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Strikes in France and the Netherlands

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Strikes in France and the Netherlands;

A comparison of labour market institutions

Frank A.G. den Butter[‡] and Silvie Y. Koppes [§]

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Abstract

Strikes as a consequence of labour conflicts occur about 28 times as much in France as in the Netherlands. This paper examines the institutional differences underlying these differences in strike activity. Our empirical analysis shows that strike activity is high in France if workers were successful in obtaining relatively high wage increases in collective labour agreements in the previous year, whereas strike activity is high in the Netherlands if, in the preceding year, real wage increases were relatively low as compared to productivity increases. Moreover it appears that the influence of strikes on wage formation on a macro-level is much higher in France than in the Netherlands.

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Strikes in France and the Netherlands; a comparison of labour market institutions

By Frank A.G. den Butter and Silvie Y. Koppes

1. Introduction

Institutions play a major role in explaining differences between countries in the functioning of their economy. This is especially true for the working of the labour market. Therefore, it is essential to take account of these institutional differences in the design and in the discussion of the effectiveness of policy measures, which aim to enhance the working of the labour market. From this perspective the paper compares labour market institutions and the organisation of policy preparation in France and the Netherlands. The emphasis is on strike activity and on the role of strikes in wage negotiations. The reason for this focus is that institutional differences between France and the Netherlands become very much apparent when we look at the occurrence of strikes in both countries. This is illustrated in table 1. When measured by the number of strikes it appears that, in the last 30 years, there have been 28 times as many strikes in France as in the Netherlands. Because the number of strikers involved per strike is larger in the Netherlands than in France and because strikes generally last longer in the Netherlands, the differences are less pronounced when we look at the number of strikers or at the loss of working days. As yet the differences are still substantial.

At first sight the use of strikes in order to resolve labour disputes between employers and trade unions seems irrational as it hampers production and, at the end, both parties will suffer a loss of income. Therefore, economic theory on strikes seeks its rationale in the existence of asymmetric information on the profitability of future production between employers and trade unions. By the threat of a strike, and sometimes by calling a strike, the leaders of the trade unions try to gain additional information on the profitability (see e.g. Ashenfelter and Johnson, 1969, Farber, 1978, Kennan, 1986, Card, 1990a, 1990b). Obviously labour market institutions and the way wage negotiations are organised determine to a large extent the quantity of information on profitability and on the stance of the economy that becomes available for both parties in the negotiation rounds. Subsequently trust between both parties that

the information is reliable, is required. This marks the relationship between labour market institutions and strike activity. When there is much asymmetry in the information and disagreement about it, it will enhance strike activity. The proposition of our paper is that this is a major reason for differences in strike activity between France and the Netherlands.

Table 1 Strike data adjusted for the number of workers, yearly averages 1970-1999

	Number of strikes Per 1.000.000 workers	Number of strikers involved Per 1.000 Workers	Number of working days lost per 1.000 workers
The Netherlands	4.3	4.8	22.8
France	119.5	44.2	96.5

Source: ILO Yearbook (ILO, 1971-2000)

The content of the remainder of the paper is as follows. The next section presents a discussion on labour market institutions in both countries. Section 3 gives an overview of the various types of strikes, which took place in both countries and illustrates the differences in strike activity between France and the Netherlands in the period 1970-1999. In section 4 an empirical analysis on the relationship between strike activity and the labour market at the macro level is conducted. Initially we look at the determinants of strike activity and, secondly, we show how strike activity has influenced wage formation. Finally section 5 draws some conclusions.

2. Labour market institutions

Differences in the organisation of the social dialogue and, more specifically, in the wage negotiations between employer organisations and trade unions may account, to a large extent, for differences in strike activity between both countries. France can be regarded as a representative of the Latin model of labour relations, whereas labour relations in the Netherlands are more or less organised according to the Rhineland model.

2.1 *France*

First we have a closer look at institutions which play a role in the social dialogue and policy preparation in France. The French institutional organisations, which are regarded as the most influential on policy preparation are the Institut National de la Statistique et des Etudes Economiques (INSEE), the Direction de Prévision (DP), the Commisariat Général du Plan and the Conseil Economique et Social (CES). The following two sections discuss their roles and influence in policy preparation.

