The Polder model: emergence, features and performance: how does it lead the Netherlands through the financial crisis?

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Preface

The original motivation for writing this thesis grew out of my interests for politics and economics. The Polder model is a name for the Dutch social-economic structure, more specifically the Dutch combination of policy, institutions and culture; therefore it describes the social-economic structure of the Netherlands. Writing on this subject gave me the possibility of combining politics and economics. In addition, there were and still are many different opinions regarding the definition or even the existence of the Polder model. This created an additional motivation of writing this thesis and to clearly define the Polder model.

In my opinion it is very crucial to grasp the structure, history and mechanisms of the Dutch economy and more in particular the unique labour relations. With this knowledge it might be possible to estimate how the Dutch economy will perform in the next decades applying the characteristics of the Polder model.

However, constructing a thesis answering all these questions was more difficult than I ever could imagine. The only way I could have finished my thesis is predominantly thanks to my thesis supervisor Dr. A.G. Nagelkerke. His objective guidance and great knowledge concerning the Dutch labour relations have proven to be more than crucial during the writing process. I would also like to thank the second member of the exam committee, prof.dr. Boekema, for reading my master thesis. Finally, I would like to thank my three friends who have helped me during my years in Tilburg and who have given me a great time.

I hope you will enjoy reading this thesis.

Twan Huijbers,

Wijchen, 01-12-2009[1]

[1] The number of words on the tile page exclude the words from the preface, summary, bibliography and annexes.

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"In 1997 the Dutch Prime Minister Wim Kok was invited to tell the leaders of the G-7 about the performance of the Dutch economy over the last decades. European magazines saw the Dutch experience as an argument that social and economic goals can be realized simultaneously and they mentioned it the Dutch model" (Van den Toren, 2000, p.3-4). This social-economic model, while particularly successful in the late 80s, was not developed yet as such ten years earlier (though there was debate about its origin). The Dutch experience witnessed strong employment growth and wage moderation so that the Netherlands could perform above average compared to other European countries. The performance of the Dutch economy may be attributed to a system of central collective bargaining and consensus, often referred to as the 'Polder model'.

Even if it is generally agreed that the Polder model was responsible for the success of the Dutch economy during the late 80s and 90s, the performance of the model needs to be studied further. First, some researchers such as Keman and Woldendorp think that the Polder model is overrated and even does not exist at all. Others like Delsen (2000, p.9), Delsen and Poutsma (2005, p.169) and Muysken (2003, p.2) have a different opinion and even try to provide a definition of the Dutch social-economic model.

Most of the literature about the Polder model is oriented at the past decades. However, there has been relatively little analysis of the future of the Dutch Polder model. Can it sustain in the next couple of decades? Furthermore, the Polder model initially got its shape due to the energy crises and the growing unemployment, even though it is still under debate. So the question is while the Polder model was seen as a reaction to a crisis, can it now lead the Netherlands through a crisis? Is the Dutch social-economic model even suitable to overcome an international crisis such as the ongoing financial crisis of 2007/2009? The aim of this thesis is therefore to briefly explore this key research question.

Research question

This study has the following research question: What has been the economic performance of the Dutch social-economic model, often referred to as the Polder model, in the last decades in terms of GDP growth, unemployment and income inequality and what might be expected of the economic performance during the financial crisis and beyond? To answer the research question a hypothesis is formulated to test the performance of the Polder model.

The hypothesis is: *"Thanks to the Dutch consensus-oriented system, often referred to as the 'Polder model', the Netherlands will perform relatively well compared to Belgium, Germany, United Kingdom and the United States with respect to employment and unemployment, GDP growth and income inequality during the financial crisis and beyond".*

Method

The method to be used is analyzing literature and data research, in particular with the use of data from the CPB, OECD and EUROSTAT. With this data research the performance of the Dutch social-economic model over the past decades can be discussed. Estimations from the CPB will among others be used to come to a prediction about the performance of the Dutch model during and after the financial crisis.

Structure

Several subquestions need to be answered first, having a place in several chapters. The first chapter highlights the emergence of the Polder model. Specifically, the analysis will focus on the debate of the Wassenaar Agreement and the Polder model and the characteristics of the model. More in particular the strengths and weaknesses of the Dutch model must come to light. The second chapter surveys the theory of the performance by examining the theory of collective bargaining, corporatism and macro-economic performance. In the third chapter the performance of the Dutch social-economic model will be analyzed with specific attention to the development of the GDP, income inequality, wage moderation and unemployment levels compared to Belgium, Germany, United Kingdom and the United States. The aim of the first three chapters is to provide a clear rationale about the theory and performance of the Polder model, forming the base line for the next chapter.

Consequently, it follows that the fourth section will examine a possible and serious threat to the Dutch social-economic model: namely the financial crisis of 2007/2009. The analysis will focus on the effects on the Dutch economy during the crisis. In the last chapter the Dutch performance during the financial crisis will be compared with other countries. The analysis will provide an answer whether the Polder model is strong enough to survive the present international credit crisis. Finally, it will be concluded whether the hypothesis needs to be rejected or not.

1. The Dutch social-economic model

"The Dutch economy remains one of the most coordinated economies in the Western world. The Dutch system emphasizes consultation, cooperation and consent in the interaction between economic and political actors" (Delsen and Poutsma, 2005, p.169-170). According to Muysken (2003, p.2) the Polder model is a specific combination of policy, institutions and culture. To understand its mechanisms and its performance, it is of importance to examine how the Polder model works and, more importantly, what constitutes the characteristics of the model. This chapter will describe the several debates on the model to point out its specific characteristics. With this information the performance of the model can be examined and compared to other countries.

1.1 Emergence of the Dutch model

"In the seventies and eighties of the twentieth century the Dutch model of corporatist labour relations was considered as a negative model. Institutional sclerosis and political stagnation produced what has been called the Dutch disease" (Woldendorp and Keman, 2007, p.317). The Dutch economy performed dire in those years according to Woldendorp and Keman due to a rising labour share in income and because revenues from natural gas resources were not invested but used to finance the (generous) social security system. The unemployment rate increased from almost 2% in 1970 to 11% in 1983. However, after 1983 the unemployment decreased to normal levels and even to a level of 3,5% in 2001 according to the Central Planning Bureau (MEV, 2009)[2]. According to Blanchard and Philippon (2004, p.3): "This decrease in the unemployment rate in the Netherlands since the early eighties is often called the Dutch unemployment miracle". These developments demand further explanation.

Blanchard and Philippon (2004, p.3) state: "there is general agreement that the proximate source of the turnaround in the unemployment rate is due to wage moderation". Furthermore, wage moderation was a result of negotiations between social partners and the government. A special meeting[3] between them is often called the Wassenaar Agreement[4]. Authors like Delsen (2000, p.9) and Keman and Woldendorp (2007, p.318) see the Wassenaar Agreement as the starting point of the existence of the Polder model. Delsen (2000, p.9) and Delsen and Poutsma (2005, p.169) describe the Polder model as a unique combination of institutions and culture. According to Muysken (2003, p.7) "the Dutch culture is consensus oriented and consultation plays an important role. Typical elements are also the importance of solidarity, equality and fairness"

"There are three conditions that need to be met before consensus can be reached on a macro-economic level" (Delsen, 2000, p.9): recognition of the problem, institutions and a cultural basis.

[2] IMF calculates unemployment rate of 2001 at 2,26%, while Blanchard and Philippon state the unemployment rate was 2%. These minor differences will be ignored for the rest of this thesis. Only large difference in data will be brought to attention.

[3] An elaboration of this meeting is located in the appendix

[4] The Wassenaar Agreement is also called the 'Wassenaar Accord' in Blanchard and Philippon, 2004; Visser and Hemerijck, 1997; Delsen and Poutsma, 2005; Becker, 2001; Visser, 1998 and Keman, 2003

The consensus oriented Dutch social-economic culture was an ideal basis for moderation policies. "The institutional structure was used and simultaneously modernized, for example by renewing the process of wage moderation" (Delsen, 2000, p.9). Finally, the recognition of the problem (dramatically rising unemployment) was clear.

1.2 The Wassenaar Agreement

The Wassenaar Agreement can be called historical because it created a turnaround in the Dutch labour relations. Whereas the economic situation of the early eighties was worsening (f.i. the rapidly increasing unemployment), the call for social economic reform by the government and employers became stronger. The government, led by Prime Minister Ruud Lubbers of the Christian-Democratic Party, announced a no-nonsense policy to counter the effects of the economic crisis and the increasing unemployment. Dutch unions also saw the necessity of reaching an agreement due to soaring unemployment, rapidly falling membership and a decreasing bargaining coverage. It was the beginning of a neo-liberal policy that would remain leading, though often sharply contested, in the next twenty five years, and which led to a gradually, market-oriented adjustment of postwar social security system.

In November 1982, trade unions federations and central employers' organizations came to a bipartite Wassenaar Agreement. After fifteen years of ideological differences of opinions there was finally some consensus on social-economic policy, which improved labour relations. The Wassenaar Agreement was not an accord resulting from days of negotiations between government parties and unions, like it would be expected nowadays. On the contrary, the government gave the social partners a very simple message: they had to come to an agreement or the government would continue to determine the market wages. The social partners thought a bipartite agreement on income policy would be more favorable than having nothing to say at all.

The Wassenaar Agreement was of great importance for the Dutch labour market. Due to the agreement, the wages were now linked more closely to employment issues. Former negotiations during the fifties, sixties and seventies focused nearly almost on improvement of the salaries and compensation for real price increases. This new agreement was now focusing on improving employment and especially on putting a higher weight on employment issues in wage negotiations. "The Wassenaar Agreement can be summarized as a consensus on making wage increases more dependent on improving company returns on the one hand and redistribution of employment on the other hand" (Nagelkerke and de Nijs, 2009, p.75; Delsen, 2000, p.9). The goal of the agreement was primarily restoring profits to create jobs and in addition to stop job losses.

In addition, the Wassenaar Agreement gave for that matter a boost to decentralization of bargaining. "The government did no longer intervene in the wages and introduced a new Wage Law in 1987. This law prohibited the government to intervene in wage formation unless there was a critical situation for the national economy" (Nagelkerke and de Nijs, 2009, p.76). Negotiations about employment issues are primarily done between (central) employers' organizations and trade unions at sectoral level, though coordination at national level remained important, often thanks to the presence of the government. The result of those negotiations is a

CAO (collective labour agreement). Decentralization created among others an increase of the number of CAO's closed on company level.

1.3 Polder model or not?

The Wassenaar Agreement may thus be seen as the starting point of the Dutch social-economic/Polder model. However, there are also arguments brought forward that this might not be the case. This argument can be explained when examining corporatism[5], often assumed to be one of the features of the Dutch social-economic/Polder model[6] (f.i. by Muysken, 2003; Woldendorp and Keman, 2007).

Simply stated, corporatism is a way of social-economic management in which strongly organized and centralized interest groups (social partners) cooperate with the government on the preparation of new laws and policies. In this way, the Dutch social-economic/Polder model can be seen as an implicit contract between the social partners (i.e. employers, unions) and the government. Examining the debate on corporatism, it can be noticed that the government has consulted the social partners already in the fifties and sixties. It was a time of high dominance of the government in the wage formation. The Dutch consensus oriented social-economic/Polder model existed from this perspective prior to 1982, the year of the Wassenaar Agreement.

Van Zanden (2002, p.344) has another opinion. For him too, the Dutch social-economic model is not a creation of the Wassenaar Agreement. In his opinion the Dutch social-economic system of consensus is deeply rooted into the Dutch culture, as it is present for almost 350 years. "The Dutch culture is consensus oriented. For example, companies such as Shell and the Rabobank (cooperative credit) still have extreme features of consensus in their organizational structure and/or products" (Van Zanden, 2002, p.345). Another example why the Dutch culture may even be soaked with consensus is when new government parties negotiate for weeks and even for months if they are going to form a government and which points of their programs are the most important. The ritual spring and autumn consultation between the government and social partners in the system of labour relations is another example of the Dutch consensus system/model. The bottom line of Van Zanden's opinion is that the Polder model already existed in the Netherlands from the year 1572.

Although the starting point of the Dutch Polder model is doubtful, there is also still debate not only about the definition but also about the name of the Dutch social-economic model. The Dutch social-economic/Polder model has been given several definitions. Delsen (2000, p.9), Delsen and Poutsma (2005, p.169) and Muysken (2003, p.2) both describe the Polder model as 'the Dutch combination of policy, institutions and culture'. Muysken (2003, p.2) puts forward "The Polder model is deeply rooted in the consensus-oriented Dutch culture and places a high

[5] Corporatism is defined in many ways by different authors. Teulings and Hartog (1998, p.27) describe corporatism as "institutionalized negotiation, bargaining, collaboration, and accord about wages and income policies (and perhaps additional economic issues) between representatives of the major economic groupings in society (most typically labour confederations and employers' associations) and often including, in addition, representatives of the government".

[6] The term "Polder model" was first coined around 1995, most probably by a journalist.

emphasis on consultation between relevant parties. Typical elements are also the importance of solidarity and equality". Delsen (2000, p.9) states "the Polder model can be seen, from a policy perspective, as cooperation between employers, employees and the government when dealing with social-economic issues". In fact, this statement confirms the thought that the Dutch social-economic/Polder model did not start with the Wassenaar Agreement.

Keman (2003, p.125) sees the Polder model as "the Dutch political-institutional framework or tri-partite socio-economic policy formation". Nagelkerke and de Nijs (2009, p.111) put forward that "the Polder model can be seen as only a name for the Dutch consultation/consensus model". Woldendorp and Keman (2007, p.318) define the Polder model as a "model of cooperation, which is furthered by social democratic government and results in central agreements (consensus)… The Polder model is even further based on the Wassenaar Agreement of December 1982". And then, secondly and ironically, they write the following: "There is no Polder model since the Dutch play pluralism as a game but its limited by macroeconomic and other exogenous circumstances" (Woldendorp and Keman, 2007, p.338).

Visser and Hemerijck (1997, p.354) say they have not used the term 'Polder model' because "the Dutch experience does not add up to a model that can serve as a policy example". Their second statement expresses: "there has not at any point in time been a grand design or master plan. There is no uniform institutional format or a common Polder model across policy domains. Likewise, there is no constant Dutch culture of consensual decision making" (Visser and Hemerijck, 1997, p.354). The question then is indeed: why does it have to be added up to a model? Nagelkerke and de Nijs (2009), Keman (2003), Delsen (2000), Delsen and Poutsma (2005) and Muysken (2003) all describe the Polder model as a kind of name for the Dutch social-economic system. It might also be called the Tulip Model or Delta model as well. But it is doubtful why the Polder model needs to be added up.

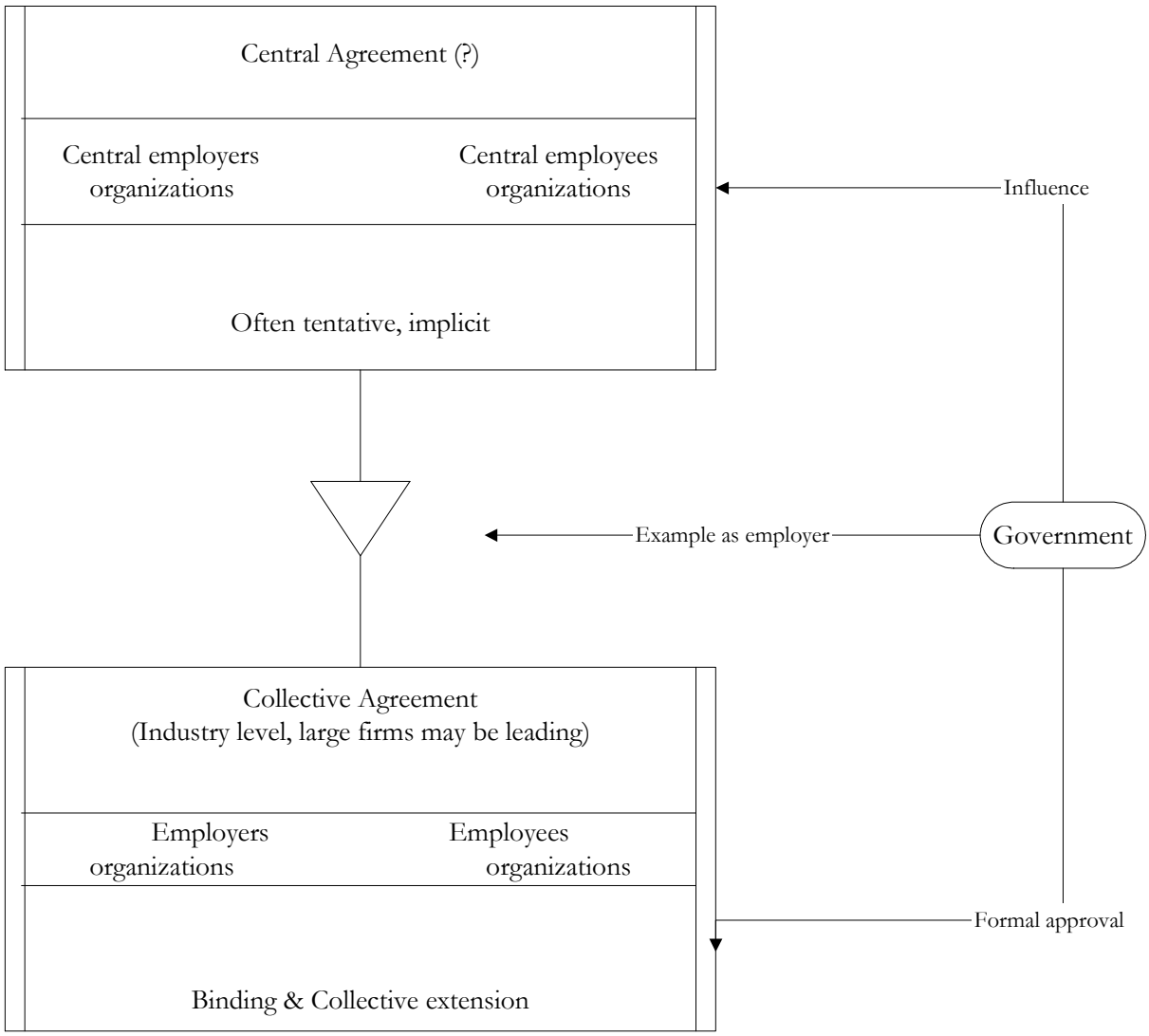
The previous paragraphs can be summarized into a conclusion. Woldendorp and Keman discuss two different opinions, which are inconsistent and can therefore not be taken as an explanation for their opinion that the Polder model may not exist. Visser and Hemerijck (1997, p.354) somehow state the same by refusing to use the term "Polder model". Their reason not to use it is because the features cannot be added up to a model and because there has never been a master plan. These statements are also questionable.

From the previous arguments it can be concluded that the Wassenaar Agreement was not *the* starting point of the Dutch social-economic/Polder model, however, it was an important turnaround for the Dutch labour relations. Based on previous arguments, Delsen (2000, p.9), Delsen and Poutsma (2005, p.169) and Muysken (2003, p.2) describe the Polder model in the best way, namely as 'the Dutch combination of policy, institutions and culture'. Nagelkerke and de Nijs (2009, p.111) add to this discussion that it does not matter how the Dutch social-economic model is called, the very features of the Dutch model are important. Therefore in the next (sub) chapters several terms might be used for the Dutch system of labour relations which all mean the same.

1.4 Characteristics of the Dutch social-economic model

The following characteristics are mostly based on Muysken (2003). "The Netherlands follows the European tradition of wage formation in which unions and employers (organizations) negotiate over wages. Within this European context, the Dutch situation has some specific features" (Muysken, 2003, p.7). First, wage negotiations happen not only at the sectoral and company level but also on the *central level* where the bargaining mostly takes the shape of coordination. Central outcomes are taken as rough guidelines on levels below. Second, the Dutch *government* is more involved in the central wage negotiations compared to most other European countries … "The government may use public sector wage cuts as an example to the wider process – this happened for instance after the Wassenaar Agreement in 1982" (Muysken, 2003, p.7) The following flowchart summarizes the bargaining process.

Figure 1.1: Dutch consensus economy



Source: Muysken (2003, p.8): employment, labour mobility and social participation: reflections from the Netherlands

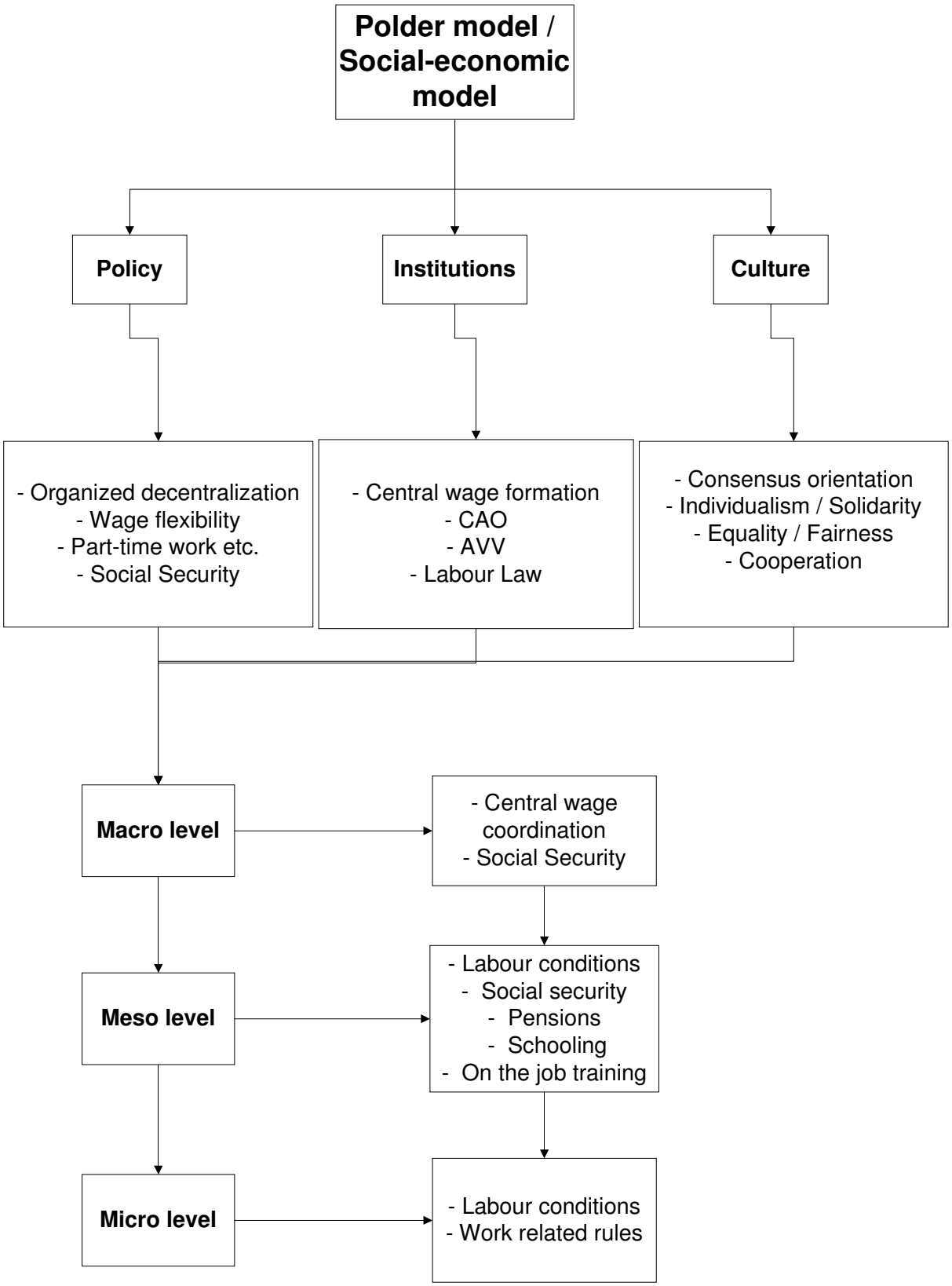
The scheme above shows the two-level wage bargaining in the Netherlands. The government influences the central wage negotiations between central employers and employees organizations. The central outcomes form a guideline for the sectoral and company negotiations. These parties can ask the government to give formal approval to the collective agreements to make the agreements binding for the sector as a whole, as been shown in the figure. Finally, the government is also an employer.

"Another specific feature of the Dutch system of labour relations is the generosity of the *social security system*. The social security system bloomed in the 1970s and 1980s due to the profits from natural gas resources but later on it became too expensive and the government imposed severe cuts in the expenditures. Around 2000, the expenditures were close to the European average. Nevertheless, the Dutch social security system has some specific consequences, such as the high level of inactivity due to the high incidence of disabled persons. In 2002, the number of disabled persons was almost three times as high as the number of unemployed.

The last specific characteristic of the Polder model is the *flexibility* of the Dutch system of labour relations to adapt to several shocks. This flexibility was the result of the willingness of employers and employees to adapt to external shocks (i.e. decreasing world-trade). In return for wage moderation, redistribution of work was promoted through "either a general reduction of labour time, a rise in part-time work opportunities, and/or an increase in opportunities for early retirement" Muysken (2003, p.11). Nickell and Van Ours (1999, p.28) mention the great performance of part-time work as a feature of the Polder model.

