: (i) wage restraint to increase international competitiveness, (ii) monetary stability (i.e., using the German Mark - Bundesbank as a guideline), (iii) major cuts in public expenditures (and also public employment), (iv) reforms of the social security system (e.g., introduction of more stringent eligibility rules), and (v) lower taxes (and also social charges) for firms to stimulate labour demand in general and in the "low wage" segment of the labour market in particular.

In recent years (since 1994), a liberal-labour government (a very exceptional combination in the Dutch political context) has been in power. This new government has introduced a number of new policy directions which have led, most notably, to product market deregulation (e.g., anti-cartel measures in line with European regulations and less stringent rules on business hours (shops) and working time), and to the stimulation of jobs creation for "disadvantaged" groups (such as the long-term unemployed) by subsidising public-sector jobs at the lower end of the labour market.

In this paper, we concentrate exclusively on labour market reforms. During the sixties and seventies, the Dutch government was closely involved in the formation of wages (for an overview see e.g. Poot 1980 and Van de Wijngaert, 1994), but since 1982 it has abstained from interference in wage determination. Prior to 1982, however, direct intervention in wage formation by the government (under the Wage Determination Act of 1970) was a frequent occurrence. The Wage Determination Act was modified in 1986 so that governmental measures on wages were restricted to "emergency situations" and severe shocks. Although in
practice this ended governmental interference in the wage determination process, the Minister of Social Affairs and Employment has on occasion threatened to intervene (in 1992 and 1993) in the interest of reducing unemployment (growth) and easing the burden on the social security system.

More generally, the government still participates - since 1982 - in tripartite wage debate with employers and employees' associations (unions) to reach consensus on "sensible wage growth" (that is, the government seeks to exert its influence through policy statements and tripartite consultations). Moreover, the government is also represented - besides the social partners - in the Social Economic Council (Sociaal Economische Raad) which comments on economic developments in the country.²

Hence an important change in wage policy took place in 1982 after government had directly intervened in wage determination on frequent occasions during the previous two decades. As in many industrialised countries, the Dutch economy was hit by a major economic crisis at the beginning of the 1980s. Unemployment increased at an enormous rate, profits declined and investment funds shrunk, many firms faced mass dismissals (or even went bankrupt) and the public budget deficit reached unusually high levels. The economic trends called for major corrections to the institutional system in general (such as large cutbacks in governmental expenditures) and institutional arrangements in the labour market in particular. Table 2 provides an overview of the major institutional changes since 1980.

Table 2 about here

1982 saw the signing of a now famous agreement on collective wage bargaining (in Wassenaar) which stated that the trade unions and employers' confederations were primarily responsible for wage bargaining. A second important outcome of the agreement was that employers acknowledged the unions' interest in the development of employment, a goal which was to be achieved through the reallocation of labour (by means of a general reduction of working time and the promotion of job sharing).³

The third key feature of the so-called "Wassenaar Accord" was that it put an end to the application of private wage growth rates to the public sector. In essence, employers and employees agreed on wage restraints in return for employment growth. In other words, the unions relinquished the right to automatic compensation for price inflation while the employers recognised that job sharing was "one of the means to stem the rise in unemployment" (van Veen, 1987).

From 1982 onwards, a decentralisation process was set in motion whereby collective labour agreements were reached at the industry level and also - at an increasing rate - at the

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² Since 1995, however, consultation of the Social Economic Council is no longer mandatory.
³ However, two years later (in 1984) the employers opposed further working time reductions (see Albeda 1985).
Nevertheless, central governmental controls did not entirely disappear. The government maintained its right to intervene (although only in exceptional circumstances, as mentioned earlier), and it was also able to influence the consensus-building process at the national level through the Foundation of Labour (Stichting van de Arbeid), a joint body comprising the employers' and employees' federations. This kind of governmental persuasion exists because the outcomes at the national level serve as guidelines for industries. In this sense, one can classify this new system of collective wage bargaining as a mixture of decentralised and centralised attributes. According to Visser (1997), this harmonious phase in Dutch industrial relations can be characterised as "a reorientation towards a highly coordinated, bipartite and hence non-statutory model of negotiating central guidelines for responsible collective bargaining in sectors and firms".

Hence, the institutional setting of wage formation in The Netherlands has moved in a favourable direction in recent years. Increasing decentralisation on the one hand (with more firm-level agreements, especially in large companies like KPN Telecom, Philips, Shell, Unilever, etc) coincides with maintaining centralised consensus-building negotiations on the other (thereby providing a guideline for industries). Hemerijck and Van den Toren (1996) describe the newfound bipartite consensus as follows: "...the 1990s accords reinstated a policy priority for voluntary wage restraint in the pursuit of business profitability, investment and employment growth and job redistribution. All the 1990s agreements affirmed the freedom of sectoral collective bargaining and the primacy of self-regulation in industrial relations."

In practice, the central employers' and workers' organisations frequently meet at the national level to formulate a joint declaration on bargaining and employment conditions at decentralised levels, before actual collective bargaining takes place. Hence, the institutional setting of the Dutch labour market can be described as harmonious with respect to industrial relations.

The general trend in Dutch labour market reforms is one of deregulation in which security for workers is matched by flexibility for firms. This typical Dutch combination is referred to as "flexicurity". As regards employment protection, the firing procedure is lengthy and costly for the employer since the employer is obliged to gain permission from the regional employment office for each individual dismissal. An alternative approach for an employer to fire a worker is to apply directly to the court, where the judge decides (relatively rapidly) on the amount of financial compensation to be paid to that worker. For the worker, this procedure implies that his/her chances of being fired may be higher, but - if this happens - substantial financial compensation for the job loss is likely. In practice, this second approach to firing is becoming increasingly popular among Dutch employers (in the 1990s, one out of three cases is dealt with in this way: see Van der Heyden et al., 1995).

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4 Firm-level agreements were initially used by employers to try to de-standardise labour contracts and the working hours regime.

5 Employers and employees have equal representation in the Foundation of Labour.
Given these complex firing procedures for employers (see also e.g., OECD, 1996), it makes sense for them to search for other methods of workforce reduction. In the Dutch context, mention should be made of the "escape route" to disability compensation. In past decades, employers resorted frequently to a policy of encouraging enrolment in the social security scheme for disability compensation as an alternative to firing workers. This is evidenced by the substantially higher proportion of disabled persons in The Netherlands compared with other European countries: see e.g., Aarts et al., 1993). In addition to this "abnormal exploitation" of disability enrolment, firms can also use voluntary quits (job-to-job movement, retirements, etc.) to reduce their workforce. Last but not least, Dutch employers may hire workers on fixed-term contracts or employ them through temporary work agencies.

As for the regulations on flexible employment, these have three main features. First, workers on flexible contracts (so-called "flex-workers") have access to unemployment benefits on less favourable terms than workers on permanent contracts. This is because benefit eligibility is determined by minimum thresholds values set for the number of days worked before becoming unemployed (moreover, pension funds may exclude workers on fixed-term contracts). Second, employers may use flexible contracts for various purposes (e.g., to replace sick workers), but one of the main ones is to screen new workers by means of this type of contract. In addition, flexible contracts are not restricted to particular cases or to a maximum duration. Third, Dutch employers are free to hire temporary workers through the temporary work agencies. Very recently, however, new collective agreements have made labour relations for agency workers more secure. A collective agreement has been reached between the employers' association of agencies and the unions on minimum pension rights and the continuation of employment after two years of temporary work. Hence, a worker's legal position becomes stronger, the longer s/he works on a temporary basis (moving from contract to contract). The same agreement gives greater flexibility to the use of agency workers: for example, employers will be allowed to hire such workers for longer durations. This combination of greater security for the (agency) worker with more flexibility for the employer neatly illustrates the concept of "flexicurity" in the Dutch labour market.

