A Social Europe: Political Utopia or Efficient Economics? An assessment from a public economic approach

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2007

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Abstract
Theories of fiscal federalism state that the "redistribution branch" of the government should be attributed to the central level in order to prevent social policy competition. However, when preferences are diverse and production factors are not perfectly mobile decentral redistribution provision may be optimal.
But, social security policy consists of more than redistribution. In this paper the traditional fiscal federalism literature is enriched by extending the traditional framework with five functions of social security: horizontal and vertical redistribution and insurance based on income solidarity, risk solidarity and solidarity of chance. The optimal attribution of competences within the European Union is theoretically analysed from a public economic approach. Hence, the relevant factors that determine the optimal decision level for social security are evaluated and related to the empirical economic literature.
Explicit attention is paid to co-ordination methods as a solution between a completely central or decentral provision of social security. This is an application of the proportionality requirement of European policies as laid down in the Amsterdam Treaty.
It is analysed for which social security functions and under which circumstances delayed integration, the Open Method of Co-ordination (OMC), minimum harmonisation standards, matching grants and flexible integration may be welfare enhancing.
The analysis shows that for redistribution as well as for insurances based on income solidarity, delayed integration may be a reasonable compromise between efficient allocative mobility and inefficient social security tourism. Furthermore, the OMC can provide some economies of scale by policy learning, without an inefficient transposition of power to the European level.
Paradoxically, the least "social" functions of social security seem to be the first, for which integration may increase welfare. E.g. flexible integration may be useful for supplementary pensions for mobile workers, where economies of scale could be reached. However, this contrasts sharply with several proposals put forward to achieve more positive integration. A "Social Europe" may be a political dream. From a public economic approach, it is inefficient economics.

JEL-codes: F42, H55, H77
Keywords: Fiscal federalism, social security, Social Europe

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* This paper has benefited from comments by Kees Goudswaard and Koen Caminada and is part of the research program "Reforming Social Security" of Leiden University. Financial support of "Stichting Instituut GAK" is greatly acknowledged.

Contents

Part 1: Research question and approach

"The sense that emerges from a traditional fiscal-federalism perspective on the emerging public sector in Europe is thus an uneasy one. It suggests that the central government is not well equipped to take the leading role in addressing Musgrave's redistribution and stabilisation functions. Moreover, the individual nations find themselves with a much diminished capacity to do these jobs. Thus, the emerging European public sector may find its structure rather ill-suited to performing two of the traditional tasks of public finance."

Oates (2001, p. 142, 143)

1. Introduction

Over the past decades there has been an intense debate about the role and functions the European Union (EU) should perform. After the establishment of the European Community of Coal and Steel in 1951, the EU expanded with 19 new member states and performed an ever-increasing role in different policy areas. The introduction of the Economic Monetary Union in 1999, the Lisbon Agenda in 2001 and the discussion about the European Constitution in 2005 all show that the debate about the competence of the European Union is still very much alive.
In the light of the ongoing European economic integration, the rise of India and China as new global economic powers and the consequences of an ageing population, now the debates tend to focus on the socio-economic models of the member states, in particular the welfare states and the different systems of social security.

Several authors pledge for a "Social Europe" as a countervailing power against the market-preserving role that Europe has played in the last decennia (Scharpf, 2002; Delsen, 2002; Chapon and Euzéby, 2002). Thereby, with the Lisbon Agenda the EU made reducing "social exclusion" a policy goal. Different authors have proposed to Europeanize different social policy instruments. Yet a coherent analysis of whether it may be welfare improving to provide social security at the European level and -if this is the case- which instruments can be used, is lacking (Cantillon, 2006). In this paper, these issues are assessed from a public economic approach. This implies that the maximisation of total welfare is the yardstick to measure whether it is good or not to centralise social security policies. This is done by an analysis of the public economic literature and some studies that show empirical evidence.

The public economic approach used in this paper is normative: the analysis is about the optimal division of responsibilities. Further, it is theoretical. The approach is used to extent the traditional fiscal federalism framework with the functions of social security. Using a public economic approach implies that maximising social welfare is the normative framework.[1] Social welfare can be defined as the sum of the utilities of all individuals in society, i.e. the Bentham moral principle is followed.[2] These utilities may also depend on the utilities of others, which e.g. is the case when individuals are altruistic.
Using a public economic approach also implies that political, ideological or strategic motives for providing social security on a central level are not considered.
Since the amount of literature on this issue is beyond the scope of this paper, no explicit attention is paid to the raising of taxes to provide social security also.[3]
In order to prevent social policy competition, theories of fiscal federalism state that the "redistribution branch" of the government should be attributed to the central level.

[1] Indeed, (implicitly) the Hicks-Kaldor criterion is used. This implies that (de)centralisation is welfare improving if the total gains are higher than the total costs, so that (theoretically) the potential losers could be compensated by the winners.
[2] See for a description of this and other normative approaches Tannsjo (2002).
[3] However, inevitably in the theoretical analysis the issue of tax raising to provide social security is sometimes implicitly, sometimes explicitly mentioned. In the empirical overview, no attention is paid to this.

However, when preferences are diverse and production factors are not perfectly mobile decentral redistribution provision may be optimal.

Therefore, the central questions of this paper are:

1) *What is the optimal way to divide responsibilities between different government levels for social security provision in Europe from a public economic approach?*

and

2) *In the light of the first question: what judgement should be made to several proposals done to develop a "Social Europe"?*

To answer these questions, the traditional fiscal federalism literature is enriched by extending the traditional framework with five functions of social security: horizontal and vertical redistribution and insurance based on income solidarity, risk solidarity and solidarity of chance. The optimal attribution of competences within the European Union is theoretically analysed from a public economic approach. Hence, the relevant factors that determine the optimal decision level for social security are evaluated and related to the empirical economic literature.
Thereby attention is paid to alternatives for a complete (de)central provision of instruments of social security. This can be seen as an application of the proportionality of measures as defined in the Amsterdam Treaty (1997).
The extension of the traditional fiscal federalism to five functions of social security will provide the answer to the first research question and is the first contribution to the economic literature.
Next, several proposals to develop a "Social Europe" will be evaluated, after which it will be argued which functions of social security policy could in what way be attributed to the EU. Suggestions are done for further research with respect to the specific implementation of these cooperation measures. This can be seen as a second contribution to the scientific literature.

This paper is organised in five parts and consists of twelve chapters. Part I elaborates the research questions (chapter 1), the approach (chapter 1) and defines the social security concept (chapter 2).
Part II analysis factors that are relevant to determine the optimal decision level for social security from a traditional fiscal federalism approach. Chapter 3 provides an introduction to the fiscal federalism literature. Then, two chapters are devoted to the redistribution functions of social security. Chapter 4 focuses on asymmetric information, the uniformity condition and preference matching. Chapter 5 considers the mobility of production factors. Chapter 6 focuses on the relevant factors that determine the optimal decision level for social security based on insurance. In chapter 7 attention is paid to political economy considerations, which are important for both functions of social security.
The different forms of cooperation between governments are discussed and assessed in part III and chapter 8.

Part IV provides an answer to the research questions. The traditional fiscal federalism literature is extended with the functions of social security based on the empirical evidence for the EU. This evidence is discussed in chapter 9. In chapter 10 the extended framework is presented. Chapter 11 assesses some current proposals to develop a “Social Europe” by using the developed extended framework.
Final conclusions are formulated in part V and chapter 12 and suggestions for further research are put forward.

2. Social security

Before extending the fiscal federalism framework to assess whether it is welfare enhancing to provide social security at the European level, social security should be defined. This is what will be done in this chapter.

2.1 Defining social security

Before analysing whether it is optimal to centralise or decentralise social security policies in Europe, social security should be defined. This is done by defining social security on the basis of the two main functions social security performs: redistribution and insurance.[4]

Redistribution

Redistribution between individuals can be divided in two kinds. First, there is vertical redistribution between the rich and the poor ex ante. Means are redistributed from the rich to the poor. This happens for instance with social assistance programs and by progressive taxation. The other form is characterised by horizontal redistribution between groups. Money is transferred from e.g. people without children to people with children.

Insurance

The other function of social security is insurance. The difference between insurance and redistribution is that the first happens ex ante, while the last occurs after a certain event has occurred. Redistribution is a transfer of money between different groups ex ante, while insurance consists of money transfers from the lucky to the unlucky after some pre-specified event has occurred.[5]

For social insurance to be efficient there must be some degree of risk aversion, otherwise there are no gains from insurance. Because of market imperfections, the market cannot provide this insurance, so there is a role for the government to do this. Market imperfections are e.g. a high correlation between negative shocks and the adverse selection problem that. An instrument related to the first one is unemployment insurance: when there is an economic downturn, private firms may not be able to provide the benefits promised (and if they are, they have to build inefficient high amounts of reserves). An example of the second one is e.g. the fact that a substantial amount of risks is immediately clear after a child has been born; while private insurers are not able to oblige people to insure themselves, government can (Sinn, 1997).

Goudswaard (2005) distinguishes three kinds of social insurance. The first one is social insurance based on reciprocity. People pay an actuarial fair amount to insure them against some potentially hazardous event. Redistribution happens ex post from people who did not have to deal with the event to people who did. This is solidarity of chance.

In a second form of solidarity, redistribution occurs before the event has happened. This can be done in two ways. First, when the risks of an event happening are unequal

[4] De Mooij (2006) describes the welfare state by the three functions that it provides: redistribution, insurance and reallocation over the life cycle. The last one is important in welfare state arrangements, see e.g. Nelissen (1998). However, reallocation over the life cycle has always an insurance and / or a redistributive element.

[5] However, as becomes clear further on, insurance can also have redistributive elements ex ante.

between people while these risks are not completely accounted for in the premiums. This is called risk solidarity. A second form is income solidarity: premiums are based on the income that people earn: irrespective of the expected risks, people with higher incomes pay higher premiums than people with lower incomes.
There are usually two important behavioural consequences of providing insurance. The first is moral hazard. Because people are insured, they change their behaviour. They do not bear the full consequences of their decisions. Therefore they have an incentive to take more risks than they would have done otherwise. Insurance givers can reduce this risk in different ways. A no-claim bonus or introducing payments when the insurance is used is one. Another way is monitoring if moral hazard occurs and punishing.
Adverse selection may occur when only the high-risk people want (full) insurance. This leads to high costs, since premiums must be high. In the end the standard Akerlof (1970) result may be there, where no insurance is offered anymore. A less extreme outcome may be when a separating equilibrium results: people who face different risks get different insurances packages. People who face high risks have to pay more for the same insurance or pay the same for insurances with worse conditions. Compared with (obliged) general insurances, separating risk groups therefore reduces income and / or risk solidarity of insurance mechanisms.

Bismarck versus Beveridge
Social security systems can be based on different principles and mechanisms. Bismarckian social insurance based on reciprocity is one. Another one is income maintenance following the Beveridgean tradition.[6]
Social insurance following the Bismarckian view means that people insure themselves against uncertainty and pay a contribution for an insurance scheme. Examples are pensions, unemployment insurance, survivor benefits and disability insurance. Welfare states that are to a relative large extent based on contribution schemes are often called Bismarckian systems.
The second vision on social security is income maintenance. A minimum level of subsistence must be guaranteed to all people. This is the Beveridgean system. When people loose their job, retire, become disabled, et cetera the state finances their (minimum) income by taxes. So, there is no relation between contributions and the level of insurance as in the Bismarckian system. The government provides a minimum level of existence.
Another element of social security can be the provision of services: as health care, social work and reintegration programs to work.

Redistribution as social insurance
Social security can be divided into two main groups: redistribution and insurance. When we go back to Rawls and look at his theory about the veil of ignorance that could be the basis for social security, it is impossible to make such a clear distinction. Or as Sinn (1996, p. 262) states: "Understanding redistribution as insurance is simply a matter of making judgement before the veil of ignorance has been lifted". Varian (1980) considers redistributive taxes as a social insurance mechanism. He assumes that ex ante income

[6] Or as Clasen and Van Oorschot (2002) call it: the principle of need (Beveridge) versus the principle of reciprocity (Bismarck).

differences are only the consequences of luck as Rawls supposed. The lucky, who earn much money, transfer money to the unlucky, the poor. Varian (1980) distinguishes three important consequences of redistribution: 1) the equity effect of changing distribution of income; 2) the efficiency effect, which comes from negative incentive effects; 3) the (positive) insurance effect. Varian (1980) shows with his simple model that with risk averse agents and no social security, over-saving occurs. Preventing over-saving and delivering insurance outweigh the incentive costs of redistribution in this model.
Varian also states that redistribution and insurance are interrelated: "Indeed, I suspect that widespread political support of many redistributive programs rests more with the social insurance aspect of the program than with altruistic consideration involving social welfare (Varian, 1980; p. 51)". This is related to the literature that considers social security policy as insurance mechanism, which induces risk-taking behaviour and therefore welfare.[7]
Sinn (1996) even stresses that the distinction made between insurance and redistribution is misleading. He provides two reasons. First if redistribution induces risk taking pre-tax income differences will increase, because risk taking increases the gap between those who win and those who lose. Second, an unequal society means more risks for especially young entrants, who do not know what their labour position will be in the future. This also increases the need for insurance.

2.2 Conclusion

When considering social security functions it is impossible to make a sharp distinction between different instruments of social security. Indeed, all instruments have elements of both approaches and the relative importance of the functions depends on the precise (national) characteristics of the instruments. Defined benefit occupational pensions have more solidarity elements than pension systems that are based on defined contribution (Bovenberg, 2003). Child benefits can be provided depending on income or not. Furthermore insurance and redistribution are interrelated. It does not matter for the incentives people face when they become unemployed if they get money from an insurance (unemployment benefit) or from a redistribution mechanism (social assistance). However, theoretically and practically it remains interesting to separate the different functions of social security.
Two main models can be distinguished: an insurance-based, Bismarckian and a minimum level of existence based, Beveridgean. Furthermore, five functions of social security can be theoretically separated: horizontal and vertical redistribution and insurance based on income solidarity, risk solidarity and reciprocity.
Of course, it is not possible to attribute the instruments of social security exclusively to the five functions. Almost all instruments have elements of both approaches and the five functions and the relative importance of the function depends on the precise characteristics of the instruments. However, a categorisation of the different instruments in different groups is helpful when further analysing the optimal decision level for social security provision theoretically. The overview of the five functions and examples of social security instruments provided in table 1 will therefore be used to develop the extended fiscal federalism framework in this paper.

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[7] See for a theoretical analysis of social security as an investment tool Arachi and D'Antoni (2004) and Sinn (1996). For an empirical confirmation of this idea, see Rodrik (1998) and Bird (2002).

Table 1: Redistribution and insurance

	Redistribution	**Insurance**
Ex ante	*vertical*	*risk solidarity*
	social assistance	health insurance
		unemployment insurance
		disability insurance
	horizontal	*income solidarity*
	child benefits	public old age pensions
Ex post		*solidarity of chance*
		supplementary pensions

In part I the research question, the approach and the applied concept of social security were defined. In this paper fiscal federalism theory will be extended by the five functions of social security described in this chapter. This way, the optimal way to divide responsibilities between different government levels for social security provision in Europe could be found. Before we can extent this framework, we will analyse the traditional fiscal federalism theory. Furthermore specific attention must be paid to the insurance functions of social security. This will be done in part II of this paper.