INSEE, DP and CGP

The Institut National de la Statistique et des Etudes Economiques (INSEE) and the Direction de Prévision (DP) conduct quantitative analyses of economic developments in France, which are used in the CES advices. Both institutes are closely related and ressort under the Ministry of Finance. The INSEE has the combined role of a bureau of statistics and of an institute of applied economic research. Besides data collection and its analysis the INSEE is actively involved in economic research and education. In addition to applied research, focused on policy making, the INSEE also conducts high quality fundamental research.

Although both institutes are involved in economic forecasting, each insititute has its own specific repsonsibilities. The DP focuses primarily on short-term forecasting for economic policy making concerning public finance, foreign relations and the finacial sector. The INSEE specialises on the one hand in extremely short term forecasting and on the other hand on long term forecasting. In order to secure data collection independent of policy analysis, forecasting and analysis of policy proposals, which are relevant for actual policy making, are prepared by the DP, and not by the INSEE.

A second construction to separate data collection and its analysis from policy preparation lies in the existence of the Commissariat Général du Plan (CGP). The CGP is a platform where the actual policy problems are discussed. The predictions and policy analyses of the DP and the INSEE serve as input for these discussions. During its existence the CGP status has been subordinate to that of the Ministry of Finance and depended heavily on the prestige of its members.

An important feature of the French system are the close interrelations between the Ministry of Finance, the country's most powerful economic body, and the INSEE, the DP and the CGP. Staff members are often employed by one of those institutions through short term contracts, which result in frequent mutual rotations and increased

interaction possibilities. In his study on the French financial elite, Kadushin (1995) demonstrates that board membership is heavily determined by social circle membership. Concentration of social economic power in France resides largely with the elite.

Conseil Economique et Social

In France the Conseil Economique et Social (CES) advises the parliament or the government on legislation with a social and economic character. In the CES a great variety of social organisations are represented, with the restriction that merely organisations seen as the most representative are eligible to CES membership. CES members include delegates from employee organisations, employer organisations, free professions, French citizens who live abroad and agricultural organisations.

The CES functions as a discussion forum for the various organisations represented in it. In the CES information exchange takes place and assessments are made with respect to future policy. Every policy plan or project concerning social-economic legislation is liable to compulsory assessment by the CES. The French government may consult the CES on other policy matters as well if such advice seems appropriate. However, the government is not compelled to comply with CES advices and the influence of these advices seems to be rather limited.

163 of the 231 CES members are representatives appointed directly by the social member organisations, the government selects the remaining 68 members. Initially the purpose of this appointment procedure was to combine independence and representation with a converging force to serve the national interest (Frayssinet, 1986). Furthermore the government adds 72 specialised section members to the 231 CES members. Although section members do not enjoy the full CES membership they contribute to discussions in their discipline.

2.2 *The Netherlands*

Many organisations and stakeholders are involved in the institutional set-up of the social dialogue in the Netherlands. Here we focus on the prominent players and elaborate on the role of two of them, which we consider the most distinctive. These are the CPB (Central Planning Bureau) and the Social Economic Council (SER) (see for a more elaborate survey: Den Butter and Mosch, 2003). Their roles may be

compared to those of respectively the INSEE, the DP and the CES in France, but there are important differences.

CPB Netherlands Bureau for Policy Analysis (CPB)

The Dutch Central Planning Bureau (CPB) plays a crucial role in the institutional set-up. It has now rebranded itself in English as the CPB Netherlands Bureau for Policy Analysis (CPB), as it does not want to be associated with economic planning in the sense of the socialist economies. Yet, it was originally founded in 1948 as a central planning bureau for economic affairs, with Tinbergen as its first director. In spite of the fact that the CPB is formally part of the Ministry of Economic Affairs, it fulfils its advisory task independently from government interference. This status of independence is recognised by all parties and stakeholders in the policy making process, which provides the analyses of the CPB with high reputation and esteem. Twice a year the CPB publishes economic forecasts and a survey and analysis of economic developments in the Netherlands and abroad. These are official forecasts on which the government budget is to be based.

In fact, nowadays the CPB has two major tasks. The first is the task of national auditor: this implies economic forecasting and assessment of the effects of policy measures for the government and for other groups involved in the policy making process. The second task consists of the CPB conducting, in a more general sense, applied economic research (see Don, 1996). Typical for the institutional set-up of Dutch policy-making are the numerous formal and informal contacts between the staff of the CPB and the economists at ministries, researchers in academia and the staff of the social partners. On the one hand, they provide relevant information to the CPB, but, on the other hand, they will, if needed, be critical on the work of the CPB.