Another key feature of the Dutch labour market is the growth in part-time employment (see also OECD, 1994). The share of part-time work has grown rapidly (from 15 % in 1975 to 35 % in 1994: see e.g., Hemerijck and Van den Toren, 1996). This trend has coincided with a rise in female labour force participation. Since November 1996, the Dutch government has implemented a new rule providing equal legal status for part-time workers and full-time workers. Moreover, equal access to unemployment benefits has also been secured in recent years by removing the minimum thresholds for part-time workers. In the near future, the intention is to give full-time workers the right to work fewer hours (80% of a full-time working week). This may be especially beneficial to workers with (young) children who do not wish to interrupt their careers but also want to work fewer hours so that they can attend (partly) to their home duties. A further important step toward less regulation of working hours was also
taken in 1996, when new rules were gradually implemented which gave rise to an increase in working hours flexibility. Furthermore, it is possible to achieve even more flexibility in the future through collective bargaining agreements or through agreement at the firm level (i.e., the firm's management bargains with the firm's so-called Labour Council\(^6\)). In this way, packages of working-time arrangements may be generated which benefit both workers and employers. For example, the working week may be shortened, as desired by the unions, and the employer's flexibility is enhanced through increased flexibility in working hours, facilitating work at irregular hours and variable working time. Examples can be found in the banking sector, KPN Telecom and the civil service.

As in other countries, labour market outcomes in The Netherlands are greatly influenced by the social security system. The Dutch social security system consists of social insurance arrangements (to insure against sickness, disablement or unemployment) on the one hand and social assistance (to provide a "safety net" for those who can not support themselves financially) on the other. The insurance-type arrangements are financed out of contributions by employees and the self-employed (based on the equivalence principle), whereas the assistance-type arrangements are financed out of the government's general revenues (based on the solidarity principle). The Dutch social security system is extensive and - according to the 1994 OECD survey - can be described as follows: "... labour market policy remains characterised by generous income support measures. Replacements rates (...) for all types of family situations and for all unemployment spells are among the highest in the OECD area."\(^7\)

In the last fifteen years, a number of changes have been made to the design of the social security system (see e.g. Vijlbrief, 1992 and Visser, 1997). There have been four important modifications. First, unemployment benefits were reduced in 1985 from 80% to 70% of the pre-unemployment wage. Second, the passing of the New Unemployment Insurance Act in 1987 made the maximum duration of unemployment benefits more closely dependent on work history (i.e., the period during which insurance contributions have been paid). Thirdly, statutory minimum wages declined during the 1980s (by about 15% on average and even more among young people, see Mot and Teulings (1990). This has direct consequences for the level of social benefits, given that the minimum social benefit level amounts to 70% of the minimum wage. Finally, the Sickness Act was abolished in 1996. A social right for workers was thereby transferred to an industrial right (cf. Hemerijck and Van den Toren, 1996).

To sum up, external flexibility to adjust working hours and the level of employment to output fluctuations seems to be obtained by the extensive use of part-time and flexible contracts in the Dutch labour market. The use of flexible contracts to adjust the demand for employment is supported by permissive regulations on fixed-term contracts and the hiring of temporary workers through temporary work agencies. The permissive regulation of flexible work may in fact have resulted from an increase in the complexity of firing rules (see

\(^6\) The Enterprise Council is a council of elected representatives of all employees of a firm.

\(^7\) See also Visser (1997).
Schömann et al., 1995). The flexicurity strategy forms, together with measures designed to reduce the costs of the social security system, an essential part of the Dutch policy of labour market deregulation.

LABOUR MARKET DEREGULATION IN NEW ZEALAND
Since 1984, New Zealand has undergone a far-reaching transformation from a very regulated and protected economy to one of the most liberal economies in the developed world. The impetus for this change was a set of highly unfavourable economic conditions in the early 1980s. These included unsustainable levels of public and external debt, rising unemployment and strong inflationary pressures. The latter were kept only artificially under control by a wage and price "freeze". The economic reforms commenced with the election in 1984 of a Labour government. The promotion of fundamental liberalisation by a left-of-centre government was a reaction to the tight and all-encompassing regulations imposed by the previous National (conservative) government rather than an acknowledged departure from political principles.

The push for further liberalisation, privatisation and welfare reform continued to be the main theme of government economic and social policy until the present, although with a time-varying degree of reform zeal. Reforms continued irrespective of political changes, such as the change in government back to National in 1990 and a change in the electoral system to proportional representation and coalition government since 1996.

In recent years, an extensive literature has emerged on the details of the economic reforms and the nature and extent of the impact (see e.g. Bollard and Buckle 1987, Evans et al. 1996, Silverstone et al. 1996, Hall 1998). There have also been strong critics of the reforms, particularly among those who have been concerned with the social cost (e.g. Boston and Dalziel 1992, Kelsey 1997). The liberalisation process has been broadly supported by most economists, although some have argued that the interpretation of the available data by Evans et al. 1996 has been rather biased, see e.g. Dalziel (1998). In this paper, we limit our attention to the labour market reform that was encapsulated in the Employment Contracts Act (ECA) which was introduced in 1991. This Act changed the industrial relations system in New Zealand fundamentally. Reviews of the ECA and preliminary assessments of the impact of this legislation can be found, inter alia, in: Harbridge 1993, Harris and Daldy 1994, Kelly 1995, Maloney and Savage 1996, Kaspar 1996, Brosnan and Walsh 1996, Easton 1997 and Bowden 1997.8

Until the introduction of the ECA, the New Zealand industrial relations system was characterised by centralised wage setting and national awards. Although there have been some changes over time before the ECA, the formal wage setting system was built upon the Industrial Conciliation and Arbitration Act (ICA) 1894. In practice, there were three tiers: an Arbitration Court which delivered union-employer contracts ("awards") or "general wage

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8 In addition, there are many articles in the NZ Journal of Industrial Relations concerned with specific aspects of the ECA. A list of such articles can be found in, for example, Brosnan and Walsh (1996).
orders", some direct bargaining, and extensive government intervention. The ICA did include minimum wage provisions, but wage floors that protected all workers aged 20 and over were established in the Minimum Wage Act 1945. More recently, a youth minimum wage was introduced in 1994.

The pre-ECA system could be described as a system of "state-controlled compulsory arbitration" (e.g. Maloney and Savage, 1996). Compulsory arbitration through the Arbitration Court was aimed at "equalising" the bargaining power of unions and firms. In addition to the direct impact of the state on the industrial relations system, the state also had a strong impact on labour market outcomes through "wide" and "deep" socio-economic regulation. The resulting economy delivered full employment until the mid-1970s, but has also been responsible for considerable labour market segmentation (Brosnan et al. 1995).

By the late 1960s the industrial relations system broke down as strong unions preferred second-tier bargaining with employers. In 1968 the union movement refused to accept a nil wage order. The government responded subsequently with direct intervention in wage determination by means of various Acts that were implemented during the period 1971-84 and aimed to limit wage rises. However, the government did recognise that second-tier direct bargaining needed to be allowed eventually and such bargaining became institutionalised by the Industrial Relations Act (IRA) 1973. However, this Act cannot be seen as having enhanced labour market flexibility in a significant way.

The IRA gave existing unions monopoly power by requiring registration and by compulsory membership. Minimum award wages and conditions were binding on all employers and employees covered by the award. In practice, there was a strong emphasis on maintaining relativities. More than two-thirds of the awards were settled with a percentage wage increase which was at most one percent above or below the award agreed by the powerful New Zealand Metal Trades union (see e.g. Harbridge and Rae 1992).

However, this description of compulsory unionism and blanket coverage portrays a picture of a greater inflexibility than was actually the case. Only about half of the labour force were, through union membership, covered by the Award system and although there was undoubtedly a significant diffusion of settlements to the non-covered sectors, award rates acted only as floors for actual wages paid. Penal rates for overtime and other contract items provided additional flexibility. Employers could also adjust to changing conditions through the internal labour market (Savage, 1989). Consequently, the New Zealand Planning Council (1986) concluded that their study provided "no clear evidence for arguing that the New Zealand labour market is particularly rigid by comparison of those of other developed economies" (p.24).9

Besides the industrial relations system, another potentially important influence on labour market outcomes is the system of social welfare provisions. This was already confirmed by our discussion of The Netherlands in the previous section, but it is true for New Zealand
also. Social welfare in New Zealand is funded out of general tax revenue and cash benefits are indexed to the inflation rate. These welfare payments include an unemployment benefit that varied in the 1980s between about 20% of average earnings for a teenager and 65% for a married person with two children. Non-working single parents are entitled to a "domestic purposes benefit". Sickness and invalids benefits are related to earnings foregone and all persons aged 60 and over receive since 1975 a relatively generous state pension (paid for from general tax revenue rather than through a contributory scheme).