Part II: Analysing relevant factors

“The federal system was created with the intention of combining the different advantages which result from the magnitude and the littleness of nations…” “…In great centralised nations the legislator is obliged to give a character of uniformity to the laws, which does not always suit the diversity of customs and of districts; as he takes no cognisance of special cases, he can only proceed upon general principles… since legislation cannot adapt itself to the exigencies and the customs of the population, which is a great cause of trouble and misery”.

Alexis de Tocqueville in 1830 as cited by Oates (2005, p. 353)

3. Traditional fiscal federalism

In Part II of this paper the relevant factors to determine the optimal decision level with respect to social security are analysed.
In this chapter, the theoretical outline of the public economic approach to the optimal decision level for the "redistribution branch" is sketched. Attention is paid to the traditional fiscal federalism theories and the factors that are relevant to determine the optimal decision level. Further, it is argued that for the insurance part of social security the efficient risk pool, moral hazard and adverse selection are in the heart of the discussion.
Political economy considerations are of importance for both functions of social security. These issues are generally introduced in this chapter. In chapters 4-7 they are considered in greater detail.

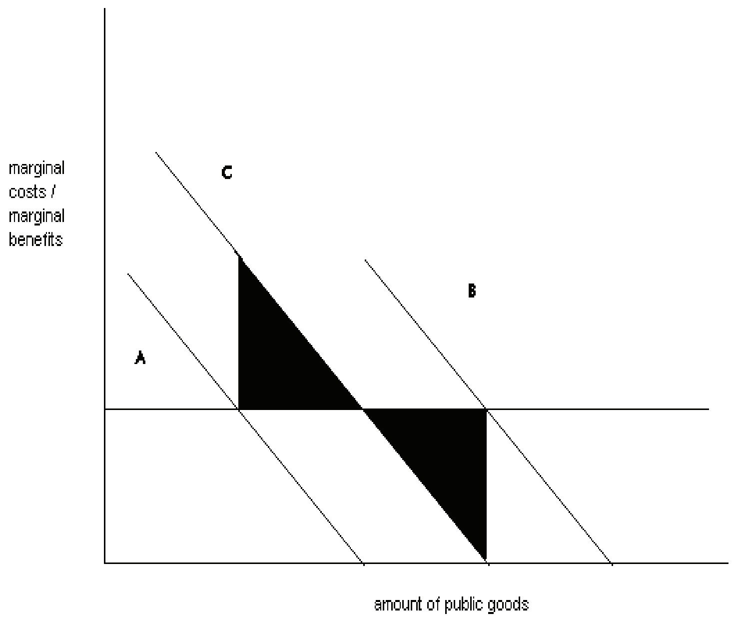
3.1 Fiscal Federalism

The traditional public economic approach of Musgrave (1959) and Oates (1972) is that redistribution must be provided at the central level. Musgrave (1959) divided three main "branches" of the central government: the allocation, the stabilisation and the redistributive function. The author stated that the allocation function should be attributed to the local government, because it has more information about local preferences than the central government.[8] Therefore, it is able to provide a better tax-public good mix than a central government can do. The stabilising role, however, could better be performed by the central government. Inflation, macro-economic stabilisation policies, exchange rates, and stabile economic growth, could better be provided on a central level. Decentral decisions could work against each other and reduce welfare, while co-ordination could improve policies and enhance welfare.
Redistribution, according to Musgrave, should be provided at the central level because of the threat of a social race to the bottom. A social race to the bottom occurs when rich people move to local governments that raise lower taxes and provide lower redistribution levels. This would result in smaller tax bases for "high tax-high redistribution" governments and therefore an unavoidable decline in redistribution. At the same time, poor people try to migrate to (local) governments with a generous redistributive system, which puts the 'high tax-high benefit' system under pressure. As such, in the presence of *labour and / or capital mobility*, tax competition with low redistribution can be the result. When redistribution is provided at the central level, policy competition will not occur. This means that there is room for the provision of a certain, nationally determined, amount of redistribution. Traditional economists assume that this is welfare improving.

[8] Of course only parts of the allocation function should be attributed to decentral governments. When there are goods that are characterised by economies of scale and / or externalities it may be optimal to provide these public goods at the central level.

With respect to the "allocation branch" of the government Oates' decentralisation theorem is relevant. This implies that decisions should be taken at the decentral level, unless it is optimal to decide on the central level. Oates (1972) argued that a decentral provision of local public goods must be preferred to a national provision of public goods, because preferences for public goods differ between regions. Regions can accommodate these different preferences, while the central government is supposed to deliver a *uniform* level of public goods.

Figure 1: Oates' decentralisation theorem



Source: Bailey (1999)

This is shown in figure 1, where people in the different regions A and B have different preferences for a public good. On the vertical axis we see the (marginal) costs and benefits and on the horizontal axis the amount of the public goods. The demand curves of the people in region and A and B are given. Region A wants less public goods than region B. When both decide by themselves the optimum is found: where marginal costs equal marginal benefits (where the horizontal marginal cost curve is crossed). When the central government C has to provide a uniform level of public goods in all regions, it chooses to provide less than the inhabitants of B want and more than the inhabitants of A. Therefore, a dead weight loss of the two black triangles results.[9] It is shown that the optimal amount of public goods will not be provided.

[9] A dead weight loss is a loss in social welfare due to a non-optimal equilibrium in markets. Pareto-improvements are than possible to reach, which implies that (some) people can be better off without making other people worse off.

The decentralisation theorem is perfectly in line with the subsidiarity principle laid down in current European policies (see box 1).

<u>Box 1: Oates' decentralisation theorem and the subsidiarity principle</u>
Oates' (1972) decentralisation theorem, which states that decisions should be taken at the decentral level, unless it is optimal to do this at the central level, is completely in line with Europe's subsidiarity principle. This principle was laid down in article 5 of the Maastricht Treaty (1992) and later in the Amsterdam Treaty (1997), because Germany and the United Kingdom were afraid of too much European influence on national policy domains (Ederveen et al., 2006).

Article 5 of the Amsterdam Treaty (1997):
"The Community shall act within the limits of the powers conferred upon it by this Treaty and of the objectives assigned to it therein. In areas which do not fall within its exclusive competence, the Community shall take action, in accordance with the principle of subsidiarity, only if and in so far as the objectives of the proposed actions cannot be sufficiently achieved by the Member States and can therefore, by reason of the scale or effects of the proposed action, be better achieved by the Community. Any action by the Community shall not go beyond what is necessary to achieve the objectives of the Treaty".

According to some economists the decentralisation theorem can be applied to redistribution (Pauly, 1973). Regions could have *different preferences* for the amount of redistribution that should be provided. Following the decentralisation theorem, when redistribution is provided at the central level, decentral governments are not able to accommodate these preferences and a dead weight loss results. Yet other economists claim that central governments do not have to provide *uniform levels* of public goods to all decentral governments (Lockwood, 2002; Besley and Coate, 2003). If preferences are dissimilar, the central government may provide different levels of public goods to different local governments.
Economists usually assume that decentral governments have *more information* about local preferences than national governments. Revealing the real preferences of local citizens is more difficult when decision-makers are "further away" from their voters.

Redistribution provided on a decentral level may have effects on other jurisdictions. This can be the case with interdependent utility functions and / or when labour and or capital are mobile. When there are positive or negative *externalities* induced by local government behaviour there may be a case for central co-ordination. Furthermore, *economies of scale* may exist when central governments provide social security. Providing social security on a central level may lower average costs. This strengthens the case for a central provision of public goods (Ederveen et al., 2006).

Insurance
However, these economies of scale may be especially relevant with respect to insurance. Risk sharing may lead to a more *efficient risk pool* and can therefore be an argument for centralising.

With respect to insurance mechanisms *moral hazard* and *adverse selection* are important to consider. Indeed, when people are insured they may change behaviour and act more risky than they would do without insurance (moral hazard). *Monitoring* behaviour may reduce this negative effect. Furthermore people who face more risks may want to insure themselves, while low risk people do not (adverse selection). This may prevent the market from creating insurances: an incomplete market results. The government can resolve this problem by obliged participation.

Political economy
Furthermore *political economy* considerations are important to determine the optimal decision level for social security. These models include decision procedures, asymmetric information and government behaviour (Oates, 2005). It is important how *governmental behaviour* is estimated. When a government is seen as a benevolent utility-maximiser the results from analyses regarding the optimal responsibilities of different governments is different than when a government is seen as a Leviathan.
The government environment is also of importance. *Capture, lobbying and corruption* may reduce efficient decision making by (de)central governments.
Furthermore the *specific constitutional design* is important when evaluating the optimal decision level for social security.

3.2 Conclusion
Traditional models of fiscal federalism show that a lot of factors may be important to determine the optimal decision level for redistribution. Different assumptions within models may lead to different conclusions about the optimal provision of redistribution. Indeed, when labour and capital are mobile it may be efficient to centralise redistribution functions. But what are the consequences when at the same time preferences differ between member states and Europe can only provide a "one size fits all" (uniform) level? And what if asymmetric information is a substantial problem?
By using theoretical economic models these problems are considered in greater detail. In chapter 4 attention is paid to asymmetric information, the uniformity condition and difference in preferences. In chapter 5 the consequences of mobile production factors on the optimal distribution of responsibilities with respect to redistribution is looked in greater detail.
Chapter 6 pays attention to factors that are especially relevant for social security functions that are based on insurance. Chapter 7 investigates the political economy considerations and its effects on the optimal provision for social security in greater detail.

4. Asymmetric information, uniformity and preferences

Different factors are relevant to determine the optimal decision level for redistribution in the European Union. In chapters 4 and 5, economic theory about these factors is discussed. Each analysis is based on different assumptions, which implies that it is not possible to separate one relevant factor on its own, without making assumptions about the other factors. However, it is tried to get insight in the mechanisms behind the effects that different factors have by investigating different models more closely.
In this chapter attention is focussed on the relevance of asymmetric information, the uniformity condition and differences in preferences. In chapter 5 the relevance of the mobility of production factors is analysed.

4.1 Asymmetric information

In this section a closer look is taken at the asymmetric information that is assumed to exist between governments. As was argued by Oates: local governments are more aware of the preferences of the local population. Therefore, when there are no spillovers, local governments can provide public goods with fewer distortions than the federal government can do. The traditional Tiebout (1956) paper is often referred to in the debate about this issue. Tiebout reacted on the seminal article of Samuelson (1954) about the optimal provision of public goods. In his article, Samuelson stated that the optimal provision of public goods is found when its costs equal the sum of the marginal social welfare in society. He ended his analysis with the sentence (p. 389): "The solution "exists"; the "problem" is how to find it". Tiebout claimed that he was able to find that solution. When people are mobile and free to choose the district where they want to live they can "vote with their feet" and search the government that exactly acts according to their preferences. The optimum tax-public goods combination is then found.
The Tiebout hypothesis got a lot of attention. However, the assumptions are very strong and not realistic; leading to a hollow claim that Samuelsons' solution was found. Tiebout assumed e.g. no mobility costs and no employment restrictions, perfect information and the inexistence of external effects.
The discussion about the optimal provision of public goods and how to provide them has never ended since. The same holds for the asymmetric information argument raised by Oates.

Asymmetric information with factor mobility and grants[10]

Raff and Wilson (1997) analyse that with well-informed local governments it may be optimal to decentralise income redistribution, even when the beneficiaries are quite mobile. They divide two types of incomplete information. The well-known differences in tastes for redistribution and the "ability" to redistribute income, which are based on differences in production functions. The authors investigate matching grants by the central government in a model with factor mobility. The central government has to deal with moral hazard and adverse selection by local governments, which are high and low productive (which is not known by the central government).
Among other things, distortionary different grants must be given to mobile workers to compensate landowners in inefficient government regions. A centralised redistribution

[10] Matching grants are analysed as a cooperation method in chapter 8 extensively. However, here is the focus on the theoretical relevance of the a-symmetric information argument.

policy has considerable costs that can hardly be outweighed by the benefits of a decentral provision.
Cremer and Pestiau (1996), in a simple model, come to a similar conclusion. They consider two countries, one rich and one poor, with different proportions of rich and poor people. A full-informed utility maximising central government equals income in both countries.[11] However with asymmetric information the rich country gets the full level of redistribution.[12] The poorer country does not, which results in less redistribution to the poorest people. In a decentral framework countries choose equal incomes in their countries, but because a rich and a poor country are considered these income levels are not the same.

When decentral governments have more information than central governments –which is usually assumed- this can be an argument for decentralisation. Indeed, as several authors show, central governments can not –or at a high price- reach the same welfare outcome as decentral governments.

4.2 Uniformity

After assessing the asymmetric information argument, the uniformity condition for central governments is analysed. Oates (1972) states that when there are spillovers a trade-off between central or local provision of public goods exists between heterogeneity in tastes and the degree of spillovers.[13] Also, when there are economies of scale, they should be outweighed by the heterogeneity argument to make local provision more efficient (Alesina et al., 1995). However as Besley and Coate (2003) state, the crucial underlying assumption is that the central government can make no difference in the provision of public goods between regions. There is a uniformity condition. They argue that this is a stringent restriction, because central governments are able to redistribute between governments. Of course, the driving factor is the information asymmetry between central and local governments that is assumed. In this section the relevance of the uniformity condition is investigated further.

Besley and Coate (2003) develop a political economy model in which it is possible for the central government to provide different levels of public goods in different regions. Nevertheless, a political problem results. Indeed, representatives try to get most of the central budget for their region. Minimum coalitions divide the cake. Centralised decision comes in their model with the costs of misallocation (spending is skewed towards the regions of the winning representatives) and uncertainty about the outcome. Moreover, voters in the regions vote strategically (they do not reveal their true preferences) to give their representative a good bargaining position. These costs must be weighed against the benefits of a central co-ordination of spillovers. Of course, when spillovers are low the misallocation problem is relatively big. Indeed, when local public goods provided by the

[11] In this simple model incomes are given exogenously and taxes are non-distorting.
[12] In micro-economic terms: with incomplete information, the self-selection constraint must be binding and therefore there is no distortion at the top.
[13] Spillovers are a synonym for externalities: effects on others than the decision maker (or economic agent) that are not taken into account when an economic transaction is made.

central government have less positive externalities, the negative consequences of the non-cooperative minimum winning coalition are greater.
Besley and Coate (2003) show that in this model central government intervention may be efficient when there are relative small spillovers, while Oates (1972) stated that with spillovers decentral government intervention is always preferable (with identical districts). On the other hand, when comparing local heterogeneity and spillover levels, the authors show that in this political economy model the case for centralisation is weaker. Indeed, heterogeneity in regions leads to greater consequences for the choices made by the minimum winning coalition, which weakens the case for central public goods provision.
When looking at a cooperative central government (a benevolent, social welfare maximising government), one gets to deal with strategic voters. Voters send their representatives to the cooperative bargaining table with a message that does not represent their true preferences. So, while the representatives are cooperative, non-cooperative solutions result, which weakens the case for centralisation.
Despite that, Besley and Coate (2003) conclude that spillovers and heterogeneity are still in the heart of the debate about the responsibilities of the different government levels. However, the reason is not the standard Oates approach, where the central government is not able to provide different levels of public goods in different regions, but the political economy of decision-making.