Since Tinbergen (1936) has built the first econometric policy model it is understandable that model based policy analysis has, from the origin, constituted an important part of the work of the CPB. The CPB's 'model' early acquired a high status in academic circles and has come to be regarded in Dutch society as an objective piece of economic science (Den Butter and Morgan, 1998). The analyses of the CPB are widely used as input for social economic policy discussions.

A major and unique example of this functioning of the CPB in policy consensus (or rather compromise) formation occurs in years in which general elections for parliament take place. The major political parties then ask the CPB to calculate the

effects of their election programmes on economic growth, employment, income distribution and so on. The consequences of the different election programmes are widely spelled out in the media (see e.g. the articles in Graafland and Ros, 2003). Seemingly, it is almost a realisation of Tinbergen's dream to separate the knowledge on the working of the economy, which is contained in the models used by the CPB, and the normative preferences on trade-offs between policy goals, which will differ for each political party. In fact, this procedure has proven to be beneficial in the formation of coalition governments and in drafting the "government agreement" that is signed by the various political parties who co-operate in the coalition government. In the post-election discussions, when a new government has to be formed, policy measures put forward by the various political parties that have, according to the calculations of the CPB, the largest favourable effects on the major policy goals, have the best chance to be included in the government agreement.

Foundation of Labour and Social Economic Council

It is typical for the institutional set-up of the social dialogue in the Netherlands (the so-called Dutch polder model) that the social partners are at the heart of the consultation structure for economic and social policy. The "Foundation of Labour" (STAR) is the formal platform where employees and employers meet each other on a structural basis. It was founded in 1945 as a private organisation and acts as a bilateral discussion forum in the field of labour standards for unions and employer associations. The seats are equally divided between the two, and both sides deliver one of the two chairmen. The results of the discussions are stated in so-called "central agreements". This occurs about once in two or three years.

Yet, the major forum for political discussions is the Social Economic Council (SER). The SER is the main policy advisory board for the government regarding social economic issues. Its constellation is tripartite. Labour unions, employer associations and independent "members of the crown" each possesses one third of the seats. The "members of the crown" consist of professors in economics or law, politicians, the president of the Dutch Central Bank and the director of the CPB.

It is through these independent members that the policy discussions within the SER benefit from the insights of scientific research. The analyses of the CPB and also of the Dutch Central Bank carry a large weight in these discussions. Policy advises by the SER are prepared in committees, wherein representatives of the three categories

discuss and amend texts drafted by the SERs Secretariat. Representatives of various ministries attend these committee meetings, but formally they are observers. They will not take part in discussions unless they are asked to provide relevant information. So, unlike in other countries, where the third party in tripartite council discussions is the government, in the Netherlands scientists, as independent third party in the discussion, see to it that the social partners do not come to agreements which are harmful to society as a whole, since the costs of the policy measures agreed upon, are shifted to the society.

Obviously it is important for the impact of the SER recommendations that they are supported unanimously. It is quite exceptional that the government would disregard a SER unanimous policy recommendation. The independent members of the crown (which, by the way, represent the various pillars in the Dutch society) can be helpful in reaching a consensus recommendation in informal discussions. The SER chairman, who is also an independent member and understandably has a crucial position in this institutionalised social dialogue, plays a major role.

The SER thus serves two main purposes. Firstly, it works as a device for the government to get informed about the points of view of employee and employer organisations regarding social-economic issues. Especially the unanimous recommendations give clues to the government about which policy measures will be supported by society. Secondly, the SER works as a platform that brings together employee and employer organisations to talk with each other about social-economic matters. One of the major aspects in these negotiations is that the main negotiators regularly meet each other in both formal and informal meetings. It can be regarded as the repeated game aspect of trust formation in the social dialogue, which enhances the exchange of information on economic developments. Like this there is no much need to threat with a strike or to call a strike, in order to obtain more information on the other party's position.

2.3 *Comparison of institutions in France and the Netherlands*

One of the most striking differences between the two countries is that France lacks an equivalent organisation for the Dutch Foundation of Labour (STAR). Unlike in the Netherlands, the French employers' organisations and trade unions are not involved in negotiating collective labour agreements at a central level. This implies that in France no national coordination of wage bargaining exists. Central coordination in The

Netherlands provoked effective cooperation and prevented important rivalry between the various unions, although they might have been founded around different ideological principles. The French situation without central coordination and the competitive system of CES representation encourages competition between the various union organisations.