As noted earlier, far-reaching economic reform commenced in 1984 after the election of a new Labour Government. A chronology of reforms that explicitly concerned the labour market and social welfare is given in Table 2. At first, the changes were rather gradual and included a removal of compulsory arbitration and the implementation of the Labour Relations Act (LRA) in 1987. Although union membership remained compulsory, employers were not responsible for its enforcement and union membership commenced to decline. Nonetheless, some unions became larger as a minimum size of 1000 members was imposed.

The 1991 ECA provided the major break with the history of centralised collective bargaining. Firstly, the ECA established voluntary unionism. Secondly, employees can since 1991 nominate their own bargaining agents and these agents are contestable. Thirdly, employees can choose to negotiate an individual employment contract or be bound by a collective contract. Fourthly, the employer does not need to agree to a collective contract. Fifthly, the Arbitration Court was abolished and an Employment Court was established to resolve disputes, but not on matters of contract negotiations. Sixthly, the workers' right to strike was curtailed. Industrial action became illegal if it concerned bargaining over a multi-employer contract. Finally, the ECA did safeguard provisions regarding employment conditions (such as paid holidays) and minimum wages.

The New Zealand government has been aiming recently at reducing further any (perceived) rigidities imposed by current regulations regarding employment conditions. For example, unless explicitly stated in the employment contract, there is no longer a legally binding minimum notice for termination of employment. Also, the government will propose legislation that permits an exchange of the minimum holiday entitlement for cash.

Major reforms in the welfare system took also place at about the same time as the introduction of the ECA in 1991. Eligibility criteria were tightened and the benefit levels reduced. For example, persons voluntary quitting or dismissed for misconduct could from then on only receive the unemployment benefit after a 26 weeks stand-down period. The changes in benefit levels and criteria were designed to provide greater incentives for those on welfare to actively seek work. The mechanism for this was a reduction in the benefit-replacement ratio and in the effective marginal tax rate (EMTR)\(^9\). The EMTR on earned income was in excess

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\(^9\) See also Anderson et al. (1994) on related issues.

\(^{10}\) This is equal to 100 percent times one minus the additional net dollar income received when earning an additional dollar of wages.
of 100% in some cases before the reforms (e.g. Maloney 1997).

As was the case with respect to industrial relations legislation, there continued to be a perception after 1991 among Cabinet, influential government departments such as Treasury and business lobby groups that additional reforms in the income support area needed to be implemented (e.g. Cox 1998). Recently, a system of "workfare" has been introduced which forces unemployed persons under certain conditions to undergo training or work on community schemes (see Table 2).

The labour market and welfare reforms are only two elements of a vast array of reforms that affected all aspects of the New Zealand economy. These included a removal of barriers in trade and financial flows, the encouragement of foreign direct investment and immigration, the removal of price distortions and the enhancement of competitive forces, corporatisation of public entities and the selling off of state assets. Besides the direct impact on the sector targeted in any specific set of reforms, the other sectors were also affected through the inter-industry linkages and the effects on final demand for output in the economy. Labour market and welfare reforms were implemented relatively late, probably because these were the areas in which a drastic liberalisation would have come at a high political cost for the Labour Government. Besides the change of government to a right of centre one in 1990, the fact that resistance to the ECA was subdued upon its implementation in 1991 is likely to have been due to a general recognition that a combination of a liberal product market and a regulated labour market could not be sustained (Blandy and Baker 1987). Competitive forces reduced economic rents in many sectors and necessitated an adjustment in relative wages.

The sequencing of economic reforms is an important theoretical issue. It has been argued that the New Zealand sequencing was not optimal. Authors such as Evans et al. (1996) and Hall (1998) argue that labour market reform should have been implemented before deregulation of financial and product markets, because this could have reduced the decline in employment during the transition stage.

A CROSS-COUNTRY COMPARISON OF LABOUR MARKET REFORM
There are some similarities between post 1980 labour market in New Zealand and The Netherlands. In both countries, direct government intervention in the bargaining process was effectively abolished at an early stage: through the 1982 Wassenaar Accord in The Netherlands and the policy measures introduced by the Labour Government in New Zealand in 1984. Moreover, in both countries eligibility conditions for unemployment benefits were tightened and benefit levels reduced. If non-standard types of employment are defined as being all types of employment besides full-time permanent jobs, then non-standard work has increased in both countries. As noted earlier, the major growth has been in part-time employment. In The Netherlands there has been in particular a growth in the use of temporary work agencies. The

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11 Surprisingly, few researchers have attempted to quantify the effects in a multi-sectoral general equilibrium context.
Central Agreement of 1996 provided more legal rights for part-time and temporary workers (flexicurity).

Besides growth in part-time employment, there is some evidence in New Zealand of a growth in fixed term and temporary employment after the introduction of the ECA, but a decline in casual employment in the public sector and little change in self employment (Brosnan and Walsh 1996). Hence there is no evidence that the ECA has led to a pronounced casualisation of the New Zealand work force.

A big difference exists between the two countries in the extent of employment protection. In the Netherlands, an employer must have "acceptable" reasons for laying off workers and layoff costs are very high (Hassink 1996). Regulations regarding the total hours of work are also rather strict, although the flexibility in working hours was increased in 1996. In New Zealand, the required notice of layoffs and the extent of severance pay can vary considerably between employment contracts. In many cases the employer's cost of a layoff is not high.

The biggest difference between the two countries exists in the extent of collective, union-negotiated contracts. In New Zealand, union density decreased from about 44% to 23% of the work force during the 1985-95 decade (Harbridge and Honeybone 1996), although union density remained higher in the public sector. Besides the fraction of the work force that belongs to a union, additionally an estimated 7% of the work force are persons who do not belong to a union but who are covered by a union-negotiated contract, i.e. they are "free riders" (Harbridge et al. 1997).

In The Netherlands, union density and collective contract coverage are much greater. The large majority of workers are bound by a collective agreement or an extension (union coverage, the coverage ratio of collective agreements as a percentage of the dependent labour force, was 72% in 1990, see Van den Wijngaert, 1994). Union density (defined as union members aged under 65 as a percentage of the working population) is much lower (29% in 1990, see also Van den Wijngaert, 1994). Of this group, 11% of employees are covered by mandatory extension.

It can be argued that the mandatory extension of the collective labour agreements prevents low wage competition, thereby making the wage structure too rigid (see e.g. Oudshoorn and Vlijbrief, 1995, Ministry of Economic Affairs, 1995 and Van Wijnbergen, 1996). To date, however, mandatory extension has not been abolished. Moreover, recent research has shown that the mandatory extension exerts little "upward pressure" on the wage level (see Lever and Marquering, 1995, Van Praag and Hop, 1995, and Freeman, Hartog and Teulings, 1996). It seems, therefore, that the negotiating parties take into account the position of weaker (i.e., less profitable) firms in the industry as well. Recent public policy initiatives on this topic tend towards keeping extension. The Dutch government made this conditional on what it refers to as "good behaviour" of the negotiating parties, that is, an intention of the social partners to reduce entry wages and dispensation rules for new firms.
An important element of the Dutch labour market concerns the link ("koppeling") between the development of contractual wages in the private sector and benefit incomes (received when unemployed, inactive, disabled, etc.). This link was abandoned after the Wassenaar Accord of 1982, but was reinstated in 1990. However, it was then made conditional on the inactivity ratio (i.e., the number of benefit recipients per 100 employed persons), which should be lower than or equal to the level of 1990 (82.6).