As Besley and Coate (2003), Lockwood (2002) amends the uniformity assumption of Oates (1973).[14] The author develops a political economy model with heterogeneous preferences between regions (but not within). There are two kinds of externalities: positive (the standard externalities of public goods) and negative ones (cost sharing, because the central government is able to tax different regions differently). Lockwood looks at public good projects that can get a majority of votes in a Condorcet winner model.[15] Lockwood uses the Hicks-Kaldor criterion to determine when decentralisation is more efficient. This implies that decentralisation is preferred over centralisation when total output is higher. The losers can be fully compensated by the gains of decentralisation. The author shows that when there are no externalities, decentralisation is preferred (which is the usual outcome). However, when externalities increase it is not always the case that centralisation is more efficient. Because of the bargaining system at the central government level, it may be more efficient to provide public goods at the local level. The reason is that uniformity costs are not the issue, but the lack of responsiveness of decision-making to project benefits is. When a great set of projects in this Condorcet setting is considered, central governments can reject efficient projects.

[14] Later, Oates (2005) argues that there are two main arguments, which may lead to uniform provision of public goods at the central level: a-symmetric information (about the local cost functions and preferences) and political considerations (where each region wants its part of the cake).
[15] The Condorcet winner method is an election method in which people rank candidates against each other. People in regions rank candidates. Then, there is an investigation which candidate is preferred more against the other candidates in each region. The candidate that is preferred most is the Condorcet winner. Of course, there are a lot of other systems to determine winners (absolute vote counts, ranked pairs, majority voting, et cetera), which can generate other outcomes.

Furthermore, the author shows that a decentral provision of public goods is never Pareto-improving because of the presence of the cost externality.[16] Some regions will always lose from decentralisation. On the other hand, central provision of public goods is Pareto-efficient when regions are sufficiently homogeneous and there are strong positive externalities.
The author also discusses the voting for the division of responsibilities between different government levels. Lockwood (2002) shows that with a majority rule, a majority will vote for decentralisation when there are no externalities and less cost externalities. When the positive externalities are big enough and there are not too many differences in cost externalities, voters choose for centralisation. However, when unanimity is needed when centralisation is the starting point, this will never change. When decentral decision-making is the initial situation, centralisation occurs when positive externalities are big and regions are sufficiently homogeneous. As could be expected, a unanimity rule leaves the initial situation almost always unchanged.
As Besley and Coate (2003), Lockwood (2002) concludes that the main message of Oates still remains. However, the analysis to come to this conclusion differs. Not uniformity of central government provision, but the political choice process and (positive and negative) externalities that have their influence on that process are the driving factors of this result.

4.3 Preferences

Differences in preferences are relevant to two extents with respect to redistribution. First, it is relevant if preferences for redistribution within a central (or supranational in the case of the EU) government are characterised by generally or locally determined preferences for redistribution. When people's interdependent share of utility only depends on the welfare of people with their nationality, redistribution can be seen as a local public good. Increasing the welfare of people abroad will then have no consequences for the social welfare in the country of origin.
If people's preferences for redistribution are based on the utility of all people within the central government, redistribution can be marked as a central public good. Due to (international) interdependences externalities will arise when decentral governments change redistribution policies. Indeed, the utility of people in other countries will change in that case. Lower redistribution levels will reduce the utility of these people, higher levels increase these utilities. The existence of external effects from decentral policy-making may from a public economic approach be an argument for central government intervention. The costs and benefits of decentral policy decisions can then be internalised. Of course, it is also possible that preferences for redistribution are based on a combination of these two. E.g. in Pauly's (1973) model preferences for redistribution depend on the distance from persons: the further down persons live away, the lower the preferences for redistribution.

[16] The definition of Pareto-improvements was given in footnote 9.

A second difference in preferences can be given by the amount of redistribution that should be provided. Dutch people may have preferences for more redistribution than inhabitants of the United Kingdom. The decentralisation theorem may than suggest that a decentral provision of redistribution is welfare enhancing (because of the reduction in dead weight loss). However, it may also be the case that the preferences for redistribution are based on (general) European preferences for horizontal and vertical redistribution.

Intradistrict differences
Of course, preferences within member states can also differ. Indeed, this may lead to nuanced conclusions with respect to the optimal decision level for redistribution. Akai and Mikamie (2006) developed a political economy model with a majority rule. They went back to the classical Oates assumptions without economies of scale, spillovers and a uniform provision of public goods to local people by the central government. Further, no mobility is assumed. However, the authors assume that besides different preferences between regions, there are also differences in preferences of inhabitants within a region. The authors show that in this model the median voter always has preferences to over provide public goods. Still, they show that if the intradistrict heterogeneity is big enough it is possible that a central government has fewer distortions. Indeed, the average can be better for the minorities in the local governments, than what the median voter in their district wants. The bigger the minorities, the greater the benefits from centralisation.

Motivation
Next to the two kinds of preferences, the motivation for preferences can differ. Altruism, but also own interests by reducing negative externalities of the poor (e.g. stealing, disturbing live environments, making noise) can be motivations for the rich to redistribute. Thereby, redistribution has elements of insurance for “If a certain event will happen” and can be motivated by well-understood self-interest (Sinn, 1996). In all these cases the preferences of the rich –by different motivations- determine the redistribution levels. However, it is also possible that the poor act in their own interest and try to reap benefits from the rich in a political economy context. This may lead to different outcomes, as will be shown in the next chapters.

4.4 Conclusion

Asymmetric information is an important determinant when assessing the optimal decision level for redistribution. When decentral governments are better able to reveal the preferences of the population, this may give arguments for decentralisation. The articles analysed in this chapter show that in political economy contexts asymmetric information problems between politicians, government levels and voters are in the heart of the debate of the optimal decision level. In chapter 7 more attention is paid to the effects political economy considerations can have on the optimal decision level with respect to social security.

The uniformity condition as such does not seem to be that relevant, but political economy considerations may replace this condition with the same result. Or as Oates (2005) argued: the uniformity condition is still relevant, because central governments do not have information about local preferences and cost functions and because of political considerations. Concordantly, there remains a trade-off between heterogeneity in preferences and spillovers between the different member states.

Since the public economic approach is taken, it is important to consider the specific utility functions of people.[17] When redistributive concerns are only determined on the member states' level, this may be an argument for decentralisation. However, when people derive utility from the wealth of other Europeans, there may be arguments for a European intervention. When preferences for redistribution within the EU are independent of the nationality of people, a central redistribution seems welfare enhancing, if negative externalities can be reduced.
Thereby, it is important to consider if the amount of redistribution that different people prefer differs. Preference matching as argument for decentralisation can then increase in importance. At last, if differences in preferences within member states are relatively great, it may –under strict assumptions- be welfare improving to provide redistribution on the central level, as Akai and Mikamie (2006) showed. In the chapter 9, it is considered what kind of preferences for social security Europeans have.

Asymmetric information and preference matching remain at the heart of the discussion about the optimal decision level for redistribution. Member states may have more information about the preferences of their inhabitants. However, with international interdependent utility functions, externalities may arise, which provide arguments for a European influence. Other relevant factors that may cause externalities are mobile factors of production. The consequences of this are discussed in the next chapter.

[17] Indeed, because maximizing total utility in Europe is the chosen normative approach.

5. Mobility of factors of production

The mobility of production factors is a crucial issue when the optimal decision level for redistribution is analysed. Indeed, if people and capital are immobile, tax competition and a race to the bottom will not occur. In such a case, the argument for providing redistribution at a central level to prevent social policy competition becomes irrelevant. Several authors have argued that, even if factors of production are mobile, decentral governments can reach an optimal provision level of redistribution.
In this chapter the effects that capital and labour mobility can have on the optimal decision level for redistribution are discussed. First, the mobility of labour is considered. Will conclusions change when only the rich or the poor are mobile?
Subsequently, the mobility of capital is analysed. Then, based on chapters 3, 4 and 5 a table is provided which shows the traditional fiscal federalism arguments for and against (de)central redistribution. In the next chapter the mobility of labour and capital on social security based on insurance functions is analysed.

5.1 Labour mobility

It was shown that traditional economists as Musgrave (1959) and Oates (1972) argued that redistribution should be provided at the central level. Mobility of labour would induce a social race to the bottom. Thereby, mobility comes with a cost (Pauly, 1973). Moving from one place to another can create a deadweight loss to society.
However, other economists stated that –with mobile labourers- redistribution could be efficiently provided by decentral governments. Pauly (1973) was the first author who made this point. He developed a model in which utility of inhabitants are interdependent. In the basic models of Oates, Musgrave and others, it was assumed that people act in their own interests. These interests are given by the optimisation of their own welfare. Pauly assumes that people optimise their utility as well as the utility of other people. So, utility is interdependent. Furthermore, he assumes that people, who live nearby, count heavier in the utility functions than people further away.[18] So, the utility interdependence decreases by distance.[19] Next to this, the author defines the following assumptions. Rich people define a minimum wealth level, which is the same for all the poor. So, poor people do not have voting power. Rich people pay a proportional tax to provide this. Further, it is assumed that the transfers received do not alter work effort of welfare recipients. Pauly investigates what happens in this model when 1) there is no mobility; 2) only taxpayers can move and 3) only welfare recipients can move.
When there is no mobility and there are no spillovers to the rich in a different region of the wealth of the poor in another region, the case is easy. Local governments can provide the optimal level of redistribution. Assumed that the central government can only provide an equal amount of wealth to all the poor (differences in transfers to the poor between regions are thus not allowed), it is found that local redistribution is always to be preferred

[18] Possibly this is a reasonable assumption for Europe, when it is assumed that people want to pay more for the inhabitants of their own country than for people from the other countries of the EU.
[19] Pauly (1973) argues, that this may be because of direct preferences for a more equal (own) society, but also because of the reason that poor people who live nearby are sooner involved with criminal activities against them.

above central redistribution.[20] In Pauly's positive analyses, he concludes (p. 45): "In short, there is no *theoretical* reason to suppose that consolidation will lead to greater redistribution".
Now, the case is considered, in which the rich get utility of the wealth of the poor in another region. However, this is less than the utility they get from the wealth level of the poor in their own region. Both groups stay immobile. There are two solutions to get the optimal level of income redistribution 1) marginal transfer between local governments or 2) matching grants paid by the central government. Because one cannot consider the real preferences of the rich in the real world, one has to deal with strategic behaviour. The efficient outcome is then difficult to achieve. Pauly (1973) shows with his positive analysis that voters will prefer lower federal tax rates (compared to local tax rates), which leads to a reduction in aggregate redistribution.

Mobile rich
If it is assumed that taxpayers are mobile and some extra assumptions are included, it can be shown that mobile taxpayers lead to inefficient results.[21] Inefficient in a sense, that not only the poor people are worse off due to lower wealth levels, but also the rich, due to negative externalities. Indeed, when people move to the no-tax area, the people who stay miss their tax contributions, which are a negative externality that causes inefficiencies. Nevertheless, migration can be Pareto-improving. The rich who move have –by definition- a higher utility level after migration. Yet, those who stay face either high mobility costs or have high preferences for redistribution. It can be the case that the preferences for higher redistribution levels outweigh the tax base effect, so that the poor benefit from the labour mobility of the rich and a Pareto-optimal result is found.
Because movement lowers the level of diseconomy, centrally provided redistribution is likely to be smaller in this scenario than a locally provided one. However, poor people in a region can also lose from locally provided redistribution with mobility of the rich.

Mobile poor
Now turn to the third case, when only welfare recipients are mobile. Pauly (1973) shows that local redistribution generates three kinds of efficiency costs. First, when raising redistribution in a region, tax savings by other taxpayers are not taken into account. Second, the poor that leave a region make the poor in the previous region better off, while decreasing the utility of the poor in the new region. There is no correction mechanism for this externality. Third, the costs of moving represents a dead weight loss. It seems that central redistribution is more efficient in a mobile poor scenario.
Pauly (1973) concludes that the view of the traditional economists is too simple. When a spatial dimension is taken into account with respect to the motivation for redistribution, local governments are serious institutions that can provide redistribution.

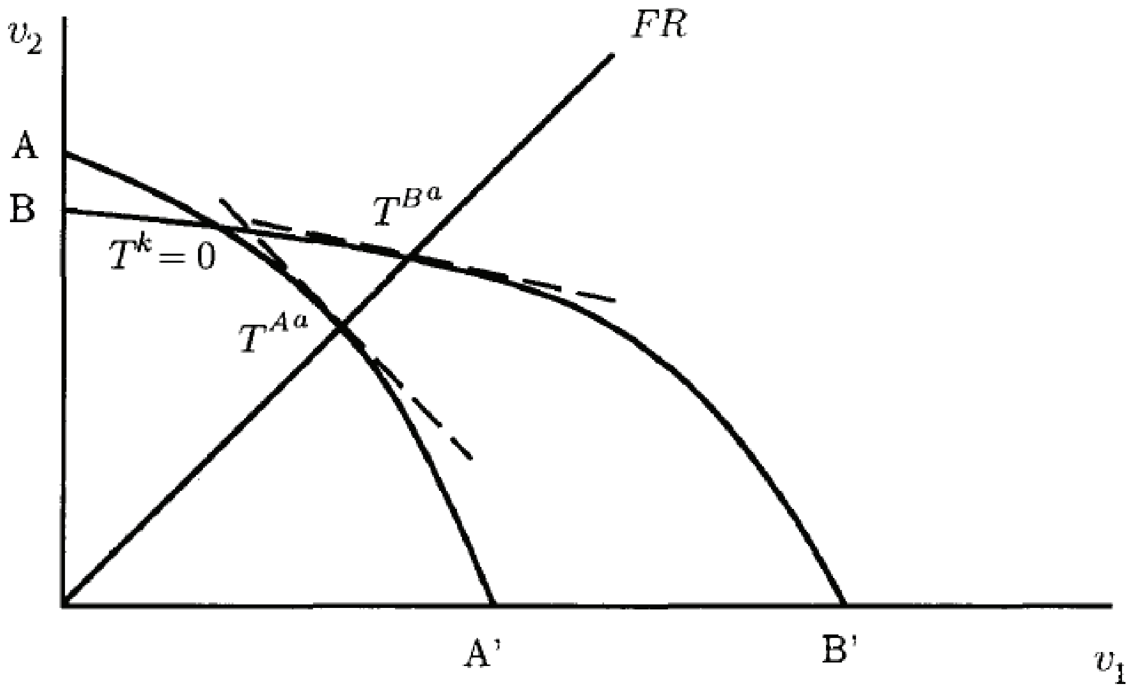
[20] Only, when the rich in every region exactly want the same wealth level of all the poor, the central provision of redistribution generates the same outcome as local redistribution.
[21] The main extra assumption is that the regions differ in their attractiveness. In the attractive region, there live poor (Pauly calls this the city centre), while there are no poor people in the other, less attractive, region.