The flowchart on the next page summarizes and combines the system of labour relations.

Figure 1.2: Scheme of the Polder model



Sources: composed on Delsen (2000), Delsen and Poutsma (2005) and Muysken (2003).

The scheme summarizes the Dutch social-economic model as a specific combination of policy, institutions and culture. Examples and specifications are given for all three features to explain the specific characteristics for the Dutch case. The system of consultation, consensus and collective bargaining is shown on macro, meso, and micro level.

1.5 Strengths and weaknesses of the Dutch social-economic/Polder model

Strengths and weaknesses are also important for the performance chapter because in the third chapter data will be analyzed about the economy and the Polder model. The first strength of the Dutch social-economic model is the relative low wage inflation compared to most other European countries due to decades of wage moderation. Wage moderation improves the competitiveness of the Dutch companies.

Second, the negotiations between the government and social partners are essential to make a social agreement a success. This is due to the fact that making an agreement with three parties improves the possibility to monitor and control the bargaining process. A third strength may be seen as a result of the first two mentioned and concerns the low degree of labour unrest. (Two tables are attached in the appendix). The high level of consultation and cooperation creates a high level of *trust* and "consultation leads to an improvement of *quality of products and processes*" (Delsen, 2000, p.173). The quality of products and processes can be seen as a fourth strength.

A fifth strength of the Polder model is the long-term view with respect to policies. Focusing on the short-term creates a culture that is too much oriented on direct profits and too less on future developments. This long-term view makes flexibility possible. While other countries were facing high unemployment rates in the eighties as well, the Netherlands adapted the labour system by promoting part-time labour employment. This flexibility is an important strength of the Dutch social-economic/Polder model.

With respect to wage moderation, there are also weaknesses. Companies may rely on wage moderation and therefore will have fewer incentives to innovate in new technologies. Markets might make this downward tendency turn around as well: If real wages increase, it will increase unemployment and as a result the real wage will go down. The market creates this effect itself and therefore a Polder model in this sense may not even be needed. As a consequence the growth of productivity may be lower because of relatively less capital-intensive investments. The third chapter will elaborate on this.

Another point of criticism on the Polder model concerns the view that consensus-based decision-making slows down the system, which can also be called syrupiness: reaching for consensus all the time makes it very hard to make any fast decision. Van Zanden (2002, p.345) says that making compromises can create an unclear system for everyone. On the other hand, more time for negotiations means more and better information when making a decision and therefore the quality of the decision can be increased.

1.6 Summary and conclusion

The Wassenaar Agreement created a turnaround in the Dutch labour relations. It has been argued there is a connection between the Wassenaar Agreement and the Polder model. However, this connection is overrated. First, the Agreement was based on a threat made by the government rather than cooperative behaviour. Second, some of the characteristics of the Polder model already existed before the Wassenaar Agreement. Especially cultural features already existed more than four hundred years ago. Van Zanden is therefore right in stating that the roots of the Polder model go back much earlier than 1982. The Polder model can be described as 'the Dutch combination of policy, institutions and culture'. In addition, it does not matter whether the Dutch social-economic model is called the 'Polder model' or for instance the 'Delta model'.

The financial crisis of 2007/2009 emerged in the United States due to a lack of financial supervision, control and coordination. The Federal Reserve placed a high value on the market, which failed in its outcomes. The call for more financial supervision, coordination and cooperation is growing. A consensus-oriented system such as the Dutch social-economic/Polder model may be a solution to prevent another crisis. To try to analyze the performance of the Dutch social-economic model during an international crisis, first the theory of the performance and the performance itself of the Dutch social-economic/Polder model need to be discussed.

2. Theory of the performance of the Dutch social economic model

Before the performance of the Dutch social-economic model can be elaborated, the theory of performance must be analyzed first. One example is the theory of wage bargaining systems and macroeconomic performance.

2.1 Theory of centralized bargaining, corporatism and macroeconomic performance

As already discussed in chapter one, wage negotiations not only take place at the sectoral and company level but also on the central level where the bargaining mostly takes the shape of coordination. Calmfors and Driffill (1988, p.14-61) wrote a famous article about the relationship between the level of wage bargaining and macro-economic performance. The Calmfors and Driffill hypothesis states that "the relationship between wage bargaining and macroeconomic performance might not be monotonic but hump shaped; that economies with highly centralized and highly decentralized wage bargaining would perform well, and those in the middle, with only moderately centralized bargaining, would perform worse" (Driffill, 2006, p.731). This theory can be explained when examining a monopoly union setting the wage for its members at company, industry and central level. Driffill (2006, p.733) describes a few assumptions about the analysis, which is important for the outcomes:

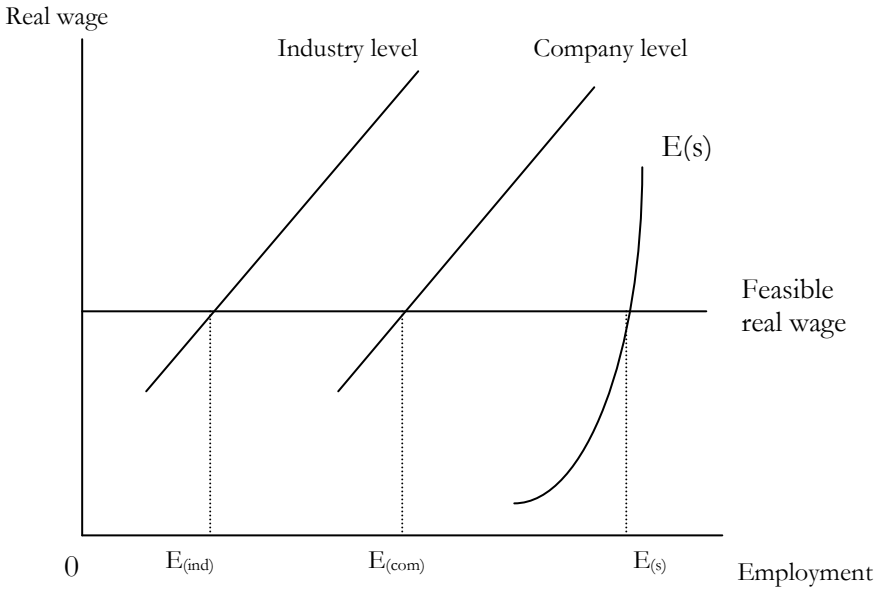
- Closed economy and all members are union members
- Model is completely static that means the analysis focuses on one point in time
- Unions are assumed to set a wage rate
- Bargaining structure is assumed to be an exogenous variable
- Workers are assumed to be hired and fired as needed
- Total nominal demand in the economy is fixed in advance
- The outcome for the economy is modeled as a Nash equilibrium among the wage setting units

With these assumptions the following theoretical framework can be created. "The union is concerned both about the real wage in terms of consumer goods and the level of employment by its members" (Soskice, 1990, p.37). If the union raises the wage at company or industrial level, it creates two effects. First, it raises the real wage. Second, it reduces employment since the company or industry will increase product prices to a certain extent relative to the general level. This creates a lower demand for goods produced by the firm or industry. This may cause a negative effect on the number of jobs created by the firm. If the union anticipates these effects, it will moderate its wage demands. There is still a difference between the company and industry level, as "a given increase in the money wage is likely to lead to a larger cut in employment in the company than the industry" (Soskice, 1990, p.37). This reflects the higher product elasticity of demand for the company compared to the industry.

At the national (central) level, "an increase in the money wage leads directly to an equiproportionate increase in the price level. Hence the first effect does not operate: there is no

increase in the consumption real wage" (Soskice, 1990, p.37). Since relative prices do not change and theoretically the money supply is fixed, an increase in the money wage means that employment is reduced since the real money supply decreases. For that reason at central level a monopoly union will moderate its wage demands. Figure 2.1 illustrates this theory.

Figure 2.1: Expected real wage set by monopoly unions at three levels

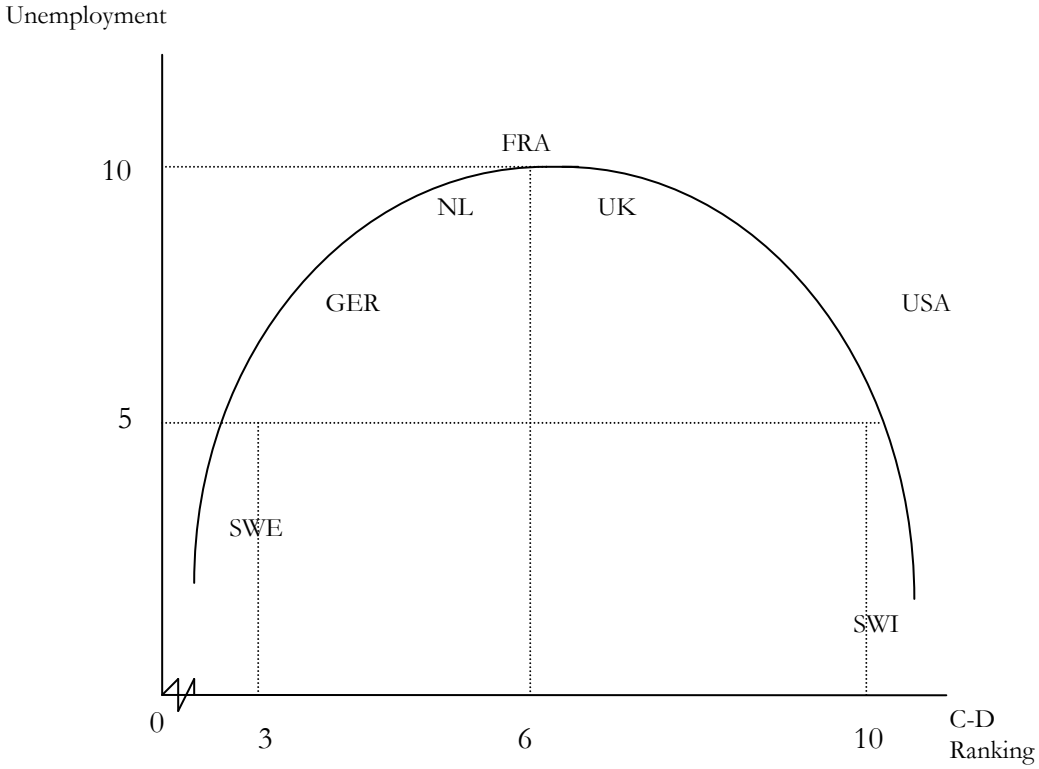


Source: Soskice (1990, p.38), Wage determination: the changing role of institutions in advanced industrialized countries.

The figure shows the expected real wage set by monopoly unions at industry level and company level. The curved function at the right is the labour supply function whereas the horizontal line represents the feasible real wage determined by price setting. The function for the company is lower than the industry function since "at any aggregate demand level the expected real wage chosen by the company union will be below that chosen by the industry union" Soskice (1990, p.38). Therefore the employment level at company level is higher. The third case of centralized bargaining implies unions to set the wage for the entire economy. The centralized union can choose any point on the left side of the labour supply curve, and "so might be expected to choose full employment" Soskice (1990, p.38), which means the intersection point of the feasible real wage and the labour supply curve.

This representation shows an inverted U-shaped relationship between centralization and wage setting. Teulings (1996, p.13) supports this hypothesis by putting forward: "when the level of coordination is more centralized, the positive effects of internalization of external effects dominate".

Figure 2.2: Relationship between wage bargaining and macroeconomic performance



Source: Soskice (1990): Wage determination: the changing role of institutions in advanced industrialized countries

Figure 2.2 is a graphical representation of the C-D column in table 2.1 shown on the next page. Highly centralized countries are on the left side of the graph whereas decentralized countries are shown on the right side. Highly centralized and highly decentralized countries are expected to have lower unemployment while countries in the middle would face a high unemployment and thus perform worse.

There has been criticism on the ranking of countries done by Calmfors and Driffill. First, Driffill (2006, p.753) says they "did not take account of other factors than simply centralization of bargaining". In addition, the bivariate relationship they created was too simple. Soskice (1990, p.41) adds to this discussion that Calmfors and Driffill made four mistakes. First, they classified several key countries in a wrong way. Second, it is difficult to handle with uncoordinated company level bargaining. Third, the influence of unions at local level has not been taken into account. Finally, the difference between open and closed economies has been ignored in the analysis. Due to these caveats in the analysis, several countries have been classified wrongly. For example, Germany and the Netherlands should be located more to the left side of the graph, close to Sweden.

2.2 Centralized bargaining, coordination and corporatism

The degree of centralization of collective bargaining is just one of the determinants of the degree of bargaining coordination. The other determinants are informal coordination and corporatist

rule making (see note four in chapter one). Teulings and Hartog compared several studies and summarized the ranks of corporatism. Despite the criticism, Teulings and Hartog (1998, p.29) choose the research done by Calmfors and Driffill[7] (1988) as their guideline because "their research scale is well known and used in related work. Furthermore, it aims at a relatively well-defined concept". The ranks of corporatism are summarized in the table below.

Table 2.1 Ranks of corporatism of several countries by several authors

	Schmitter	*Cameron*	*Bruno & Sachs*	*Calmfors & Driffill*	*Blyth*	*Tarantelli*	*Wilensky*	*Lehmburch*
Austria	1	1	1	1	1	1	7	1
Germany	8	7	2	6	8	2	10	6
Netherlands	6	8	3	7	10	8	2	2
Norway	2	3	4	2	2	5	3	4
Sweden	4	2	5	3	3	5	4	3
Switzerland	9	9	6	14			11	9
Denmark	4	5	7	4	4	5	9	5
Finland	4	5	8	5	5	8	6	7
Belgium	7	6	9	8	9	10	1	
Japan		14	10	13	11	3		10
UK	14	10	11	11	13	14	12	12
France	13	16	12	10	12	13	5	11
Italy	15	15	13	12	14	15	8	13
Australia		11	14	9	7	8		16
Canada	11	12	15	16	16	10	13	15
US	11	13	16	15	15	10	15	14

Source: Teulings and Hartog (1998, p.30): Corporatism or competition?

The data can be summarized as follows: countries are entered according to their rank of corporatism. The scales between authors defer but countries with a low number such as Austria (with mostly rank 1) are highly centralized. The United States and Canada have a high number (mostly 15) and thus are two examples of highly decentralized countries and also non-corporatist in character. Italy, the United Kingdom and France are middle-ranked. Germany is more centralized and corporatist. "The Netherlands has a low-bargaining level with a high degree of corporatism, due to the coordination and involvement in government decision making" (Teulings and Hartog, 1998, p.31). The Netherlands has a relatively high ranking with Calmfors and Driffill (7), but as already discussed earlier, there is some discussion about this whether the Netherlands should have a lower rank (f.i. 3 or 4).

[7] Showing rankings from other authors is a main critique on the Calmfors and Driffill argument of classifying countries according to corporatist characteristics.

Aspects of bargaining centralization

Although the Dutch system of bargaining is relatively centralized, it needs to be examined further what the effects are of centralized bargaining on the economy.

According to Aidt and Tzannatos (2008, p.260): "Collective bargaining is centralised when the national union confederation and the national employers' organisation can influence and control wage levels and patterns across the economy". The economic success of centralized bargaining depends on several issues summarized in table A2.2 attached in the appendix.

Aidt and Tzannatos (2008, p.260) describe the feature of 'internalisation of externalities' as an important one in literature. This feature can be explained by assuming a society in which all workers are members of a union. They assert that when all firms negotiate with unions, the setting of the wages forms only a small fraction of the total economic costs. These account especially when these costs are associated with a given increase in real wages and are imposed on others. Due to this externality, the negotiated wage can be too high, which can result in a higher level of unemployment[8]. "This creates incentives in favour of wage restraint, which, ceteris paribus, leads to more total employment. This in essence is the corporatist hypothesis: centralisation and coordination of bargaining improves economic outcomes" (Aidt and Tzannatos, 2008, p.260).

Although there is still debate about the empirical status of the hump-shaped relationship between centralization and wage setting, one of the "theoretical predictions has been widely confirmed: highly coordinated or centralized bargaining is associated with lower unemployment and better economic performance" (Driffill, 2006, p.739).

In the performance chapter the corporatist hypothesis above will be checked. If the hypothesis is true it implies that a relatively centralized country as the Netherlands should have a lower unemployment rate compared with less centralized countries. The unemployment rate is not the only option to consider with regard to examining performance. Another options to measure economic performance is for example GDP growth. These two options (GDP growth and unemployment) will be taken as central points to be analyzed in the next chapter. In addition, income inequality will be analyzed since income inequality has an additional advantage because it has a redistribution component and therefore can be used to conclude about the social performance of the Dutch social-economic model.

2.3 Rhineland model and Anglo-Saxon model

The last few paragraphs of his subchapter will explain which countries are analysed and compared in the next chapter and in addition for what reasons. An important point to notice is the relative similarity of social-economic structures with other European countries.

[8] These costs are due to externalities. A table describing more externalities is located in the appendix.

There are two main groups of countries, often referred to as models. According to Albert (1991, p.100), "The Rhine model represents a very different vision of economic organization: it presupposes different financial structures and social controls… The Rhine model extends from Northern Europe to Switzerland, and partially includes Japan". According to Gorter and Poot (1998, p.16) the group of Rhineland countries consists of the Netherlands, Belgium, France and Germany whereas highly decentralized countries are the United States, United Kingdom, Ireland and Denmark. Yet Delsen (2000, p.8) puts forward that "there is no Rhineland model and no Anglo-Saxon model, there are only approximations because there are too many differences among countries". However, to simplify the analysis in the following chapters, the Netherlands will be compared with neighbouring Rhineland countries (mostly Germany and Belgium) and two Anglo-Saxon countries (United States and United Kingdom).

Albert's Rhineland model differs to great extent from the Anglo-Saxon model of the United States and the United Kingdom. The differences are briefly stated in the table below.

Table 2.2: Differences between Rhineland and Anglo-Saxon model

	Rhineland model	**Anglo-Saxon model**
Abstract:		
	Financing by large families and institutional investors	Central role for capital market
	Continuity of the firm	Maximize short-term profits
	Policy and management	Market mechanisms
	Government support possible	Large firms can take business over
Policy:		
	Much government interference	Relatively limited government interference
	Consensus based economies	Free market economies
	Organized decentralization	Market driven decentralization
	Solidarity and ability to learn	Limited social security
	Orientation on society	Orientation on markets and short-term

Sources: Composed on: Klundert, van den Th. (2005); Delsen and Poutsma (2005).

Table 2.2 summarizes the main differences between Western European countries (Rhineland) and the United States and United Kingdom (Anglo-Saxon). In the Anglo-Saxon model central role is given to the capital market. The focus is on maximizing profits on the short term. The market mechanism controls the economy and shareholders value is paramount whereas the Rhineland model is relatively more based on coordination and consensus. "Rhineland" companies are not expected to maximize profits on the short term but more importantly to focus on the continuity of the firm. In addition, "the focus is more on the interests of other stakeholders outside the market. Long-term relationships have the possibility to internalise external effects" (Van de Klundert, 2005, p.84). Internalising of external effects has been elaborated in table A2.2 in the appendix.

2.4 Summary and conclusion

"The Calmfors-Driffill hypothesis is that both very centralised and very decentralised bargaining systems are likely to produce real-wage moderation and high employment" (Calmfors, 1993, p.165). These theoretical predictions are widely confirmed although there is still much discussion about the shape of the relationship between the level of centralized bargaining and employment, and to take the role of coordination more into account. After examining aspects of bargaining centralization and the theory of corporatism, a conclusion can be formulated, also called the corporatist hypothesis: "centralisation and coordination of bargaining improves economic outcomes" (Aidt and Tzannatos, 2008, p.260).

The hypothesis in the introduction stated: "Due to the Dutch consensus-oriented system, often referred to as the 'Polder model', the Netherlands will perform relatively well compared to Belgium, Germany, United Kingdom and the United States with respect to employment and unemployment, GDP growth and income inequality during the financial crisis and beyond. To test this hypothesis, first the performance of the last few decades needs to be studied to conclude about the performance before the financial crisis. Therefore, the analysis in the next chapter will focus on the performance with respect to the three measures just mentioned. Data have been gathered for the Netherlands, two Rhineland countries (Germany and Belgium) and two Anglo-Saxon countries (US and UK).

3. Performance of the Dutch social-economic model

The possible influence of the Polder model on the performance of the Dutch economy is very difficult to demonstrate. Therefore, because of a strong interaction between institutional systems and the economy, especially when adjusted to the international context, I will assume that the performance of the Dutch model can be illustrated when examining three criteria (GDP growth, employment and unemployment and the degree of income inequality) whereby the social aspect of income inequality is thought to be more than the other two to be connected with the institutional model.

This chapter will focus on the performance of the Dutch social economic/Polder model over the past decades. The reason for this is the supposed increasing importance of the model after the Wassenaar Agreement. In addition, the economic performance of neighboring Rhineland countries (Germany and Belgium) and two Anglo-Saxon countries (US and UK) will be compared to the Dutch performance. In this way the performance of the Netherlands can be compared with two similar and two different countries.

3.1 Economic growth in terms of GDP

This subchapter will focus on the growth of the GDP of the Netherlands. This development will be compared with some other European countries and the United States.

GDP (gross domestic product) is a measure of economic activity and governments mostly use it to examine economic performance. GDP is defined as "the value of all goods and services produced less the value of any goods or services used in their creation" (EUROSTAT, 2009). 'Gross' signifies that no deduction has been made for the depreciation of machinery, buildings and other capital products used in production. 'Domestic' simply means that it is production by the resident institutional units of the country. Production is defined in terms of 'value added' since several products are produced using other products (f.i. resources).

The annual growth rate of GDP (volume and per capita) is intended to allow for comparisons of the dynamics of economic development with respect to time and size of economies. The data used for this analysis are corrected for price movements so that the growth rate is not inflated. More specifically, the growth rates are weighted by the relative size of each country's GDP in US dollars. These numbers have been converted using purchasing power parities ('law of one price') so that each country is weighted by the relative size of its own real GDP. This way the GDP can be calculated free of direct inflation effects.

The analysis will now focus on the development of GDP per capita. Despite the disadvantages of this measure, for instance with respect to the environment or wealth distribution[9], I will take GDP per capita as indicator to give a conclusion about economic growth as well because per capita GDP is a widely used indicator of economic growth.

Table 3.1 below illustrates volume indices of GDP per capita for the Netherlands, two neighboring Rhineland countries (Germany and Belgium) and two Anglo-Saxon countries (US and UK).

Table 3.1: Volume Indices GDP per capita for five countries, US(1982)=100

	1982	**1985**	**1990**	**1995**	**2000**	**2005**	**2007**
US	100	114	127	135	156	166	171
Belgium	86	90	103	110	124	132	137
Germany	79	85	98	106	117	120	127
Netherlands	84	90	103	112	132	138	147
UK	74	81	94	101	117	129	136

Source: OECD Statistical database (downloaded on 08/09/09) and own calculations

Table 3.1 shows volume indices of GDP per capita for five countries. US 1982 has been chosen as a base year. All price levels are in purchasing power standards. From the table it can be concluded that all countries witnessed an increase in their GDP per capita. The United States performs third best even though the initial situation was already far above the GDP per capita of the other four countries. The Netherlands performs relatively well. The increase in GDP per capita was larger than the performance of the other two Rhineland countries. The United Kingdom shows relatively the largest increase of GDP per capita. The following table provides information on the performance with respect to GDP per capita relative to the United States.