Although the Dutch SER and the French CES appear to have about the same role in the social dialogue in both countries, considerable differences surface. Within the CES many more stakeholder organisations and lobby groups have claimed representation than in the SER, where the social partners play a major role. Implicitly this results in a weaker voice for the French social partners in the CES and therefore less influence on government policy. The second related dissimilarity is that in the Netherlands the SER is institutionalised to be much more independent from government intervention than the CES in France. The Dutch government has no say in the appointment of SER members, whereas in France about one-third of the CES members and all of the section members are appointed by the government. The Dutch SER and the French CES differ also in the way they draft their policy recommendations. Whereas CES recommendations usually comprise a number of different views on policy issues and a count of the number of votes of how many members share each of these views, the SER tries hard to reach agreement on policy issues and come to unanimous recommendations. When unanimous agreement is not reached, disagreement is minimised and the text of the recommendations indicates by name which members have different opinions about specific aspects of the policy proposals.

In principle the CPB in the Netherlands, and the INSEE, the DP and the CGP in France have about the same role in policy preparation. Within the INSEE data collection is made independent from data analysis, whereas in the Netherlands the Central Bureau of Statistics (CBS), which is nowadays placed at distance from government control, conducts independent data collection. Yet it seems that INSEE and DP analyses have far less influence on the French policy discussions than CPB analyses have on policy discussions in the Netherlands.

A similarity in the institutional set-up of labour relations in both countries is that most collective labour agreements between the social partners are made binding by the government for all workers – union members and non-union members – in the sector to which the agreement applies. This is remarkable as in both countries the rate

of union membership has fallen and is nowadays rather low. France even has the lowest membership rate of the European union (Besancenot and Vranceanu, 1998). Furthermore, the number of workers that is bound by collective agreements is very high in France, with coverage of about 90%. In the Netherlands 70 tot 75% of the workers is covered by collective agreements.

The legislation, with respect to call a strike in order to resolve a labour dispute, seems to have been somewhat more liberal and less restrictive in France than in the Netherlands. Whereas in France judges cannot forbid a strike, in the Netherlands a judge will test whether the social partners have made enough effort to prevent the strike. The Dutch legislation is also stricter with respect to the right to strike for civil servants, although a verdict of 1993 allows such action for civil servants in principle.

All in all we conclude that the major differences between France and the Netherlands arise from the extent of government interference in labour relations. In the Netherlands the government has refrained more and more from interfering in the social partners' negotiations on labour relations. Yet, the threat of possible interference has motivated the social partners to be co-operative and to avoid such interference. The need to co-operate enhances trust in the negotiation process (see also Den Butter and Mosch, 2003). Traditionally in France much direct government intervention in the negotiations between the social partners can be found. This large governmental influence on the outcome of the negotiations causes distrust and enhanced feelings of powerlessness between the social partners. Whereas in the Netherlands social partners try hard to reach an agreement by means of the consensus model, in France we see, what we may call, 'the productive conflict model' at work. In this model it is tried to resolve disputes by confrontation. This has also to do with the republican tradition in France and the social-Colbertism with a dominant role for the centralised state, which tries to monopolise the power to make decisions in order to reach certain political and social goals. In France it is the political elite that decides about policy matters without much consultation. It will withdraw or adapt the policy measures when they evoke too much protest and lead to conflict. In the Netherlands, however, the institutional set-up is much more directed to consultation and to come to a consensus agreement on policy plans. The advantage of the Dutch consensus model is that less costly conflicts arise. However, the disadvantage as compared to the French conflict model is that coming to an agreement may be very time consuming and that compromise policy measures may be inefficient (see e.g. the failing efforts in

the Netherlands to come to a reform of the costly disability provisions). Subsequently in France obstacles lie with policy execution while in the Netherlands policy preparation is most time consuming.

3. Typology of strikes

The previous section explains why differences in the organisational set-up of the social dialogue lead to differences in strike activity in the Netherlands and France. This section discusses these differences in strike activity by taking a closer look at time series evidence on strikes in both countries (ILO, 1980-2000), (OECD, 1991-2002).