Brown and Oates (1987) go further with the analysis of Pauly (1973). They start with the remark that if redistribution is not based on central altruism, mobility of the poor leads to a role for the central authority. This is where Pauly (1973) ended.
Brown and Oates (1987) analyse which government level should provide redistribution. The main difference with Pauly's model is that they assume homogeneous agents in a jurisdiction. So, it is assumed that everyone has the same preferences as the median voter, while in the Pauly (1973) model everyone has different utility functions. Furthermore they investigate the case in which the poor are mobile, while the rich do not react to tax differences (and are thus immobile).[22] As may be expected, a greater elasticity of migration, leaves the poor ceteris paribus with lower benefits. However, if the number of poor and migration pattern can change, the effect of a local redistributive policy may not be the same. In a general equilibrium analysis the authors show that the result for the "net immigration" region is ambiguous. An increase in migration elasticity has a decreasing effect on benefit levels, but a decrease in the amount of poor people makes it cheaper for the rich to increase the wealth level of the poor. However, a "typical" result is a lower average payment to the poor in the whole country.[23] This payment is –from a national perspective- probably too low, because only the utility of the non-poor are considered. A second normative argument that Brown and Oates (1987) put to the floor is that the differences between poor people and regions should not be too big. According to them, redistribution is a national public good. They end with the conclusion that with mobility of the poor, there are strong arguments for central government intervention.[24]

Excessive redistribution
As Pauly (1973), Leite-Monteiro (1997) developed a model with altruistic voters. Again, there are two countries, which differ in their populations, with two types of individuals. However, the rich only care about the poor who originally lived in their country. Migration comes with a differentiated cost between persons.[25] Leite-Monteiro compares the mobility-case with the case, when mobility comes with prohibitive high costs. The author shows that with mobility the result may be less, more or the same amount of redistribution. When the countries are symmetric, no migration occurs, but a decline in redistribution results due to the pressure from migration and a declining tax base. The race to the bottom argument is valid (to a certain extent).
When an asymmetric equilibrium with emigration of the rich is considered, this results in less (or incomplete) redistribution also. However, if immigration of the rich and the poor is assumed, the level of redistribution may be the same or even more than in the no-mobility case. This is shown in figures 2 and 3.

[22] In a footnote Brown and Oates (1987) claim that this is a reasonable assumption, when you look at the empirical evidence for the United States.
[23] Although the authors did not succeed in formalising this claim.
[24] Another "solution" could be to forbid the poor to migrate.
[25] Indeed, when the cost of migration for everyone is the same, a corner solution results in which everyone migrates or everyone stays.

Figure 2: Autarkic utility possibility frontiers

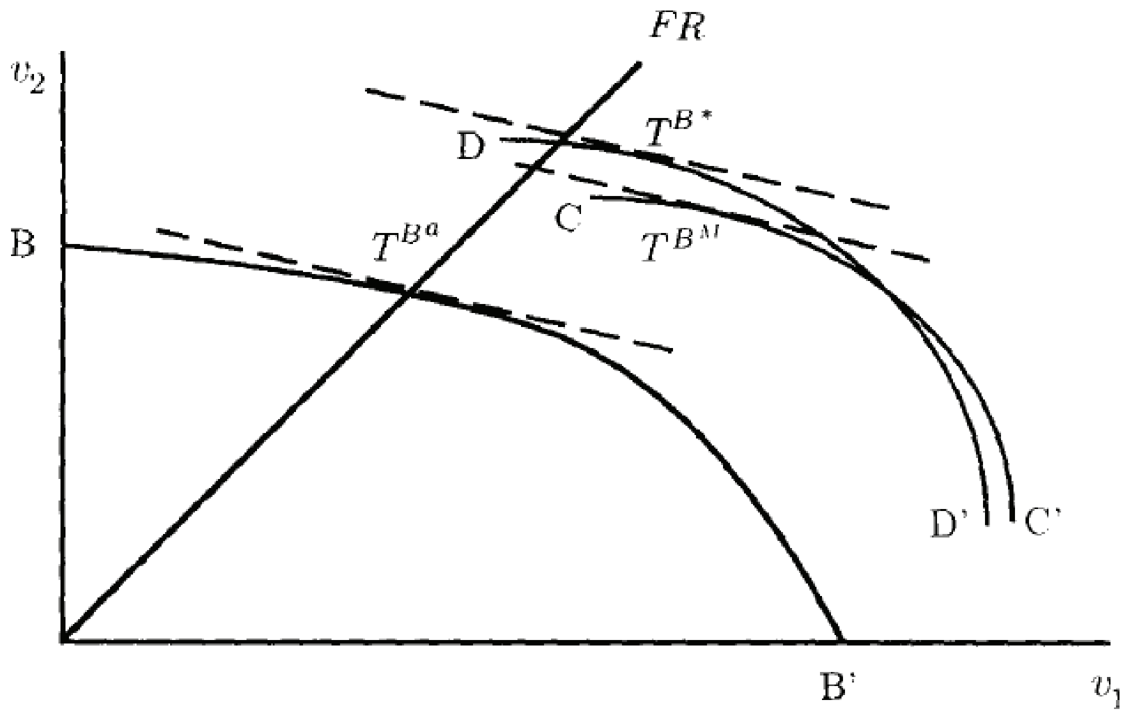


Source: Leite-Monteiro (1997)

In figure 2, the utility of the rich is given on the vertical axis and the utility of the poor, type 1 persons, on the horizontal axis. The figure shows the case, where country A has relative more poor people than country B. So, the production possibility frontier of country A (AA') lies within that of the frontier of country B (BB') for $T^{B1}<0$.[26] When the taxes in country B on the rich people are greater than zero, they have more possibilities. Without mobility, the level of redistribution is given by the relative composition of the country: T^{Aa} in country A and T^{Ba} in country B. In this example, it is shown that low and high-income individuals will migrate from country A to country B. Leite-Monteiro assumes that the rich type 2 persons, are more mobile.

[26] Indeed, $T^{B1}<0$ holds when tax rates and redistribution levels in country B are positive.

Figure 3: The utility possibility frontiers with immigration



Source: Leite-Monteiro (1997)

Figure 3 shows what occurs when people migrate from country A to B. With a myopic government frontier CC' results: government B sets its taxes and redistribution level without taking the increased tax base into account. With a rational government B, frontier DD' results. Both show an excessive level of redistribution, with T^{B*} and T^{BM} as equilibrium respectively. Indeed, the cost of reducing the tax on rich people increases (due to immigration, the tax base increased), while the opposite holds for people with lower incomes. Leite-Monteiro shows that when countries differ in their population structure and high income people are more mobile, excessive redistribution may result when redistribution is managed on a decentral level.

Kinds of competition

In another article, where the rich and the poor are mobile, it is argued that the redistributive outcome depends on the kind of competition between the governments (Hindriks, 1999). With transfer competition, a race to the bottom occurs. However, when there is strategic tax competition this is not the logical result. Hindriks (1999) assumes a lot of individuals with heterogeneous incomes and preferences for localities.[27] The number of jurisdictions is fixed.

Three strategic games are analysed: 1) a tax competition game, with tax rates as strategic variables and where governments anticipate on the expected migration flows; 2) a transfer competition game, with transfers as strategic variable and anticipating on the

[27] Indeed, a heterogeneous preference for a jurisdiction can analytically also be seen as people who differ in their mobility costs.

resulting division of the population and tax rates needed; 3) a tax-transfer competition game, where tax and transfers are strategies.
First, consider the tax competition game where it is shown that redistribution is higher, when people have a greater preference for redistribution and / or when the dependency ratio is lower. Furthermore, mobile rich reduce tax rates (and redistribution levels). A higher mobility of the poor, however, can increase the tax levels when the rich' preferences for redistribution are relatively great. The mobility of the poor can counter-balance the rich mobility to end with redistribution loving high incomes, who deliver relatively higher redistribution levels.
In the second example, policymakers do not take the tax rate of the other jurisdictions as given (as was the case in the first example). If it is assumed that corner solutions do not occur, the traditional race to the bottom is the result. When policymakers raise their transfer levels, they expect lower tax levels set by other jurisdictions, while the opposite holds in the former case.
The third option, tax-transfer competition, has results in between tax- and transfer-competition. Redistribution declines, but to a moderate extent. Furthermore, mobile poor always decrease redistribution levels.
Hindriks (1999) concludes that mobility of the rich declines tax rates and transfers under all circumstances, but mobility of the poor can result in higher redistribution levels. When the rich have a strong preference for redistribution and governments react "friendly" on each other, the benefit of taxation is high. So, a reduction in the tax rate (due to mobile poor) can be outweighed by the benefit the poor can get from migration.

Pelkmans (2006) states that due to low labour mobility in the EU, the income tax is essentially immobile. So, income redistribution based on this tax base can be provided efficiently in a decentral way. However, when mobility increases there may be a case for European involvement.

<u>5.2 Capital mobility</u>
Labour mobility is not the only relevant factor for the optimal provision of redistribution. Capital mobility can also prevent regions to provide redistributive social security. Indeed, when capital is taxed to provide redistribution, the effects of mobile capital should be taken into account. In this section, some models that theoretically explain the expected effects of mobile capital markets on redistribution levels are analysed.

The traditional view on mobile capital is that capital owners will seek the lowest tax rates, such that the rents can be as high as possible. When taxes on capital are raised to provide (horizontal or vertical) redistribution, policy competition may induce a race to the bottom, which may be inefficient.

Race to the top
However, a race to the top with mobile capital is also a possibility. Lejour and Verbon (1997) develop an endogenous growth model with tax competition. They show that an inefficient high level of redistribution can result, when decisions are taken at the local level. This is the case when the traditional externality (the tax base) is outweighed by the growth externality in their model.

The authors assume two groups in two countries: capitalists and workers. Capitalists are taxed to redistribute to the workers. Capitalists invest at home and abroad. Higher tax levels reduce the return on capital. So, this has consequences for the amount of investments in a country. A decline in foreign investments due to higher redistribution levels at home is not taken into account. People do not pay the full prices of higher redistribution levels in their home country. An inefficient high level of redistribution can be the consequence. This is the case, when the future is considered important (the rate of time preference is low) and / or when the investments abroad are relatively big. Indeed, a lower rate of time preferences weighs future wealth (and thus growth) heavier, which raises the growth externality. The same holds for more investments abroad. Of course, when there are no investments the growth externality is not present. With co-ordination these effects are taken into account and the optimal level of redistribution (with higher growth rates) results.
The authors point out the importance of economic growth in redistribution debates. However, they only consider a model with identical countries that face the same growth rate in equilibrium, which may not be a good estimate for Europe's diversity.

Pemberton (1999) comes to a similar conclusion as Lejour and Verbon (1997): a local provision may lead to an inefficient high level of redistribution. Pemberton states that, when all decentral governments assume that the world interest rate is given, the externality on interest rates from higher levels of redistribution is not taken into account. When denying the consequences of higher redistribution levels on savings rates inefficient high levels of redistribution will be the result. In the simple model, with two-period living individuals, without uncertainty, with perfect capital markets and without intergenerational redistribution, the author shows with his calibrations that there are substantial Pareto-efficient gains from international policy co-ordination. However, the author only looks at steady state equilibriums and leaves transitional dynamics for future research.[28]

5.3 Conclusion

When the effects of labour mobility on the optimal decision level for social security are analysed, different relevant variables can be distinguished. First, the reason to provide redistribution is important. It was shown that when the rich are altruistic and utility levels are interdependent decentral redistribution can be optimal under some assumptions (Pauly, 1973). Furthermore it is important to whom people are altruistic. As Brown and Oates (1983) show, when people are altruistic to people in a whole nation central provision of redistribution may be optimal. However, when inhabitants have more altruistic feelings for persons nearby, a decentral provision may be optimal.
The costs and dead weight losses that are related to migration must also be considered (Pauly, 1973).

[28] Although -as is well known- during transitions the consequences of restructuring economic systems may be substantial.

Another important issue is which groups are mobile. In Pauly's model mobile poor lead to lower redistribution levels, while with mobile rich higher levels result. In the Leite-Monteiro (1997) model it was shown that with mobility of only the rich or only the poor redistribution declines. But when both groups are mobile and countries have different population structures redistribution may even be excessively high.
Hindriks (1999) concludes that mobile poor may increase redistribution levels, while mobile rich reduces them. It is important to consider the mechanisms in all these articles to determine which effects are based on which assumptions, because the mobility of different groups can have different effects on redistribution levels.

With respect to capital mobility it may be concluded that in contrast with the standard policy competition outcome, in some models capital mobility may lead to inefficient high redistribution levels when this is provided at the decentral level. This is counterintuitive, because a tax competition effect may be expected. In the models of Lejour and Verbon (1997) and Pemberton (1999) a kind of small country assumption is used. Actions taken at the decentral level do not lead to actions by the other countries. Then, policy co-ordination may lead to welfare maximisation, which in these cases implies lower levels of redistribution.[29]

After having discussed the traditional fiscal federalism approach with respect to the "redistribution branch" it is possible to present table 2, which provides an impression under which circumstances a (de)central provision of redistribution is welfare enhancing and what can be the driving determinants. In chapters 3, 4 and 5 the relevant factors and determinants were discussed. The traditional arguments for central policy provision (the existence of economies of scales and / or cross border externalities) are reasons to provide redistribution at the central level. Preference matching and learning effects are arguments for a decentral provision of redistribution. The determinants that make a decentral provision more efficient due to preferences matching are the existence of asymmetric information, the uniformity condition for the central government, differences in preferences and local altruism.
In this chapter the cross-border externalities related to factor mobility were investigated more closely. In table 2, the standard tax and policy competition results are reflected as an argument for centralisation. However, also when a race to the top can occur, this provides arguments to centralise to reduce the negative externalities. Therefore, mobile labour and –when redistribution is financed by raising tax on capital- mobile capital should be weighted as an argument for centralisation.

[29] And as was shown: despite lower redistribution levels, co-ordination may even lead to Pareto-improvements (Pemberton, 1999).

Table 2: Attributing redistribution: The traditional approach

Approach		**Central**	**Determinants**		**Decentral**	**Determinants**
Traditional		economies of scale	same preferences for redistribution in EU and "EU-altruism"		preference matching	asymmetric information; uniformity condition; differences in preferences; local altruism
		cross-border externalities	uniformity at central level		learning effects	innovative new policies
<u>Labour mobility</u>						
race to the bottom		tax competition	especially mobile rich; dead weight loss mobility; redistribution European concern			
<u>Capital mobility</u>						
race to the bottom		tax competition				
race to the top			growth externalities not taken into account			

6. Insurance

The traditional approach, which was considered in the chapters before, pays attention to the "redistribution branch". In this paper the fiscal federalism framework is extended with the other function that social security has: insurance. In this chapter factors are analysed that are especially important with respect to insurance based on income solidarity, risk solidarity or solidarity of chance. Then, a table is provided with the main arguments and determinants for and against (de)centralisation of insurance-based social security functions.

6.1 Efficient risk pool

When considering if (de)centralisation is welfare improving with respect to insurance, the question is which risk pool is efficient and under what circumstances. Hindriks and Myles (2004) define four prerequisites for an efficient risk pool.
First, the broader the base, the more efficient risk pooling becomes. A broader risk pool may induce economies of scale. If the number of participants increases -ceteris paribus- risks can be shared with more people, which enhances efficiency. However, there are some prerequisites for broader risk pools to be efficient.
First, there must be some degree of negative risk correlation between participants. If a certain event occurs and everyone faces exactly the same consequences, it is not possible to insure people against an event. This could be an issue when a world disaster occurs. However, with respect to social security based on insurance there are always people who face a certain event and those who do not. Then another argument comes to the floor. With respect to some kind of insurances private provision might be more efficient (De Mooij, 2006).[30] However, when correlations between insured people are too big, companies may have problems to pay the promised benefits. Indeed, bankruptcies may arise. An alternative may be that inefficient high savings rates and reserves are needed. An example of an insurance which is characterised by this problem is unemployment insurance. During economic downturns a lot of people draw benefits and this may lead to financial problems and / or inefficient high premiums to prevent that this occurs. Private alternatives for unemployment insurances are therefore usually qualified as inefficient (De Mooij, 2006).[31]
Third, there must be some symmetry between participants. Otherwise, some people may always have to pay for other people and the system becomes unsustainable. Indeed, in this case redistribution is investigated instead of insurance. Finally, the amount of reciprocity is important. Participants must believe that everyone does what is promised. Contracts have to be enforceable.