MEASURING THE IMPACT OF DEREGULATION

In principle, there is a wide range of research tools that could be applied in empirical studies of the impact of deregulation. In each case, there are also a large number of qualitative and quantitative indicators that could be used to assess the impact. Qualitative indicators could include responses to survey questions such as inquiries about whether employers are "less constrained" or workers feel "less secure" in a deregulated environment. Quantitative indicators would include: total employment, other aggregate and disaggregate statistics on the labour force and employment; hours worked; unemployment rates, vacancy rates, inflow and outflow rates, the real wage, wage dispersion, productivity and economic growth, and statistics on industrial disputes (strikes, work time lost, etc.). The robustness of the results can be gauged by making informal or formal cross-country comparisons of such studies.

The methodologies that could be used include:

1. A check of a trend break in relevant time series after the implementation of deregulation policies.
2. A comparison of trends over time in the economy of interest with the trends in an economy which is similar in many respects, except for the degree of labour market regulation. Hence the latter economy acts as the counterfactual.
3. Estimation of a structural econometric model of the labour market, based on behavioural theories of the labour market, in which several exogenous variables measure aspects of the institutional structure. Examples are the level of the minimum wage, tax rates, social security premiums and benefit levels. For continuous variables, the impact of deregulation can be measured by the appropriate elasticities. Qualitative changes (e.g. compulsory versus non-compulsory unionism) can be incorporated by means of dummy variables.
4. An extension of (3) in which again a structural econometric model is formulated that includes quantitative and qualitative variables which measure aspects of labour market reform. However, in this case careful attention is being made to make the model replicable across countries. The model is then estimated with pooled time series for a cross-section of countries and the effects of deregulation measures are assessed. Tests of country-specific parameters to reflect institutional differences etc. can also be performed.
5. The impact of specific policy measures regarding the labour market can also be assessed by means of comparing past studies that test the impact of such measures by means of
different data sets within a country, or across countries. Replication and re-analysis has been increasingly advocated in recent years (see e.g. Arulampalam et al. 1997) and formal comparative techniques such as meta analysis have already been applied in labour economics. A well known example is the meta analysis of the impact of the minimum wage (Card and Krueger 1995).

(6) Specification tests of structural change in structural econometric or time series (e.g. VAR) models of labour market variables. Such specification tests would test for coefficient changes at the time that deregulation measures were implemented.

(7) The impact of deregulation can be assessed by a comparison of the results of pre and post-reform surveys of the attitudes, perceptions and behaviour of employers, workers and their bargaining agents.

(8) Finally, labour market reforms can be assessed by means of qualitative policy evaluation methods and a cross-national comparison of the outcomes.

One of the main research issues has been the gathering of suitable data. In New Zealand, the institutional arrangements before 1991 yielded much public data, for example information on wages from registered awards (which covered 60% of employees). Because the ECA removed the requirement for settlements to be registered, this source of data on wage increases and employment vanished. Consequently, deregulation created a hiatus in labour market information and several surveys were commissioned to fill the gaps. Separate surveys were conducted of firms, workers and unions.

THE IMPACT OF LABOUR MARKET REFORM IN THE NETHERLANDS

For the Netherlands, the empirical evidence on the economic effects of labour market deregulation is scarce. Especially at the aggregated level, insufficient knowledge has been obtained so far to know what the effects on employment, growth and other macro-indicators are.

Some insight can be acquired from a recent cross-national investigation (in European context) into the impact of deregulation of product and labour market on economic growth (see Koedijk and Kremers, 1996). In this study, eleven EU-countries have been ranked by their degree of product and labour market regulation in 1990. For the latter, a compound rank-indicator has been gauged based on measures related to working hours, irregular work, temporary contracts, dismissals and minimum wages. The average rank-score of the Netherlands appeared to be fourth, leading the group of Rhineland-countries like Belgium, France and Germany, but - as expected - following deregulated nations like the UK (1), Ireland (2) and Denmark (3). Interestingly, a simple cross-sectional regression of economic growth on the rank-order indicator of labour market deregulation made clear that regulation has a significant negative impact on economic growth. However, when product market regulation is studied in a similar vein, a much larger impact was detected. Hence, the authors concluded that more competition in product markets will be beneficial for European countries in general. Moreover, they expect that the product market deregulation measures taken in the Netherlands during the nineties (such as anti-cartel measures and less stringent rules on business
hours, policies undertaken in the context of the so-called operation "Market functioning, Deregulation and Improvement of Legislation"\textsuperscript{12}) will have a positive impact on the Dutch economic performance.

Along similar lines of research, Esping-Andersen (1998) has analysed the impact of employment protection on unemployment for 18 OECD-nations (including The Netherlands) for the year 1993. The measure of rigidities used is the OECD's synthetic ranking-index. A striking result that showed up in the estimates of his cross-sectional regression model is the absence of a significant effect on unemployment, both for the aggregate level and the level for specific groups like youth and females. If, however the relative risk of being unemployed for youth (versus adults), low skilled (versus all) and females (versus males) are considered as dependent variables, it appeared that less employment protection leads to significant (relatively) lower chances of being unemployed for these three specific groups. This means that the composition of unemployment in OECD-countries is affected by regulatory practices.

Another recent cross-national examination has focused on the differences in labour market institutions and labour market performance between The Netherlands and Germany, while using the US as a benchmark (see Den Broeder, 1996). The relative position of Germany and the Netherlands regarding their labour market performance and the role of labour market regulations in these countries are summarised in Table 3. The impression one gets from this summary is that deregulation measures would lead to higher economic levels (i.e., the liberal economies of the US and New Zealand show more favourable performance levels than the more regulated economies of Germany and the Netherlands). However, one should of course realise that in qualitative terms the European countries perform more favourable in many respects than the US (see also Den Broeder 1996). In addition, it is hazardous to give the apparent negative correlation between regulation and economic performance a causal explanation.

Table 3 about here

Nevertheless, it becomes clear that different restrictions on the labour market lead to different "types" of labour markets. In case of the Netherlands, the flexibility on working hours and labour contracts have resulted in an extensive use of part-time work (which is actually to a large extent in accordance with the (female) worker's preferences) and as a consequence, a relatively low aggregate activity level.

It has been argued by Gorter (1998) that although several labour market deregulation and decentralisation schemes have been implemented, these have not coincided with a structural improvement in labour market efficiency (in matching). The overview presented in Gorter (1998) shows that deregulation and flexibilisation measures in the Dutch labour market since 1980 have not influenced the degree of employment protection and wage flexibility, or else they have only done so

\textsuperscript{12} Marktwerking, Deregulering en Wetgevingskwaliteit (in Dutch); An important component of this policy is the change in the Dutch laws regarding competition.
to a limited extent. However, these measures have clearly promoted the extensive use of temporary and flexible work, and also brought an increase in working hours flexibility. In the light of these observations, it seems unlikely that this trend of deregulation and flexibilisation has played a major role in the favourable Dutch experience of job growth.

a) The impact of wage moderation

The organised-decentralised arrangement of the 1980s and 1990s in The Netherlands may be held (partly) responsible for the reigning in of wage growth at the macro level. The huge rise in employment that began in the second part of the 1980s was - to a large extent - stimulated by this strategy of wage restraint. The Ministry of Social Affairs and Employment (1990) reported that wage growth in the period 1983-89 was 1.2 % per annum lower than it would have been without the new institutional arrangements. However, besides wage moderation, the favourable effects of international economic recovery should also be cited to explain this flourishing performance.

The Dutch Central Planning Bureau (CPB, 1995) has estimated that during the period 1985-1990 wage moderation was twice as important for job growth (accounting for two-thirds of it) as the international economic upswing during the same period. In absolute terms, an additional employment growth of 415,000 persons is credited to the wage moderation-policies through which real wage growth was kept continuously lower than productivity growth in that period (see also CPB, 1991).