Table 3.2: Volume Indices GDP per capita for five countries, US=100

	1982	**1985**	**1990**	**1995**	**2000**	**2005**	**2007**
US	100	100	100	100	100	100	100
Belgium	86	79	81	81	80	79	80
Germany	79	75	77	79	75	72	74
Netherlands	84	79	81	83	85	83	86
UK	74	71	74	75	75	78	79

Source: OECD Statistical database (downloaded on 08/09/09) and own calculations

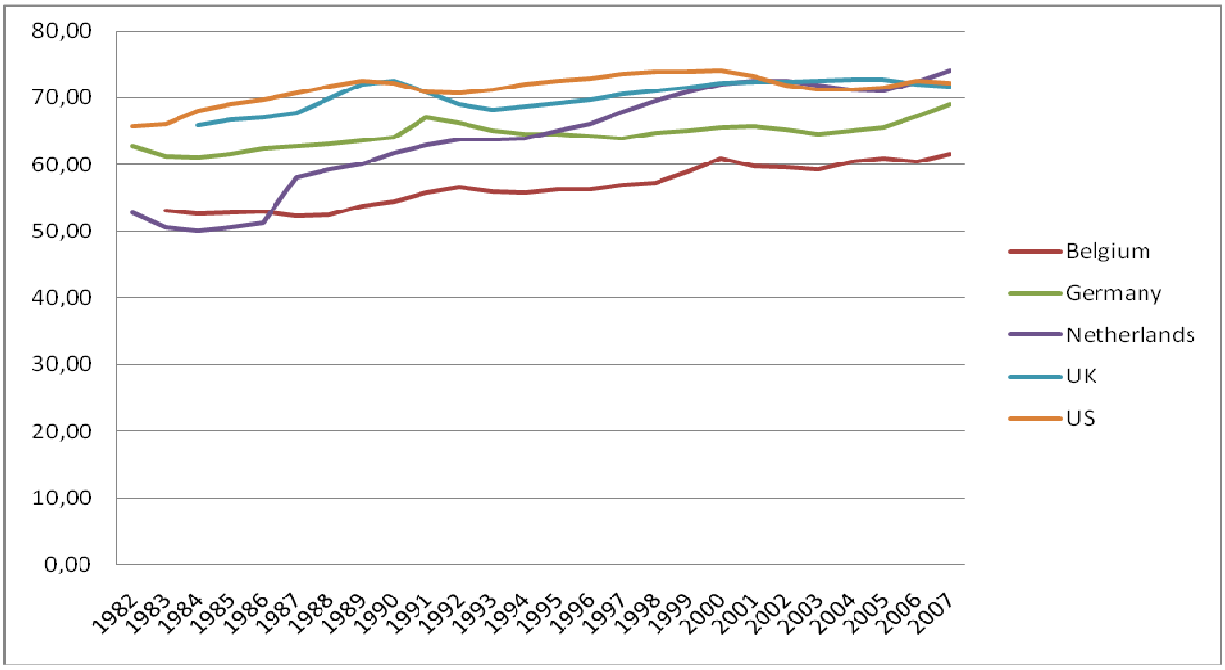
[9] I refer to the so-called external effects: GDP per capita does not take into account wealth distributions, non-market transactions, quality of goods, sustainability of growth, pollution etc. One can ask for one selves whether this is the most appropriate measure.

Table 3.2 provides the data as already has been shown in table 3.1 but now from a different perspective. The data of the United States are taken as base level for every year. Whereas table 3.1 illustrated the country specific development of GDP per capita, table 3.2 shows the relative development of the countries under analysis compared to the United States. From the table it can be concluded that the United States performs relatively well compared with the other countries. The Netherlands and the United Kingdom are the only countries that witnessed a small improvement relative to the United States. The relative position of Belgium and Germany worsened.

3.2 Performance of employment and unemployment

This subchapter will focus on the development of employment and unemployment levels. First, employment levels will be analyzed for the five countries under analysis. Furthermore, the analysis of employment levels will also focus on the development of part-time employment and working hours. Finally, unemployment levels are first elaborated for the Netherlands and secondly for other countries. The analysis will start with the comparison of employment rates for the five countries under analysis.

Figure 3.1: Percentage change of (yearly, average) employment rates for five countries from 1982-2007



Source: OECD Data from Factbook 2009

Figure 3.1 shows the percentage changes of employment rates with respect to the previous year for the five countries under analysis. "Employment rates are calculated as the ratio of the employed to the working age population…Working age is generally defined as persons in the 15 to 64 age bracket although in some countries working age is defined as 16 to 64" (OECD Database, 2009). Employment rates show the percentage of persons of working age who are in employment. In the short term, these rates are sensitive to the economic business cycle, "but in the longer term they are significantly affected by government policies with regard to higher

education and income support and by policies that facilitate employment of women" (OECD Database, 2009).

The Netherlands shows overall positive figures with an exceptional high growth in the late eighties and the nineties and a small shrink in 2003-2005. Only in this downward period other countries performed better. Belgium and Germany performed visibly less over the entire period. Although the United States almost has an equally high employment rate in 2008, their growth has been less compared to the Netherlands. The data from the graph are also presented in the table below.

*Table 3.3: Volume Indices yearly employment rates for five countries**

	1982	**1985**	**1990**	**1995**	**2000**	**2005**	**2007**
US	100	105	110	110	113	109	110
Belgium	-	80	83	86	93	93	94
Germany	95	94	98	98	100	100	105
Netherlands	80	77	94	99	110	108	113
UK	-	101	110	105	110	110	109

Source: OECD Database (downloaded on 08/09/09) and own calculations
** Data of 1982 are unavailable for Belgium and the United Kingdom*

Table 3.3 shows the development of employment rates in persons for the five countries under analysis. The data are presented in indices to illustrate the country specific development compared to the United States. US 1982 has been chosen as base level. Here the outstanding performance of the Netherlands is shown relative to the other countries. Whereas the United States and Germany show a growth of around 10% from 1982-2007, the Dutch employment rate with respect to persons increased with 41,25%.

However, only the Dutch performance with respect to employment 'in persons' has been outstanding. If the development of working hours is taken into consideration, this positive message becomes less positive. Table 3.4 below provides some insight on this statement.

*Table 3.4: Hours worked (average, yearly, per worker) for five countries**

	1982	**1985**	**1990**	**1995**	**2000**	**2005**	**2007**
Belgium	1663	1698	1656	1580	1554	1565	1566
Germany	1708	1673	1580	1534	1473	1435	1433
Netherlands	-	-	1504	1391	1372	1375	1392
UK	1730	1766	1758	1743	1711	1676	1670
US	1797	1832	1827	1840	1832	1795	1794

Source: OECD Database (downloaded on 08/09/09) and own calculations
** Data for the Netherlands are unavailable until 1990.*

Table 3.4 illustrates the hours worked for the five countries under analysis. The average hours worked is calculated as the total number of hours worked over a year divided by the average number of people in employment. From the table it can be concluded that all countries witnessed a decrease in working hours from the starting point in 1982, with the United States as an exception where the working hours have increased during two decades. Although one should be cautious when comparing across countries, it may be concluded that actual hours worked are relatively low in the Netherlands. Before this statement will be explained, the table below illustrates the same data from a different perspective to come to a conclusion.

Table 3.5: Indices of Hours worked (average, yearly, per worker) for five countries

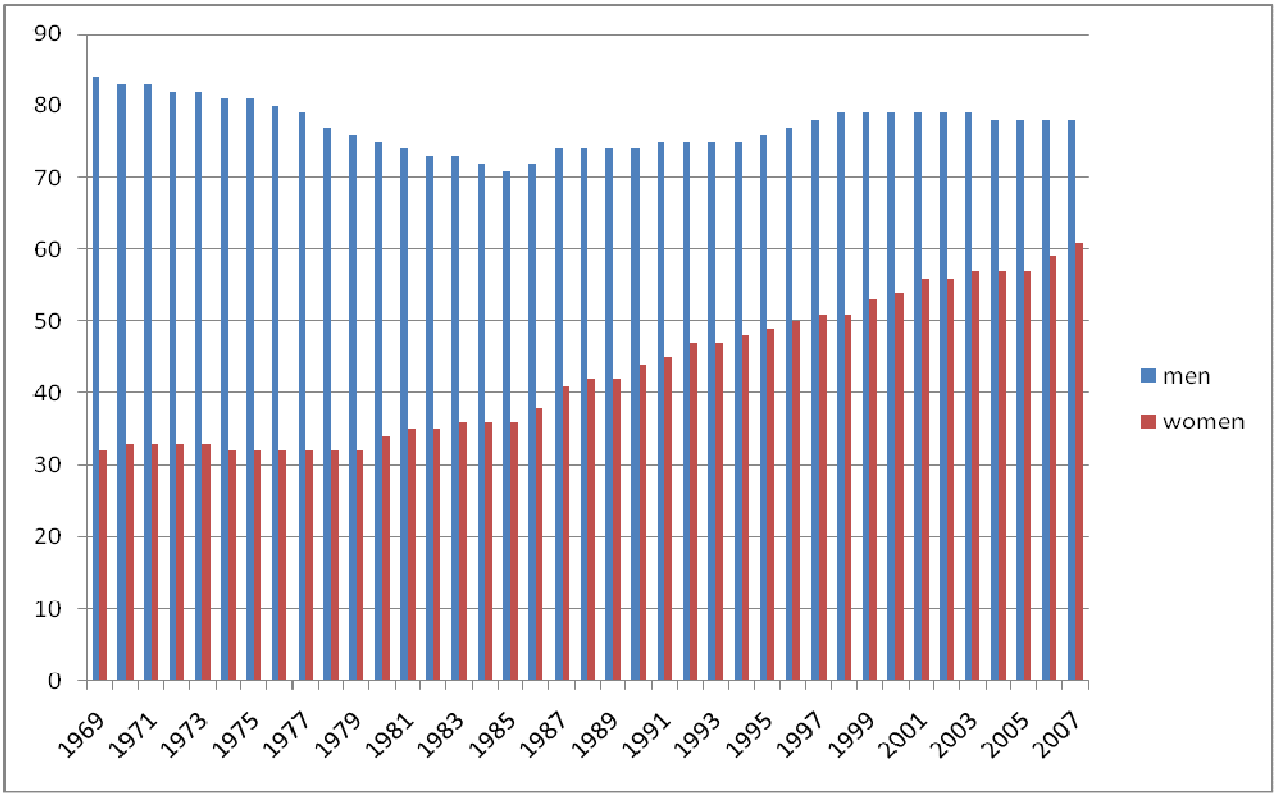
	Abs. 1982	**1982**	**1985**	**1990**	**1995**	**2000**	**2005**	**2007**
US	1797	100	102	102	102	102	100	100
Belgium	1663	93	94	92	88	86	87	87
Germany	1708	95	93	88	85	82	80	80
Netherlands	-	-	-	84	77	76	77	77
UK	1730	96	98	98	97	95	93	93

Source: OECD Database (downloaded on 08/09/09) and own calculations

Table 3.5 shows the indices of hours worked for the countries under analysis. The US 1982 has been chosen as base year. Table 3.5 illustrates the country specific development more clearly. For example, Germany saw its working hours decrease heavily from 1982 (95) to 2007 (80). The Netherlands also saw a sharp decrease but in 2007 the number of working hours have increased for the Netherlands. To indicate the relative differences between the countries the values of the base year have been added in the second column. It can be seen that all countries saw their relative position to the United States worsen.

To conclude, despite the positive employment figures for the Netherlands with respect to persons and employment growth, the analysis with respect to working hours give a slightly less positive conclusion. As the OECD (2004, p.28) puts forward: "the sizeable US advantage in real GDP per capita, particularly as compared to most advanced European economies, is largely due to differences in total hours worked per capita, rather than to higher output per hour worked". To extent the analysis on employment, first, the increase in employment with respect to persons will be analyzed more specifically. Figure 3.2 on the next page illustrates this.

Figure 3.2: Dutch employment rates for men and women from 1969-2007

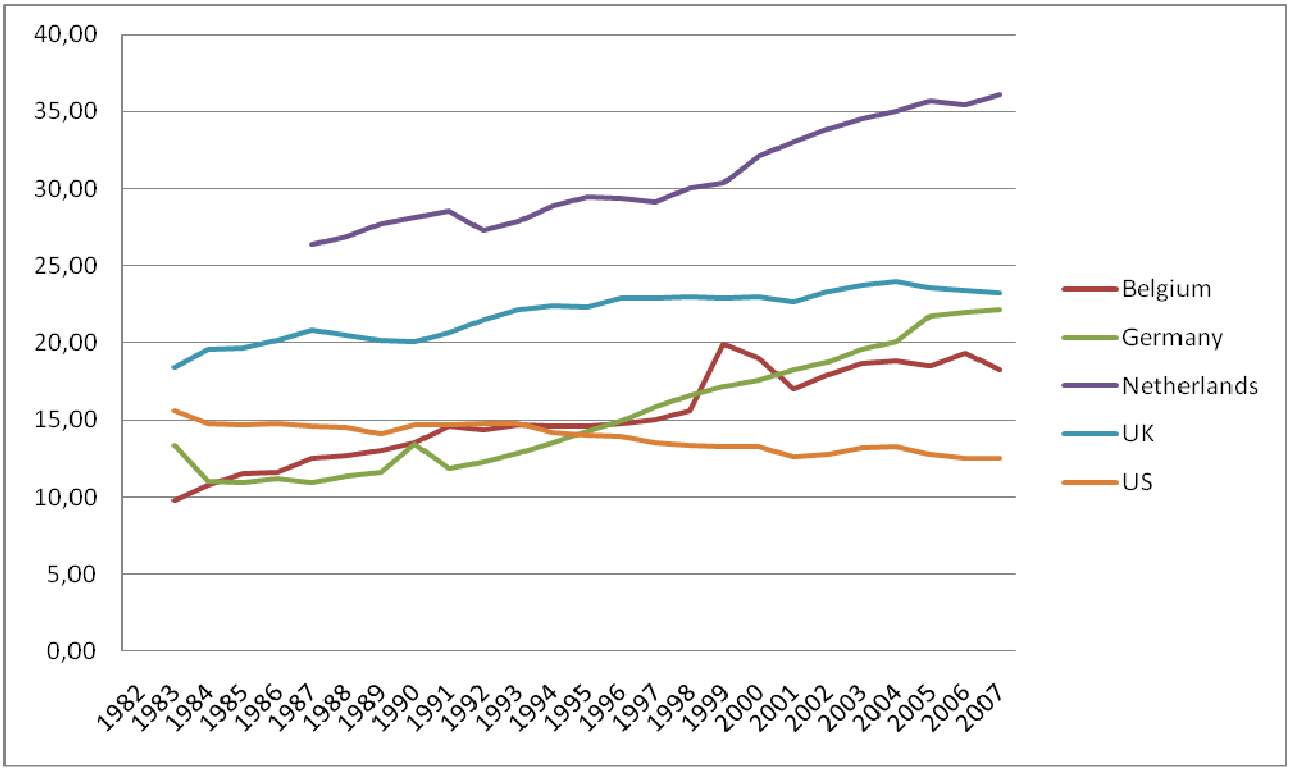


Source: CPB: Arbeidsgegevens CEP 2009

Figure 3.2 illustrates the labour participation rate of men and women in the Netherlands from 1969 to 2007. Male participation shows a slightly decreasing trend towards the 1990s but remains stable afterwards (following the general economic trend) whereas the female participation rate shows an increasing trend. Female participation grew substantially from just above 30% in 1969 towards already above 60% in 2007. It can be seen that female participation rates started to increase after 1982. This increase may in part be due to policy implications stated in the Wassenaar Agreement, as one of the policies of the Wassenaar Agreement was to stimulate female participation in the labour market.

Full-time employment seems to follow the economic business cycle. However, part-time employment shows an increasing trend over the past twenty-four years (as been shown in figure 3.3 on the next page). "The increase in part-time employment, which has indeed been substantial, has been more than matched by an increase in the participation rate, in particular by an increase in the participation rate of women" (Blanchard and Philippon, 2004, p.3). Although the Netherlands showed a substantial increase in the part-time labour employment, other countries may have witnessed an increase as well, yet on a lower level. The following graph illustrates the development of part-time employment for five countries.

Figure 3.3: Part-time employment as percentage of total employment for five countries



Source: OECD Factbook 2009

Figure 3.3 shows part-time employment rates as percentages of total employment for the same five countries as in the previous analyses[10]. Part-time employment refers to persons who usually work less than 30 hours per week in their main job. Both employees and the self-employed may be part-time workers.

From the figure it immediately follows that all countries faced an increase in the percentage of part-time employment except for the United States. From all countries the Netherlands shows the highest proportion, which increased from 18,53% in 1983 to 36,07% in 2007. The Central Bureau of Statistics reported: "The Netherlands is European champion with respect to part-time work… Almost half of the employed working age population worked part-time in 2008" (CBS, 2009). Graphs from the CBS are posted in the appendix. The differences in numbers between the statistical organizations may be due to different definitions of working hours.

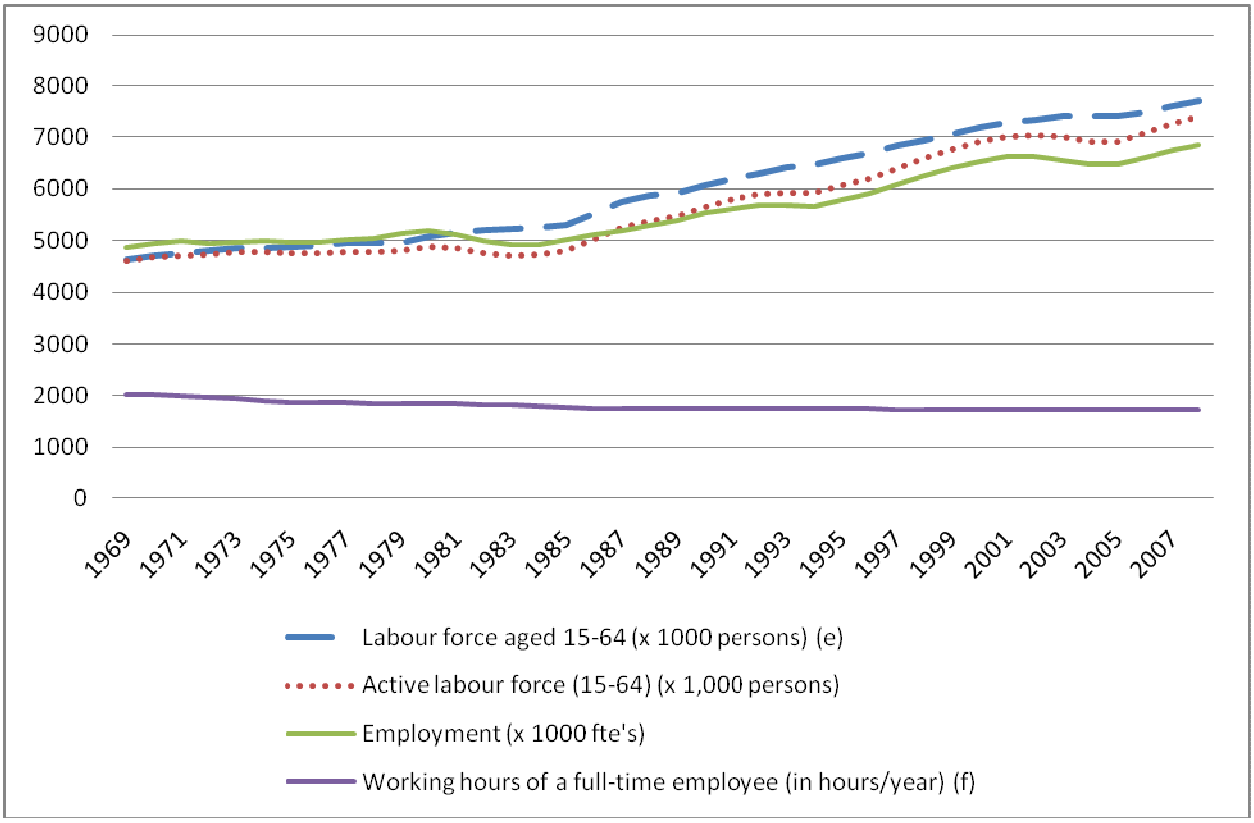
Despite the different numbers, it can be concluded for certain that the Netherlands has the largest share of part-time employment compared to the other four countries. As such, the huge increase of part-time employment in the last decades does not tell us that much, but in relationship with the increase of total employment it has a special meaning.

Blanchard and Philippon (2004, p.4) state that decreasing unemployment and increasing part-time employment are due to an increasing participation rate rather than work sharing. This is an important feature because this suggests that part-time jobs did not go at the expense of full-time

[10] Data for the Netherlands are not available for the years 1982,1984 and 1986. According to OECD, the part-time employment rate 1983 was 18,53% for the Netherlands and for 1985 the rate was 19,53%.

jobs. The following graph summarizes the development of employment for the Netherlands with respect to persons, years and hours.

Figure 3.4: Dutch labour force and employment in persons, years (fte's) and hours from 1969-2008



Source: CPB: Kerngegevens arbeidsmarkt(a), downloaded table 1969-2007 May 2009

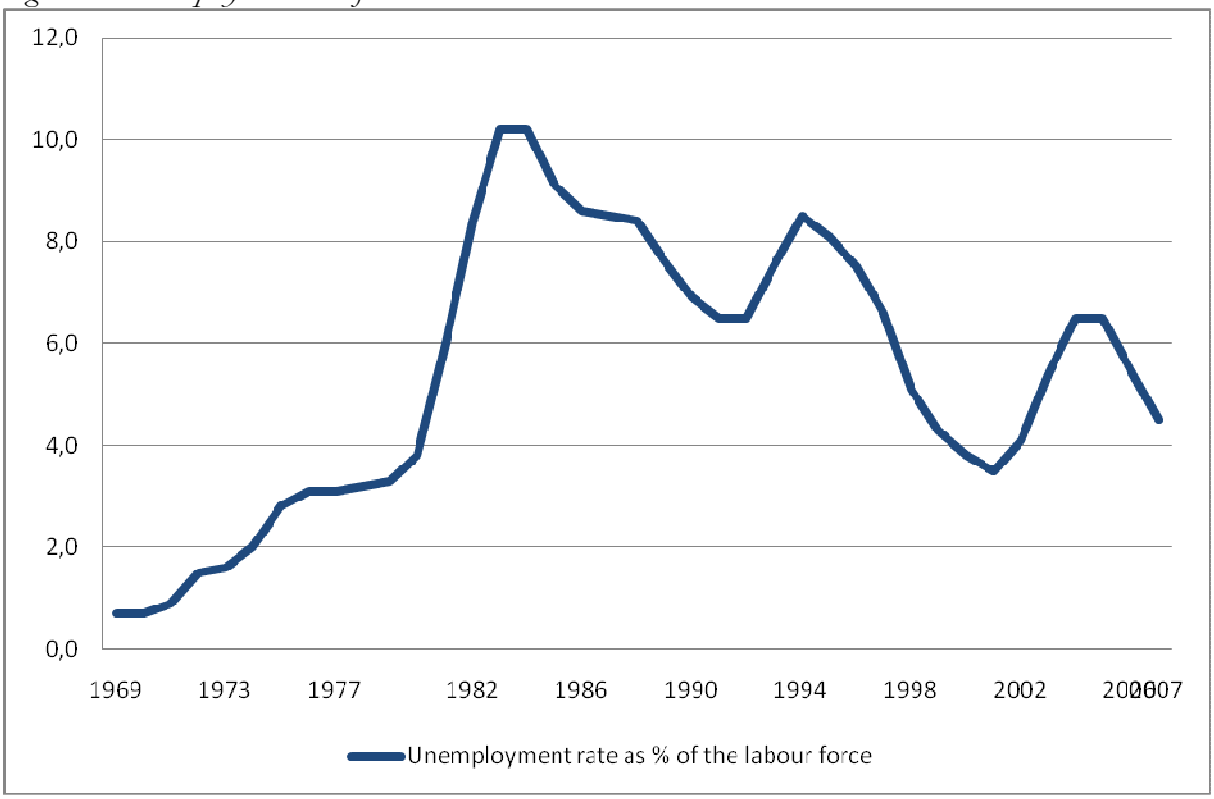
Figure 3.4 shows Dutch employment rates in four categories: labour force (active labour force), years (employment fte's) and hours (working hours). From the graph it can be concluded that the employment growth in persons and full-time equivalents was more than satisfying while the growth in hours was relatively stable with a relative tendency to decrease.

To conclude, the Dutch performance with respect to employment growth can be written as outstanding only when considering the growth in persons, especially women. In addition, the growth of employment is largely due to the growth of part-time employment. However, if the employment growth is measured in terms of working hours, the Netherlands appears to be the country with the lowest participation rate of the five countries under analysis, as been shown in table 3.3. As already stated before, "the sizeable US advantage in real GDP per capita, particularly as compared to most advanced European economies, is largely due to differences in total hours worked per capita, rather than to higher output per hour worked" (OECD, 2004, p.24). The low number of working hours for the Netherlands might therefore negatively affect the GDP per capita and productivity per worker. This will be explained further in subchapter 3.4.

Unemployment

Although the Dutch GDP (both in volumes as per capita) grew substantially over the past decades, the most important result from wage moderation (and the Wassenaar Agreement) is the decline of unemployment since the beginning of the eighties. The graph below illustrates the development of the unemployment rate in the Netherlands for the past four decades.

Figure 3.5: Unemployment rate of the Netherlands 1969-2010



Source: CPB: Kerngegevens arbeidsmarkt(a), downloaded table 1969-2007 May 2009

Graph 3.5 shows the unemployment rate of the Netherlands from the years 1969-2007. The unemployment rate follows the general economic trend[11]. The wave movement in the graph indicates the downturn and upturn years. The main reason for the decrease in unemployment is usually said to be wage moderation (Blanchard and Philippon, 2004, p.3; Visser, 1998, p.284). To conclude, the Netherlands showed an outstanding performance with respect to the decrease in the unemployment rate. The table on the next page compares this performance with four other countries.

[11] However, if a regression line would be drawn for the entire period it would have a positive slope indicating that the natural unemployment rate increases over time. This could be a main issue of specifically Rhineland countries, since "the combination of high unemployment insurance benefits, employment protection restrictions and wage rigidity probably accounts for the high levels of unemployment observed in Europe in the 1980s and 1990s" (Borjas, 2008, p.526). If a regression line would be drawn for the period after the Wassenaar Agreement it would have the opposite slope.