[30] Private provision is especially interesting with respect to actuarial fair insurances, as will be argued later.
[31] Another motivation for the government to provide social insurances is intergenerational redistribution and intergenerational risk sharing (De Mooij, 2006). Section 6.2 pays attention to these elements, when the implicit pension contracts are analysed.

It follows from the third prerequisite that when the European Union considers many asymmetric shocks to the same regions, a central provision of insurance may not be optimal. Indeed, this results in implicit transfers from low- to high-risk regions. This is related to the vision of Krugman and Venables (1996). They state that further (European) economic integration can lead to more specialisation. This implies that sector specific shocks will hurt only those regions that are abundant in those sectors. When shocks are related, e.g. agriculture get shocks while services is not hurt, the risk pool may be more efficient on the national level.
The European Commission has the opposite vision (Eiffinger and De Haan, 2000). The Commission states that further economic integration will lead to more trade between regions and strengthened interrelations between nations. Economies will converge to each other with respect to economic development as well as with respect to their sector structures. This analysis consequently leads to the conclusion that the risk pool is relatively more efficient at the level of the EU.

Adverse selection and moral hazard
Especially in Europe insurance risks may be different between the member states of the EU. Poland has far more unemployed than e.g. the Netherlands. This is also related to the Krugman versus European Commission view of the way economic shocks will happen. When specialisation tendencies are expected, adverse selection seems to be more important than when intraregional trade evolves. However, it may be expected that European insurance mechanisms may lead to a greater pressure for adverse selection.
In the end, when low risk countries (or people) do not want insurance and high risk people want, premiums will rise. Adverse selection may lead to ever increasing premiums that become so high that nobody can get insurance anymore. Then, the standard Akerlof (1970) equilibrium results. This can be reduced by rules that oblige everyone to take the same (centrally provided) insurance.
A less extreme outcome may be a separating equilibrium, in which people who face high risks and people who face low risks have their own insurance (Tirole, 1988). Then, the low risk people are asking for lower insurance levels (with lower premiums) than the high risk people. Of course, this reduces the amount of risk (or income) solidarity of social insurances. Again, obligated insurances can solve this problem.
With respect to social insurance based on solidarity of chance the adverse selection problem is not relevant. Indeed, people pay an actuarial fair premium and do not have an incentive to separate from "costly" fellow-insured people.[32] An example of this kind of insurance is pensions based on defined contributions (Bovenberg, 2003).[33]

[32] Indeed, people may have different preferences for the amount of insurance. However, this only leads to different amounts of insurances, but does not change the contribution-benefit rate.
[33] However, it must be kept in mind that "real" actuarial fair insurances are difficult to find. No-discrimination rules may e.g. prevent insurance companies from asking actuarial fair premiums for e.g. women (who have higher life expectancies). The same discussion holds for people from different member states and healthy (or sick) people with differences in expected life times.

Moral hazard can occur if people have insurance. People change their behaviour, because they do not feel the pain of their decisions when a certain event occurs. It can be argued that governments that are "closer" to the insured people can monitor their behaviour better. This may be a reason to decentralise insurance mechanisms.[34] Other measures that might reduce moral hazard are sanctions, the introduction of no claim premiums and / or a part of own risks with respect to demanding insurance benefits. Moral hazard is relevant for all kind of insurances. However, with respect to moral hazard –again- the question may be raised how relevant this is for (all kinds of) pensions. It could be hardly imagined that people's behaviour is morally unjust, because they stay alive.

6.2 Pensions and mobility

An example of social insurance mechanisms that are based on insurance elements are (funded) pensions. People pay contributions during their life and receive benefits till they die. Pensions that are partially based on insurance mechanisms and partially on redistribution can be Pay-As-You-Go (PAYG) systems. E.g. in the Netherlands people pay income related taxes and all receive the same benefits per year when they receive a certain age.[35]

Adema et al. (2006) investigate the influence of ageing on the externalities that are related to the different pension systems. The authors show that countries with a funded pension system exhibit negative spillovers from countries that have PAYG systems in the long run. However, in the short run these effects are in the opposite direction. It is assumed that there is an integrated capital market with countries that have different pension systems. The same ageing shock occurs in all countries.[36] Adema et al. (2006) show that, in response to the shock, savings in the funded pension country increase more than in the PAYG-country, so in the long run the PAYG-country benefits from the integrated capital market. On the other hand, in the short run the effects are the other way around. This is due to the relatively smaller rise of the lower capital-labour ratio in the funded country compared with the PAYG-country. So, the harmful rise in the interest rate is smaller for the generation that is born in the funded country at the time the shock occurs. These results of Adema et al. (2006) are counterintuitive, because it is usually argued that countries with funded schemes are less vulnerable to ageing shocks. However, in an integrated capital market with countries having different pension systems, countries with funded systems may be more vulnerable to an ageing shock in the long run.

[34] This is e.g. one reason for the decentralisation of the social assistance (the "Wet Werk en Bijstand") from the central to the local governments in the Netherlands in 2005.
[35] However, this depends on the country specific PAYG-systems. In "Bismarckian" Germany e.g. people get (PAYG) pension benefits that are related to the amount of contributions paid during their life, while in the Netherlands benefits are not related to the amount of contributions paid (although they are related to the duration of living in the country).
[36] Adema et al. (2006) consider two shocks: an increase in longevity and lower fertility rates. Here only the increase in longevity is considered. With lower fertility rates, the effects for funded pension countries change for realistic estimates of the relevant variables.

Implicit pension contracts

Breyer and Kolmar (2002) analyse what happens with unfunded (PAYG) pension systems if labour is imperfectly mobile. The authors assume that the “place of residence principle” holds: people get the PAYG-pension from the state, where they live. When there is complete mobility of labour, they show that all PAYG-pensions and contributions must be the same. However, when labour is partly mobile this is not the result. Then, some central harmonisation is welfare improving. Even a “nationality principle” (instead of a place of residence principle) may not prevent the raised problems. Indeed, migration will not occur anymore, because there are no gains from moving to another country. However, now whole generations can choose to take the same nationality, leaving another generation without PAYG-benefits.[37] If this will occur depends on the mobility structure and the fertility rates. Indeed, when fertility rates decline, less people have to pay for the (bigger group of) elderly and therefore have an incentive to choose another nationality. In that case, the implicit generations’ contract of the PAYG-system is not stable anymore. A complete centralisation of pensions to a European level is then welfare improving.

Uebelmesser (2003) investigates the implicit contract between generations of a PAYG pension system. The author states that these contracts combined with the equal treatment rules of the EU may result in inefficient migration. After the start of a PAYG pension system some age cohorts receive benefits of the system, while they did not contribute. These benefits must be financed by the younger generations. Their contributions are higher than their benefits from the PAYG-system. The difference between the net present value of the benefits and contributions is the implicit tax generations have to pay. The difference in this tax between countries is a driver for younger generations to move to other countries. This mobility strengthens the negative effect, because implicit taxes will rise for people who stay in the emigration country. Because of this inefficient mobility the EU should intervene. Uebelmesser (2003) considers three scenarios (harmonisation, interjurisdictional transfers and delayed integration) in which European intervention –to different extents- is welfare improving.[38] Harmonisation of contribution rates in Europe takes away the inefficient migration, but has the usual negative consequences (no free choice of pension system in countries, no reaction on specific circumstances of countries, et cetera).

With perfect information, the central government can provide interjurisdictional transfers to local governments and reach the efficient outcome (Wildasin, 1991).

The third option is taking the home-country principle for social security. This implies that people belong to a pension system for their whole life. Even when they migrate, they have to pay (and get benefits) from their initial pension system. Inefficient migration does not occur anymore. However, political majorities (of e.g. the elderly) may lead to inefficient low labour supplies of the young, who have to pay.

Without a minimum of harmonisation, a race to the bottom will occur. Another, less attracting alternative, may be a prohibition of migration. Since one of the main goals of

[37] Breyer and Kolmar (2002) assume that people can choose their nationality once during their life and that they are not able to change this later.

[38] An analysis of these “cooperation measures” for social security in general is provided in chapter 8.

Europe is a free movement of labour, this is rather unlikely to happen. A certain level of harmonisation is necessary according to Uebelmesser (2003).

The effects of mobility on the different pension systems in the EU can be considerable. An integrated capital market may lead to positive consequences for countries with a relatively funded system in the short run and negative consequences in the long run (Adema et al., 2006). Labour mobility has consequences for the implicit contracts between generations. When people move to elevate the taxes they should pay, a race to the bottom may occur. And with the ageing population these effects are strengthened. Therefore, European intervention on this insurance based on income solidarity in Europe is needed according to Uebelmesser (2003).

Race to the top

Lejour and Verbon (1994) develop a model with two groups. One bears a high risk and the other group bears a low risk of being unemployed. However, the authors assume that both workers are equally productive, when they work. Lejour and Verbon (1994) investigate what happens when both groups are (partially) mobile. They show that when high-risk workers are relatively mobile and the low risk workers are not, lower social insurance levels result. This is the usual outcome. When the mobility of the low-risk group is much higher than the mobility of the high-risk group, redistribution is higher when a local government provides it than when a central authority does.

The authors describe the two functions of social security: redistribution and insurance. They assume that the low-risk people are not able to divide a risk pool for themselves. So, the high-risk people want full insurance, while the low risk ones do not. Policymakers set an optimal social security level, taking migration decisions and the impact on real wages into account. When high-risk people migrate to the high tax- high social security country, a lower degree of redistribution does not necessarily follow from the model. Lejour and Verbon (1994) argue that when the risk aversion is relatively high (the insurance part of the redistribution is relatively heavy weighted) and / or the congestion costs of living together in one country are sufficiently low, a higher redistribution level results when it is organised in a decentral way compared to a central provision of social insurance. Then, an inefficient race to the top is the result.

6.3 Conclusion

Table 3 summarises the arguments for a (de)central provision of social insurance. Insurances based on solidarity of chance can provide economies of scale, when an efficient risk pool can be formed. If this is the case depends on the broadness of the base, the existence of negative risk correlation and some symmetry between participants and if reciprocity can be guaranteed.

The same factors are relevant with respect to risk solidarity. A broader base may increase efficiency. However, when industrial specialisation in Europe occurs, this will induce asymmetric shocks and may reduce an efficient insurance provision on the central scale. Indeed, in the end insurance then becomes redistribution.

Furthermore, moral hazard can be a risk. This holds for the three described functions of insurance. If member states are better able to monitor (and punish) bad behaviour, this may be an argument for a decentral provision.

Adverse selection is important with respect to insurances based on risk and income solidarity.[39] Indeed, when ex ante differences between people exist there are incentives for high risks to insure themselves against lower costs than actuarial fair insurance systems would ask. The same holds for groups of people and countries. Countries that have relatively much unemployment may pledge for a European unemployment system, while other countries may appose it. To assess whether it is welfare improving to attribute these insurances to the (de)central government level, adverse selection mechanisms must than be weighted against other relevant factors for redistributive elements discussed in previous sections (e.g. preference matching, the amount of preferences for European altruism, et cetera).
A specific event was raised by Lejour and Verbon (1994), who argue that a "race to the top" with respect to a decentral provision of insurances based on risk solidarity could occur.
With respect to insurances based on income solidarity, initial institutions are of importance, especially with respect to pension systems. Indeed, the European countries diverse to a great extent in their pension systems and this may induce negative externalities in an integrated capital market. Furthermore, labour mobility can have consequences on the implicit contracts between generations. When people move to elevate the taxes they should pay, a race to the bottom may occur. So, especially, if production factors are mobile, ageing occurs and implicit pension contracts differ between countries, the risk of negative externalities is great. In that case a (complete) decentral provision of insurances based on income solidarity should not be advocated.

Table 3: Attributing insurance

Approach		**Central**	**Determinants**		**Decentral**	**Determinants**
Solidarity of chance		economies of scale	broad base; negative risk correlation; some symmetry; reciprocity			
					moral hazard	monitoring
Risk solidarity		economies of scale	broad base; negative risk correlation; some symmetry; reciprocity; intra-industrial trade		specialisation; adverse selection; preference matching	
		race to the top	different population structures; low risks relative mobile		moral hazard	monitoring
Income solidarity		race to the bottom	capital mobility; ageing; implicit pension contracts		adverse selection; preference matching	
					moral hazard	monitoring

[39] With actuarial fair insurances (that are based on reciprocity) adverse selection is not a problem, because people pay contributions directly related to the expected risks and benefits they face.

7. Political economy considerations

Up till now governments that maximise the utility of (parts of) their inhabitants were considered. There are, however, also governments that are not benevolent and try to maximise the profits of some people in office. Furthermore politicians may be corrupt or lobby groups may reap benefits from the common pool.
Thereby, there may be information and delegation problems between politicians and people. Therefore it is relevant to look at the specific constitution in which decisions are made. Political economy considerations are important for both functions of social security. Indeed, inefficiency in (de)central policymaking has consequences for an efficient provision of social security for redistribution as well as insurance mechanisms. In this chapter, attention is paid to Leviathan governments, lobbying and corruption. Also, second-generation theories of fiscal federalism and the specific European Constitution are considered. The chapter concludes with a table, where the (dis)advantages of a (de)central provision of social security are summarised.

7.1 Leviathan governments

One of the most famous (static) political models of the government is the Leviathan government developed by Niskanen (1968). This author states that bureaucrats try to maximise their revenues, instead of the utility of the inhabitants. This results in governmental intervention that is two times bigger than in the optimal situation.
Of course, different assumptions about governmental behaviour lead to different conclusions in the discussion about attributing social security policies to different government levels. Indeed, when it is assumed that governmental influence is initially inefficiently high, tax competition reduces the amount of governmental expenditures, which enhances total welfare. Or as the British government stated in the debate about European tax co-ordination in 1988, as cited by Edwards and Keen (1996, p.115): “The pressure on tax rates would in general be downwards, providing an essential antidote to the in-built pressures for increased public expenditures and taxation”.
Edwards and Keen (1996) try to get the debate about the desirability of central cooperation on a higher level.[40] They analyse the deeper mechanisms at work when comparing the effects on central policy co-ordination within a partially Leviathan and a partially benevolent government. Then, as they state, it is not a question of faith in one of the governments behaviours, but it can be analysed more specifically under what circumstances central policy co-ordination may be welfare enhancing. Therefore they build a tax competition model with mobile capital and governments that are neither totally benevolent nor totally revenue maximisers. They assume that policymakers act as if people have diminishing marginal utilities on the public goods. Central provision of the public good elevates the tax externality, because it is assumed that central taxes are lump sum and thus not welfare distorting. There are three effects of centralised taxation:
1) citizens are worse of, because they have less money to spend on private goods;
2) a positive effect of more public good provision and 3) a negative relative price effect, because the marginal value of public goods diminishes.

[40] For the analyses of the articles by Edwards and Keen (1996) and Keen and Kotsogiannis (2003) the paper of Voget (2006) is used.