This observation is also made by Den Butter et al. (1997) who analysed the role of wage moderation in the trends for economic growth, productivity and employment in The Netherlands by using a stylised reduced-form macro-economic model. Simulation experiments with this model supported the importance of wage restraint in the Dutch Polder-model. More specifically they confirmed that the interest of Dutch unions in the aggregate employment and participation levels contributed to the acceptance of the real wage-moderation strategy (i.e., the simulated elasticity of the change in the real wage with respect to the change in labour demand becomes unambiguously negative in their model). Moreover, they found that employment effects are much more effectively achieved by wage moderation than by a reduction in working time.

Some other studies on the "causes" of the Dutch miracle have also pointed at other factors responsible for the long-lasting period of employment growth. For example, Delsen and De Jong (1997) have argued that in the extended employment growth period, the appreciation of the Dutch guilder (linked to the value of the German Mark) did not lead to a decline in international competitiveness and profitability (as did happen in Germany) because wage moderation - supported by the unions who recognised the employment - was strong enough to counteract the appreciation effect (this role of the real depreciation of the Dutch guilder is also empirically supported by the simulation exercises of Den Butter et al., 1997). The extended duration of the growth period is also (partly) attributed by Delsen and De Jong (1997) to macro-economic "luck". By this they mean that the Dutch economy experienced a sequence of favourable, temporary macro-economic events that boosted effective demand: first, the international economic recovery (second part of the 80's),
second the positive impact of the German unification on the Dutch economy, third, the dominance of the agricultural and chemical sectors in the Netherlands which remained almost unaffected during the recession of 1993-94, and fourth the historically low interest rate since 1996 that caused a huge rise in durable consumption like housing.

b) The impact of social-security reforms

The Dutch Central Planning Bureau (CPB) has analyzed the interrelationship between macro-economic performance and the system of social security by means of an applied general equilibrium model, referred to as MIMIC (MIcro Macro model to analyze the Institutional Context). In particular of interest for this paper, they have looked into the role of minimum wages and unemployment benefits in the Dutch economy. Simulation experiments, discussed in Gelauff and Graafland (1994) revealed substantially positive employment effects of a combination of reduction in the minimum wage and unemployment benefits (however not of a reduction of minimum wages in isolation of other measures), and the same effect occurred when disability benefit levels were lowered.

As has been mentioned before, the Dutch social security system was changed in 1987, and in particular the eligibility conditions for receiving unemployment benefits were tightened. An important element of this reform was the easier use of sanctions against those who did not meet certain criteria (dependent on work history). In addition to this major change in the Unemployment Insurance Act, the assessment procedure of the degree of disability was also modified since the "labour market consideration" in this assessment was eliminated. This modification was motivated by the fact that the Dutch disability programmes exhibit a large "hidden unemployment component" (up to 40-50% of the disability spells, see the overview study of Stigter, 1997). Stigter (1997) has also evaluated the 1987 system reform. He concludes that "the 1987 reform seems to have had little effect on restraining the volume of disability beneficiaries".

As regards to unemployment insurance payments after 1987, it is found that the volume of UI-recipients has risen considerably, mostly due to the new benefits claims by partially disabled (who were fully paid by disability benefits before the 1987-reform). The number of imposed sanctions almost doubled in the period 1987-1991, and afterwards the industrial councils started to check more precisely the job-search efforts of the unemployed. Recent research has shown that imposing sanctions does actually reduce unemployment duration (see Abbring et al., 1996). A crucial shortcoming of the social security system was however - according to Stigter - not corrected in the 1987-reform: "the 1987-reform does not solve the problem that Dutch social insurance fails to provide incentives for unemployed and disabled to re-enter into the labour force". This conclusion is closely related to the finding of substantial employment effects of reductions in minimum wages and benefit levels by the CPB (since this would be make it more gainful to work for the unemployed). Decreasing volumes of sickness and disability beneficiaries were observed after some additional measures taken in the nineties (1992, 1993 and 1994) in which the access to these benefits was limited and financial incentives for employers and employees were put into use (see also Stigter, 1997).
c) The impact of deregulation on wages

Empirical evidence of the impact of an increase of competition via deregulation measures on the wage level is extremely scarce for the Dutch labour market. A notable exception is found in Lever (1997). In his study, the impact of a more competitive product and labour market on prices and wages is estimated empirically by using a panel-model for the wage- and price-level (based on annual observations in 71 industrial sectors for the years 1978-1991). The wage-equation in this model includes variables measuring the extent of market competition (in terms of concentration, export, and collective contract coverage). The empirical results indicate a modest negative effect of collective contract coverage (the wage level would be 5.5% higher if coverage had been completely absent). More pronounced negative effects are found for the extent of concentration and the share of export (in total sales). Used in combination, a decrease of 10%-points in each of these three variables leads to a wage-reduction of 2.7%, and when also taking the price-reduction of 3.2% due to these changes into account, Lever comes to the prediction that aggregate output and employment would rise with about 1.5%.

d) The impact of labour market flexibilisation

As regards to the macro-economic effects of labour market flexibilisation little is known empirically, with the exception of the results found at the aggregated level by Van Sinderen et al. (1994). In this study, a general equilibrium model is used (which was developed at the Ministry of Economic Affairs) to analyze the impact of labour market flexibilisation. The approach followed boils down to determining the outcomes for a set macro variables in case of specific "what would have happened if"-scenario's (and this method is applied to the Netherlands for the period 1984-1990). The "what-if" simulation with a labour market flexibilisation-scenario consisted basically of two elements (in comparison with a baseline simulation that resembled rather satisfactorily the observed pattern for the key Dutch macro-economic indicators): (i) an increase in the wage elasticity of labour supply, and (ii) a stronger Phillips-curve-effect (i.e., a higher impact of unemployment on wages). It is then demonstrated that the partial effects of labour market flexibilisation on economic performance (during the period 1984-1990) appeared to be positive for employment (1% annually), negative for export (-0.5%), and non-existent for production. The latter is due to rigid product markets, so that the lower production costs of firms do not lead to lower prices and higher demand. An additional conclusion drawn by Van Sinderen et al. (1994) is that the partial effects of labour market flexibilisation (modelled as described before), could have been much stronger when simultaneously product markets were made more competitive (modelled via lower mark-up levels in the sheltered sector). More specifically, in that positive effects are detected for production (0.6%), employment (0.9%), investment (1.2%), and export (0.7%) when product and labour markets are jointly made more flexible.

Micro-economic effects of labour market flexibilisation have received somewhat more attention, see for example Gravesteijn-Ligthelm et al. (1990), Delsen (1995), and Kleinknecht et al. (1997). Gravesteijn-Ligthelm et al. (1990) identify flexibilisation trends in firms (part-time work, temporary work, flexible work arrangements, etc.) and study their productivity effects, based on
survey data (gathered by the Netherlands Economic Institute in Rotterdam, NEI) for the period 1985-88. It is found that output fluctuations at the micro level lead to more use of flexible work arrangements, with the exception of temporary (agency) contracts. Moreover, a simple (cross-sectional) statistical analysis showed that a greater use of part-time workers in the individual firm gives rise to favourable productivity-effects, whereas a larger share of temporary workers shows the opposite effect. In line with expectations, Gravesteijn-Ligthelm et al. (1990) also reported that the higher the share of flexible workers in the firms, the lower their average wage costs.