Figure 1 shows the time pattern of the total number of strikes in the period from 1970 till 1999. As noted before, strikes occur in France with a much higher frequency than in the Netherlands. Therefore, in order to enable a comparison of the time pattern, we have used different scales in all graphs, with, in most cases, a much smaller scale for the Netherlands on the left hand side than the scale for France on the right hand side. Figure 1 shows a decrease in the number of strikes in France whereas the pattern for the Netherlands is more mixed with relatively many strikes in the first year of the reference period (1970).

Figure 2 pictures the number of strikers in both countries. We again see that according to this indicator, France has witnessed a decrease in strike activity in the 1980's and 1990's. The graph for the Netherlands shows much more spikes for years with relatively large numbers of strikers. It appears that a high strike frequency in one year, leads to a relatively low number of strikers in the next year or next years in the Netherlands. Moreover, there seems to be no common trend or correlation in the number of strikers in France and the Netherlands.

Figure 3 pictures the average duration of strikes. The figure shows that in the Netherlands, especially in years with considerable strike activity, strikes lasted on average longer than in France. The reason is that in the Netherlands, a country with relatively little social unrest and few labour conflicts, it takes longer to come to an adequate solution once a large conflict does break out. In the Netherlands the co-ordination mechanisms of the social dialogue and the focus on negotiation and consensus formation give rise to the fact that strikes are seen as a last resort. This implies that really large differences exist between demands and offers of both parties on occasions that social partners are unable to resolve the conflict. Hicks'(1966)

theory on strikes confirms this positive relationship of large differences between wage offers and demand, and the duration of strikes.

Finally figure 4 presents the number of working days lost by strikes in both countries. This can be seen as a combination of the developments pictured in the three previous figures. This figure shows that the number of working days lost is relatively low for both countries at the end of the observation period, except for the year 1995. At the end of that year France was hit by large strikes as a protest against reform of the social security system. Another objective was to enforce no further reduction of employment in the public sector. Participating organisations were amongst others the Societé National des Chemins de Fer (the French Railways), the Régie Autonome des Transports Parisiens (Public transport in Paris), Air France and Air Inter. In November 1995 there was virtual no public transport for four weeks. In 1995 regional public transport has also been on strike in the Netherlands. Moreover, in that year a relatively large and long lasting strike in the construction industry took place at the national level.

Apart from the institutional differences, with respect to the social dialogue and consensus formation, which may explain the relatively low strike activity in the Netherlands as compared to France (but also the longer strike duration), some other differences between both countries with respect to strike activity arise. The first difference is the position of the trade unions. In the Netherlands trade unions are relatively good at mobilising their members to participate in organised strikes. In France the organisation and management of the strikes is conducted by assemblées générales. Here the trade unions have relatively little influence. In the Netherlands actions generally take place at the national level whereas in France there is no suchlike central co-ordination. Besides, the French trade unions have little experience in organising large and long lasting strikes. Whereas Dutch workers are prone to follow the proposals of the trade unions, in France workers do not feel represented, neither by the trade unions nor by the politicians. As mentioned earlier the French institutional structure leads to competition between the various French unions. According to both Ross and Hartman (1960) and Snyder (1975) the factors mentioned above will provoke strikes with an economic background in The Netherlands and strikes with a merely political character in France.

In the Netherlands, at the end, the conflicts are resolved by compromise between both the leaders of the trade unions and the employers' organisations where the negotiators

take a co-operative attitude towards each other. In France a clear separation remains between workers and the elite that decides on governmental issues. A second difference with respect to strike activity in France and the Netherlands is that in France a relatively large part of strikes occurs in the public sector. Reasons are that the French public sector is comparatively large and that government policy has very much direct influence on this sector. If not much co-ordination exists between the policy makers and the civil servants who are bound to execute those policy measures; obviously conflicts over these matters may arise easily.