*Table 3.6: Unemployment rates for five countries from 1983-2008**

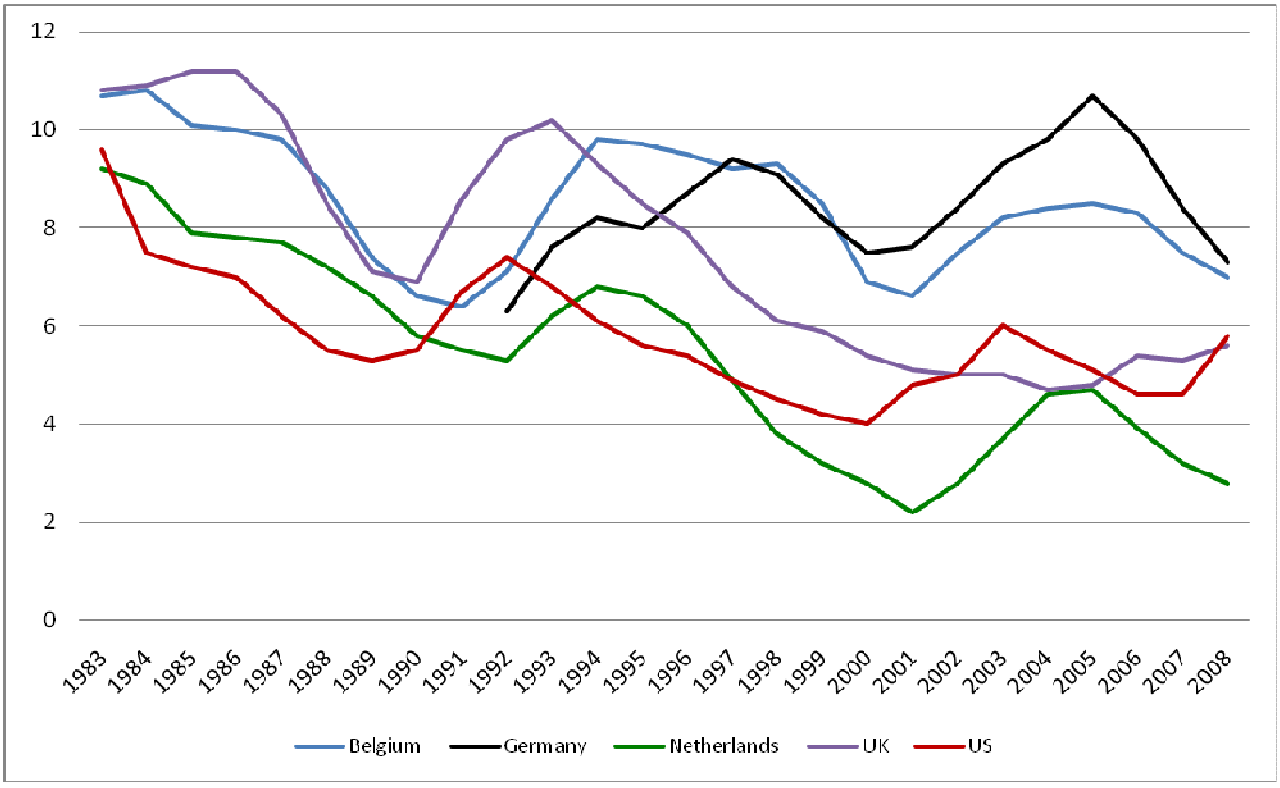
	1983	1985	1990	1995	2000	2005	2008
Belgium	10,7	10,1	6,6	9,7	6,9	8,5	7,0
Germany	-	-	-	8,0	7,5	10,7	7,3
Netherlands	9,2	7,9	5,8	6,6	2,8	4,7	2,8
UK	10,8	11,2	6,9	8,5	5,4	4,8	5,6
US	9,6	7,2	5,5	5,6	4,0	5,1	5,8

** Data are unavailable for Germany until 1992*

Source: EUROSTAT database, downloaded 08/09/09

Table 3.6 shows the yearly averages of the unemployment rates for five countries. The Netherlands performs outstandingly whereas the Anglo-Saxon countries are performing second and third best. Germany and Belgium are performing absolutely less than the other countries. The development of the unemployment rate with respect to persons can also be shown in a graphical way.

Figure 3.6: Unemployment rates for five countries from 1983-2008



Source: Composed on Eurostat database, downloaded 08/09/2009

Figure 3.6 shows the development of the unemployment rate dynamically. All countries have shown a decrease in their unemployment rate but the Netherlands shows an outstanding decrease over the past decades. The Dutch unemployment rate is relatively low, also with respect to the

unemployment rate calculated by the CPB. This difference is due to different opinions. The CPB addresses a worker as employed when he/she works more than twelve hours per week whereas Eurostat defines a worker as employed when he/she works more than one hour a week. This means that the employment rate calculated by Eurostat is higher compared to the employment rate calculated by the CPB and therefore the Dutch unemployment rate of Eurostat is lower.

To conclude, the decrease of the Dutch unemployment rate is most likely due to wage moderation and an increase in part-time employment. "The increase in part-time employment, which has indeed been substantial, has been more than matched by an increase in the participation rate, in particular by an increase in the participation rate of women" (Blanchard and Philippon, 2004, p.3). Overall, the Dutch economic performance with respect to employment (persons) and unemployment levels is relatively satisfying compared to other countries. The Wassenaar Agreement introduced several policies from which stimulating part-time and female employment was one of the policies. This could have had an influence on the increasing employment rate/ decreasing unemployment rate. This has been an important social performance of the Netherlands. However, policies may also have less desired effects, such as increasing income inequality. The next subchapter will analyze whether income inequality has increased or decreased in the Netherlands.

3.3 Social performance: Income inequality

Income inequality simply means there exists a disproportionate distribution of total national income whereby the share going to the rich persons in a country is (far) greater than the share going to the poor persons. This subchapter will analyse the development of income inequality by using several studies and in addition the development of the most common measure of income inequality, namely the Gini-coefficient[12].

The Dutch government introduced several policies during the eighties and the nineties focusing on stimulating employment on the one hand and (social) income redistribution on the other hand. Goudswaard and Caminada examined the development of inequality in several countries between 1979-1995. They conclude: "the plotted results for the United Kingdom, the Netherlands, Japan, and Australia seem in line with our hypothesis. These countries combine an above average rise in income inequality with a below average growth rate of social security transfers over the time interval indicated" (Goudswaard and Caminada, 2002, p.10). When comparing income inequality with other countries there are two conclusions to be drawn. First, income inequality increased in the Netherlands during the last few decades.

According to Brakel-Hofmans (2007, p.7) "the income differences in the Netherlands were larger in 2005 compared to 1977. The increase is mostly due to the expansion of the economy in the mid-80s, which implied increasing wages and stagnating social benefits". After the eighties the increase was relatively stable. Delsen (2000, p.64-65) provides several explanations for the

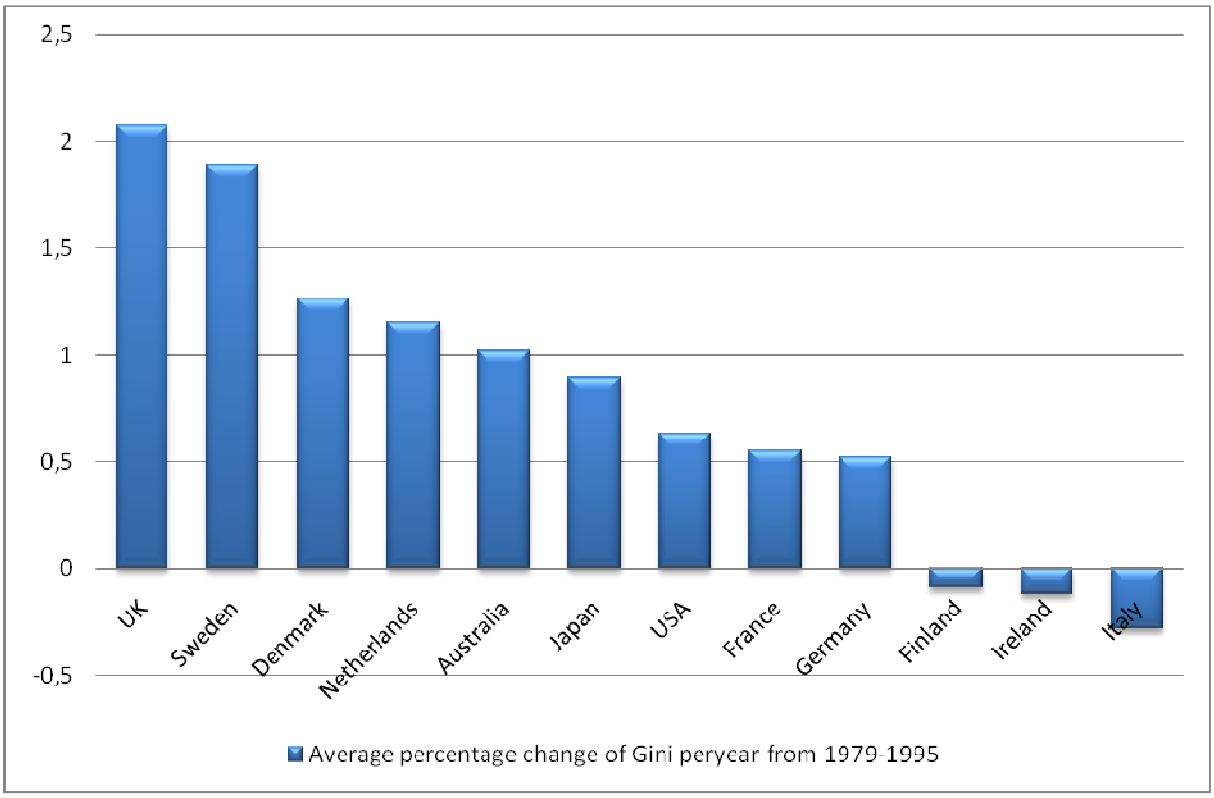
[12] The Gini-coefficient is "an aggregate numerical measure of income inequality ranging from 0 (perfect equality) to 1 (perfect inequality). It is measured graphically by dividing the area between the perfect equality line and the Lorenz curve by the total area lying to the right of the equality line in a Lorenz diagram". (Todaro and Smith, 2006, p.814)

increase in income inequality from the mid seventies towards the mid nineties. It is a combination of several issues summarized below:

- Disconnection of wages and social payments
- More higher educated individuals and less lower educated individuals
- More couples of which both partners work and an increase in the number of working singles
- Increase of rents of houses

According to Delsen (2000, p.65), "the connection between the social minimum and the lowest CAO-scales was restored again in 1996. Because of this measure the inequality and polarization increased to a smaller extent in the next years". This restored connection meant that the statutory minimum wage and mostly the social minimum benefits were connected with the lowest CAO-scales and therefore would grow with an equal rate. The second conclusion states that other countries did not show a larger increase in income inequality. Although all countries experienced some increase in wage inequality, some countries showed an above average increase such as the Netherlands.

*Figure 3.7: Average percent change of the gini per year 1979-1995 for several countries**



** Data for the Netherlands are calculated from 1979-1994.*
Source: Composed on: Goudswaard and Caminada (2002)

Figure 3.7 shows the average increase/decrease of the Gini-coefficient of several countries from 1979-1995. "The average percentage change per year equals the percentage change in the Gini-coefficient over the time frame indicated divided by the number of years in the interval"

(Goudswaard and Caminada, 2002, p.6). Compared with other Rhineland countries, the Netherlands shows the largest increase of the Gini-coefficient of 17,25% from 1979-1994. However, the largest increase of the Gini-coefficient until 1995 is for the United Kingdom. These data only provide an answer with respect to the last decade. Table 3.7 below shows not only the development of the Gini-coefficient after 1995, but also the levels of the coefficients. This is necessary to interpret the changes of the Gini-coefficient over time.

Table 3.7: Gini coefficient for five countries

	1982	**1985**	**1990**	**1995**	**2000**	**2005**
Belgium	-	22,5	25,7	29,8	29,6	28,0
Germany	-	30,0	29,7	31,0	24,6	26,0
Netherlands	24,5	24,2	25,8	25,2	25,5	27,0
UK	25,6	27,7	33,5	31,5	31,5	34,0
US	40,7	41,6	42,7	44,8	45,7	46,4

Source: IMF data: http://www.wider.unu.edu/research/Database/en_GB/wiid/, downloaded 16/11/2009

- *Data are all household adjusted to a national scale.*
- *Belgium (1990) = Belgium (1988) since data were not available for 1989, 1990 and 1991*
- *Germany (1985) and (1990) are data of West Germany.*

Table 3.7 shows a different picture than the data provided by Goudswaard and Caminada. The increase of the Dutch Gini-coefficient is relatively small compared to the other countries while Goudswaard and Caminada (2002, p.16) indicate that "the reforms of the Dutch social system have made the Dutch income distribution more unequal overall". This statement holds when examining the entire period from 1982-2005.

The Dutch government imposed policies to make wages more equal after the Second World War. Income equality can make the system too equal and therefore too rigid. It could be possible that the system was too rigid indeed and therefore that the government wanted to increase the income inequality by imposing more market-based policies. Assuming the data from Goudswaard and Caminada is correct, this could be a reason why the income inequality increased after 1982 since the ideology of the Wassenaar Agreement was a more market-based policy. Income inequality has some advantages especially with respect to the labour market: income inequality creates an incentive to increase performance if there is an opportunity to receive a higher wage.

It cannot be concluded whether the increase of income inequality was desirable or not, however, if the initial situation was too equal, which could have been the case, then the increase of the Gini-coefficient was not a bad development as such. So the Netherlands became relatively more unequal, as regards incomes overall, and which was deliberated policy after the Wassenaar Agreement. Yet compared to other countries the Netherlands is still to be characterized as a relative (income) equal country.

3.4 Policy performance: evaluating wage moderation

In the past decades the policy of wage moderation has been the most powerful instrument used by the government and social partners with regard to international competition. The rise in employment and simultaneously the decline of the unemployment rate in the second part of the eighties was to a certain extent due to the policy of wage moderation, the result of the Wassenaar Agreement.

Despite the positive effects of wage moderation, there are still economists who believe wage moderation is counterproductive in the long run. Kleinknecht and Naastepad (2004, p.417) discuss the need for wage moderation. They say it is only meant to help the inefficient firms to survive because strong technological firms do not need wage moderation. "To increase the level of productivity the Netherlands needs a process of creative destruction, in which weak companies make way for strong innovative companies" (Kleinknecht and Naastepad, 2004, p.417). However, many other economists do not share their view.

Jansen (2004, p.412) computed an empirical research (with the intention to investigate the effect of wage moderation on the development of productivity) with twenty industrial countries and his conclusion is that "the statement of Kleinknecht does not seem to be true. Kleinknecht used reversal causality by stating that causality runs from wages to productivity, however, the opposite is true". Table 3.8 on the next page provides more insight on this debate.

Table 3.8: GDP per capita and GDP per hour and Hours per Head of population from 1987-2004

GDP per capita (US=100)	**NL**	**EU-15**	**EU-25**	**USA**	**JAPAN**
1987	78,5	73		100	76,3
1995	81,8	74,5	67,2	100	83,1
2000	82,7	73	66,4	100	76,3
2004	77,6	72,1	66,2	100	74,2
Total hours per head of population					
1987	575	676		849	973
1995	594	651	674	877	957
2000	679	679	697	911	906
2004	669	683	696	865	869
GDP per hour (US=100)					
1987	116	91,7		100	66,6
1995	120,7	100,3	87,5	100	76,1
2000	110,9	97,9	86,8	100	76,7
2004	100,3	91,3	82,3	100	73,8

Source: Ark, B. Van (2006, p.27)

"The productivity level gap has continued to widen over the past years, and is forecasted to continue to widen during the next few years. Even the historically high productivity levels of the Netherlands were at a similar level as the US in 2004, which is disappointing for a small advanced open economy which typically should benefit more strongly from comparative advantages than large economies" (Van Ark, 2006, p.28). Data from Eurostat are supporting these statements, though Eurostat data are not complete enough to analyze it further.

Productivity may have decreased since the GDP per capita and GDP per hour have also decreased relative to the United States. Decreasing productivity might be due to the growing employment figures in the mid nineties. This implied that also the low productivity workers entered the labour market and therefore on average decreased the productivity level. However, Van Ark (2006, p.28) says "it is also clear from various studies that slow productivity growth due to increased participation is primarily a short term phenomenon… new workers – once integrated in the labour force – very quickly adjust to the productivity levels of incumbents with similar labour characteristics in the labour force. Also, the suggestion that low skilled workers might have significantly added to the productivity slowdown cannot be observed in the data, as – at the same time – structural change has generally led to an upskilling of the labour force".

Jansen (2004) concludes that wage policy is not the right instrument to influence labour productivity. Broer and Huizinga (2004, p.491) conclude almost the same as Jansen. They say: "in our analysis we have tried to examine all the arguments from Kleinknecht and Naastepad. Our conclusion is that they do not have plausible arguments supporting their statement. This means furthermore that wage moderation must be used for restoring equilibrium on the labour market and not for technological purposes at the same time".

To conclude, Gorter and Poot (1998), Visser (1998) and the Central Planning Bureau describe the policy of wage moderation as important for the employment levels and international competition. In addition, Broer and Huizinga (2004) and Jansen (2004) conclude that the policy of wage moderation did not negatively affect the labour productivity. The arguments from Kleinknecht and Naastepad are not very well considered since they state that 'wage moderation has impeded productivity growth'. This statement has not been proved but only rejected: "in the longer run slow productivity growth in Europe is a structural phenomenon that is not much related to work effort but primarily due to an underperformance of modern capital goods and lack of innovation" (Van Ark, 2006, p.29). So a slow productivity growth has nothing to do with wage moderation. Since Janssen (2004) and Broer and Huizinga (2004) both have empirically proven that the arguments of Kleinknecht and Naastepad do not hold so there is no strong evidence to suggest that wage moderation has affected the labour productivity growth in the Netherlands.

3.5 Elaboration on the Dutch performance

The performance of the Dutch social-economic/Polder model has been analysed with respect to growth of GDP (both volumes and per capita), employment and unemployment levels, (social) income inequality and finally the policy of wage moderation. To examine the possible influence of the Polder model on the performance of the Dutch economy (with respect to GDP growth, unemployment and social inequality) is difficult. Therefore, because of a strong interaction between institutional systems and the economy, especially in international context, I assumed that the performance could be explained when examining three criteria whereby the social inequality is thought to be more than the other two measures to be connected with the institutional model. However, there are some other opinions on the measure of the performance of the Polder model such as the model created by Keman.

Keman (2003, p.129) provides a statistical model with two variables to examine the effect of institutional design on labour market performance. The first one is institutional cooperation between social partners and the government. The second variable is consensual behaviour between parties in the government and the parliament. The results can be summarized as follows: "it can easily be seen that institutional designs favouring cooperation are indeed relevant… In countries where institutional cooperation is present and active labour market policies are (more likely to be) pursued by government, the eventual performance in terms of job creation (and thus less unemployment) strongly coincides with- or is even arrested without the help of – a rise in part-time labour" (Keman, 2003, p.129-130). In addition, he finds that the Polder model has indeed an effect on labour market performance namely that, inter alia, the institutional design is

more able to create jobs than other European designs. In his concluding remarks, however, Keman makes several questionable statements.

First, he discusses the existence of a so-called Dutch miracle (cf. Visser and Hemerijck, 1997). The question is why the Dutch labour market needs to be seen as a miracle. From previous subchapters it can be concluded that the Netherlands performed relatively well compared with other Rhineland countries, but it has no significance to call it a miracle or not. Second, "the so-called miraculous performance is by and large produced by means of part-time job creation" (Keman, 2003, p.131). Nickell and Van Ours (2000, p.28) indeed confirm this thought of the importance of part-time employment. Although Keman does not directly attribute the growth of employment to active labour market policy, it has been discussed earlier in chapter one that the growth of part-time employment was to some extent due to labour market policies created by the government after the Wassenaar Agreement.

3.6 Summary and conclusion

The importance of the Dutch social-economic/Polder model has been examined in the previous subchapters. The Netherlands performed comparatively well with respect to employment and unemployment and the development of GDP per capita from 1982-2007. In addition, the policy of wage moderation has been very important: "the Dutch Central Planning Bureau 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" (Gorter and Poot, 1998, p.17). Increasing the employment in persons has been a great social-economic performance. On the other hand the Netherlands showed an above average increase of the Gini coefficient in the period 1979-1994 and after this period the relative position compared with other countries did not improve. The increase of the Gini coefficient may not be described as an undesirable development since the Dutch labour market may have been too rigid before the Wassenaar Agreement.

With these conclusions it can be stated that the Dutch economic performance was relatively satisfying compared to other countries. The 'Polder model' has therefore been relatively important for this performance (yet exogenous effects also have effects on the economy, for instance world trade). The Calmfors-Driffill hypothesis, as mentioned in chapter two, seems to hold for the Netherlands. A relatively centralized country as the Netherlands has a lower unemployment rate compared with less centralized countries indeed. The data also seem to be in line with the corporatist hypothesis: centralization and coordination seem to improve economic outcomes. To examine the expected performance during an international financial crisis, first the financial crisis needs to be discussed as also the effects on the Dutch economy. This will be done in chapter four.

4. The Financial crisis

Recent developments of the world economy have demonstrated that the global financial crisis has made a substantial footprint on every single economy. The financial system in many countries is shaking and some financial systems need government intervention to survive. This development is called the financial crisis, which started in 2007. The main reason for the crisis is assumed to be the over expansion of credit in the US housing and mortgage market. Of course this was not the sole problem to cause such a global effect. A combination of macro- and microeconomic factors combined with poor regulation led to the current crisis.

In this chapter first the origins and emergence of the financial crisis are analyzed. Second, the effects on the Dutch economy will be examined by the use of three scenarios from the Dutch Central Planning Bureau. Third, the financial sector will shortly be analyzed, as it was the first sector experiencing the effects of the economic downturn. Furthermore, governments from the G-20 took several measures to prevent the financial system to collapse and introduced substantial aid programs to stimulate the economy mainly to prevent further deterioration of the economies. For this reason the Dutch government balance will be examined. This chapter will conclude with a short summary.

4.1 Origins and emergence of the financial crisis

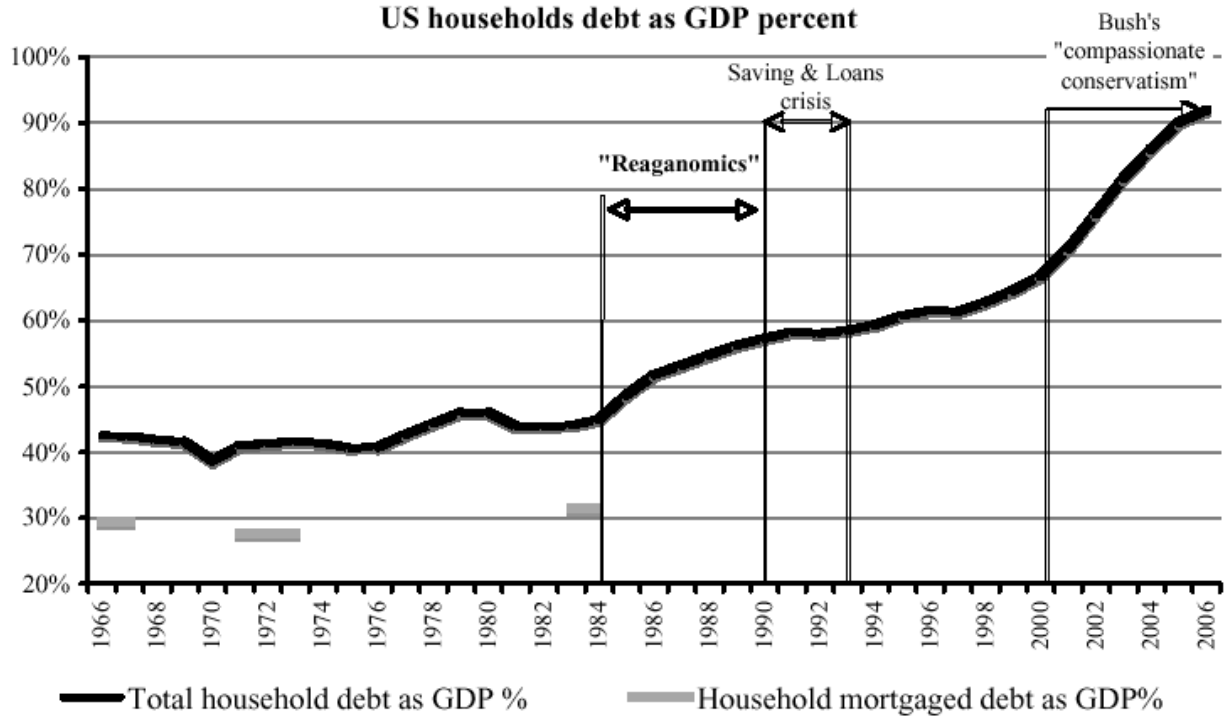
The financial crisis started in the largest and most important economy of the world: the United States. In the mid-90s the United States faced a considerable stock bubble. This increased the wealth of the average American who invested his/her savings in the stock market. This was the cause for the consumption boom following in the late 90s, creating a growth in consumption and especially in imports. The American savings rate decreased to almost 2% around 2000. Consumers were able to buy a second house due to their increased wealth. However, in the short run the number of houses is fixed so an increase in the demand for houses implies a price increase.