A recent evaluation of the impact of flexibilisation on the performance of firms has been carried out by Kleinknecht et al. (1997) in which panel data on firms is used for the period 1993-1994. Throughout this investigation a distinction has been made between effects for knowledge-intensive firms (i.e., firms with R&D expenditures) and other firms (having no R&D-expenditures). This differentiation is motivated by the consideration that high flexibility levels in knowledge intensive firms could be less beneficial (or even harmful) than in other firms because the higher turnover in knowledge intensive firms easily leads to the loss of "human-embodied" knowledge. The empirical results do give some support to this argument. It is found that the percentage of workers that enters or exits the firm (during 1993-1994) has no effect on average gross wages, profits and output for firms with R&D, whilst it does have a negative (positive) impact on wages (profits) in firms without R&D. Employment growth appeared to be positively related to the worker-flow indicator for firms with R&D (possible due to a lower - average - productivity level in the firm), whereas employment growth is not affected for other firms, despite the lower (higher) profit (wage) level. A second finding of Kleinknecht et al. (1997) was that firms with higher shares of temporary contracts among their employees do have lower wages (on average), but this is not leading to higher profits and output. Thirdly, more extensive use of agency workers appeared to raise profits at the firm level (in general), but has positive results for output and employment for knowledge-intensive firms only. Kleinknecht et al. concluded from their results that external flexibility is not necessary "good" for the economic performance of firms, and in particularly not likely to affect positively the performance of knowledge-intensive firms since investments in human knowledge get easily lost in this way.

e) The impact of deregulation of employment placement services

Before 1991, employment placement services were fully monopolized by the (centralized) public employment office, being a department of the Ministry of Social Affairs and Employment. This has changed since 1991: private employment offices are allowed to match (unemployed) job seekers with regular jobs by means of providing liaison services. Other changes in employment services legislation since 1991 were the decentralisation (regionalisation) and deconcentration of

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13 More specifically, the minimum is taken of the annual inflow and outflow-percentages, since the authors consider the net in- or outflow not to be related to the flexibility indicator.

14 In fact, temporary work agencies ("uitzendbureaus") counselled workers for firms already before 1991 such that workers started on a temporary agency contract but often ended up in permanent contract in the same firms. Hence, these "illegal" practices were legalized by the new arrangements.
employment offices (see for more details, De Koning, 1998). De Koning (1998) also addresses the consequences of deregulation on the market of placement services. He considers the effects to be quite modest (at least up till now). Labour market functioning appeared to be not improved due the implementation of the new law (see De Koning et al., 1995), although there is an autonomous trend that temporary work agencies fill a larger proportion of the vacant jobs. De Koning (1998) argues that the role of public employment offices remained to be important, especially since their services are offered for free. In addition, he attributes the rise in the market share of placement services by private organizations to the favourable conditions in the Dutch labour market (economy) and conjectures that when the (long-lasting) period of economy prosperity is over and a severe recession is faced, private (and costly) services will be used less intensively by firms. The existence of public employment office remains vital for the efficiency of matching processes in the labour market, during a recession.

THE IMPACT OF LABOUR MARKET REFORM IN NEW ZEALAND
In this section, we will briefly review a number of key studies that have attempted to quantify the effect of the 1991 ECA. For each reference, we will use a letter to indicate the nature of the analysis that was used to generate the conclusions. The classification is as follows: R refers to time-series or cross-section regression analyses, S to a descriptive analysis of survey data and T to a graphical analysis of trends and trend breaks. Finally, C refers to a descriptive comparison of New Zealand trends with those of a counterfactual. New Zealand researchers have tended to use Australia as the counterfactual. Given that the Australia and New Zealand economies have been almost fully integrated since 1990 under the Closer Economic Relations agreement (CER, in its original form concluded in 1983), the choice of this counterfactual would indeed seem appropriate.

Besides the official macroeconomic statistics on wages, prices and employment, there have been several surveys to measure the impact of the ECA. These include a series (1992, 1993 and 1996) of surveys of firms and employees commissioned by the New Zealand Department of Labour and an annual survey of collective bargaining by the Industrial Relations Centre at Victoria University (e.g. Harbridge et al. 1997).

a) The impact on industrial relations
Although New Zealand already followed the international trend of a decline in union density that emerged in the 1980s, the ECA has led to an acceleration of this decline (Maloney 1994 R, Maloney and Savage 1996 C). However, Harbridge et al. (1997, S) found some evidence of a re-collectivisation of the bargaining structures about six years after the introduction of the ECA. They argue that employers are starting to find the transaction costs of drawing up individual contracts too high. High transaction costs of renegotiation are also expected to have been responsible for the increasingly rolling over of existing contracts when these contracts expire (Armitage 1997 S, Hector and Hobby 1997 S). This is particularly the case among smaller firms.
The surveys show that a new equilibrium in bargaining arrangements was established fairly quickly after the Act came into force (Whatman et al. 1994). Hector and Hobby (1997 S) analysed the Labour Department survey results and found that the percentage of employees covered by multi-employer contracts and awards declined from 59 % in 1991 to 8 % in 1992. In this context, it should be recalled that industrial action in the form of a strike or lockout had become illegal under the ECA if it concerned bargaining over a multi-employer contract. Employees covered by individual employment contracts increased from 28 % of total employment to 52 %. The fifty-fifty split between those covered by individual contracts and collective contracts remained more or less the same since 1992. Of those working under collective contracts, the terms were negotiated with a single employer in 80 % of cases.

An interesting finding is also the degree of asymmetry between employers and employees in terms of the "minimum code". Awareness of such minimum conditions is rather low among employees (Armitage 1997 S, Hector and Hobby 1997 S) and prompted the latter authors to argue for proactive provision of information about employment rights.

b) Flexibility of working conditions
Several surveys have shown that the ECA has led to a greater diversity in terms of hours of employment, the reward for working overtime or working on Sundays and public holidays and the prevalence of non-standard employment. However, Harbridge et al. (1997 S) concluded that the major impact could be observed during the first two years and that the "new" labour market settled down quickly after that. Given the nature of the changes, it is not surprising that surveys of employers revealed a general satisfaction with the changes, with increasing operational flexibility mentioned as one of the main benefits (Cooling and Savage 1996 S).

Brosnan and Walsh (1996 S) detected a growth in non-standard employment. There has been in particular a growth in part-time employment and fixed term contracts. Casual employment and contracting out also increased, but only in the private sector. Finally, firms do expect further increases in non-standard employment in the future.

c) Aggregate employment
The ECA was introduced when the New Zealand economy was at a trough of a recession. Consequently, as noted earlier, any modelling work in order to detect a labour demand effect is thwarted by subsequent observations coinciding with an economic upswing until 1996. Given that aggregate employment has levelled off subsequently (Figure 3b) at a time at which the population (and aggregate demand) increased quite rapidly (Gorbey et al. 1999), a permanent effect on aggregate employment is hard to detect. Thus, Easton (1997 T, C) is sceptical of Kaspar's (1996 T,C) claim of rapid employment growth. Yet both researchers use Australia as the counterfactual. Nonetheless, it has been found that employment growth is inversely related to union density and that the decline in union density therefore increased employment indirectly

15 The minimum code refers to the minimum conditions of employment still protected by law. These minimum conditions relate to the minimum wage, vacation, safety and health regulations at the workplace, and public holidays.
The rate of unemployment
Again, coinciding with the business cycle, the unemployment rate decreased from the time of the introduction of the ECA in 1991 until 1996 and subsequently increased slightly. If at the depth of current recession the unemployment rate remains below, say, 10%, there would appears to be some casual evidence that the natural rate of unemployment has decreased. Using information up to 1996, Maloney and Savage's (1996 T C) trend analysis was not conclusive.

Productivity and economic growth
The new theories of economic growth (e.g. Aghion and Howitt 1998) would suggest that the increased competitiveness in the economy and more direct links between rates of return to human capital and productivity would lead to a positive impact of the ECA on productivity and economic growth. Yet, Maloney and Savage (1996 T C) and Easton (1997 T C) could not detect an effect on the long run growth rate of GDP or labour productivity. There has been a remarkable growth in the productivity of certain sectors in New Zealand, particularly those that were traditionally publicly owned and subsequently corporatised and/or privatised (Evans et al. 1996 T, Easton 1997 T). However, in this case productivity growth is due to the total package of post-1984 economic reforms rather than just labour market reform. Although the impact on productivity is hard to quantify, there is at least a perception among employers that the ECA enhanced productivity growth (Cooling and Savage 1996).

Wage levels and wage dispersion
At the macro level, Maloney and Savage (1996 R) found that the ECA had an indirect effect on wage levels: lower union density led to lower nominal wage growth and, as noted earlier, the ECA accelerated the decline in union density. There is some evidence that the ECA halted real wage growth in New Zealand (Easton 1997 T). Also, wage relativities between groups of workers and between sectors adjusted rather rapidly initially, but settled down subsequently (Harbridge et al. 1997 S).