Figure 1 **Number of strikes per 1,000,000 workers, 1970-1999**

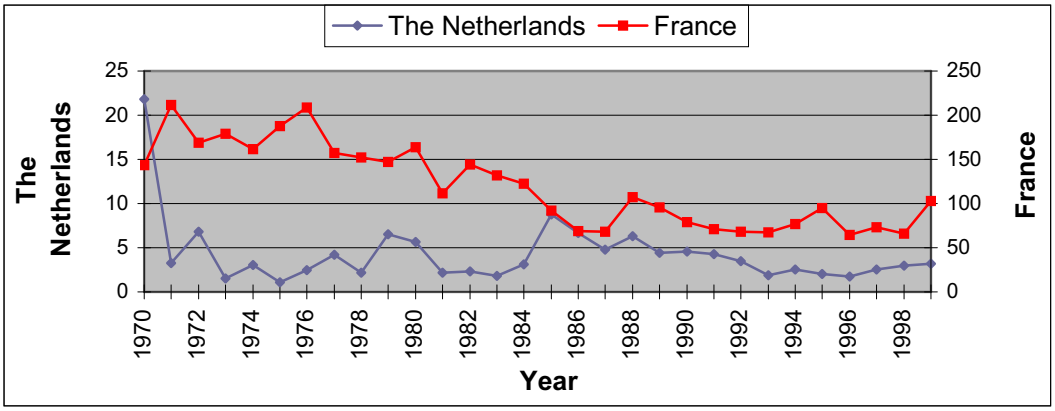


Figure 2 **Number of strikers involved per 1,000 workers 1970-1999**

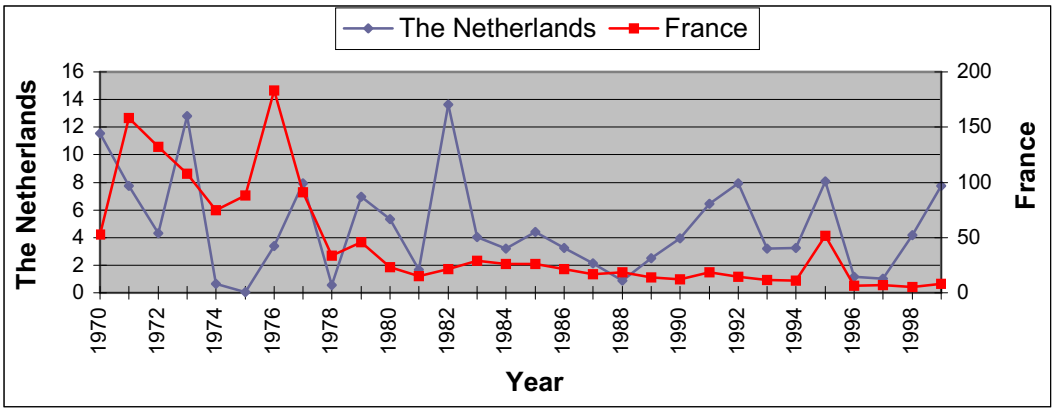


Figure 3 Average strike duration (days), 1970-1999

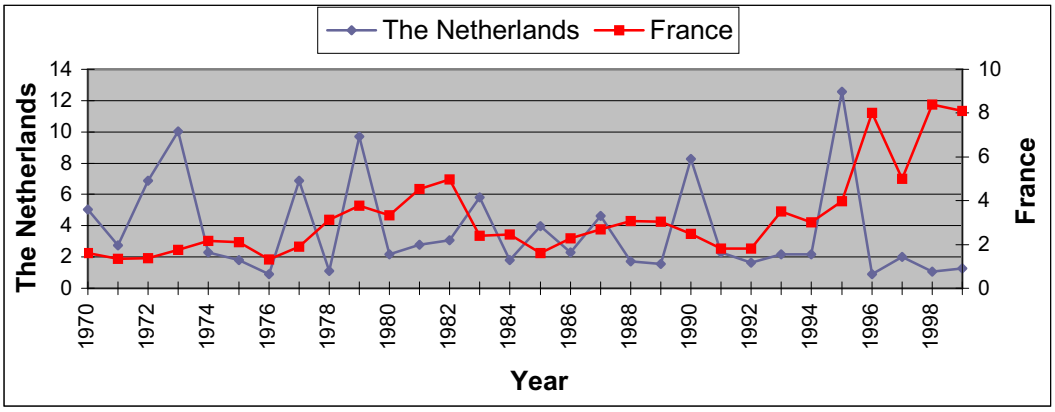
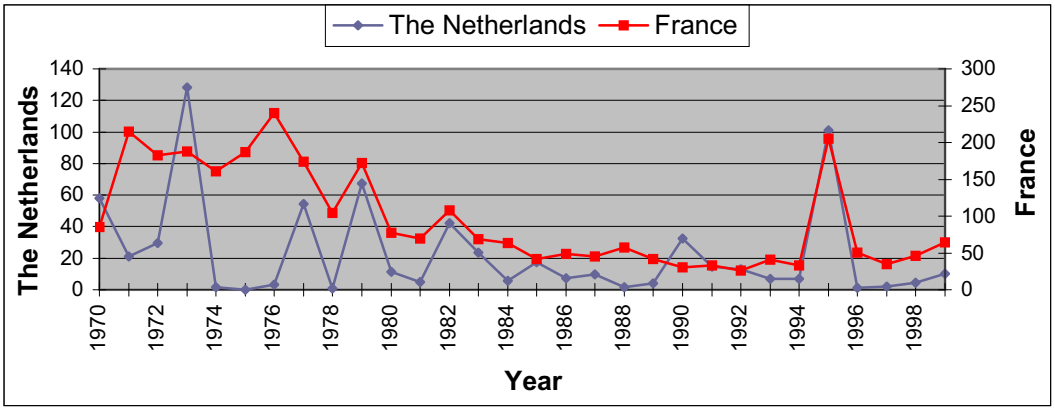