The economic term 'self-fulfilling prophecy' became reality when the increase in prices started to affect the expectations. The expectation of increasing house prices led consumers to buy even faster and pay more for a house than its real market value. On the other hand, the increase in rents was modest. According to Baker (2008, p.74), "the fact that rents had risen by less than 10 percent in real terms should have provided more evidence to support the view that the country was experiencing a housing bubble". Due to the loss of faith in the stock market in the years 2000-2002, millions of consumers thought investing in the housing market would be a reasonable and profitable alternative.

Although the demand for houses increased, there were additional factors causing the housing bubble to grow even more. The Federal Reserve Board lowered the interest rate to stimulate domestic consumption. The mortgage interest rates followed the same pattern. Baker (2008, p.74)

states that the Federal Reserve Board chairman Alan Greenspan added some fuel to the fire by suggesting homebuyers should focus more on adjustable mortgage rates. This made homebuyers still able to buy larger mortgages with the adjustable mortgage rates. "But as a result, total household outstanding debt jumped to 94% of US GDP during the same period, a clear departure from the long-term trend" (Sapir, 2008). This is shown in figure 4.1 below.

Figure 4.1: US household debt as percentage of GDP



Source: Sapir (2008), Global finance in crisis.

The mortgage market created a credit bubble. Sapir (2008, p.85) puts forward that "the mortgage-market had become divorced from the general level of economic activity and was boosted purely by speculation."

The developments in the housing market were beginning to create the first visible bursts in the bubble in the beginning of 2007. This means that a turnaround was about to start: housing prices would start to decrease and the supply of houses would increase. The building of new houses grew extremely and it led to over-supply, which had the result that housing prices could no longer be supported. The result was that people started to realize (given the decreasing house prices) that the value of their assets was substantially lower than the real value of their mortgage. This had another strengthened impact on the supply of housing on the market. In the areas where the crisis came hardest, the number of foreclosures exceeded the sales by the end of 2007.

The bank's point of view: Wrong incentives

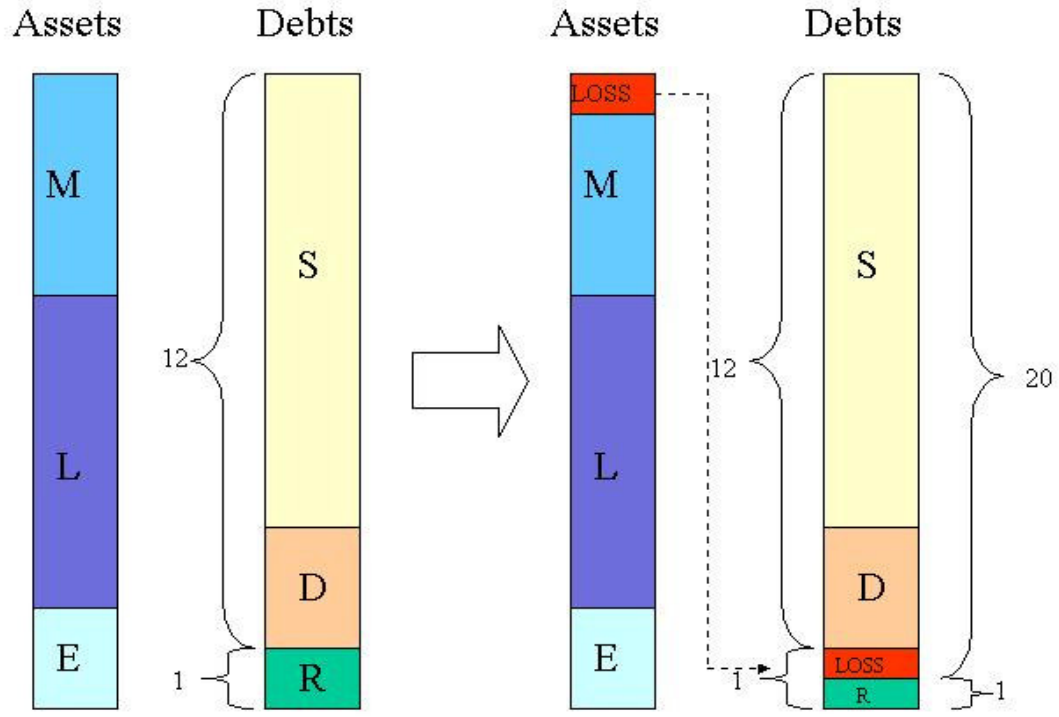
Baker puts forward that misplaced incentives for instance existed in the secondary market. "This process was central since it was the existence of the secondary market that gave mortgage issuers

incentives to approve mortgages where they knew that the borrower would be unable to meet the terms of the mortgage. The issuers generally faced little risk once the mortgage was sold into the secondary market, so their incentive was to issue as many mortgages as possible" (Baker, 2008, p.77). Also mortgage appraisers who operated as independent contractors had incentives to approve every demand for a mortgage. The mortgage issuers themselves also had incentives to sell as many mortgages as possible. The bonus culture stimulated these wrong incentives even more. Mortgages issuers sold their mortgages to banks.

The next step was that banks bundled these loans into mortgage-banked securities (MBS), which as a consequence implied that securitizers were not paying any valuable attention to the quality of the loans. In total, there were for 45,500 billion dollars invested in MBS's. The upcoming crisis made these MBS's decrease in value as well as other instruments part of a MBS. "Investors could have little confidence in the security of a wide-range of assets and institutions, since it was not generally possible to know the extent that they were exposed to bad mortgage debt." (Baker, 2008, p.79-80). More specifically, it was impossible to see the level of risk. Bond rating agencies had to value these instruments; however, they had incentives to give the mortgage-banked securities high ratings so the bank would hire them again.

Banks had problems with their assets because the mortgages they financed were severely undermined. Sapir (2008, p.92) adds to this discussion: "MBS became an important financial tool in a highly competitive context, where even small profit-rate gains could change the values of bank stocks… the process of issuing 'derivatives of derivatives' totally destroyed accountability and transparency of the mortgage industry". The loss of credit due to the loss of the subprime mortgages is illustrated in figure 4.2 below.

Figure 4.2: Credit loss due to the subprime losses



Source: Composed on: Gelauff (2009)

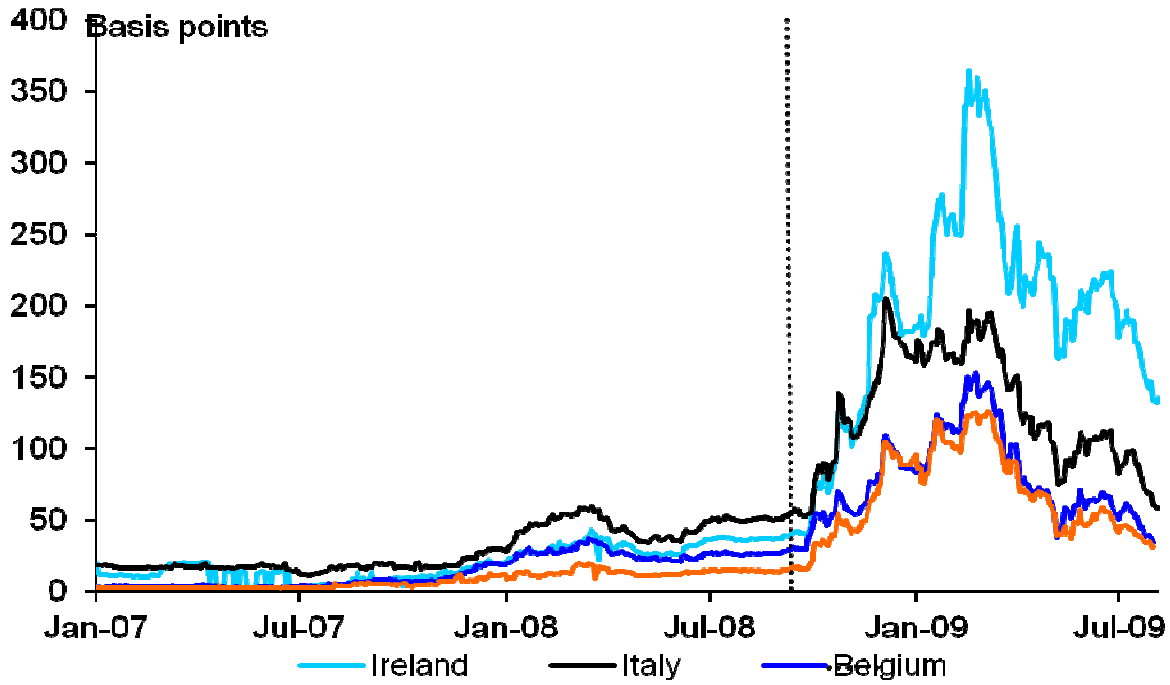
The assets of the US banks consisted of mortgages (M, given to home owners), loans (L, given to companies, governments and other banks) and effects and derivations (E). The debts consisted of savings (s), debts (D) and finally reserves (R), whereby the ratio of reserves with respect to savings plus debt is equal to about 1:12. Due to the loss on subprime mortgages the ratio increased as can be seen on the right of the figure. The 1.000 billion dollar subprime loss converged to a 12.000 billion dollar loss of credit, and it changed the leverage as well of reserves to debts up to 1:20. This is just an example of how fast the subprime losses were translated in much larger losses of credit.

Crisis spreads to the world

The crisis could easily spread towards the rest of the world because, for example, European banks had large shares of investments in bundled American mortgages from which the crisis in the United States could easily transfer. Banks deposed their bundled mortgages outside their balance sheet into separate funds (SPV's), which made them able to reserve less capital. "When these different funds started to collapse the banks needed to finance the losses due to jurisdiction or the threat of reputation loss and therefore they needed to account for their losses" (Bijlsma and Suyker, 2008, p.4).

The difficulty for banks was that they could not see the difference between a good and a bad loan. When the Lehman Brothers went bankrupt on September 15th 2008, the internal banking sector fell apart due to a loss of trust. Bijlsma and Suyker (2008, p.3) state that "consumers lost their fate in the banks and some banks (i.e. Fortis) saw customers withdrawing their savings. The government in the Netherlands for example could not do anything else than to nationalize the bank". The figure on the next page is an example of the effect of the fall of the Lehman Brothers on the interest market.

*Figure 4.3: The price of credible policy for four countries**



** The red (lowest) line represents the line of the Netherlands.*
Source: Lejour, A. (2009), The great recession. CPB about the credit crisis, downloaded on 04/09/2009

The lines represent the interest difference over time measured in basis points. The numbers indicate the difference between the interest rates of (safe) government bonds in Germany and other countries. The other European countries have to pay a higher rate. This is often interpreted as a market signal that these countries are less credible than Germany. This increasing perception of risk is a signal of incredible policy. The vertical line represents the exact moment of the fall of the Lehman Brothers in the United States. It can be said after the fall of the Lehman Brothers the trust in the market decreased heavily.

Global policies

"IMF Chief Economist Olivier Blanchard told reporters that the world economy was being battered by competing crosscurrents, with the collapse in confidence and demand continuing to pull the economy down, and government stimulus measures and natural stabilization mechanisms pulling the economy up" (IMF online survey, 2009). Many countries have come up with expensive aid programs and policies to counter affect the downturn effects from the crisis. The Dutch government gave public aid to several banks to prevent them from collapsing. Those policies worked but not one government succeeded in preventing a recession. The policies introduced by governments were rapid and diverse: "authorities have followed multifaceted strategies involving continued provision of liquidity and extended guarantees of bank liabilities to alleviate funding pressures, making available public funds for bank recapitalization, and announcing programs to deal with distressed assets" (IMF World Economic Outlook, 2009, p.6). However, policies did not always have their desired effects since "policy announcements have often been short on detail and have not convinced markets; cross-border coordination of

initiatives has been lacking, resulting in undesirable spillovers; and progress in alleviating uncertainty related to distress assets has been limited" (IMF World Economic Outlook, 2009, p.6).

"The greatest policy priority at this juncture is financial sector restructuring. Convincing progress on this front is crucial for an economic recovery to take hold and would significantly enhance the effectiveness of monetary and fiscal stimulus" (IMF World Economic Outlook, 2009, p.14). Furthermore, this could restore the lost confidence in the financial system and boost consumers' and producers' trust.

However, policies differ between countries. The United States imposed a spending bill to stimulate the domestic economy while Europe was more than the United States searching for a coherent policy response. Greater international cooperation is even more needed to avoid exacerbating cross-border strains. Coordination and collaboration is particularly important with respect to financial policies to avoid adverse international spillovers from national actions. Even though policies must be coordinated internationally, the differences between domestic situations and policies create differences in the strength and speed of recovery from this international crisis. These differences in policies are not discussed further, since these will be brought to attention in the next chapter.

The IMF estimated the shrink of the global GDP by an annualized number of 1,3% in 2009. The effect for the Netherlands as well for other countries can only be estimated since it cannot be predicted for certain how the world trade, oil price and stock markets will behave on an entire year. However, the effects for the Netherlands can be described to some extent. The effects for the Netherlands will be described in the following subchapter, but first some structural characteristics of the Netherlands are illustrated in table 4.1 on the next page. This table gives some information on the relative weaknesses of the Dutch economy.

Table 4.1: Structural figures of four countries[13]

	Germany	Netherlands	UK	US
Share mortgages with variable interest rate in %	72	15	72	33
Probability (%) of fall in housing prices after increase of interest rate of 1%-point	0,0	2,7	8,9	11,5
Nominal increase housing prices 2002-2006, average per year (%)	-1,5	4,6	11,0	8,4
Labour share in income industry 2006	72,2	63,7	76,3	71,0
Exports in % of GDP, average of 2000-2007	38,8	68,7	26,6	10,6

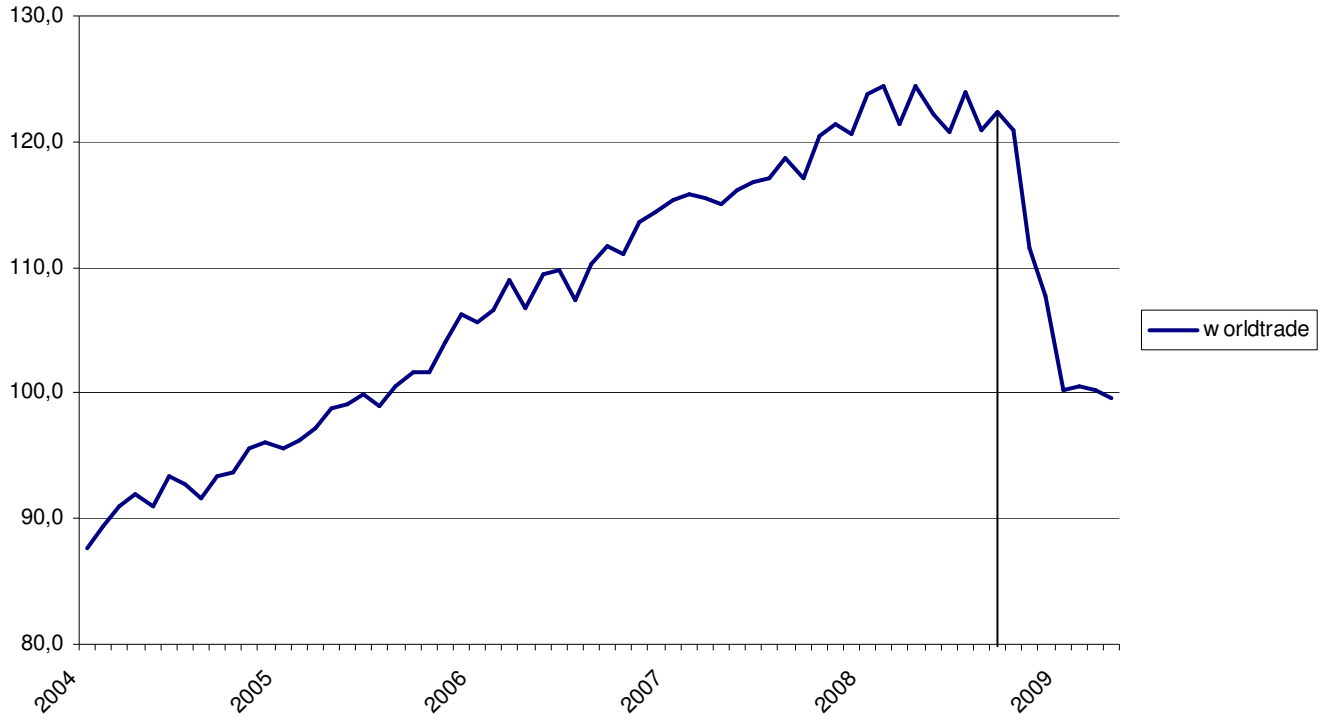
Source: MEV (2009, p.15)

Table 4.1 illustrates some structural figures for four countries. The share of mortgages with a variable interest rate is low, so the probablitity of large financial problems for Dutch households is expected to be small. Second, "the probability of a substantial housing price decrease as a result of an increase of the interest rate is relatively small in the Netherlands" (MEV, 2009, p.15). The moderate increase of the nominal housing prices also had an effect on this. Third, the labour share in income is relatively low in the Netherlands. "This means that the profitability was relatively high and it will not move to the danger zone when it should decrease" (MEV, 2009, p.15).

The sensitive spot of the Dutch economy is the relatively open character. The decreasing world trade has a relatively strong impact on the Dutch economy. According to calculations from the Central Planning Bureau, a 1%-point lower growth of relevant world trade implies that, ceteris paribus, the Dutch GDP-volume decreases with 1/3%-point. Figure 4.3 on the next page shows the development of world trade from 2004 to the first few months of 2009. It can be seen that world trade crashes in just a few months, starting at the fall of the Lehman Brothers.

[13] The table provides some insight in the structure of the Dutch economy. A comparison with other countries has not been made because it will be shortly mentioned in chapter five and for the current analysis it was not necessary to gather the same information for Belgium.

Figure 4.4: Development of world trade from 2004-2009 (2005=100)



Source: CPB (2009) The great recession. CPB about the credit crisis, downloaded on 04/09/2009

The fall of the Lehman Brothers, which is due to the financial crisis, can be seen in the graph by the vertical line.

The following subchapters will first analyze effects on the Dutch economy by examining some scenarios. The Dutch Central Planning Bureau created these scenarios and the latest projections are made in September 2009. These scenarios will be discussed briefly. Second, the financial sector will shortly be analyzed, as it is the first sector experiencing the effects of the economic downturn. Third, the Dutch government balance will be examined due to substantial aid programs imposed by the Dutch government. These topics will be highlighted to give an impression of the impact of the financial crisis on the Dutch economy. Comparisons with other countries will be made in chapter five.

4.2 Projections for the Netherlands

Table 4.2 on the next page summarizes projections of the Netherlands for 2009 and 2010. The estimated key figures are shown four times: two projections from June 2009 (A) and September 2009 (B) and two estimated scenarios. The first estimated scenario (C) shows the effects on the key figures in case of a beneficial development of world trade in keeping up with higher import prices. The second scenario (D) shows the effects on key figures in case of a dissapointing development of world trade and devaluation of the euro.

Table 4.2: Projections for the Netherlands

	A		B		C**		D**	
	2009	**2010**	**2009**	**2010**	**2009**	**2010**	**2009**	**2010**
International items								
Relevant world trade volume	-15,25	1,75	-14,75	2,5	1,2	5	-0,7	-3
Import price goods	-6,75	-0,5	-6,5	-0,25	1,2	4,4	0,4	2,8
Crude oil price (level in $ per barrel)*	55	61	58	65	3,8	15	0,0	0,0
Long term interest rate*	4,0	4,0	3,75	4,0	0,3	1,0	0,1	0,3
Demand and foreign trade								
GDP	-4,75	-0,5	-4,75	0,0	0,3	1,1	-0,2	-0,9
Private consumption	-2,75	-1,0	-2,75	-0,75	-0,1	-0,8	-0,1	-0,7
Export of goods (excl. Energy)	-16,25	0,5	-13,75	3,0	1,1	4,4	-0,6	-1,9
Gross fixed investment, private non-residential	-14,75	-13,0	-14,0	-9,5	0,3	1,1	-0,4	-2,9
Wages, Prices and PPP								
CPI	1,0	1,25	1,0	1,0	0,1	1,0	0,0	0,3
Contractual wages market sector	3,0	1,5	3,0	1,5	0,0	0,9	0,0	-0,3
Market sector								
Labour productivity	-4,25	6,0	-3,75	5,5	-	-	-	-
Employment (labour years)	-2,75	-6,5	-2,5	-5,25	0,0	0,5	0,0	-0,3
Labour share of enterprise income	85,75	81,75	81,25	78,5	-	-	-	-
Public finances								
EMU balance (% of GDP)	-4,1	-6,7	-4,6	-6,2	0,1	0,5	0,0	-0,3

A = projections June 2009
B = projections September 2009
C = estimates with positive world trade development
D = estimates with negative world trade development

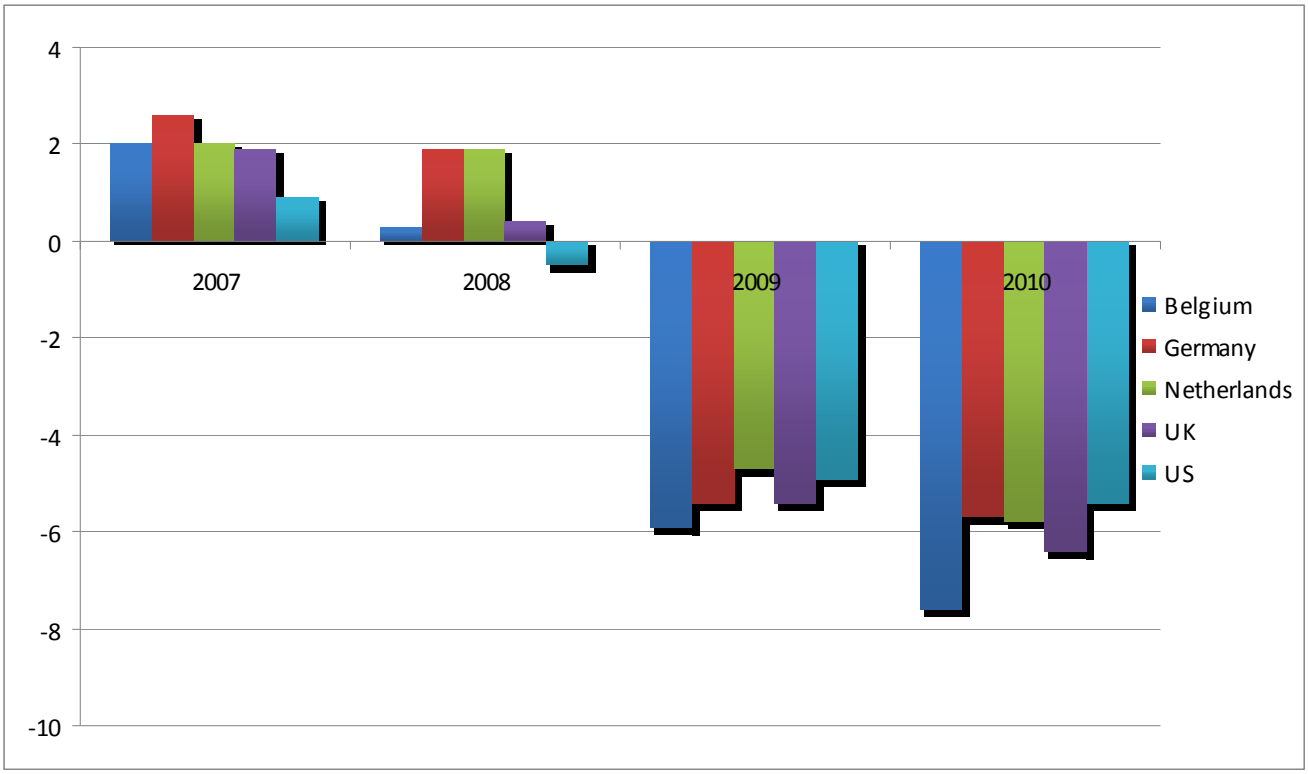
Source: Abbing (2009, p.5), CPB memorandum, the credit crisis and the Dutch economy 2009-2010 and MEV 2010, p.13.