Interestingly, Dixon (1996 T) could not find any evidence of a growing inequality in the wage distribution, although growing earnings inequality has been a major feature of recent labour market trends in many developed economies (e.g. Gottschalk and Smeeding 1997). Composition effects may have blurred Dixon's analysis. She found that the gap between average earnings in the first and ninth decile did not change generally, but it did increase for men. Moreover, there is New Zealand evidence of a growing inequality in real disposable incomes due to changing social welfare conditions (e.g. Easton 1996).

The impact of changes in social welfare and the minimum wage
The effects of a change in the minimum wage have been debated extensively in the recent literature (e.g. Kennan 1995). Maloney (1995 R) found that an increase in the minimum wage in New Zealand had a negative effect on employment with an elasticity of about –0.35. Chapple (1997 R) updated Maloney's work and also used alternative data sets. He found that the negative effect was not robust, although there was some evidence of a long-run elasticity of
between –0.18 and –0.34.

Finally, Maloney (1997 R) studied the impact of the 1990 social welfare reforms. These reforms led to a decrease in the average real level of benefits paid, but because the real wage also declined, the impact on the benefit replacement ratio was less dramatic. The biggest impact could be detected for workers aged 60-64 where the gradual increase in the age of eligibility for government-funded superannuation led to an increase in labour force participation. Additionally, the welfare reforms led to a greater enrolment of 16 and 17 year olds in post-compulsory education. In aggregate, participation rates and employment rates increased to the same extent, so that no effect on the unemployment rate could be detected. It is interesting to note that Maloney's work confirmed that the changing welfare provisions had the greatest impact on those groups in the labour force which tend to have the most wage-elastic labour supply, such as women, teenagers and retired persons (e.g. Killingsworth 1983).

CONCLUSIONS

Our survey of Dutch and New Zealand labour market reforms, and the attempts to date to assess the impact of these reforms, has highlighted the complexity of this issue and the need to define carefully what is meant by deregulation or reform. While most countries will share the ultimate objectives of full employment and real earnings growth, the search for a set of reforms applicable to all is likely to be counterproductive. The impact of specific policy instruments with respect to the labour market will vary between countries due to institutional differences, differences in the (sectoral) structure of the economy and cross-country differences with respect to the behaviour of households and firms.

Much of the analysis so far has tended to be carried out at the macro level, and usually focused on the effects of deregulation in one particular country. A comparison of the "body of knowlede" for the Dutch and New Zealand case confirms this conclusion (see Table 4 for a concise overview), and also shows that studies at the meso-level are almost absent. Moreover, it can be concluded that there is a clear need for more qualitative and quantitative comparative studies in which institutional differences and their impact on economic performance can be analysed. The macro-oriented approach basically followed so far can only provide limited insights due a lack of data (shortness of relevant macroeconomic time series) and many confounding factors. Of particular concern is that many studies in the past were, for various reasons, unable to separate out the impact of varying levels of aggregate demand. The business cycle has had a major impact on the measures of success of labour market reform that are usually quoted in reviews of the "Polder" and "Kiwi" models.

In any case, the benefits of labour market deregulation should not be exaggerated. Even within relatively rigid institutional structures, firms and workers have often found means to adjust to changing conditions, i.e. institutional rigidity does not necessarily imply market inflexibility.

In general, labour market reforms in open economies such as The Netherlands and New
Zealand may be seen as a response to growing competitive forces internationally. As such, the reforms appear to have been successful in increasing the competitiveness of firms, leading to real wage restraint and in generating employment, although rather more in terms of growth in non-standard jobs (such as part-time and temporary jobs) than standard jobs.

There is a notable difference between the two countries in the distribution of the effects across groups in society. The benefits of the Dutch reforms appear to have been rather more evenly spread across firms and workers, with an emphasis on consensus building and equity. In the New Zealand case, the reforms appear to have favoured employers more than workers. However, the “shadow price” of the social harmony associated with the Dutch Polder model is a high inactivity rate and consequential hidden unemployment. This may have an impact on social security that is not sustainable in the long-run. In this respect, New Zealand has already made the "hard" decisions that have permitted structural surpluses on the government account.

There is much scope for further theoretical and empirical work on the impact of labour market reforms. In the near future, it is unlikely that very conclusive results will emerge from further research at the macro level. Due to the recency of the most significant labour market deregulation measures, it will remain impossible for some time to assess whether such measures reduce the natural rate of unemployment or contribute to an increase in the long-run rate of economic growth.

There is, however, a wealth of survey data in both countries that has so far only been used for descriptive accounts of the effects of labour market reforms. There is undoubtedly scope for testing formal theoretical models of the impact of deregulation by means of such rich micro-level data.

REFERENCES


Den Butter, F.A.G and A.P. van Vuuren, Het poldermodel en de keuze tussen werk, inkomen en vrije tijd, mimeo, Amsterdam: Free University.


Visser J (1997), “Two cheers for corporatism, one for the market. Industrial relations, unions and labour markets in The Netherlands”, *British Journal of Industrial Relations*.

Table 1: Key Statistics on The Netherlands and New Zealand

<table>
<thead>
<tr>
<th>Category</th>
<th>Units</th>
<th>Reference</th>
<th>Netherlands</th>
<th>New Zealand</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Population</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>Thousands</td>
<td>1996</td>
<td>15,494</td>
<td>3,640</td>
</tr>
<tr>
<td>Inhabitants per sq km</td>
<td>Number</td>
<td>1996</td>
<td>380</td>
<td>14</td>
</tr>
<tr>
<td>Net average annual increase over previous 10 years</td>
<td>%</td>
<td>1996</td>
<td>0.6</td>
<td>1.1</td>
</tr>
<tr>
<td><strong>Employment</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Labour force participation rate (of the civilian population aged 15 and over)</td>
<td>%</td>
<td>1996</td>
<td>59.5</td>
<td>65.8</td>
</tr>
<tr>
<td>Total civilian employment (TCE)</td>
<td>Thousands</td>
<td>1996</td>
<td>6,983</td>
<td>1,688</td>
</tr>
<tr>
<td>of which:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture</td>
<td>% of TCE</td>
<td>1996</td>
<td>3.9</td>
<td>9.5</td>
</tr>
<tr>
<td>Industry</td>
<td>% of TCE</td>
<td>1996</td>
<td>22.4</td>
<td>24.6</td>
</tr>
<tr>
<td>Services</td>
<td>% of TCE</td>
<td>1996</td>
<td>73.8</td>
<td>65.9</td>
</tr>
<tr>
<td>Part-time employment</td>
<td>% of TCE</td>
<td>1996</td>
<td>28.1</td>
<td>22.4</td>
</tr>
<tr>
<td>( &lt;35 hrs )</td>
<td></td>
<td>( &lt;30 hrs )</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Gross domestic product (GDP)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Per capita using current PPPs</td>
<td>US$</td>
<td>1996</td>
<td>20,905</td>
<td>17,473</td>
</tr>
<tr>
<td>Average annual volume growth over previous 5 years</td>
<td>%</td>
<td>1996</td>
<td>2.3</td>
<td>3.7</td>
</tr>
<tr>
<td><strong>Gross fixed capital formation (GFCF)</strong></td>
<td>% of GDP</td>
<td>1996</td>
<td>19.7</td>
<td>20.9</td>
</tr>
<tr>
<td>of which:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Machinery and equipment</td>
<td>% of GDP</td>
<td>1996</td>
<td>9.4</td>
<td>10</td>
</tr>
<tr>
<td>Residential construction</td>
<td>% of GDP</td>
<td>1996</td>
<td>5</td>
<td>5.6</td>
</tr>
<tr>
<td>Average annual volume growth over previous 5 years</td>
<td>%</td>
<td>1996</td>
<td>2.2</td>
<td>9.6</td>
</tr>
<tr>
<td><strong>Gross saving ratio</strong></td>
<td>% of GDP</td>
<td>1996</td>
<td>25.7</td>
<td>16</td>
</tr>
<tr>
<td><strong>General government</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Current expenditure on goods and services</td>
<td>% of GDP</td>
<td>1996</td>
<td>14</td>
<td>14.4</td>
</tr>
<tr>
<td><strong>Net official development assistance</strong></td>
<td>% of GDP</td>
<td>1995</td>
<td>0.81</td>
<td>0.23</td>
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<tr>
<td><strong>Indicators of living standards</strong></td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Private consumption per capita using current PPPs</td>
<td>US$</td>
<td>1996</td>
<td>12,477</td>
<td>10,895</td>
</tr>
<tr>
<td>Passenger cars, per 1,000 inhabitants</td>
<td>Number</td>
<td>1994</td>
<td>383</td>
<td>457</td>
</tr>
<tr>
<td>Telephones, per 1,000 inhabitants</td>
<td>Number</td>
<td>1994</td>
<td>509</td>
<td>470</td>
</tr>
<tr>
<td>Television sets, per 1,000 inhabitants</td>
<td>Number</td>
<td>1993</td>
<td>491</td>
<td>451</td>
</tr>
<tr>
<td>Doctors, per 1,000 inhabitants</td>
<td>Number</td>
<td>1995</td>
<td>(90) 2.5</td>
<td>(94) 2.1</td>
</tr>
<tr>
<td>Infant mortality per 1,000 live births</td>
<td>Number</td>
<td>1995</td>
<td>5.5</td>
<td>(9) 7.2</td>
</tr>
<tr>
<td><strong>Wages and prices</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wages (earnings or rates according to availability)</td>
<td>%</td>
<td>1996</td>
<td>2.4</td>
<td>1.5</td>
</tr>
<tr>
<td>Consumer prices</td>
<td>%</td>
<td>1996</td>
<td>2.5</td>
<td>2</td>
</tr>
<tr>
<td><strong>Foreign trade</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exports of goods, fob, as % of GDP</td>
<td>%</td>
<td>1996</td>
<td>51.5</td>
<td>21.7</td>
</tr>
<tr>
<td>Average annual increase over previous 5 years</td>
<td>%</td>
<td>1996</td>
<td>8.9</td>
<td>8.2</td>
</tr>
<tr>
<td>Imports of goods, cif, as % of GDP</td>
<td>%</td>
<td>1996</td>
<td>46.6</td>
<td>22.3</td>
</tr>
<tr>
<td>Average annual increase over previous 5 year</td>
<td>%</td>
<td>1996</td>
<td>7.8</td>
<td>11.8</td>
</tr>
</tbody>
</table>