Figure 4 Number of working days lost per 1,000 workers 1970-1999



4 Empirical analysis

What is the relationship between strike activity and economic development at the macro level? What are the major determinants of strike activity in both countries and how do the institutional differences translate into differences in the influence of these determinants? How does strike activity influence wage formation in France and the Netherlands? These are the questions, which the empirical analyses of this section seek to answer.

4.1 Determinants of strike activity

The starting point in our analysis of the effects of macroeconomic developments on strike activity is a study by Den Butter and Van de Wijngaert (1992). They show that the so-called 'wage gap' is an important determinant for the number of working

days lost in strikes in the Netherlands in the period 1952-1989. The wage gap is the difference between the actual wage increases and the 'wage space', which is defined as the sum of price inflation and labour productivity growth. In the wage negotiations among the social partners the wage space traditionally indicates the span for manoeuvre of the negotiators from a macroeconomic point of view. The consensus in the Netherlands on wages following the wage space – which will leave the labour income ratio and alter – can be interpreted as a protocol to prevent labour unrest. Hence, a deviation from the protocol, which has been favourable to the employees, may cost the penalty of a strike. In fact Den Butter and Van de Wijngaert find a negative relationship between working days lost in strikes and the wage gap of the previous year. It indicates that when wage increases in the previous year did not completely fill up the wage space, there is the probability of higher strike activity in the following year. Table 2 reproduces these results for the Netherlands for the reference period 1970-1999 of this paper and it gives the estimation results of the same specification for France. The result with the negative sign for the Netherlands is confirmed, although the coefficient, according to the t-value, does not differ significantly from zero as it did in the original equation by Den Butter and Van de Wijngaert. However, in the equation for France the wage gap with a one-year lag has a positive sign and is significant. It suggest that when in France workers have been successful in obtaining wage increases which exceed the wage space in one year, there is a higher (and not a lower!) probability of strike activity in the next year.

Table 2 Determinants of strike activity according to the specification of Den Butter and Van de Wijngaert, (1992)

$\text{Log } D_t / B_t$	$= \alpha_0$	$+ \alpha_1 \text{ wg}_{-1}$	R^2	DW
The Netherlands				
	0.918	-0.0668	0.045	1.829
	(7.056)	(1.14)		
France				
	1.924	0.102	0.248	1.281
	(37.976)	(3.036)		

Source: Data are taken from Basic Statistics of the European Union, (Eurostat, 1977-1996), Eurostat Yearbook 2002, Quarterly Labour Force Statistics (OECD, 1999), European Economy nr. 73 (Eurostat, 2001); t-values between parentheses;
legenda: $\text{Log } D_t / B_t$: logarithm of the number of working days lost per 1.000 workers

wg:	wage gap, the difference between the nominal wage increase and the wage space
aiq:	labour income ratio.

In table 3 we investigate this remarkable difference in the determinants of strike activity between France and the Netherlands somewhat further. Equation (a) gives for both countries the estimation result for the specification where the change in the labour income ratio of the previous year is taken as determinant of strike activity. Again we see a negative coefficient for the Netherlands, which is now significantly different from zero and we obtain a positive, significant coefficient for France. Here changes in the labour income ratio can be regarded as information on the profitability of production at the macro level. Again the regression results suggest that in the Netherlands strike activity is low when in the previous year labour has taken a larger share in total income whereas in France there is more strike activity when workers have been successful in obtaining a large share of income in the previous year. In equation (b) unemployment is added to specification (a) as a determinant of strike activity. For both countries the coefficient of this variable has the expected negative sign, as strike activity will be less if unemployment is high. The labour income ratio coefficients remain respectively negative for the Netherlands and positive for France, although the latter is no longer significant. In equation (c) real wage increases in the previous year are added to the specification of equation (a). We see that for both countries the coefficient is positive, which indicates that large real wage increases are associated with higher strike activity in the next year. The effect is found to be much larger for France than for the Netherlands. It is remarkable that in the equation for France the coefficient of the labour income ratio now changes sign, although it has a very low t-value. This equation suggests that there is much strike activity in both countries when wage negotiations have been successful in real terms in the previous year. However, this effect is largely corrected in the Netherlands if profitability decreased in the previous year, whereas in France it is not.