**The crude oil price is shown in levels of dollars per barrel in scenarios A and B whereas it is shown as percentage changes in scenarios C and D. The long-term interest rate is shown as a level in scenarios A and B whereas it is shown as a percentage change in scenarios C and D.*

*** Scenarios C and D represent cumulative deviations from the central projection. For example, Scenario C GDP growth of 2010 is 1,1%, this means a cumulative growth of 1,1% in 2009 and 2010 compared to the central projection of 0,0% in 2010.*

Table 4.2 on the previous page summarizes estimated key figures of the Netherlands for 2009 and 2010. The Dutch economy shrinks without any doubt in 2009. The estimates of September are less somber compared to the estimates of June. Still, the Dutch economy is thought to face an economic decline that can be titled as the most severe economic downturn period since the Great Depression in 1929. The usual trend of the Dutch economy is a growth of approximately 2%. Even if the Dutch economy is expected to face a growth of 0% in 2010, it implies a GDP loss of 9% if the shrink of 2009 is taken into account. These losses of potential GDP are defined as output gaps. Graph 4.4 illustrates these output gaps for the five countries under analysis. All the data are percentage changes from previous years. Output gaps can be defined as deviations of actual GDP from potential GDP as a percentage of potential GDP. It actually means the loss of potential GDP in percentages due to the financial crisis.

*Figure 4.5: Output gaps 2007-2010 for five countries**



** Data for 2009 and 2010 are estimated*
Source: OECD (2009), Economic Outlook, nr.85

It can be concluded that the Netherlands performs relatively slightly above average since the Dutch performance is best in 2008 and 2009 and second best in 2007.

Scenario B seems the most "natural" scenario of the Dutch economy. Scenario C implies a faster recovery of (relevant) world trade. This can be triggered in theory by a faster recovery of consumers' and producers' trust, which could cause consumers to spend more and producers to produce more and increase their stocks. This (faster) recovery leads in scenario C to an increase of relevant world trade and thus also an increase of oil and resource prices. "The additional production and higher degree of capacity utilization due to increasing exports leads to additional investments and therefore increases employment in 2010" (MEV 2010, p.13). The cumulative growth of GDP (2009 and 2010) will be approximately 1,1% higher.

There is also the possibility of a disappointing recovery where the economic situation could worsen, as shown in possible scenario D. The Central Planning Bureau mentions a possible financial ruin of one of the Baltic States as an example that could cause a lower growth of relevant world trade and a weaker position of the euro. "The modern recovery in the central projection (B) would then disappear like snow in summer" (MEV 2010, p.13). In such a scenario the Dutch economy would shrink in 2010 for the second year in a row. Despite these scenarios there is still some uncertainty about the future development of the Dutch economy. The most uncertain point at the time of writing is the strength of recovery.

The question arises what the relative performance of the Netherlands will be compared to other countries, and what could be said about the influences of the Polder model? This will be discussed in chapter five. This chapter will now focus on several specific effects of the crisis on the Netherlands with respect to the Dutch financial sector and government balance[14].

4.3 Effects on the financial sector

The effects of the credit crunch were felt the hardest in the financial sector. Dutch banks had a relatively small interest in bundled American mortgages and due to the financial crisis some of their assets decreased. Insurance and pension companies were hit hard and the internal money markets in the Netherlands started to shrink. The Dutch inhabitants simply did the rest: first, speculators sold their bonds and stocks that made the stock market decreased substantially. Second, Dutch consumers started to spend less and even withdrew certain amounts of their savings from banks. The Dutch government had to intervene to prevent a severe depression.

Table 4.3 on the next page provides a summary of the financial aid the government gave to several banks in the Netherlands to prevent them from collapsing.

[14] The examination of the effect of the financial crisis on consumers has been added in the appendix since it did not prove to be a valuable addition to this thesis. However, consumers will ultimately feel the consequences of for instance additional expenditures by the government. For that reason the examination on consumers has been added in the appendix.

Table 4.3: Financial aid given by the Dutch government[15]

Bank	**Amount of financial support**
FBN*	€17,000,000,000
Transitional arrangement FBN	€50,000,000,000
from which FBN paid back	*€34,000,000,000*
ING**	€10,000,000,000
AEGON	€3,000,000,000
SNS	€750,000,000
Total	€46,750,000,000
Guaranteed financial aid for loans	€200,000,000,000
Part used of this aid:	€12,500,000,000

** FBN = Fortis Bank Nederland (including ABN-Amro)*

*** ING has paid the Dutch State 425 million euros back but this is only an interest payment*

Source: CPB Memorandum, Bijlsma & Suyker (2008, p.6) ,CEP 2009, p.86 and www.minif.nl

As has been shown in table 4.3, Dutch banks received considerable amounts of government aid. The amount of financial aid has become a relatively large share of the Dutch Gross Domestic Product. In addition, as stated in CEP (2009, p.86) "the Dutch government has promised to guarantee for 200 billion euros for new loans between banks and between institutional investors and banks[16]". At the time of writing only 12,5 billion euros has been used of this amount. The aid provided by the government had an impact on government balance. Subchapter 4.4 will examine the effect of the financial crisis on government expenditures.

4.4 Effects on the government balance[17]

"When the three coalition partners CDA, PvdA and ChristenUnie signed their coalition agreement they expected the EMU debt to be around 40% for 2010. However, it is expected to be close to 62%" (Abbing, 2009, p.7). Furthermore, they expected to have a 1,0% GDP surplus, which is probably going to be a 5,6% GDP deficit. The government budget will be under significant pressure.

[15] Data has been used until the end of October 2009.

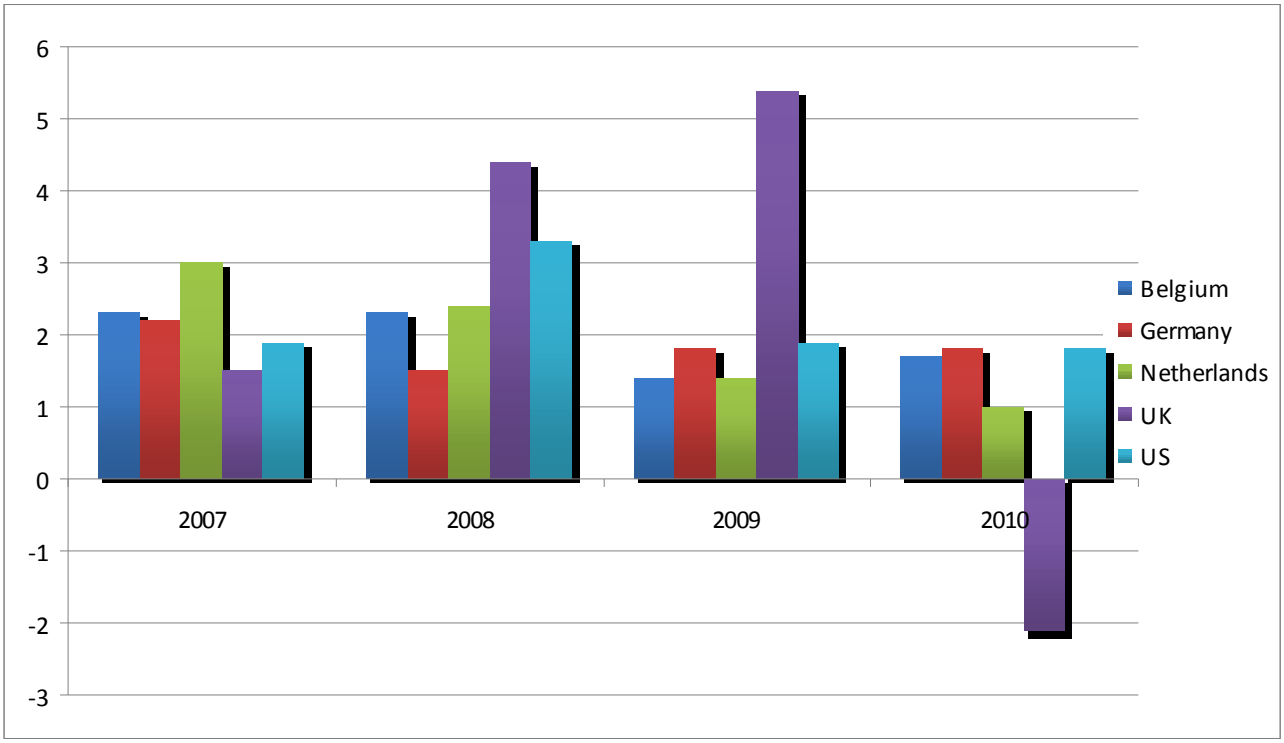
[16] The 200 billion euros, despite the fact that they are just guarantees, are forming a considerable risk for the government balance. Bas Jacobs (2009, p.2) puts forward if the banks are getting into trouble again (for what reason), the guarantee of 200 billion euros will become a large problem and able to disrupt the government balance to a severe extent.

[17] The government balance is actually in balance when the incomes equal expenditures. The government balance can have a deficit when expenditures are larger than incomes. These cumulative deficits add up to a stock of deficits, referred to as government debt.

First, according to Abbing (2009, p.7), EMU debt will be about 10 percent point higher in 2010 due to the deficits on the government balance in 2009 and 2010. Second, if GDP growth stays behind or the Dutch economy needs more time to recover than as a result tax revenues may be under pressure as well.

The challenges for the government finances in the long term have become significantly greater as a result of the crisis. The voter often determines her vote based on the condition of the economy in the year of the elections. The government knows this and may decide to increase expenditures once more in 2010/2011 (at the time of elections) and this negatively affects the government budget and the EMU balance. Furthermore, natural gas profits are expected to decline from 2,4% of GDP in 2008 to 1,1% of GDP in 2010 and in addition the deficit of local governments is expected to increase. The following figure shows real public consumption expenditures from 2007-2010.

Figure 4.6: Real Public Consumption expenditure (PPS) 2007-2010



Source: OECD (2009), Economic Outlook, nr.85

Figure 4.5 shows the real public consumption expenditures. These can be interpreted as all current expenditures of goods and services by all levels of government. This includes capital expenditures and transfer payments. All data are percentage changes from previous years and all data are in purchasing power standards to eliminate price effects. The Netherlands appears to be (on average) in the middle whereas the Anglo-Saxon countries are expected to face the largest public expenditures, except for the United Kingdom in 2010.

The government balance of the Netherlands was relatively good compared to the European average level. According to the Central Bureau of Statistics the Netherlands even achieved a positive balance in 2008 against the trend in Europe (figure is attached in the appendix). This was

mainly due to the nature of the aid programs of the government. "Although the debt increased, the assets of the government in for example stocks and borrowings increased as well. This balance neutral aid created a positive government balance in 2008" (Jansen, CBS Web magazine, 2009). Despite these positive figures over the past few years, a downturn is expected for the coming years.

4.5 Summary and conclusion

According to Sapir (2008, p.101) the current crisis is "the creation of the conservative revolutions of the 80's and 90's in the USA and some European countries. It is a crisis for and created by neo-liberal policies and thinking". The belief that 'banks would not make risky investments because it is bad for their own business' turned out to be false. The bonus culture stimulated these wrong incentives even more to sell as many as mortgages as possible. Banks bundled these mortgages into MBS's, whereas the upcoming crisis made it impossible to know whether the MBS's were exposed to bad mortgage debt. Deregulation made the crisis spread towards the rest of the world. Furthermore, foreign banks bought bundles of American mortgages and therefore were exposed to bad mortgage debt.

The central projection of the Netherlands shows a deep recession in 2009 but some recovery in 2010. The strength of the recovery depends on the development of relevant world trade. With an expected worsening government balance (i.e. an increasing EMU-debt), a strong recovery is not at hand. In the next chapter the expected 'recovery' of the Netherlands will be compared with the recovery of the four other countries under analysis. The hypothesis will be tested whether the Netherlands performs relatively well compared to the other countries due to the Polder model.

5. The Polder model and the financial crisis

This final chapter will give an indication of the influence of the Polder model on the Dutch economic performance in the years 2007-2010, where 2009 and 2010 are estimated. More specifically, the differences in the extent of the deterioration and possible recovery between countries are discussed and therefore the role of the Polder model will be explored. The possible influence of the Polder model on the expected performance of the Dutch economy is very difficult to demonstrate. Therefore, as said earlier because of a strong interaction between institutional systems and the economy, especially when adjusted to the international context, I will assume that the performance of the Dutch model can be illustrated when examining the criteria: GDP growth and employment and unemployment and the degree of income inequality.

In contrast with chapter three, data of the Gini-coefficient are not available for 2009 and 2010 since expectations with respect to income inequality are very unusual. Estimations for the Netherlands will therefore be made based on outcomes of expected policies imposed by the Dutch government. After analyzing the differences in performance of the countries under analysis between 2007-2010, economic explanations will be given for differences in recovery/deterioration while also the role of the Polder model will be explored with respect to the Dutch economic situation after and during the crisis.

Finally, the hypothesis (thanks to the Dutch consensus-oriented system, often referred to as the 'Polder model', the Netherlands will perform relatively well compared to Belgium, Germany, United Kingdom and the United States with respect to employment and unemployment, GDP growth and income inequality during the financial crisis and beyond) will be taken up and it will be checked whether the hypothesis should be rejected or not.

5.1 Economic growth in terms of GDP

This subchapter will focus on GDP growth since the crisis began. An explanation of the measure GDP has been given in subchapter 3.1. Table 5.1 on the next page shows the growth rates of GDP (PPS, based on volumes) for the Netherlands, two Rhineland countries (Belgium and Germany) and two Anglo-Saxon countries (United Kingdom and United States) as of 2007.

Table 5.1: GDP (PPS) growth rates for five countries from 2007-2010

	2007	2008	2009*	2010*	Average
Belgium	-2,6	-1	-3,6	0,8	-1,6
Germany	2,6	-1,8	-4,3	0,7	-0,7
Netherlands	3,5	-0,8	-4,3	0,5	-0,3
UK	3	-2	-3,3	1,1	-0,3
US	2	-0,8	-1,7	1,5	0,3

* *Data of 2009 and 2010 are estimations*

Source: Database OECD (2009), Economic Outlook nr. 85, downloaded on 24/10/2009

It can be concluded from OECD data that the Netherlands is predicted to perform on average compared to the other countries, despite the relatively high growth rate in 2007. The Netherlands is expected to show the highest decrease of its GDP in 2009 and the lowest growth rate in 2010. However, on average the Netherlands does perform second best but this is due to the high growth rate in 2007, which is before the credit crunch began. Eurostat shows a different picture, as is shown in table 5.2 below.

Table 5.2: GDP (PPS) growth rates for five countries from 2007-2010

	2007	2008	2009*	2010*	Average
Belgium	2,9	1,0	-3,5	-0,2	0,1
Germany	2,5	1,3	-5,4	0,3	-0,3
Netherlands	3,6	2,0	-3,5	-0,4	0,4
UK	2,6	0,6	-3,8	0,1	-0,1
US	2,1	0,4	-2,9	0,9	0,1

* *Data of 2009 and 2010 are estimations*

Source: Database Eurostat, downloaded 01/11/2009

The data from Eurostat are similar to the OECD data with respect to the relative bad performance of Germany and the relative good performance of the United States. According to Eurostat, however, the Netherlands is predicted to perform on average relatively best.

Table 5.3 on the next page illustrates volume indices of GDP per capita for the five countries under analysis. All data are in PPS to eliminate price effects.

Table 5.3: GDP per capita (PPS) for five countries from 2006-2010, (US 2006 = 100)

	2006	**2007**	**2008**	**2009***	**2010***
United States	100	104	103	98	100
Belgium	75	79	77	75	76
Germany	73	76	78	73	75
Netherlands	83	87	91	85	86
United Kingdom	76	79	79	75	76

** 2009 and 2010 are estimates*

Source: Eurostat Database and own calculations, downloaded 24/10/2009

Table 5.3 illustrates volume indices of GDP per capita for the five countries under analysis. US 2006 has been chosen as base year. All countries witnessed an increase of their GDP per capita in 2007 and a decrease in 2009. The Netherlands performs relatively best in the projection from 2006-2010 despite the large decrease in 2008-2009. It can be concluded that the Rhineland countries seem to return relatively stronger from the financial crisis (in 2010) compared to the Anglo-Saxon countries.

GDP (volumes and per capita) is expected to decrease in 2009 and for some countries also in 2010. On average the Netherlands is not expected to perform worse relative to Belgium, Germany and the United Kingdom. However, this performance is due to the performance in 2007 and 2008 whereas the Netherlands is expected to face the largest decrease in its GDP per capita in 2009. The crisis is therefore expected to have a considerable influence on the Dutch economy.

5.2 Performance of employment and unemployment

The development of employment depends on the progress of the recovery of the financial market and the development of relevant world trade. Table 5.4 on the next page illustrates percentage changes of employment levels from 2007-2010 whereby the last two years are estimated.

Table 5.4: Percentage changes on employment levels in millions of persons for five countries from 2007-2010

	2007	2008	2009*	2010*	Average
Belgium	1,8	1,6	-1,6	-1,0	0,2
Germany	1,7	1,3	-0,6	-3,2	-0,2
Netherlands	3,7	1,7	-0,9	-3,3	0,3
United Kingdom	0,7	0,8	-1,9	-1,3	-0,4
United States	1,1	-0,5	-3,3	0,6	-0,5

** 2009 and 2010 are estimates*

Source: Database IMF and own calculations, downloaded 01/11/2009

From IMF data[18] it can be concluded that the Netherlands performed best in 2007 and 2008. The decrease in Dutch employment levels is estimated to be relatively low in 2009 but it seems to be the highest in 2010. Although the Netherlands performs best on average, this is due to the growth rates in 2007 and 2008.

For the analysis data on unemployment are gathered from the OECD. Table 5.5 shows partly estimated unemployment rates (yearly, average) for the five countries under analysis from 2007-2010.

Table 5.5: Annual average unemployment rate for five countries from 2007-2010

	2007	2008	2009*	2010*	Change in % (2007-2010)
Belgium	7,5	7	9,3	11,2	49,3
Germany	8,3	7,1	10,3	11,8	42,2
Netherlands	3,3	2,8	5,2	7,6	130,3
United Kingdom	5,4	6,3	9,1	9,8	81,5
United States	4,6	6,9	10	10,1	119,6

** Data of 2009 and 2010 are estimated, and therefore also the averages*

Source: OECD World Economic Outlook nr.85 (2009), database

Table 5.5 illustrates the development of the unemployment rate where the OECD estimates the figures of 2009 and 2010. The last column shows the average change of the unemployment rate for every country. The OECD estimation for the Dutch unemployment rate in 2010 is 7.6% whereas the CPB (MEV, 2010) predicts an unemployment rate of approximately 8.75%. The

[18] OECD, CPB, CBS and Eurostat did not publish data on employment levels for 2009 and 2010.

variation is for instance due to a different definition of unemployment as already has been explained in previous chapters.

The relative position of the Netherlands with respect to the unemployment rate is good but this is predominantly due to the initial situation. At the start of the financial crisis the Dutch labour market was relatively tight. Whereas other countries were already facing problems on their labour markets, the Dutch labour market was in a better initial situation. Furthermore, the Dutch labour market is more flexible since the temporary employment line of business is very well developed in the Netherlands. This flexibility, ceteris paribus, has kept the unemployment rate low when compared to the other countries under analysis. From the table it follows that the expected increase of the Dutch unemployment rate from 2007-2010 is more than 130%, which is the highest from the countries under analysis.[19]

The Dutch government was able to stall the increasing unemployment rate to some extent by the 'part-time unemployment benefits' (deeltijd-WW), "but the Dutch unemployment will still increase even if production is increasing in 2010" (MEV, 2010, p.46). The estimated effect of the part-time unemployment benefits is 10.000 saved jobs in 2009 and 25.000 saved jobs in 2010. Despite the efforts made by the government still one-third of these jobs are expected to vanish after the financial crisis because some companies would have been prevented to fire some employees. Now the government is financing the jobs instead of the companies.

5.3 The development of income inequality

Since data on the Gini-coefficient are not available for the short period since the crisis began, estimations for the Netherlands will therefore be made based on outcomes of expected policies imposed by the Dutch government. Table 5.6 on the next page provides a partial summary of expected additional government expenditures in 2009 and 2010. The entire table is located in the appendix as table A5.1.

[19] To date, the change of the unemployment rate is less than the expectations/projections from the CPB/Eurostat.

Table 5.6: Additional Dutch governmental expenditures in 2009 and 2010 (in millions of euros)

	2009	**2010**
Restoring employment levels	669	905
Extending liquidity for businesses	678	549
Infrastructure and (house) building	610	1161
Durable economy	446	478
Investments by local governments	500	1000
Subtotal additional stimulating package	*2932*	*4183*
Unemployment benefits/payments (WW and WWB)	1603	4554
Total gross investment	4535	8737

Source: www.minfin.nl/deresource?objectid=72161&type=org and regering.nl: herstel overheidsfinanciën, downloaded 07/10/09.

Table 5.6 shows a summary of expected additional government expenditures in 2009 and 2010. It can be noticed that many of the additional expenditures are focused on stimulating employment on the one hand and providing subsidies for companies on the other hand. Although the largest part of the additional expenditures are aimed to prevent a further increase of the unemployment rate, the unemployment benefit payments are expected to increase massively in 2010. Furthermore, unemployment is expected to increase dramatically in 2010 even if production recovers. This creates the idea that the rise of unemployment is inevitable, even though the increase of unemployment would have been much larger without government intervention.

Although the effects are not penetrated fully into the labour market at the time of writing, the effects will probably become visible soon. Mostly low-skilled workers are the first ones to be affected in the Dutch labour market. This means that immigrants, young people and unskilled workers will face a larger probability of losing their job. These individuals are mostly already located in the lowest wage scales. This means that this could increase income inequality since more people lose their job and receive a lower unemployment benefit payment then their former wage. This means that the Gini-coefficient is expected to increase.

Yet, in 2011 cuts in government expenditures are expected. The expected deficit on the government balance is 5.7% of Dutch GDP in 2010. Total additional expenditures will then be 130 billion euros from which 80 billion was used to support the financial system and 50 billion to stimulate the economy. The government needs to cut expenditures for at least 35 billion euros in the upcoming years. Ironically, the government does not know when and where they will start with executing economic measures. According to opposition parties the government is playing a waiting game and it would slow down 'recovery'. On the other hand, Delsen (2000, p.173) puts forward that "the Rhineland model works best in a stable environment…Consultation/consensus leads to an improvement of the quality of products and processes. The fact that it takes time is therefore irrelevant". The features consultation and trying to reach consensus are important

aspects of the Polder model and apparently still being used in practice by the parties concerned[20]. Although the government has yet to decide where to cut expenditures, it will partly be based on the following scheme:

Table 5.7: Expected cuts and expenditures by the Dutch government in 2011

Growth GDP g in % 2010	**Measures by the government**
If g > -0,5	The stimulating policy of 2010 (additional 3 billion euros) will be extended to 2011. However, there will already be a cut of 1,8 billion euros.
If -0,5< g < 0,5	The stimulating policy equals the cuts in expenditures, so both will equal 1,8 billion euros.
If g> 0,5	Expenditures will be cut with 1,8 billion euros.

Source: regering.nl: herstel overheidsfinanciën, downloaded 07/10/09

Table 5.7 illustrates stimulating policies in 2011 based on the growth rate of GDP in 2010. For all three scenarios it yields that the government will cut expenditures for 1,8 billion euros. This is in great contrast with the necessary cuts of 35 billion euros. This underlines the previous statement that the Dutch government does not know where to cut expenditures. It is difficult to derive conclusions based on the stimulating expenditures and the expected cuts in expenditures of the Dutch government because the Dutch government needs an additional year[21] (even when the financial crisis is already two years old) to come to a policy. When policies are still unknown it is difficult to estimate the development of income inequality in the Netherlands.

The stimulating packages from the government are intended to stimulate production and employment. Companies get subsidies to prevent them for firing large numbers of their employees. However, unemployment is expected to rise nevertheless. This usually affects the weaker groups in society. Older workers might get fired because their wages are too high compared to their productivity. Low-skilled workers might get fired since the minimum wage may be too high relative to their productivity. This means that the division of income gets more unequal. Hence, based on all conclusions from this subchapter, it is estimated that the Gini-coefficient will increase the upcoming years. Furthermore, since all countries are facing these economic problems, I expect other countries to witness the same development, though the extent of the rise of income inequality might differ.

[20] Yet, the AOW-discussion seems to divide the parties to date.

5.4 How does the Polder model lead the Netherlands through the financial crisis?

The extent to which an economy is hurt initially by decreasing demand and production depends greatly on the structure of the economy. The United States is relatively strongly aimed at domestic demand whereas the Dutch economy, as shown in chapter 4, has a relative open character. With regard to countries of the analysis, Belgium is the most open economy (exports were 92.1% of GDP in 2008). Belgium's imports were even larger in 2008. The Netherlands and Germany are respectively second and third. If a country is export-oriented indeed, the following question is whether the export is oriented to relatively cyclical sensitive products, for instance durables like cars and machines, or is the export focused on less cyclical products?

Germany for example is concentrated on cyclical products like cars and machines. When the world trade shrunk after the fall of the Lehman brothers, the exports of cyclical products decreased even much stronger. This might explain why Germany was initially much stronger affected than the Netherlands by the fall of world-trade whereas the Netherlands is mostly focused on transit of goods and products.