*Source: OECD Economic Surveys*
### Table 2  A post 1980 chronology of labour market and social welfare reforms

**The Netherlands**

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1982</td>
<td>Wassenaar Accord: decentralisation of bargaining, reduction of standard working time to 38 hours per week</td>
</tr>
<tr>
<td>1980s</td>
<td>Decline in minimum wages</td>
</tr>
<tr>
<td>1985</td>
<td>Reduction in unemployment benefits</td>
</tr>
<tr>
<td>1987</td>
<td>More stringent eligibility conditions for maximum duration of unemployment</td>
</tr>
<tr>
<td>1991</td>
<td>Privatisation and decentralisation of employment placement services</td>
</tr>
<tr>
<td>1992-94</td>
<td>Tightening of the eligibility for sickness and disability payments</td>
</tr>
<tr>
<td>1996</td>
<td>Central Agreement: more legal rights for flex-workers (&quot;flexicurity&quot;)</td>
</tr>
<tr>
<td>1996</td>
<td>Abolition of the Sickness Act</td>
</tr>
<tr>
<td>1996</td>
<td>Increase in working hours flexibility</td>
</tr>
</tbody>
</table>

**New Zealand**

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1983</td>
<td>Introduction of voluntary unionism</td>
</tr>
<tr>
<td>1984</td>
<td>More market-based bargaining under Industrial Relations Act Amendment 1984 and compulsory arbitration abolished (but compulsory union membership reinstated)</td>
</tr>
<tr>
<td>1987</td>
<td>Some contestability in union coverage under Labour Relations Act 1987; decentralised bargaining</td>
</tr>
<tr>
<td>1988</td>
<td>State Sector Act: extends the Labour Relations Act to the public sector</td>
</tr>
<tr>
<td>1989-92</td>
<td>Tightening of requirements, postponement of age of eligibility and reduction of benefits for government funded pensions</td>
</tr>
<tr>
<td>1990</td>
<td>Tightening and reduction of unemployment benefits and other government social transfers</td>
</tr>
<tr>
<td>1998</td>
<td>A community wage replaces the unemployment benefit, recipients may be required to undergo training or carry out community work</td>
</tr>
<tr>
<td>1998</td>
<td>Invalids and sickness beneficiaries are to be assessed on their capacity to work. Recipients of the domestic purposes benefit must seek work when the youngest child reaches age 6. Subsidised childcare will be made available.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>US</th>
<th>Germany</th>
<th>New Zealand</th>
<th>Netherlands</th>
</tr>
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<tbody>
<tr>
<td><strong>Performance</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(relative position)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>net participation</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>working hours</td>
<td>+</td>
<td>-</td>
<td>+</td>
<td>--</td>
</tr>
<tr>
<td><strong>Regulations</strong></td>
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<td></td>
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</tr>
<tr>
<td>firing protection</td>
<td>liberal</td>
<td>restrictive</td>
<td>liberal</td>
<td>restrictive</td>
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<tr>
<td>working-time</td>
<td>liberal</td>
<td>moderate</td>
<td>liberal</td>
<td>moderate</td>
</tr>
<tr>
<td>regulations</td>
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<td></td>
</tr>
<tr>
<td>short-time work</td>
<td>*</td>
<td>restrictive</td>
<td>liberal</td>
<td>liberal</td>
</tr>
<tr>
<td>flexible contracts</td>
<td>liberal</td>
<td>liberal</td>
<td>liberal</td>
<td>restrictive</td>
</tr>
</tbody>
</table>

Source: Amended from Den Broeder (1996) and New Zealand inserted.
Table 4  Overview of studies of the economic impact of deregulation in The Netherlands (NL) and New Zealand (NZ)

<table>
<thead>
<tr>
<th>Macro</th>
<th>Qualitative: one country</th>
<th>Qualitative: comparative</th>
<th>Models: one-country</th>
<th>Models: comparative</th>
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</thead>
<tbody>
<tr>
<td>The Netherlands: Gorter, 98 Delsen, 97 Stigter, 97 De Koning, 95 De Koning, 98</td>
<td>The Netherlands: Den Broeder, 96 New Zealand: Easton, 97 Kaspar, 96 Maloney, 96</td>
<td>The Netherlands: Min. of SA, 90 CPB, 95 Den Butter, 97 Gelauff, 94 Van Sinderen, 94 New Zealand: Maloney, 94 Maloney, 95 Maloney, 96 Chapple, 97</td>
<td>The Netherlands Koedijk, 96 Esping, 98</td>
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</tr>
<tr>
<td>Mesos</td>
<td>New Zealand: Dixon, 96</td>
<td>The Netherlands: Lever, 97</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Micro</td>
<td>The Netherlands: Delsen, 95 New Zealand: Harbridge, 97 Armitage, 97 Hector, 97 Whatman, 94 Brosman, 96</td>
<td>The Netherlands: Abbring, 96 Gravesteijn, 90 Kleinknecht, 97</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Figure 1  Unemployment Rates in OECD Countries, October / November 1997 (unemployment as a percentage of the civilian labour force)

Figure 2: Unemployment in The Netherlands and New Zealand, 1980-1997
Figure 3: Fulltime and parttime employment, Quarterly 1985-1997

(a) The Netherlands

(b) New Zealand

Note  Fulltime employment is defined as working 30 hours or more per week. Parttime employment is defined as working 1 to 29 hours per week.