The authors show that, with full mobility co-ordination, it is always welfare enhancing if the elasticity of the tax on mobile capital exceeds the marginal propensity to waste revenues of the policy maker. This implies that when the elasticity is 0.4 it is welfare improving to co-ordinate decision making even when governments have additional (inefficient) expenditures of 35 per cent. This gives the insight that two effects are relevant to determine if centralisation of decision-making is optimal to consider the efficiency effects of centralisation, even when it is not exactly known which type of government is dealt with.

Furthermore Keen and Kotsogiannis (2003) show that when next to horizontal also vertical externalities (between levels of government) are considered, cooperation may be welfare enhancing, even with Leviathan governments.[41] They use the Laffer curve to make this point.[42] Because both levels of government share their tax base, over taxation occurs and there is under saving. When governments are on the "wrong" side of the Laffer curve, it is welfare enhancing (for both governments and for consumers) to co-ordinate policies. This sharply contrasts with the standard theories about Leviathan governments.

7.2 Capture, lobbying and corruption

"Capture" is another form, which diminishes governmental efficiency (Pelkmans, 2006). Private companies or groups may lobby for benefits from the central pool. A European example is that of the Common Agricultural Policy, where one sector reaps a big part of the budget of the European Union.
Lobbying may be more attractive at the central level, because there are fewer players to deal with (Ederveen et al., 2006). Furthermore foreign influences may be bigger, when policies are centralised. Foreigners can lobby twice: on the central and on the decentral level. Especially when the aims of domestic people and foreigners coincide, this lobby may be more powerful. However, when the interests do not coincide, domestic power may be allocated to lobby against the foreigners and centralisation may reduce lobby power.
So, it depends on the specific circumstances whether (de)centralisation reduces capture (Ederveen et al., 2006).

Corruption

Next, corruption must be considered. Prud'homme (1994) states that corruption might be more important at the local level. First, because there are more opportunities for corruption, since there are fewer votes that can contribute to ones re-election. Second, because discretion of politicians at the local level is greater than on the national level. Furthermore, Prud'homme (1994) states that democratic control of local governments is often weaker than on national governments. In the context of Europe, one may

[41] The authors assume -in this vertical externality context- that both governments (lower and central) act like Leviathans. This contrasts with the usual assumption of one (lower-) level of government that acts like a Leviathan, while the other maximises welfare.
[42] The Laffer curve means that there is a tax level that maximises governmental revenues. When taxes are "too high" according to this theory, tax bases shrink due to higher taxation and revenues decline. Indeed, then lower taxation levels will increase tax income.

reasonably assume that it is the other way around: national governments know a tighter attention from the media and politicians than the EU. This pushes the point for a more decentral provision of social security. However, others state that there is no theoretical reason why corruption should be more relevant at the decentral than on the central level. Arikan (2004) shows in his empirical analyses of 85 countries that there is a small negative relation between fiscal decentralisation and the amount of corruption. This holds for less as well as for developed countries. Theoretically, lower levels of governments face more competition and therefore leave less room for rent seeking and corruption. However, Tanzi (2001) shows that others did not find this effect or even find a positive effect between decentralisation and corruption.

7.3 Second-generation theory of fiscal federalism

In the previous chapters and sections, the relevant factors that determine the optimal decision level from the traditional fiscal federalism approach, for insurance functions and governmental behaviour were discussed. Now more dynamic political economy factors are analysed. Oates (2005) calls these: the second-generation of fiscal federalism models. By now, more constitutional variables are endogenised. Attention is paid to political majorities that determine social security levels.
Due to the fact that it is difficult to make a strict distinction between all models that are analysed, models are discussed where political economy arguments are in the centre of the debate.[43]

The second-generation theory of fiscal federalism drives on two sources: 1) the focus on the political process and behaviour of political agents and 2) the (micro-economic) literature about information problems that show that optimal (decision) procedures and institutions may vary substantially as a result of imperfect information. The debate in this second-generation theory is more about a trade-off between "accountability" at the local level (acting according the preferences) and internalisation of externalities.[44]
In this section principal-agents problems are a crucial issue, where the central planner could be seen as principal and the local governments are seen as the agents. Principal-agents problems can also exist between (regional) voters and politicians, which can have implications for the standard public economic outcomes. The constitutional affairs are, as Oates (2005) argues, more endogenous and "self-enforcing" in these new models, while the first-generation models are more static in nature. In this context, attention is paid to the export of market distortions, endogenously determined separation and the voting paradox. Europe's constitutional design is analysed in section 7.4.

[43] Indeed, when discussing the effects of the mobility of factors of production, the uniformity condition, matching grants et cetera, it was investigated what happened when political majorities changed also (e.g. in Lejour and Verbon, 1994 and Leite-Monteiro, 1997). However, it is tried to distinguish the main issues raised in the articles and group them in different chapters and section. As is stated, in this section the focus is especially on the dynamic political economy considerations. However, migrations, the uniformity condition, matching grants, et cetera also play a role in these models.
[44] As was shown in the chapters before the traditional trade-off was between the advantages of decentral preferences matching and the advantages of central economies of scale and the possibility to internalise externalities.

Export of market distortions
Perotti (2001) developed a Cobb-Douglas model with which one could see what the consequences are of a federal redistribution policy with factor mobility. The author investigates a normative model, in which a central provision of redistribution is exogenously determined, and a positive model in which majority voters decide about the government decision level of redistribution. Perotti (2001) examined the distributive and efficiency effects under both approaches. The author considers the traditional efficiency-equity trade-off.[45] This is captured by two effects of redistribution on efficiency: the distortion in the allocation of the production factors by inefficient migration and the degree of union power. Perotti (2001) considers a two-country model, where one country (B) has a perfect competitive labour market and the other country (A) has a monopoly union. Furthermore, to focus on the traditional trade-off it is assumed that preferences for redistribution between countries are the same, there is no uncertainty and no moral hazard.

The author starts with the normative analysis. He assumes that there are three classes of agents in each country (which all have a mass of less than a half, while the total population in a country is equal to unity): 1) the labour force, which can supply a unit of labour; 2) the capitalists, each endowed with a unit of capital and 3) pensioners, which rely totally on redistribution. Capitalists pay a proportional tax rate to finance the unemployment benefits and pensions, which are, for simplicity, the same. The fiscal policy (the amount of taxes and redistribution) is determined by majority voting.[46]
Now, Perotti (2001) considers what happens under different institutional configurations. The author starts with the case of decentral decision-making and immobile labour and capital. Of course, the competitive labour market knows no unemployment and therefore, voters choose for zero tax rates and minimal levels of redistribution.[47] In the union-country maximum tax rates are chosen and unemployment results. Consider now the centralised case. The tax base is roughly doubled, while the revenues are divided by relatively few persons (indeed, there are only unemployed in the country with a union). Pensioners and workers in the union country will always vote for taxes and redistribution, while all capitalists and workers in the competitive country will vote against it. If the mass of pensioners is relatively big the maximum tax rates result, while the opposite occurs when the mass of capitalists is relatively big. In the first case, total output in the union country is lower.
Now, suppose also mobile capital. Usually, it is assumed that this is efficiency-enhancing. However, it will be shown that voters' preferences can change and the expected gains are not always realised.
There are two effects of mobile capital on taxation in country A: 1) a direct effect, a flow of capital from A to B till the marginal returns on capital are equal; 2) an indirect effect, due to redistribution there are less workers in country A and this decreases the amount of

[45] Note that this model is different from other models (e.g. Pauly, 1973) in the sense that redistribution does not come from altruism and that negative participation effects of redistribution are an important element of the model.
[46] The authors assume that redistribution comes with convex costs, so that totally reaping the capitalists is not optimal for the other groups.
[47] As was shown, altruism does not play a role in these models.

capital in A. Of course, the direct effect is only present in a decentralised regime, where tax rates can differ.

Voters in country A vote for zero taxes in a decentralised regime, because of the two effects, so redistribution does not occur in both countries. In a centralised regime, only the indirect effect prevails. This lowers the cost for inhabitants of country A. They vote for maximum tax rates. Workers in country B do the same: indeed the indirect effect increases their wages, so a maximum tax rate and lower efficiency results.
With only labour mobility, the power of the union can even increase. Indeed workers in A can choose between the originally high wage in country B or a subsidy. Again the preferences of the B-workers are changed in the direction to more taxation. In a decentralised system, workers from A drive down wages in B till they are equal to their unemployment benefit. Now, workers in B maximise their utility by voting for higher redistribution levels. Indeed, although they have a competitive labour market, unemployment can be introduced in country B![48] Approximately the same reasoning holds for a centralised provision of social security.
With complete factor mobility a fully efficient allocation of factors results. Indeed tax competition under decentralisation results and the tax rates are zero. With a central government wages must be the same in both countries. A's unemployed go to B and take the initial capital of country A with them. Therefore all workers vote against redistribution.

Table 4: Institutional configurations and efficiency[49]

	II	MI	IM	MM
C	0.76, 1 (1) or 1, 1 (2)	0.82, 1.10	0.68, 1.13	1, 1
D	0.83, 1	1, 1	0.67, 1.12	1, 1

Source: Perotti (2001)

These results are summarised in table 4. There is chosen for an alpha of 0.3 for the Cobb-Douglas production function and the labour force and capital are normalised to one in each country. So, the efficient production level in each country is 1. As can be seen, centralisation ceteris paribus reduces efficiency when only capital is mobile.[50] Second, when only one production factor is liberalised and becomes mobile in a centralised system, a less efficient outcome may result compared to the case when both factors are immobile.

[48] This is the case, when the employment subsidy must be sufficiently small for B's workers (and thus the return on labour and / or the percentage of pensioners must be sufficiently small)
[49] Where in the rows: C is C(entralised) and D is D(ecentralised). The first capital in the columns is M(obile) or I((mmobile) capital and the second capital is M(obile) or I(mmobile) labour.
[50] And also when both factors are immobile and the number of pensioners is greater than the number of capitalists, which is circumstance "(1)" in table 4.

It should be remembered that factor mobility and the choice for a central or decentral constitution was exogenously given till so far, whereas, especially in the long run, this is often endogenously determined.[51] Perotti (2001) therefore takes a positive approach where the inhabitants of both countries vote at the same time for three regimes: the federal system and the mobility of both production factors. To induce factor mobility it is required that both countries agree on that. Thereafter, they vote for the tax rate. Perotti (2001) shows that from the decentralised systems only the one with immobile production factors has a Nash equilibrium. Centralised systems should provide an improvement for majorities in both countries to sustain. It is shown, that depending on the share labour in the economy and the number of pensioners, indeed a centralised state with immobile labour and mobile capital may outperform the decentral equilibrium.[52] So, Perotti concludes that also with endogenous voting an inefficient equilibrium with no complete factor mobility can be the result.
The author concludes that these results are relevant for the EU. Labour markets are diverse and there is asymmetry between the mobility of capital and labour in the EU. Perotti (2001) warns for the dangers of a common social policy, when labour markets are not mobile and / or the rents in labour markets decrease. Furthermore, the author remarks that elimination of these (union) rents is important, because –contrary to common believes- people in countries without distortions may also support inefficient policy outcomes.

Separation
As early as in 1965 Tartlon demonstrated that not only heterogeneity is relevant to maintain a federation. A certain amount of homogeneity is also necessary. Regions must look like each other on different aspects: size, population, preferences, culture, et cetera otherwise problems within a federation will occur. Tartlon (1965) calls this that there must be certain “symmetry” between regions to have a well-functioning federal system.

Bolton and Roland (1996) consider the integration or separation of countries, which was done among others in the famous Alesina et al. (1995 and 2005) articles. They develop a two-country voting model with individuals who may have different preferences for the composition and the quantity of public goods. Furthermore, the income distribution between the countries can differ, while taxes are linear in both regions. The reason why countries separate is to act in accordance with their inhabitants’ interests, which is the standard Tiebout (1956) argument. The reason, why countries integrate is the elimination of fiscal competition and / or scale effects in production.[53] When there is no mobility the authors show that different preferences between countries for the amount of public goods result in relative high costs of a central provision of public goods. Bolton and Roland (1996, p. 101) call the example of the United Kingdom, where European integration is seen as “socialism through the backdoor”, and Scandinavian countries where integration

[51] In that case the decisive workers in B would often oppose against inefficient results, except from the case with centralised redistribution and mobile capital (1.10 dominates 1). Then, B’s workers can profit from the capital that flows from A to B, while A’s workers still prefer a centralised redistribution.
[52] With a relatively large share of labour returns and relatively few pensioners this equilibrium results.
[53] For the research question in this thesis, the economies of scale argument seems reasonable for the insurance role of social security, while it is less relevant for the redistribution part.

is seen as a "threat to the welfare state". So, the economies of scale must be very high without mobility to centralise policies.
With complete mobility and different preferences between jurisdictions the reverse Tiebout result is relevant: although preferences diverge, every jurisdiction provides the same composition and amount of public goods.[54] Because equal tax rates result, there are no heterogeneity gains anymore from a local provision of public goods. So, very small efficiency gains and / or gains from lessening tax competition are enough for political support for centralisation.
Now, Bolton and Roland (1996) consider differences in preferences over the composition of public goods in the no-mobility case. They assume that there are two public goods, e.g. infrastructure and care and that some people only get utility from infrastructure and some people only derive utility from care. The authors show that the bigger the minority (that does not derive utility from a good) in a country, the lower the tax rates.
When perfect mobility is introduced, a perfect sorting equilibrium exists. Now, mobility leads to higher tax rates, because people are distinguished for their preference for a type of good. The Tiebout theorem holds. In this case, political integration will always be rejected even when there can be substantial economies of scale. This is because a majority will choose to produce only one good. So, the minority of the inhabitants of the integrated country cannot derive any benefit and therefore votes against a central provision. The authors state that the critics of Oates' (1972) assumption that the central government only provides homogeneous public goods can see that in their model this is the result. Even without the assumption of homogeneous public good provision, this happens in equilibrium. Only local governments can accommodate heterogeneous preferences. Indeed, this strengthens the conclusion drawn in chapter 4 that the uniformity condition is not that important to determine the optimal decision level for social security.

Voting paradox
Bös (1979) developed a political economy model with differences in income levels between regions. He shows that a voting paradox can exist: redistribution does not occur when local voters decide, while it does when it is decided on a central level. The driving force in this model is a shift in majorities voting for a public good. When people have to pay a poll tax, the income distribution in a region or a country becomes relevant. Then, majority decisions depend on the ratio of median and mean income.[55] The median income is relevant for the majority vote, while the mean determines the quantity of the public good (and indirect the level of redistribution).

[54] This result holds only, when people have different income levels. In the case where all people earn the same and there are differences in preferences we get a high tax - high public goods equilibrium and a low tax - low public goods separating equilibrium results.
[55] The author assumes that there are relatively more poor people and relatively less rich, so the income distribution is skewed to the left. This seems an assumption in accordance with what can be seen in reality.

7.4 Europe's constitutional design

Decision procedures are important when considering policy outcomes. The public economic debate of the federal system of the United States cannot be discussed in the same way as the confederal system of the European Union (Cremer and Pestieau, 2004), see box 2. Where the Unites States can try to maximise welfare, the European Union is better described as a system where only Pareto-improvements can be made. Otherwise countries can veto decisions. Negotiation, cooperation and Pareto-improvements deserve extra attention when the optimal decision level for social security is discussed in the European context.