Table 5.8: Production Indices for total industry for four countries from 08/06-08/09

	Aug-06	Aug-07	Aug-08	Dec-08	Apr-09	Aug-09	Change*
Belgium	97,1	100,4	98,4	95,6	90,6	86,7	-8,9
Germany	98,5	103,8	105,3	96,1	86,8	86,3	-9,8
Netherlands	85,0	87,7	88,5	108,0	88,0	82,8	-25,2
United Kingdom	93,3	93,9	90,0	86,2	85,6	83,1	-3,1

** Belgium aug-09 was not available so July-09 has been used here and figures in column 'change' are percentage points from Dec-08 until Aug-09.*

Source: Eurostat news release, euro indicators 14/10/09, downloaded 15/10/09

Table 5.8 shows the production indices for total industry excluding construction (working day adjusted, base year is 2005) and data for the United States are unavailable. The only conclusion to be drawn from this table is that from the start of the crisis, so just before December 2008, the industrial production decreased dramatically for the Netherlands. The Netherlands performs relatively bad thanks to the crisis compared to the other countries[22].

Belgium is the most open economy and might therefore be expected to relatively perform bad compared to the other countries. Belgium exports for instance diamonds, chocolate, carpets and cyclical products like chemical products, machines, car parts etc. Although the Netherlands, Belgium and Germany are all three relatively export-oriented, the fall in production hit relatively hardest in Germany and Belgium. The most important reason is that these two countries export

[21] The government introduced 20 commissions to investigate the probability of big cuts in government expenditures. These commissions will report in 2010 about possibilities to cut expenditures.

[22] A table is attached in the appendix to provide more data on the percentage of industrial production with respect to GDP for the five countries under analysis.

more industrial products relative to the Netherlands. This creates a stronger fall in Belgian and German production.

The United Kingdom was mainly hit by the fall of the housing market, which was significantly smaller in the Rhineland countries. So the fall of production of the United Kingdom due to the fall of world trade is relatively small. But the fall of the housing market in the United Kingdom had a relatively strong impact on the consumption of British households, as stated in MEV (2010, p.24)

The United States faced a smaller production decrease than the European countries since the decrease of domestic consumption expenditures was mostly captured by a decrease in imports. According to MEV (2010, p.28) the United States is expected to recover faster due to a stimulating package of 787 billions dollars (5,5% of US GDP), the correction of stock supplies is less negative and the restoring exports to Asia.

The role of the Polder model

The question remains what the influence of the Polder model is on the production, the structure of the economy and therefore as a result the growth of GDP per capita. When comparing all countries it becomes clear that a general answer cannot be given. There is an interaction between the combination of policy, institutions and culture on the one hand and exports on the other hand. For example, Asian governments have pushed their economies towards export-oriented economies for decades. It cannot be concluded that the Polder model is responsible for the entire structure of the Dutch economy, but certainly to some extent.

With respect to the labour market, the features of the Polder model (see figure 1.2) might have a relative important effect since the Dutch labour market is "made" more flexible and the consultation between central employer's organizations, trade unions and the government can prevent the unemployment rate to rise more than expected thanks to a policy of wage moderation. Although it is difficult to demonstrate the exact effect of the Polder model, the characteristics (such as central wage formation, wage and labour flexibility) might be necessary to decrease the unemployment rate in the years after the crisis.

However, a note needs to be placed with respect to the Dutch unemployment rate. For now the Dutch government has succeeded to keep the unemployment rate low due to the part-time unemployment benefits. This way people are send home temporarily but if production is structurally lower these persons will lose their jobs anyway. Then it would be the case that the Dutch unemployment rate is underestimated.

The performance of employment has been outstanding until the financial crisis. However, there is a threat for the Dutch unemployment rate in the upcoming years. Bas Jacobs (2009, p.3) puts forward that "it is alarming that contract wages are increasing more than inflation, even though unemployment is increasing… if wages are not moderated, the Netherlands will throw itself out of the international markets and it would be unable to hook on with the recovery of world trade". Gorter and Poot (1998, p.17) describe: "the Dutch Central Planning Bureau 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". The labour market policies in combination with the institutions were extremely important for the Dutch successes and it can be done again. The central employers' organizations, trade unions and the government need to agree again on wage moderation to prevent a more increasing unemployment rate. This is even more vital since the Dutch unemployment rate is increasing more than the other countries, although the expected rate in 2010 is still lower compared to the countries under analysis[23].

The characteristics of the Polder model, as described in chapter one, have proven to be successful with respect to employment, as described in chapter three. To conclude with respect to income inequality, the policy of wage moderation might protect the jobs of low-skilled workers and the older workers, which could be beneficial for the development of the Gini-coefficient.

The hypothesis stated: "Thanks to the Dutch consensus-oriented system, often referred to as the 'Polder model', the Netherlands will perform relatively well compared to Belgium, Germany, United Kingdom and the United States with respect to employment and unemployment, GDP growth and income inequality during the financial crisis and beyond". Overall, this hypothesis cannot be rejected nor confirmed. The Dutch performance with respect to GDP per capita is on average. The Dutch performance is relatively bad with respect to employment and unemployment and industrial production. These performances may be called relatively well when looking at the average figures, but that is predominantly due to the rather good initial situation. From the previous analyses it appears that the Polder model is only important to some extent whereas an increasing part of the performance of the Dutch economy is dependent on the world economy and globalisation.

The Polder model does not lead the Netherlands relatively better to the financial crisis compared to other countries. The financial crisis has such a severe impact on the global economy that it might be difficult to point any Western social-economic model that could resist these impacts. However, the Polder model might be important in the decades after the crisis. When competition is growing and becoming more international, a good institutional system based on consensus and consultation can be a strong asset. This social-economic model of consultation between the government and social partners must be flexible and being able to adapt on (inter) national changes. According to Nagelkerke and de Nijs (2009, p.89) it is possible that "the Netherlands can adapt to international competition with a good functioning system based on consultation and flexible policy/rules". The Dutch social-economic model, often referred to as the Polder model, might therefore be still important in the future for the Netherlands.

[23] TNT is one example of a company putting his employees in front of a choice: wage moderation and probably staying employed or not accepting wage moderation and probably losing your job.

6. Summary and Conclusion: Polder model and performance

In chapter one the characteristics of the Polder model were examined. The Polder model can be described as 'the Dutch combination of policy, institutions and culture'. In addition, it does not matter whether the Dutch social-economic model is called the 'Polder model' or for instance the 'Delta model'. Furthermore, it has been argued whether there is a connection between the Wassenaar Agreement and the Polder model. However, this connection is overrated. First, the Agreement was based on a threat made by the government rather than cooperative behaviour. Second, some of the characteristics of the Polder model already existed before the Wassenaar Agreement. Especially some cultural features already existed more than four hundred years ago.

The importance of the Dutch social-economic/Polder model has been examined in chapter three. The Netherlands performed comparatively well with respect to employment and unemployment and the development of GDP per capita from 1982-2007. In addition, the policy of wage moderation has been very important: "the Dutch Central Planning Bureau 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" (Gorter and Poot, 1998, p.17). The increase of income inequality may have been wanted by the government because the labour market might have been too rigid, which could explain why the government imposed more market-based policies.

The hypothesis stated: "Due to the Dutch consensus-oriented system, often referred to as the 'Polder model', the Netherlands will perform relatively well compared to Belgium, Germany, United Kingdom and the United States with respect to employment and unemployment, GDP growth and income inequality during the financial crisis and beyond". Overall, this hypothesis cannot be rejected nor confirmed. The Dutch performance[24] with respect to GDP per capita is on average. The Dutch performance is relatively bad with respect to employment and unemployment and industrial production. The 'average' performance of the Netherlands is on average but this is due to the initial situation. From the previous analyses appears that the Polder model is only important to some extent whereas an increasing part of the performance of the Dutch economy is dependent of the world economy and globalisation. The financial crisis is an exceptional situation and therefore creating larger damages to economies than 'usual' recessions.

The financial crisis of 2007/2009 emerged in the United States due to a lack of financial supervision, control and coordination. The call for more financial supervision, coordination and cooperation is now growing. A consensus-oriented system such as the Dutch social-economic/Polder model may be a solution to prevent another crisis. A consensus-based economy has a goal to confront different groups of interests with the damaging effects on the long term if policies are heavily focused on short term and self-interests. Keizer (2008, p.1) puts forward that "many key players in the financial world knew they took a substantial risk and they knew this would have gone the wrong way some time". There was a general believe in the free

[24] The performance of the five countries under analysis has been based to a great extent on OECD data. It is sometimes surprising that some databases (f.i. from the CBS) only report data on GDP per capita from 1995-2001.

market, such that the market itself would eliminate irrational actors from the financial markets. However, this idea based on neo-classical economics has obviously failed. Keynesian economists assume that people become more and more irrational during a long growth period. This matches with the behaviour of many American bankers who (were) forced to sell as many mortgages as possible. Although there is an extreme difference between the Anglo-Saxon model and the Dutch Polder model, it would be great if there could be some characteristics of the Polder model present in the financial world. More cooperation and consensus could help to prevent another financial crisis. A Polder model can have many advantages for the financial world. Delsen (2000, p.172-176) summarizes several advantages of the Polder model in general:

- Consultation leads to a quality improvement of products and processes.
- Dutch institutions have created mutual trust from which institutions could create commitment to reform the welfare state. A table is attached in the appendix to underline this argument.
- Due to the policies and the institutions integrated with the Polder model, the labour market participation has increased (also due to part-time work) and this development had "a positive influence on the production factor labour and a significant positive effect on productivity" (Delsen, 2000, p.176).
- An active labour market policy to decrease unemployment and increase the labour participation rate is vital for a sustainable welfare state, which also improves equality in the Netherlands.

The characteristics of the Polder model, as described in chapter one, have proven to be successful with respect to employment, as described in chapter three. The labour market policies in combination with the institutions were important for the Dutch successes and it can be done again. The central employers' organizations, trade unions and the government need to agree again on wage moderation to prevent a more increasing unemployment rate.

Consultation and consensus are paramount to achieve another success with respect to growth in employment and GDP (volumes and per capita). To conclude, based on all the arguments and data shown in this thesis, the Dutch model is relatively important for the Dutch economy but the hypothesis can nor be rejected neither be confirmed. The Netherlands is expected to face a severe recession due to the financial crisis. I believe, despite this current period, that the Netherlands can perform relatively well again after the downward period of the financial crisis thanks to the Polder model.

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Appendix

Chapter 1

The Wassenaar Agreement

"Friday November 5, 1982 in Wassenaar, a village near The Hague, in the home of the chairman of the employers' federation an agreement was established between this federation and the leading union federation" (Nickell and Van Ours, 1999). The agreement was closed due to an imminent threat of the government to freeze all the wages. Central organizations could not do anything else but to accept since the problems were rising for the Netherlands: sharply rising unemployment and rapidly declining employment. Employers agreed in this accord with working time reduction. The unions agreed to give up price indexation of wages and to moderate wage claims. Furthermore, part-time labour was stimulated through new laws. "Persons with part-time jobs would now, according to new laws, get full social security coverage (including after 6 months the accumulation of pension rights), while their wages would depend on the amount of work they actually provided" (Nickell and Van Ours, 1999). In addition, the government imposed cuts in its expenditures by for example benefit replacement rates were reduced from 80 to 70% and the minimum wage was fixed for a decade.

The agreement was bilateral between trade union federations and central employer organizations. The Wassenaar Agreement marks a change in labour relations, after a period of frictions and ideological differences of opinion towards a more consensual approach in labour relations. (Nagelkerke and de Nijs, 2009; Nickell and Van Ours, 1999) The social partners made many detailed agreements in de STAR (Stichting van de Arbeid) with respect to employment issues such as training, the functioning of the labour market and the labour market position of specific groups.

Chapter 2

Institutional Economics: an extension of the role of the Polder model

The economy faces additional costs to keep the system running, these costs are also called transaction costs. For example, these contain the costs that need to be made before hand to get to an agreement or to make a contract. In addition, it contains the costs made afterwards to make sure the conditions specified in the contract are being met. "Since transaction costs exist, employment contracts are imperfect and employers are facing employees with motivation problems. To reach motivation and commitment it is necessary to have mutual trust between employers and employees" (Delsen and Poutsma, 2005, p.172). Personal characteristics, behaviour and institutions have to make sure that the level of trust is maximized. This may result in wage moderation because it is beneficial for both employers and employees.

Table A2,1 shows the weighted levels of trust for some countries in Western Europe. The figures are percentages measured of the population of 15 years and over. The Netherlands shows to be a high trust country where its inhabitants trust their institutions. The Dutch society can therefore save on transaction costs when the economic agents trust each other. "In addition, when looking at staff numbers for police service and private security, the Netherlands scores low compared to the US, UK, Germany, France and Belgium" (Delsen and Poutsma, 2005, p.173).

Table A2.1 Trust in institutions

	Netherlands	**Belgium**	**Germany**	**UK**
Trade Unions	61	39	37	41
Large enterprises	55	38	33	30
Government	66	25	47	41
Parliament	65	28	49	41
Law system	61	23	53	50
Political parties	42	18	20	18
Average trust 1999	64	43	48	48

Source: Delsen, Poutsma (2005, p.173)

Trust is extremely important for reducing transaction costs. If the level of trust is high, as a result less people are member of a union or a political party. The Dutch framework can therefore seen as an example of the importance and the performance of trust since the Polder model features consensus and cooperation, which can only succeed if there exists mutual trust. These levels of trust are not only a condition for a stable consultative economy, but also the result. Due to the consensus oriented Dutch culture, the government does not only have a yearly consult with the social partners to make an agreement.

In addition, the government consults the social partners twice a year just to exchange views to enter the next meeting for reaching an agreement. This also creates a high level of trust. Trust can also be examined when looking at the days of strikes per 1000 people. If an economy has a high level of trust, the days lost due to strikes should be low. Table A2.2 on the next page illustrates this.

Table A2.2 Days of strikes per 1000 people

	1980-1989	1990-1999
Germany	22,9	10,5
France	61,7	31,2
Italy	433,3	110,6
Netherlands	12,8	19,3
UK	292,8	25,0
US	132,0	37,0

Source: Delsen and Poutsma (2005, p.190)

Table A2.2 illustrates the number of days lost through strikes per 1000 people employed. Because of the high level of consensus in the Netherlands, the days lost due to strikes are and were relatively low. On the other hand, the Netherlands is te only country who faced an increase of the days lost due to strikes. When considering the consensus and consultation, the theory of collective bargaining also needs to be studied.

As stated before, asymmetric information creates distortions such that employees and employers both need contracts. "Asymmetry in contracting between individual workers and employers regarding both access to information and bargaining power, the concern for basic labour rights, and different perceptions about the merits of employment relations governed by individual contracts compared to collective agreements are all examples of the existence of unions and employers' organizations" (Aidt and Tzannatos, 2008, p.260).

Table A2.3: Aspects of bargaining centralization

Issues	*Effects of centralized/decentralized collective bargaining*
Internalization of externalities	Independently acting unions/firms can create negative effects as higher wages may create higher prices; higher inflation and higher unemployment
Competitive pressure	Competition disciplines unions and firms. This effect is weaker at centralized level because increasing wages can more easily passed on to consumers as higher prices.
Wage compression	Centralized collective bargaining, egalitarian wage goals are easier to achieve and there are less firm specific conditions
Areas of bargaining	E.g. Training, health and safety can only be subject to collective bargaining at certain levels of centralization
Hold-up problems	If workers can get a share of profits due to investments through collective bargaining, it is likely firms will underinvest

Insider-induced hysteresis	Union members and employed workers are insiders and when they apply for higher wages they can increase the level of unemployment
Strikes	Imperfect information can lead to more strikes. Centralized bargaining can decrease level of information and decrease the number of strikes
Bargaining power	Centralization can decrease wage pressures by increasing employers' bargaining power.

Source: Composed on (Aidt and Tzannatos. 2008,p.261-262, Trade Unions, collective bargaining and macro-economic performance: A review)

Chapter 3

Data from EUROSTAT used to compose figures throughout the chapters:

VAR1	GDP based at market prices, % changes on previous years				
	Belgium	Germany	Netherlands	UK	US
1982			11,8	6	20,9
1983			4,9	0,7	14,4
1984			1,7	4	17,1
1985			2,1	6,1	6,5
1986			4,3	-9,3	-20,8
1987			1,7	0,4	-12,4
1988			0,8	12,7	1
1989			1,3	5,9	11,4
1990			2,6	1,6	8,4
1991			3,2	-10,1	6,4
1992		6,5	4,1	-1,4	-2,3
1993		8,2	6,2	-2,7	13,4
1994		3	2,9	2,1	0,5
1995		4,6	5	-3,9	-7,2
1996	-1,4	-1,4	-0,6	5,5	5
1997	-2	-2,5	-0,7	20,8	13,8
1998	1,9	0,3	1,5	4,6	2,3
1999	1	1	2,5	4,8	6,7
2000	1,8	-0,7	4,1	9,4	17,9
2001	2	1,2	5,1	0,1	5,6
2002	1,9	1,4	3,8	2	-3,6
2003	1,6	1,2	2,2	-6,3	-14,6
2004	2,4	1	0,7	4,5	-6,4
2005	2,4	0,7	2,4	1,3	3,2
2006	2,3	0,5	1,7	3,1	2,3
2007	2,4	1,9	1,5	2,5	-5,9
2008	1,7	1,5	2,7	-11,8	-4,8
2009	2,2	1,2	1,6	-8,3	9,3
2010	1,3	0,7	1,1	3,6	-2,4

VAR2 GDP volumes, % changes over previous years

	Belgium	Germany	Netherlands	UK	US
1982				-1,2	2,1	-1,9
1983				2	3,6	4,5
1984				3,5	2,7	7,2
1985				2,3	3,6	4,1
1986				2,2	4	3,5
1987				2	4,6	3,4
1988				3,4	5	4,1
1989				4,4	2,3	3,5
1990				4,2	0,8	-1,4
1991				2,6	1,9	-0,2
1992			2,2	1,7	0,1	3,3
1993			-0,8	1,3	2,2	2,7
1994			2,7	3	4,3	4
1995			1,9	3,1	3,1	2,5
1996		1,2	1	3,4	2,9	3,7
1997		3,5	1,8	4,3	3,3	4,5
1998		1,7	2	3,9	3,6	4,2
1999		3,4	2	4,7	3,5	4,4
2000		3,7	3,2	3,9	3,9	3,7
2001		0,8	1,2	1,9	2,5	0,8
2002		1,5	0	0,1	2,1	1,6
2003		1	-0,2	0,3	2,8	2,5
2004		3	1,2	2,2	3	3,6
2005		1,8	0,8	2	2,2	2,9
2006		3	3	3,4	2,9	2,8
2007		2,8	2,5	3,5	2,6	2
2008		1,1	1,3	2,1	0,7	1,1
2009		-3,5	-5,4	-3,5	-3,8	-2,9
2010		-0,2	-0,3	-0,4	0,1	0,9

VAR3 % change of employment levels after 1992

	Belgium	Germany	Netherlands	UK	US
1992	-0,1	-1,5	1,6		0,5
1993	-0,6	-1,3	0	-0,8	1,3
1994	-0,4	-0,1	0,7	0,8	2,2
1995	1,5	0,2	1,7	1	1,4
1996	0,3	-0,3	2,2	0,9	1,3
1997	0,5	-0,1	3,1	1,7	2,2
1998	1,6	1,2	2,6	0,9	1,4
1999	1,3	1,4	2,6	1,1	1,5
2000	2	1,9	2,2	1,3	2,5
2001	1,4	0,4	2,1	1,1	0
2002	-0,1	-0,6	0,5	0,6	-0,3
2003	0	-0,9	-0,5	1	0,9
2004	0,7	0,4	-0,9	1	1,1
2005	1,3	-0,1	0,5	1,3	1,7
2006	1,4	0,6	1,8	0,7	1,9

2007	1,8	1,7	2,5	0,7	1,1
2008	1,6	1,4	1,5	0,1	-0,3

VAR4 Part-time as % of total employment

	Belgium	Germany	Netherlands	UK	US
1992	12,7	14,5	34,8	22,9	
1993	13,1	15,2	35,2	23,6	
1994	13,3	15,8	36,7	24	
1995	14	16,3	37,4	24,1	
1996	14,5	16,7	38	24,6	
1997	15,2	17,6	37,9	24,6	
1998	16,5	18,4	38,9	24,5	
1999	18,4	19	39,7	24,6	
2000	18,9	19,4	41,5	25,1	
2001	18,5	20,3	42,2	25	
2002	19,1	20,8	43,9	25,3	
2003	20,5	21,7	45	25,6	
2004	21,4	22,3	45,5	25,7	
2005	22	24	46,1	25,2	
2006	22,2	25,8	46,2	25,3	
2007	22,1	26	46,8	25,2	
2008	22,6	25,9	47,3	25,3	

VAR5 Unemployment rates, yearly averages in %

	Belgium	Germany	Netherlands	UK	US
1983	10,7		9,2	10,8	9,6
1984	10,8		8,9	10,9	7,5
1985	10,1		7,9	11,2	7,2
1986	10		7,8	11,2	7
1987	9,8		7,7	10,3	6,2
1988	8,8		7,2	8,5	5,5
1989	7,4		6,6	7,1	5,3
1990	6,6		5,8	6,9	5,5
1991	6,4		5,5	8,6	6,7
1992	7,1	6,3	5,3	9,8	7,4
1993	8,6	7,6	6,2	10,2	6,8
1994	9,8	8,2	6,8	9,3	6,1
1995	9,7	8	6,6	8,5	5,6
1996	9,5	8,7	6	7,9	5,4
1997	9,2	9,4	4,9	6,8	4,9
1998	9,3	9,1	3,8	6,1	4,5
1999	8,5	8,2	3,2	5,9	4,2
2000	6,9	7,5	2,8	5,4	4
2001	6,6	7,6	2,2	5,1	4,8
2002	7,5	8,4	2,8	5	5
2003	8,2	9,3	3,7	5	6
2004	8,4	9,8	4,6	4,7	5,5
2005	8,5	10,7	4,7	4,8	5,1
2006	8,3	9,8	3,9	5,4	4,6

2007	7,5	8,4	3,2	5,3	4,6
2008	7	7,3	2,8	5,6	5,8

VAR6 Gini coefficient

	Belgium	Germany	Netherlands	UK	US
1995	29	29	29		32
1996	28	27	29		32
1997	27	25	26		30
1998	27	25	25		32
1999	29	25	26		32
2000	30	25	29		32
2001	28	25	27		35
2002			27		35
2003	28		27		34
2004	26				
2005	28	26	27		34
2006	28	27	26		32
2007	26	30	28		33

Data used from OECD Factbook 2009

VAR 8: Real GDP growth

	Belgium	Germany	Netherlands	UK	US
1982	0,59	-0,39	-1,21	2,09	-1,97
1983	0,31	1,57	2,00	3,62	4,51
1984	2,46	2,82	3,46	2,67	7,19
1985	1,65	2,32	2,27	3,59	4,10
1986	1,82	2,28	3,31	4,01	3,43
1987	2,30	1,40	2,05	4,56	3,34
1988	4,72	3,70	3,44	5,03	4,12
1989	3,47	3,89	4,42	2,28	3,53
1990	3,13	5,25	4,18	0,77	1,85
1991	1,83	5,10	2,43	-1,39	-0,19
1992	1,53	2,20	1,70	0,14	3,33
1993	-0,96	-0,80	1,25	2,22	2,69
1994	3,22	2,96	2,65	4,28	4,06
1995	2,38	3,11	1,89	3,04	2,53
1996	1,19	3,40	0,99	2,88	3,74
1997	3,51	4,27	1,80	3,30	4,54
1998	1,68	3,92	2,03	3,60	4,21
1999	3,41	4,68	2,01	3,47	4,48
2000	3,70	3,94	3,20	3,91	3,69
2001	0,79	1,92	1,24	2,46	0,75
2002	1,50	0,07	0,00	2,09	1,61
2003	0,99	0,33	-0,21	2,81	2,52
2004	2,96	2,23	1,20	2,75	3,64
2005	1,84	2,04	0,77	2,05	2,94
2006	2,98	3,37	2,96	2,83	2,77
2007	2,75	3,46	2,46	3,02	2,02

VAR 9: Employment rates (share of persons of working age) in employment

	Belgium	Germany	Netherlands	UK	US
1982		62,76	52,79		65,76
1983	53,09	61,31	50,58		66,00
1984	52,62	61,13	50,12	65,93	68,13
1985	52,83	61,61	50,63	66,68	69,00
1986	52,93	62,40	51,21	67,09	69,68
1987	52,31	62,73	58,14	67,77	70,74
1988	52,47	63,08	59,32	69,94	71,64
1989	53,78	63,50	60,16	72,00	72,50
1990	54,44	64,14	61,77	72,47	72,19
1991	55,84	67,06	62,89	70,81	70,96
1992	56,53	66,16	63,79	69,03	70,80
1993	55,95	65,14	63,82	68,24	71,20
1994	55,73	64,54	63,93	68,66	72,00
1995	56,25	64,64	65,13	69,19	72,53
1996	56,26	64,26	66,00	69,73	72,85
1997	56,97	63,83	67,88	70,63	73,50
1998	57,31	64,73	69,49	71,03	73,84
1999	58,93	65,15	70,82	71,53	73,94
2000	60,91	65,57	72,05	72,15	74,09
2001	59,68	65,82	72,49	72,46	73,13
2002	59,65	65,31	72,49	72,31	71,93
2003	59,29	64,61	71,81	72,56	71,22
2004	60,45	65,04	71,23	72,67	71,22
2005	60,96	65,50	71,12	72,64	71,53
2006	60,35	67,18	72,39	71,99	72,52
2007	61,58	69,01	74,07	71,78	72,27