4.2 Influence of strike activity on wage formation

In order to investigate the effects of strikes on wages we have expanded simple wage equations with the number of working days lost as indicator of strike activity. Table 4 presents the results for real wage formation where labour productivity growth

in the previous year and unemployment representing the Phillips curve effect act as explanatory variables in the wage equation. It is notable that labour productivity growth has the expected positive and significant effect (although with coefficient values below unity) in the Netherlands, but a negative (albeit insignificant) effect in France. Unemployment, both in the current year and with a one-year lag, has the expected negative effect, which is highly significant in both countries. The effect of strike activity on wages is positive, and much larger in France than in the Netherlands. However, in all equations of table 4 the positive effects do not differ significantly from zero so that the actual influence of strikes on wages is uncertain. Yet the finding that strikes do lead to higher *ceteris paribus* wage increases in France than in the Netherlands, is in accordance with the fact that labour disputes play a more prominent role in industrial relations in France than in the Netherlands.

Table 3 Determinants of strike activity 1970-1999

$\text{Log } D_t / B_t$ =	α_0	+ α_1 $\overset{o}{aiq}_{-1}$	+ α_2 u_{-1}	+ α_4 $\overset{o}{rw}_{-1}$	R^2	DW
The Netherlands						
(a)	0.925	- 0.147			0.146	1.665
	(7.682)	(2.188)				
(b)	1.347	-0.200	-0.073		0.143	1.777
	(4.048)	(2.612)	(1.375)			
(c)	0.770	-0.235		0.090	0.221	1.696
	(5.083)	(2.757)		(1.609)		
France						
(a)	1.905	0.0888			0.154	0.950
	(36.190)	(2.237)				
(b)	2.326	0.037	-0.056		0.566	1.653
	(23.639)	(1.237)	(4.454)			
(c)	1.589	-0.023		0.140	0.515	1.647
	(16.489)	(0.541)		(3.859)		

Source: see table 2; t-values between parentheses;
legenda: u: unemployment percentage
p: comsumer price-index
rw: real wage.

Table 4 Real wage equations 1970-1999

$\overset{o}{rw}$	=	β_0	+	$\beta_2 \overset{o}{apt}_{-1}$	+	$\beta_3 u$	+	$\beta_3 u_{-1}$	+	$\beta_4 \log D_t / B_t$	R^2	DW
The Netherlands												
(a)		4.177		0.500		-0.644				0.038	0.693	1.656
		(3.642)		(2.318)		(4.874)				(0.092)		
(b)		3.903		0.475				-0.623		0.202	0.695	1.656
		(3.575)		(2.183)				(4.874)		(0.484)		
France												
(a)		4.305		-0.169		-0.391				0.634	0.652	1.681
		(1.550)		(0.717)		(3.657)				(0.639)		
(b)		2.225		-0.006				-0.304		1.113	0.614	1.663
		(0.851)		(0.025)				(3.092)		(1.102)		

Source: see table 2; t-values between parentheses.

5. Conclusion

This paper compares labour market institutions in two countries, namely France which can be regarded as a representative of the Latin model with little social dialogue, and the Netherlands as representative of the Rhineland model, where the social dialogue and the economic policy debate are very much institutionalised. These differences in the organisation of industrial relations reflect themselves in remarkable differences in strike activity between both countries. In France there appears to be path dependence in strike activity: when strikes where successful in one year, there is more strike activity in the next year. Moreover, strikes in France usually have a political background rather than an economic background. In the Netherlands strike activity is higher when wage increases have been relatively low in the previous year, indicating that profitability of enterprises has risen. So here strikes are mainly associated with economic developments and are called in order to gain more information on the profitability of the enterprises.

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