Box 2: Is the European Union a federation?

There are four critical differences between a federation and the European Union (Pelkmans, 2006). First the logic in the EU of striving to economic integration is very different from the usual debates in a federation about the optimal level of (economic) decentralisation. In a federation there is some degree of centrality, while Europe does not have that basic starting point. Together with veto power for countries with respect to changing treaties (political) costs of centralisation are much higher in Europe than in federations.

Second, the EU does not have the internal market that characterises a federation.[56] Therefore "political spillovers" between policy areas are far less available.[57] Thereby, where following European laws the free movement of workers is relevant. But de jure is not de facto. Indeed, current mobility practice and costs within the EU differ from a federation, where movements of persons are de jure free (Pelkmans, 2006).

Thirdly, the EU has no right to tax, no common army and foreign policy and some countries do not have the same currency. While there are –following economic federalism- reasons to a degree of centralisation. Moreover, Persson et al. (1996) state that with respect to redistribution and risk sharing on the European level legitimacy for a central policy is lacking. And according to Bureau and Chamsaur (1992) a persistent difference between a federation and the EU is the reluctance of countries to divide power to the EU. The stability function e.g. is constrained by forbidding the EU to borrow. [58]

The fourth characteristic where the EU differs from federations is that the EU has no central government. So, the EU can not be categorised as a federation.

Three kinds of federalism

Inman and Rubinfield (1997) define three kinds of federalism: economic federalism, cooperative federalism and democratic (majority-rule) federalism.

[56] Of course, the EU tries to establish the internal market. However, Pelkmans (2006) argues that next to economic (trade) criteria an "real" internal market must also have a political dimension, which is lacking in Europe.

[57] Here, the complementary of policy areas is meant. Creating an internal market has e.g. consequences for production standards, but also for tax policies, environmental standards et cetera. When more policy areas are centralised, there will be "political spillovers" to other areas. Centralising is than more attractive. In section 9.4 this issue is discussed further.

[58] However, the EU has with the Maastricht Treaty some influence on the fiscal policies of the countries (see e.g. Eiffinger and De Haan, 2000).

Their definition of the first one (p. 45): "The principle of economic federalism prefers the most decentralised structure of government capable of internalising all economic externalities, subject to the constitutional constraint that all central government policies be decided by an elected or appointed central planner. This principle is in line with the standard public economic approach where efficiency is very important. Two other aspects, that are relevant when considering the discussion about the constitution, "political participation and liberties" and "freedom", are of second-order importance in this model.

The second principle is defined as (p. 48): "The principal of cooperative federalism is to prefer the most decentralised structure of government capable of internalising all economic externalities, subject to the constitutional constraint that all central government policies are agreed to unanimously by the elected representatives from each of the lower-tier governments". The authors state that the trust in central policymakers to solve the problems of inefficiency (caused by e.g. externalities) in an economy is not that strong, when this principle is used. Only when it is Pareto-improving to centralise, this will happen. However, it is possible to compensate the losers from a shift in responsibilities to the central government (so the Hicks-Kaldor criterion is used). In a Coasian economy, lower-levels of government are able to compensate each other exactly for all externalities. As Coase (1960) showed, when property rights are well-developed and there are no transaction costs the economy (and lower governments also) will be in an efficient equilibrium. In the cooperative federalism view, the task of the central government is to facilitate these efficient agreements between local governments. However, in practice external effects are difficult to measure, asymmetric information problems arise, enforceability of agreements is a problem and transaction costs may be too high. Inman and Rubinfield (1997, p. 50) conclude: "If economic federalism seems too biased in favour of centralisation, cooperative federalism seems to bias the fiscal constitution too far in the other direction".

The third principle of democratic federalism is based on the idea that the most decentralised structure of government capable of internalising all externalities is preferred, subject to the constraint that when agreement of centralisation of policies exist by 51 per cent of the elected lower tier representatives, centralisation occurs. This view lies in-between the two earlier, more extreme views. It includes the trade-off between efficiency (on the central level) with democratic and political problems arising at the central level.

Inman and Rubinfield (2002) argue that the European constitution changed from decentralised federalism to centralised federalism. First there was the council of ministers, with veto power of every country, which attributed much power to the countries. Then, the constitution changed (by the European Act of 1986) with a replacement of the unanimity rule by the consultation procedure. The Commission got much more agenda setting influence at that time. From the Maastricht Treaty (1992) onwards the co-decision procedure leads to democratic federalism.[59] Nowadays, the

[59] Related to this position are problems raised by Alesina and Perotti (2004). They state that there is a lack of clarity in the allocation of powers and prerogatives in the EU: jurisdictions are continuing overlapping and require inefficient balancing of powers. Transparency and accountability of EU-institutions are also lacking. Furthermore there is a sharp division between two visions of policymaking: (UK's) laissez faire versus (French) dirigisme, where the latter is a wrong one according to the authors.

European parliament and the Council of Ministers co-decide about most themes, which give both parties the power to block policies. The Commission is a weak institutional organisation, without veto power (Ederveen et al., 2006). Nowadays, Inman and Rubinfield (2002) state that European decision-making looks like the decision-making procedures in the United States. There is also blocking power by the state's Senate and the districts House, while the executive power is institutionally weak.
Inman and Rubinfield (2002) argue that especially within the democratic federalism the risk of deference exists. Countries have to bargain about policy areas, which must be centralised. Side payments may be needed to get the votes of some countries. This may lead to excessive and inefficient levels of central influence or "I'll-scratch-your-back-if-you'll-scratch-mine" policies. This results in common pool problems and "riding of the commons". (Ederveen et al., 2006). Because costs of public goods can be shared by many countries, over-provision may result.
Furthermore, the current decision-making procedures are inherently unstable in the EU, because there are always (different) majorities needed with inefficient consequences (Inman and Rubinfield, 2002).
Pelkmans (2006) states that accountability is better on the local than on the central level. Seabright (1996) shows the same. Local democracy is a better enforcement mechanism to prevent policymakers acting as a Leviathan. In an incomplete contract model Seabright investigates under what circumstances central policy outperforms decentral policymaking.[60] There is a trade-off between the advantages of policy co-ordination and diminished accountability under central policymakers. This accountability rests on the option to vote policymakers away. Indeed the bigger the region, the less influence people have on voting away policymakers: this is the reduced accountability considered. Seabright (1996) shows that even with regions with homogeneous preferences, central policymaking can be outperformed by decentral, more accountable, policymakers.
Further the accountability of the EU is given by bureaucratic control (versus democratic control), which is not applicable to redistribution or allocative policies (Tabellini, 2003). Bureaucratic control is defined as control the goals reached, e.g. enforcing single market, price stability of the euro, which can be done by unpartisan bureaucrats. While "more political" choices should be made by politicians and remain under democratic control. A European social security system with democratic control is not possible under the current European constitution (Tabellini, 2003).
Another argument against a (partial) centralisation of social policies in the EU is that shared responsibilities may lead to less needed actions by governments (Sapir, 2006). When e.g. reforms are needed and two government levels are (partially) responsible they may both hesitate to take responsibility for (unpopular) reforms. Therefore, the member states should be fully accountable for restructuring social security systems, according to Sapir (2006).

Finally, the dynamic effect should be taken into account (Ederveen et al., 2006). Decentralisation may be efficient in the current state, but may be harmful if society changes. For example, globalisation may lead to higher mobility of production factors, which may have an effect on the optimal distribution of power between government

[60] Seabright (1996) considers an incomplete contract model in which the outcomes are observable for anyone, but not verifiable. People are not able to see if policymakers act in their interests.

levels, as was shown in chapter 4. Together with the reasonable assumption that system changes are not symmetric, there is an option value of waiting. Indeed, when institutions in Europe are reformed this must be sustainable for some time: restructuring of the power again may not be possible (or very costly to achieve). Especially when policies are centralised, Ederveen et al. (2006) point out the risk of irreversibility. When society changes and the institutions lead to less efficient results, a reverse in responsibilities between governments may take a lot of time. The dynamic aspects of the (de)centralisation discussion must be taken seriously.

7.5 Conclusion

Political economy considerations must be taken into account when analysing the attribution of tasks to different government levels. Governmental behaviour is relevant to decide about the optimal decision level for social security. When governments are pure Leviathan, tax competition may enhance welfare. Edwards and Keen (1996) show that, more generally, it depends on the trade-off between the elasticity of the tax on mobile capital and the marginal propensity to waste revenues of the policy maker.

Furthermore capture, lobbying and corruption should be taken into account. Plundering the common pool can be attractive for different parties. With respect to corruption and lobbying it depends on the specific circumstances whether it is more efficient to provide social security on a (de)central level. When interest groups have contrasting interests centralisation may be optimal, while the reverse may be welfare enhancing if they have the same interests.

The threat of separation may be a reason to decentralise policies, but also co-ordination methods to which is turned in the next chapters may be a solution to different preferences between member states.

Furthermore, voting paradoxes may occur in different political economy constructions. Bös (1979) showed that the same people may vote for redistribution when it is provided on the central level, while they would vote against it if it were provided on the decentral level.

The constitutional setting is also relevant for the amount of social security provided by different governments. Europe is not a federation. Other mechanisms are at work. The specific characteristics of the EU-constitution matter. The specific decision procedures should be taken into account. Democratic federalism increases the risk of "riding the commons" and the EU with its bureaucratic control may not be able to take political decisions about social security systems

Further, if voters could choose, inefficient, counterintuitive outcomes may result. Indeed, centralisation of redistribution with partially liberalised factor markets can reduce efficiency (Perotti, 1991). This may be directly relevant for Europe, with its mobile capital and relatively immobile labour market.[61]

Moreover the dynamics of the attribution of competences in the EU should be taken into account. Especially with respect to attributing responsibilities to the EU it may be difficult to reverse this decision. Thereby, complementarities between different policy areas are relevant. Indeed, EU-policies on one area usually have consequences on other policy areas.

Table 5 summarises the relevant factors and determinants raised in this chapter.

[61] In chapter 9 the relevant factors are assessed empirically.

Table 5: Attributing social security: political economy considerations

Approach		**Central**	**Determinants**		**Decentral**	**Determinants**
Governmental behaviour						
Leviathan			elasticity of tax weighted versus marginal propensity to waste		policy competition; accountability	
common pool problems					democratic federalism	accountability
Corruption			accountability of politicians			accountability of politicians
Lobby			contrasting interests lobby groups			aligned interests lobby groups
			intradistrict differences in preferences			
Constitutional design						
threat of separation						great differences in preferences within a central government
reforms needed					one government responsible	
complementarities		political spillovers	centralisation of other policies			
dynamics					option value of waiting	irreversibility of centralisation

In part II the relevant factors to determine the optimal division of responsibilities for social security are analysed in greater detail. The tables provided in chapters 5, 6 and 7 summarise the arguments and determinants for a complete (de)centralisation of social security functions for redistribution, insurance and both functions respectively.
Next to these extreme solutions cooperation between governments is a possibility. In part III an analysis and assessment of these “in between” solutions is made.

Part III: Cooperation between governments

"The more appealing option is some kind of selective co-ordination of policies. But this too is a tricky matter".

Oates (2001, p. 143)

8. Cooperation between governments

An extended framework, where only attention is paid to a complete (de)centralisation of responsibilities for social security has little worth. Cooperation between member states and the EU must be analysed as "solutions in between". This is in line with the subsidiarity principle laid down in the Amsterdam Treaty (1997, article 5): cooperation can be seen as a proportionality measure. The subsidiarity principle implies that decisions should be taken at the lowest government level, unless goals could be better reached at a higher level. Pelkmans (2006) developed a subsidiarity test for the EU, in which credible cooperation is a preferred alternative for centralisation. In this chapter the (dis)advantages of cooperation are analysed in greater detail. An assessment is made of matching grants, delayed integration, minimum harmonisation policies, flexible integration and the Open Method of Co-ordination.

8.1 Functional test subsidiarity

Pelkmans (2006) defines the actual EU approach to subsidiarity as laid down in the Amsterdam Treaty as a simple cost-benefit analysis of (de)centralisation. Indeed subsidiarity and proportionality are in the heart of the European discussion about the division of task between government levels in Europe. Pelkmans (2006) develops a functional test of subsidiarity that can be used to provide the cost-benefit analysis. The author explicitly states that this test is functional and neutral. So, it does not have the intention to be more in favour of decentralisation or centralisation. It is a two-way approach.[62]

The subsidiarity test that assigns responsibilities to the member states or the EU consists of five steps, Pelkmans (2006, p. 8):

1. Identify whether a measure falls within the area of shared competences (when the EU has exclusive rights, it is useless to apply this test).
2. The "need to act in common" test: apply the criteria (are there economies of scale and / or externalities?).
3. Verify, whether credible cooperation is feasible.
4. If 1 and 2 are confirmed, and 3 is denied, then the assignment is to the EU level.
5. Proportionality. Define to what extent implementation, monitoring and enforcement should be assigned to the EU.

The usual public economic arguments can be found in this test. Only when the benefits of centralisation outweigh the costs, the EU should take responsibility. Pelkmans (2006) pays special attention to the credibility of cooperation between countries. According to his assessment, credible cooperation is preferred before centralisation. Credibility is low when (imperfect) information asymmetries between governments are high, the benefits of threat are high, the discount rate is high and monitoring is difficult. With low credibility, national governments may cheat and appointments can be worthless. In this chapter we

[62] Indeed, subsidiarity is usually biased to decentralisation as being optimal, which is a one-way approach. Only under very strict and unrealistic assumptions (e.g. full information for the central government, homogeneous preferences, non-uniform public good provision) centralisation is seen as optimal.

look at “proportionality measures” in greater detail and assess whether they might be feasible.

8.2 Matching grants

A common reason to centralise policies is the existence of externalities. Because member states do not take the effects of their policies on other regions into account, a suboptimal level of (public) goods is provided. Another way to induce national governments to take external effects into account is the provision of matching grants by the EU. In this section it is analysed whether matching grants are a good alternative for a pure central or decentral provision of social security in the European Union or not.

The basics

Oates (1972) already stated that when we leave the world without externalities, there is a role for the central government. When decentral governments do not internalise costs or benefits that are related to their public goods consumption, they do not provide the optimal amount of public goods. Indeed, with positive (negative) externalities too little (much) is provided. This can be corrected by a central government, which provides matching grants so that the marginal social welfare equals the marginal costs of providing public goods (Gordon, 1983). Then, Samulesons’ rule for the optimal provision of public goods is fulfilled (see box 3).

Box 3: the Samuelson rule as benchmark

When considering efficiency, all cited authors take the Samuelson rule as benchmark. This rule is based on his famous article “The pure theory of public expenditure” of 1954. Here, the author determines the optimal provision of pure public goods. Everyone benefits from pure public goods (they are non-rival) and it is not possible to exclude persons from the consumption of these goods (they are non-exclusive).

Since everyone benefits from the availability of pure public goods, the market under provides them. Indeed, only private value counts when people buy a good. Equilibrium in private markets is given when marginal costs equal marginal benefits.

But what is the optimal provision of pure public goods? Samuelson states that the optimal provision of public goods is given, when the sum of the marginal benefits of all persons in an economy equals the marginal costs of producing it. This is called the Samuelson rule for the optimal provision of public goods.