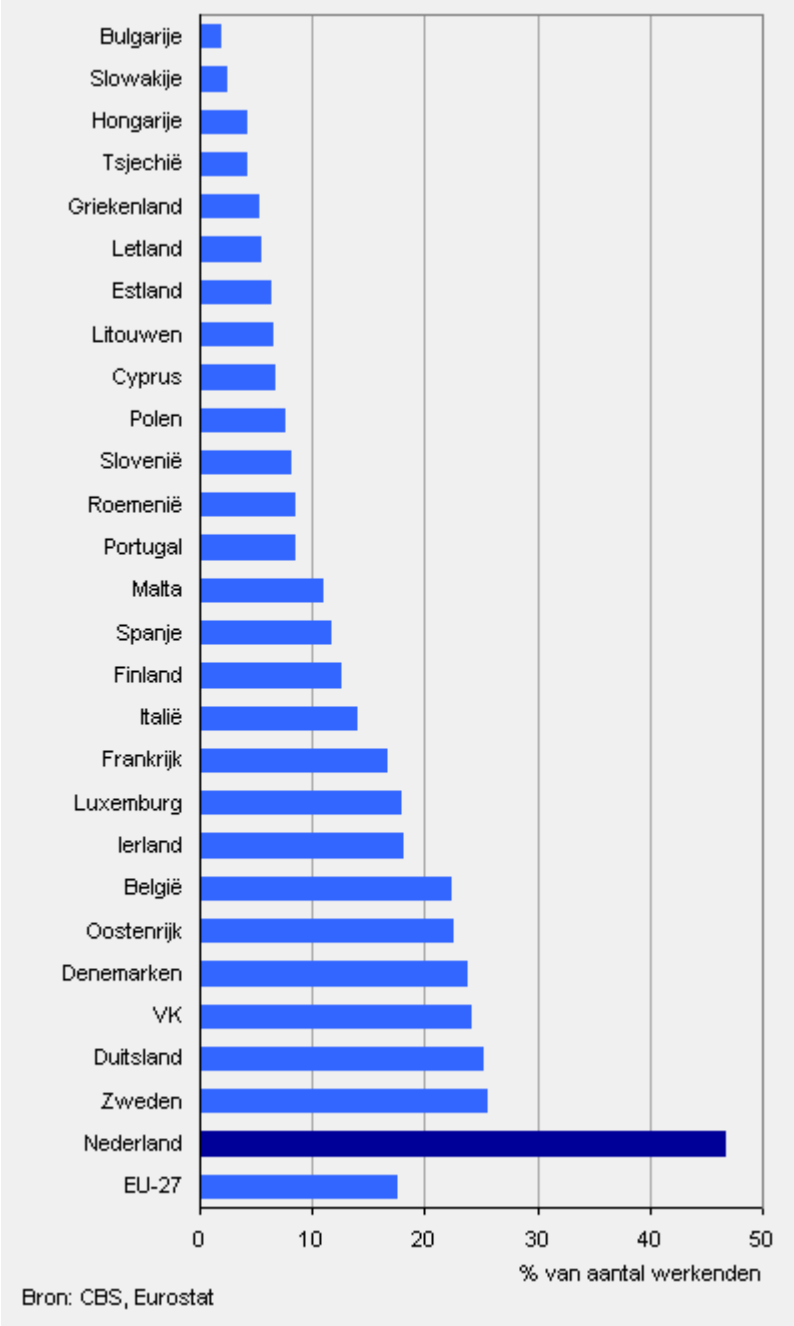
VAR10: Part-time employment as percentage of total employment

	Belgium	Germany	Netherlands	UK	US
1982					
1983	9,75	13,37	18,53	18,42	15,58
1984	10,76	11,03		19,56	14,79
1985	11,53	10,97	19,53	19,67	14,66
1986	11,65	11,22		20,20	14,78
1987	12,49	10,96	26,36	20,81	14,63
1988	12,72	11,38	26,92	20,51	14,48
1989	12,99	11,58	27,73	20,20	14,13
1990	13,51	13,42	28,15	20,10	14,68
1991	14,61	11,83	28,58	20,69	14,72
1992	14,33	12,25	27,32	21,51	14,73
1993	14,66	12,83	27,86	22,12	14,74
1994	14,62	13,50	28,87	22,39	14,16
1995	14,56	14,24	29,43	22,32	13,99
1996	14,79	14,89	29,34	22,89	13,91
1997	15,04	15,81	29,13	22,89	13,54
1998	15,59	16,59	30,04	22,97	13,36
1999	19,90	17,14	30,39	22,94	13,26

2000	18,99	17,58	32,14	22,98	13,26
2001	16,97	18,29	33,00	22,65	12,64
2002	17,93	18,77	33,88	23,31	12,75
2003	18,63	19,56	34,55	23,71	13,20
2004	18,87	20,09	35,04	23,98	13,24
2005	18,47	21,77	35,71	23,54	12,81
2006	19,34	21,97	35,48	23,44	12,55
2007	18,29	22,19	36,07	23,26	12,56

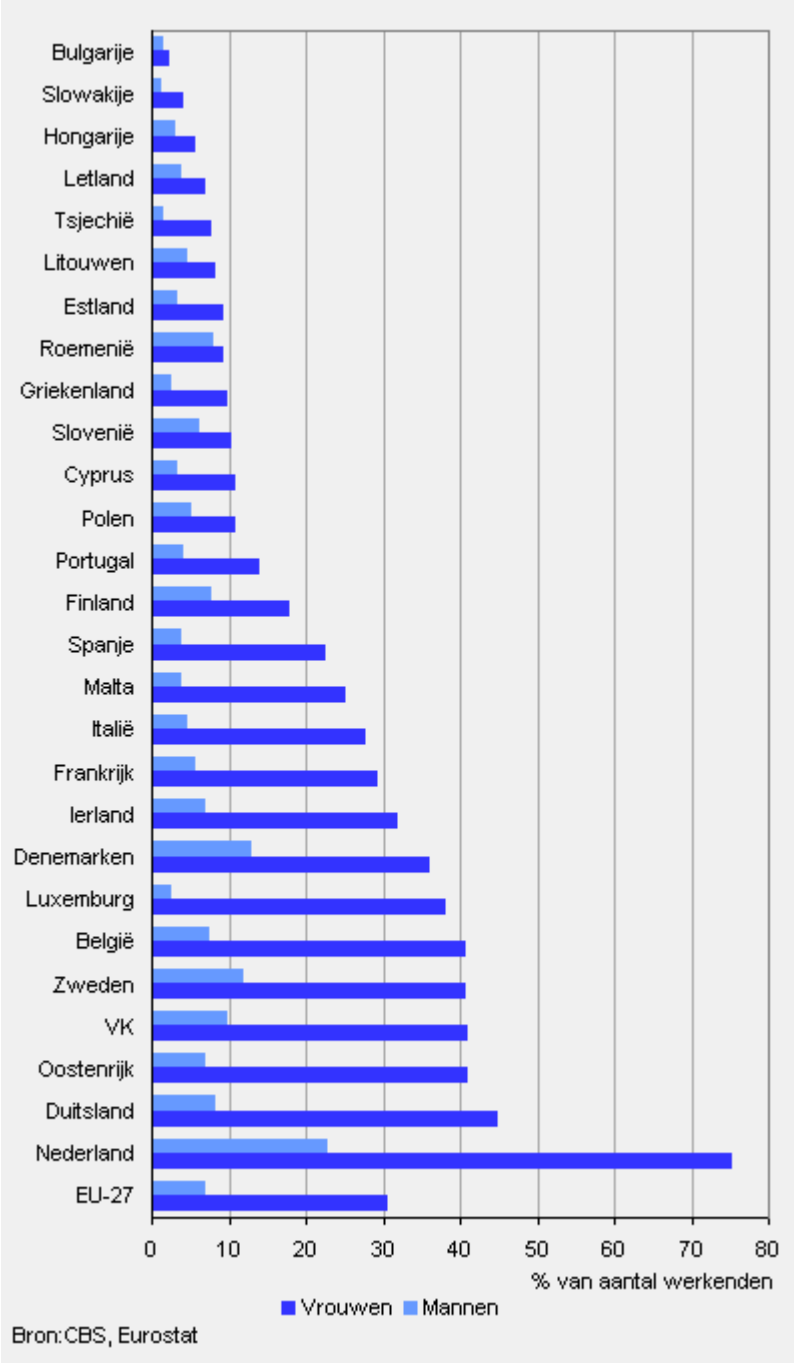
Due to differences between EUROSTAT and OECD concerning part-time employment, data used by the Central Bureau of Statistics is attached in the appendix to provide more detailed information concerning the percentage of part-time employment with respect to total employment.

Figure A3.1: Part-time employment as percentage of total employment



Source: http://www.cbs.nl/nl-NL/menu/themas/arbeid-sociale-zekerheid/publicaties/artikelen/archief/2009/2009-2821-wm.htm

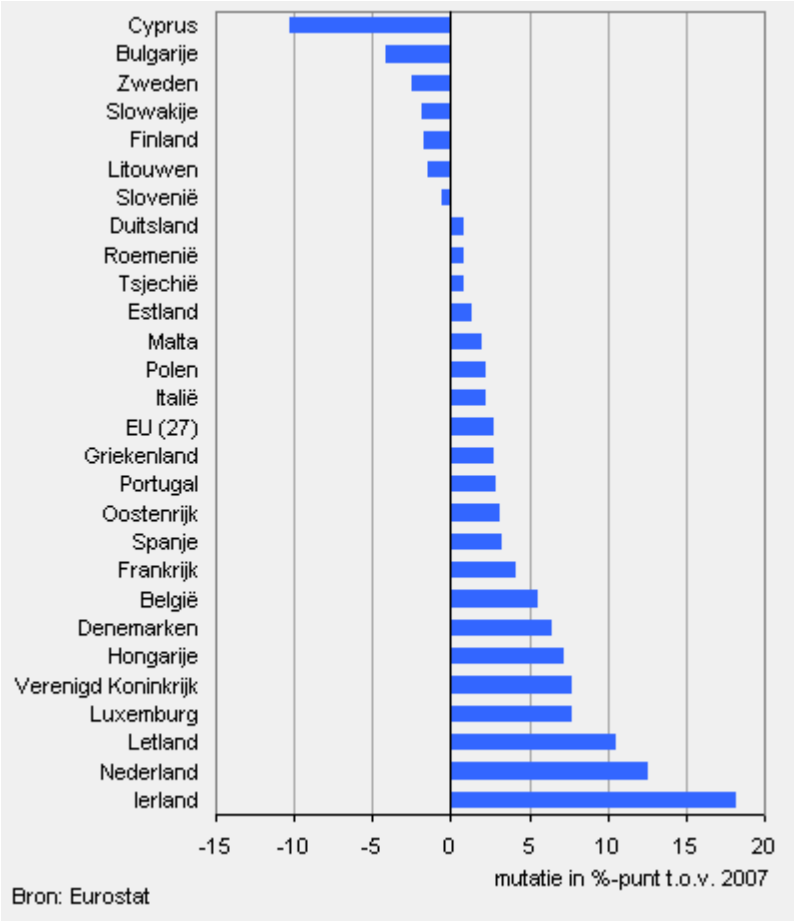
Figure A3.2: Part-time employment as percentage of total employment for men and women



Source: http://www.cbs.nl/nl-NL/menu/themas/arbeid-sociale-zekerheid/publicaties/artikelen/archief/2009/2009-2821-wm.htm

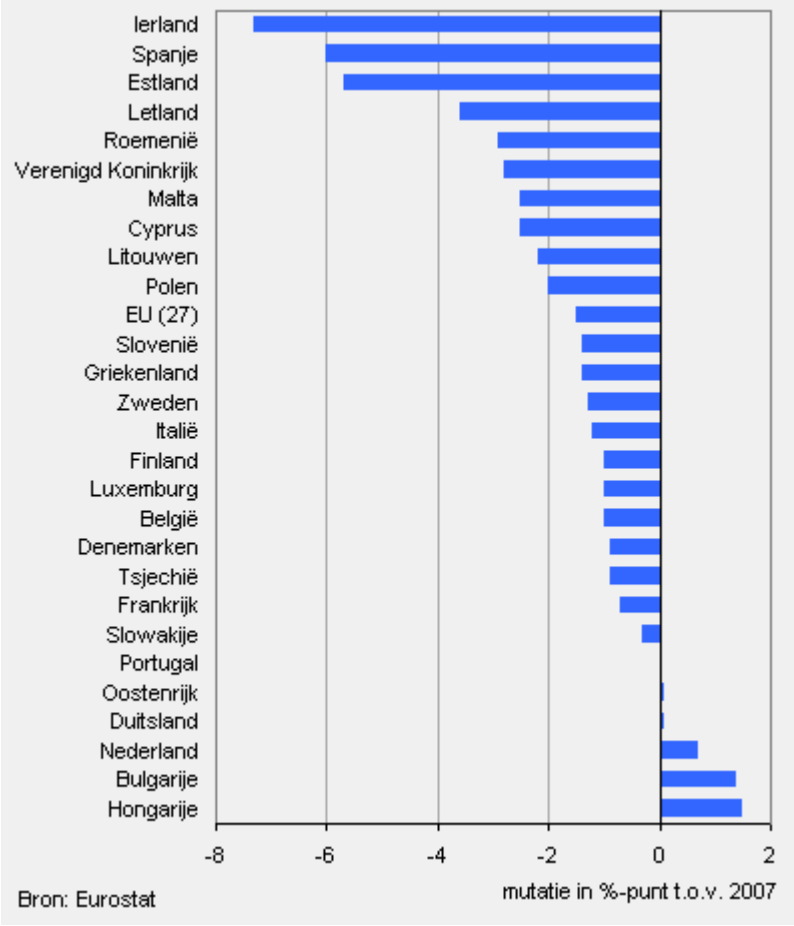
Chapter 4

Figure A4.1: Growth government debt 2008



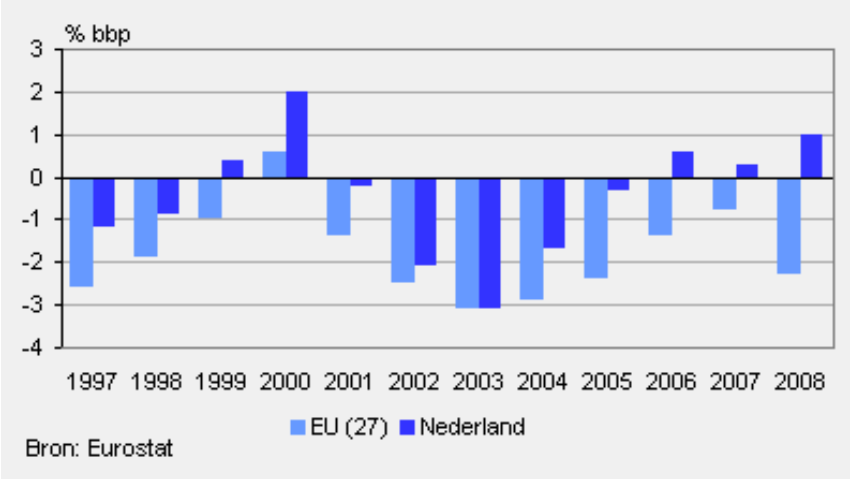
Source: http://www.cbs.nl/nl-NL/menu/themas/macro-economie/publicaties/artikelen/archief/2009/2009-2772-wm.htm

Figure A4.2: Change government balance 2008



Source: http://www.cbs.nl/nl-NL/menu/themas/macro-economie/publicaties/artikelen/archief/2009/2009-2772-wm.htm

Figure A4.3: Government balance EU and Netherlands

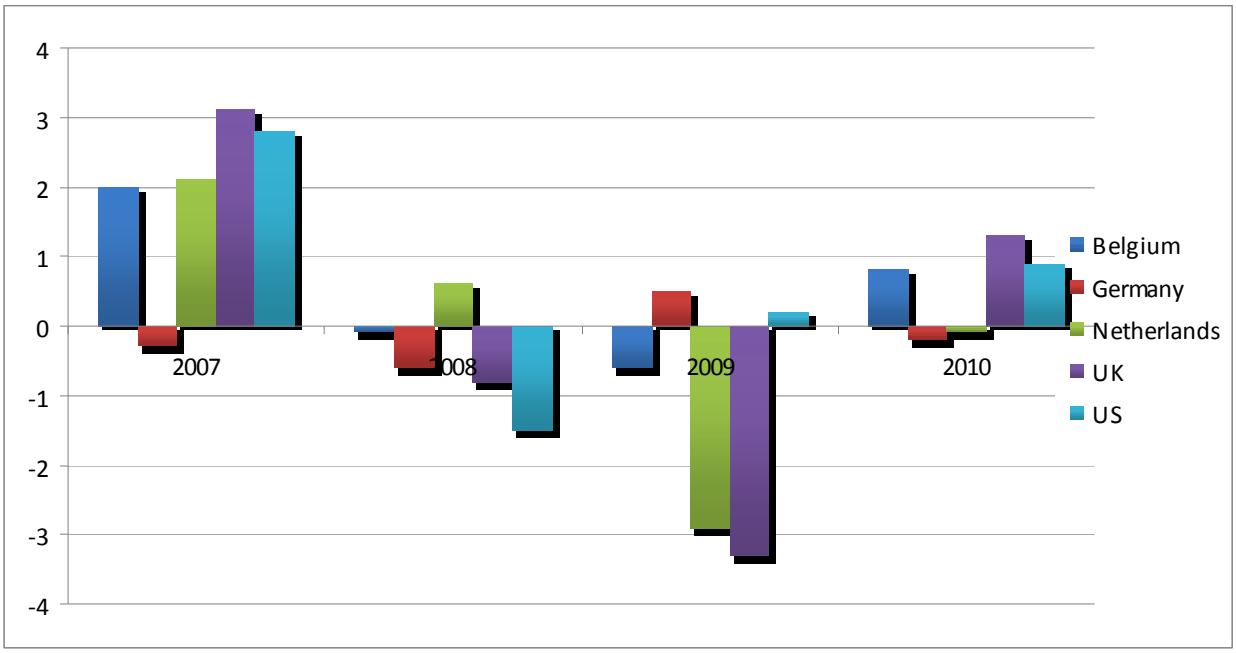


Source: http://www.cbs.nl/nl-NL/menu/themas/macro-economie/publicaties/artikelen/archief/2009/2009-2772-wm.htm

A4.1 Effects on consumers

Abbing (2009) describes for both 2009 and 2010 an increase in the consumer price index of 1%, which indicates an inflation lower than the 2% guideline of the ECB. Since most collective agreements are already signed for 2009 and some for 2010, it means that the average wage increases are probably higher than the increase in prices. Therefore the purchasing power increases for the employed. To give a clear conclusion on the effects of the crisis on private consumption, the following graph illustrates the percentage changes of real private consumption expenditures for the five countries under analysis from 2007-2010.

Figure A4.4: Real Private Consumption expenditure (PPS) 2007-2010



Source: OECD, Economic Outlook, nr.85

Figure 4.5 illustrates the real private consumption expenditure for the five countries under analysis from the period 2007-2010. The consumption holds in the Netherlands in 2007 and 2008 but visibly worsens in 2009 and is expected to be relatively low in 2010 compared to the other countries. Overall, it can be concluded that the added percentage changes of the real private consumption expenditures are relatively better for the Anglo-Saxon countries than the Rhineland countries.

For unemployed people and people with a pension the situation is worsening. "Although the projection assumes that pension funds will be hardly able, if at all, to index pensions this year and next, the group of those aged 65 and over will also see purchasing power improve this year on average, partly thanks to the increase to the General Old Age Pension (AOW), the elderly person's tax credit and the care allowance for single people" (Abbing, 2009, p.6). People with relatively high supplementary pensions will face larger losses. For unemployed persons the expected effects are decreasing consumption expenditures due to losses of income. Real figures are, however, treated in chapter 5.

Chapter 5

Table A5.1: Additional governmental expenses in 2009 and 2010 (in millions of euros)

	2009	**2010**
Restoring employment levels	**669**	**905**
Part-time WW (unemployment law)	230	200
Approach youth unemployment	100	120
Debt assistance	30	50
Stimulating MBO (f.i. Work placement)	100	150
High-tech projects	90	190
Extension innovation programmes FES		96
Faster execution FES-projects innovation	119	99
Extending liquidity possibilities for businesses	**678**	**549**
providing credits for companies		
Relaxing loss-calculations 2008	335	-120
Extending reduced payment WBSO	135	150
Envelope MKB		53
Flying taks	70	277
VAMIL/MIA	21	30
Deduction energy investments (EIA)	117	146
Lower Value Added Tax for isolating		13
Infrastructure and (house) building	**610**	**1161**
goal to prevent decreasing demand		
Speeding up BLS and monumental restauration	175	220
Strenghtening the coasts	80	50
Maintenance and building of youth care facilities	35	45
Maintenance and building of AWBZ facilities		320
Maintenance and building of schools	36	129
Locks and inner harbours	75	125
Speeding up renovation bridges and freeways	75	138
Speeding up FES-projecten Infra	134	134
Durable economy	**446**	**478**
To get stronger out of the crisis		
Agricultural sector	30	20
Hybrid car	5	15
Demolition regulation cars	35	30

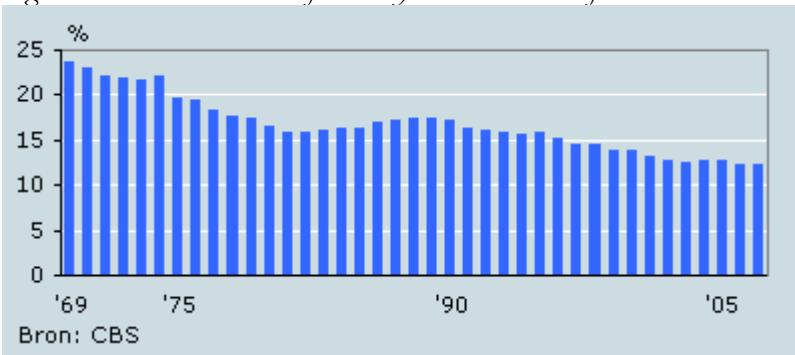
Energy saving investments houses	10	20
(motion-Van-Geel): town and country planning	60	55
Speeding up FES-projects Economic planning	190	190
Speeding up FES-projects Environment	91	128
Durable energy		15
Durable enterprising	25	5
Filling in FES projects	29	90
Investments by local governments	**500**	**1000**
Subtotal additional stimulating package	**2932**	**4183**
Unemployment benefits/payments (WW and WWB)	**1603**	**4554**
Total gross investment	**4535**	**8737**

Source: www.minfin.nl/deresource?objectid=72161&type=org, and regering.nl: herstel overheidsfinanciën, downloaded 07/10/09.

Table A5.2 shows a summary of expected additional government expenditures in 2009 and 2010. The total amount of subsidies (part-time unemployment benefits) of 950 million euros has almost reached its maximum. Some of the expenditures in the table will be mentioned briefly. First, the government imposed a temporary demolition regulation for cars with the amount of 65 million euros in 2009 and 2010. Second, 165 million euros will be used for maintenance of schools. The government reduced the corporation tax and imposed an energy-investment subsidy for which 280 million euros are available. Finally, for consumers the fine on not reporting savings will be tripled and the flying tax is already cancelled.

Elaboration on Industrial production

Figure A5.1: Added value of industry to Dutch GDP from 1969-2007



Source: http://www.cbs.nl/nl-NL/menu/themas/dossiers/conjunctuur/publicaties/artikelen/archief/2008/2008-11-07-f.htm

*Table A5.2: Economic structure, Value added by activity for five countries (2007)**

	Agriculture, hunting, fishing and forestry	Industry (including energy)	Construction	Transport, trade, hotels and restaurants	Banks, insurance and real estate	Government, health care and education
Belgium	0,8	18,7	5,3	29,9	29,0	23,3
Germany	0,9	26,4	4,0	17,6	29,2	21,9
Netherlands	2,0	18,8	5,6	21,9	28,3	23,4
UK	0,7	16,7	6,4	21,2	31,9	23,1
US**	1,1	17,3	5,1	18,8	33,1	24,6

Source: Statistical Database OECD, downloaded 19/11/2009, http://stats.oecd.org/Index.aspx?querytype=view&queryname=207
** All figures are rounded*

*** US data dates from 2006 since data of 2007 were not available*