Some examples
Different mechanisms are developed to provide the optimal amount of public goods. Boadway and Flatters (1982) developed a model with equalisation payments by the central government to provinces for quasi-public goods.[63] They consider mobility of both factors of production and myopic provinces (that do not take the mobility of factors of production into account when making policy). They showed that in this context federal equalisation payments might increase efficiency and equity.
One of the most cited contributions in this discussion is that of Wildasin (1991). This author investigates at what level redistribution should occur within a common labour market. This labour market is defined as a market, where some portion of the work force is able to switch from one jurisdiction to another. This analysis differs from that of Pauly (1973) and Brown Oates (1987) in the sense that labour migration has an effect on wages in both countries. As such, incomes are endogenously determined.

Wildasin (1991) assumes that there are two groups in a jurisdiction: mobile poor and immobile rich.[64] The poor provide a unit of labour and receive wages, while the rich get the remaining income. Rich are altruistic and they are taxed lump sum to finance the redistribution to the poor in their region. The poor only care about maximising their utility. In the decentral equilibrium it is easy to see that the poor must get the same in each region. This is less than the optimum, because there are spillovers coming from redistribution at the local level.
Wildasin investigates how matching grants by the central government should be organised to reach an efficient outcome. The author shows that in equilibrium the poor should get equal wages in every jurisdiction. This implies that the government should subsidise jurisdictions with lower preferences for redistribution more than regions where preferences for redistribution are high. With asymmetric preferences between jurisdictions, it is shown that it is indeed optimal to provide different levels of grants to different jurisdictions. However, the result is that poor get the same transfer everywhere in the federation, which is the same result as in the theory of Oates (1972) with centralised redistribution.
This result can be contrasted with the standard decentralisation literature, where decentral governments can act according to the preferences of their inhabitants. However, in Wildasin's matching grants solution, redistribution levels are the same within the central government. Using this model thus provides no argument for matching grants at the central level, because pure central redistribution gives the same results. The author suggests that more information on the local level could be an argument for that.

[63] Quasi-public goods are goods that are not pure public (non-rival and non-exclusive) but also not pure private (rival and exclusive). The degree of publicness is measured by the standard formulae used by Musgrave (1959). Indeed, when redistribution is based on the preferences of the rich, this can be seen as a quasi-public good. Insurance mechanisms can, depending on the circumstances, also be seen as quasi-public goods.
[64] The author assumes further that some poor are mobile without costs. Furthermore Wildasin (1991) claims that when the mobility assumption is reversed, so that the rich are mobile and the poor immobile, the main results of the analysis are the same.

Furthermore he states that –despite the fact that the model gives no formal arguments for matching grants- this mechanism is used in practice.[65]

Drawbacks of matching grants
Next to the solution that social security benefits must be the same when people are mobile, matching grants have other drawbacks. These are considered now, starting with the need for myopic member states.

The need for myopic member states
Pfingsten and Wagener (1997) consider intra- and interregional redistribution in a federation in the framework developed by Wildasin (1991). The results of a central planner, who maximises total utility, are equal to the results in the Wildasin article: wages for the poor equal to their marginal productivity and redistribution of income from rich to poor regions. Pfingsten and Wagener (1997) distinguish two objections against this approach. First, if is assumed that states do not have any power: the dictatorial government decides. Second, there is redistribution between regions, which may induce myopic regional governments to oppose this policy. Ignoring these regional objections comes with high political costs, the authors state. Therefore they state there are second best approaches: either the regions have to face balanced budgets and the central government redistributes, or redistribution is left to the decentral government but interregional redistribution is left to the central authority. Another solution is that regions are responsible for both intra- and interregional redistribution. Because the poor can migrate in this model, the standard under provision of social security results.
Now consider the case where interregional redistribution occurs at the central level and intraregional redistribution at the local level. First, the authors argue that interregional redistribution is not based on equity, but on allocative efficiency grounds only. Interregional redistribution is based on compensation for the mobile poor to regions, which redistribute intraregional. There are two kinds of externalities: first the usual (utility) spillovers from regional redistribution, and second, the effect on the federal budget. Because of interregional redistribution, the second effect is also present. When a transfer mechanism that internalises all externalities is developed, this (second best) equilibrium is efficient. The authors distinguish three mechanisms to reach the internalisation of external effects.
Pfingsten and Wagener (1997) first consider a system where only redistribution occurs from the rich to the poor within the federal state. The rich in a region have to pay an "immobility premia" to all the poor in the other regions. The authors show that with myopic provinces the efficient solution can be reached.[66] Every poor gets the same subsidy in the end.
A second mechanism, matching grants, was developed by Wildasin. As was shown, this may result in an efficient solution.[67]

[65] The last argument is –of course- not convincing at al in a theoretical paper. However, for a theoretical political economy analysis of the existence of matching grants in practice, see Dixit and Londregan (1998).
[66] However, when local governments take the "immobility premiums" into account in their reaction function, this will not be a Nash equilibrium and inefficient low levels of redistribution result.
[67] Pfingsten and Wagener (1997) come to the same conclusion as Wildasin (1991). However, they state that also with different regions the same poll tax on the rich must be set, instead of Wildasin, who argued that

The third approach is Pigouvian subsidies on the number of the poor. This implies that rich people in a region pay an amount to rich people in other regions based on the number of the poor in the jurisdiction. Then, regions have bigger incentives to attract the poor. The authors are not able to derive if the efficient solution would be reached in equilibrium.
The last approach is Pigouvian subsidies on the transfers in other regions. This approach is the same as used by Brown and Oates (1987). In this system each region has to pay a subsidy per euro spend on redistribution in another region. This system can be efficient. However it is very complex to implement. Furthermore it is likely that rational regional governments can gain by an under provision of social security.
Pfingsten and Wagener (1997) conclude that with myopic regional governments a combination of regional and central redistribution can be efficient. However, when they act strategically this effect may decline and levels of social security that are too low may result. They warn for the case that there is no role for a central authority in Europe, because even with relatively small mobility patterns, the negative effects on redistribution levels may be reasonable.

Figuieres and Hindrinks (2002) also conclude that with rational regions, Oates (1972) linear matching grants (to provide redistribution) may not be efficient. Therefore they use the Wildasin (1991) model. They argue that, when "Ricardian equivalence" for jurisdictions holds, provinces take into account that they pay parts of the transfers provided by the central government.[68] Therefore, they provide lower levels of public goods. Figuieres and Hindriks (2002) find that matching grants can be an efficient solution, but that they must be higher than in the standard case.

Flypaper effect
In the discussion about matching grants the "flypaper effect" should also be taken into account (Hines and Thaler, 1995). This principle of "money sticks where it hits" implies that politicians and bureaucrats make different choices when they get "money from heaven" (from other governments) than when they have to raise taxes from their own inhabitants. Evidence from local governments in the Netherlands shows that this effect seems to be quiet substantial (Allers and Sterks, 1996).
However, the goal of matching grants is indeed to reduce marginal costs of lower level governments, so that externalities are internalised and lower governments provide the efficient level of public goods. Problems may arise, when the central government has incomplete information or when local governments overreact and "match" too much of their budget on the central governments' matching grants.
Another argument why the "flypaper effect" in reality might be measured is that local governments do not face the consequences of the behavioural effects (i.e. dead weight

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with different regions poll taxes should differ. The outcome that matching grants can be efficient is, however, the same.

[68] Ricardian equivalence comes from public economics, where it is assumed that people do not change their behaviour when governments increase (or reduce) their deficit. When the deficit increases, it is assumed that consumers know that they have to pay higher taxes later, therefore they consume less now to save for the future liabilities. The reverse (reducing deficits) holds equally. So consumers are resistant for government debt.

losses) of taxes. This reduces the costs of public goods for lower level governments (Hines and Thaler, 1995).

Tabellini (2003) argues that matching grants in the European context may not be efficient. Given the high tax rates (and big public sector) in Europe, it seems optimal to compensate countries in a lump sum way for negative externalities. Binding grants are likely to induce more inefficiency than still occurs. Tabellini (2003, p. 89): "Tying such funds to specific uses, or trying to identify from the centre who are the most worthy recipients, is likely to add inefficiencies. If national governments need to buy consensus at home to promote European integration (e.g., building infrastructure in poor regions), they can find efficient ways to do that without any constraint imposed by the EU". Here the asymmetric information argument comes again into the debate.

Assessment
Matching grants can induce national governments to internalise the external effects when providing social security. However, this comes with a cost: with mobile production factors redistribution levels end up to be the same in all countries, even when people in the different countries have different preferences (Wildasin, 1991). Furthermore, in a political economy context winners and losers of the matching grant system depend on the grants arrangement chosen (Dixit and Londregan, 1998).
Moreover, there are other drawbacks of matching grants. When member states take their contributions to the European grants into account, the efficient level of redistribution cannot be reached anymore. Thereby, experience shows that "money sticks where it hits", inducing inefficient high levels of social security spending in case Europe would give subsidies to the member states.
It may be concluded that matching grants can be welfare enhancing, because they can internalise the external effects of social security. However, this advantage must be weighed against the loss of heterogeneity, the assumption of myopic governments needed and the flypaper effect. Furthermore the central government should have sufficient information. Hence, the arguments to introduce a matching grant system for social security in Europe do not seem to be that strong.

8.3 Delayed integration

Labour mobility can bring serious negative external effects as was shown in chapter 6. Centralisation of social security policies can reduce these effects. Yet, the negative effects can also be reduced with other means, for example with delayed integration. In this section the principle of delayed integration is analysed.

Sinn (2002a, 2002b) states, in the light of European enlargement, that free mobility of labour in Europe can lead to social security competition and lower social security levels. At the same time, efficient labour mobility can increase economic efficiency. Therefore, Sinn (2002a) states that Europe should choose a model in which beneficial migration occurs, while inefficient migration does not. Sinn (2001) defines inefficient migration in two parts. First, the already considered migration induced by higher social security (and other public goods) levels. Second, the crowding out of the unemployed by migrants. When labour markets are not flexible, migration may lead to more unemployed in the receiving country, which can be considered as welfare reducing migration. The author therefore proposes the idea of delayed integration combined with the temporary home-country principle for social security. This implies that migrants do not have the same social security rights as the initial inhabitants of a country. Sinn (2002a) suggests that a “waiting” time of 5 till 10 years for full integration is reasonable. Immigrants can only claim social security from (the levels of) their home-countries, so inefficient migration for social security is banned out.

The advantages and disadvantages of the origin and employment principle are discussed by Richter (2001). When the origin principle is chosen, governments have less incentives to act according to the preferences of the people. This is an ideal environment for Leviathan bureaucrats. Further, the origin principle is at odds with the freedom of choice individuals have: it makes them “slaves in the name of states”. An advantage of this principle is that the negative consequences of regional shocks are mitigated. Indeed, when people move due to a negative shock in the home country, they share their incomes with their former country.
The employment principle leads to pressure on the welfare of the immobile people and can lead to a tax race to the bottom.[69]
Delayed integration can be seen as a compromise between both principles. It may not be considered as strictly optimal, but it can reduce the negative effects of both extreme options and can therefore be an interesting policy option for Europe. It can be an answer to the “fundamental trade-off” between the European objectives of subsidiarity and the free movement of people (Richter, 2002). Weichenrieder and Busch (2005) show that in a theoretical model delayed integration may imply a time inconsistency problem for governments. Governments may promise lower tax rates for the high incomes after the period of delayed integration, but these are not credible. In their model -under specific assumptions- delayed integration may even be a perfect remedy against the race to the bottom.[70]

Delayed integration can be defended by the fiscal impact of immigration. Sinn and Werding (2001) showed for instance that for the government the net present value per immigrant in West Germany was (very) negative when immigrants stayed for a short period of time. When they stayed longer –for a considerable period of time- net present value became positive (see table 6). Gustafsson and Oosterberg (2001) came to similar conclusions for Sweden.

[69] Or as Sinn (1994) stated –who does not separate between the functions of social security- the employment principle undermines the insurance functions of the welfare state.
[70] With altruistic, mobile rich (and immobile poor) e.g. social security is provided according to the Samuelson rule, so the first best solution results. However, with mobile rich, Bertrand competition between two symmetric countries and infinite time periods, a race to the bottom results.

Table 6: Direct fiscal impact of immigration, West Germany (1997)

Direct Fiscal Impact of Immigration[a)b)]
– West Germany 1997 –

	Length of stay			Total
	0–10	10–25	25+	
	– in € p.a –			
Revenues				
Health insurance	929	1.144	1.939	1.418
Pension insurance	2.072	2.419	3.236	2.705
Nursing care insurance	129	159	240	188
Unemployment ins.	358	558	712	592
Taxes	3.090	3.091	4.953	3.874
Total revenue	6.578	7.370	11.081	8.776
Expenditures				
Health insurance	1.519	1.187	1.890	1.543
Pension insurance[c)]	696	813	1.088	909
Nursing care insurance[c)]	34	42	64	50
Unemployment ins.	231	341	1.231	692
Tax-financed transfers and benefits[d)]	6.466	6.319	5.953	6.308
Total expenditures	8.947	8.702	10.226	9.502
Balance				
Health insurance	-590	-43	49	-125
Pensions insurance	1.376	1.606	2.148	1.796
Nursing care ins.	95	117	176	138
Unemployment ins.	127	217	-519	-100
Tax-financed transfers & benefits	-3.376	-3.227	-1.001	-2.434
Total balance	-2.368	-1.331	854	-726

a) Numbers in this table only reflect the relative position of a migrant who was living in west Germany in 1997. A direct transference to the expected migrants from central and eastern Europe is not possible since the structure of future migrant cohorts is likely to be different from the migration stock of 1997.
b) Migrants in Germany are persons with non-German nationality, persons whose mother is of non-German nationality, and persons who have been naturalised in Germany; it does not include ethnic Germans who have immigrated from eastern Europe and Russia.
c) Present value of future benefit entitlements (implicit public debt)
d) Transfers to private households and average costs of the provision of public goods.

Source: Sinn and Werner (2001)

However, there may be difficulties with the principle of delayed integration. When the home country has to provide social security for their former inhabitants during some time, monitoring behaviour of recipients may become a problem. A (partial) solution can be the delegation of monitoring to another member state during the transition period.

Moreover, possibly a transfer scheme for contributions (and taxes) for social security between different countries should be needed to compensate home countries for the time they remain responsible for their initial inhabitants.

Political assimilation

In political economy models political assimilation may also be important for the optimal decision level with respect to social security. Michel et al. (1998) developed a model in which immigrants get benefits and can only vote after a certain period in a country. They compare this with a model in which immigrants become citizens immediately. They assume that only citizens can vote and that the altruistic, skilled rich have a majority.
In a small open economy, they show that redistribution is zero in the reference situation (migrants become citizens immediately). However, when the mobile, low-skilled immigrants have to wait for one period, redistribution is possible in this economy. In that case immigrants work hard in the first period. The original citizens, skilled and unskilled, win. In the second period the immigrants have fewer incentives to work, because they get access to social security rights. Michel et al. (1998) show that the initial low-skilled people in a country lose because of lower redistribution levels, while the utility of the high-skilled people increases compared to the situation without migration.
It should be kept in mind that the approach taken by Michels et al. (1998) is very restrictive. The authors do not allow the assimilation policy as a choice variable for example. Further, the political majority is assumed by high-skilled people and only low-skilled people migrate. In the European context there can be doubts about the relevance of such strong restrictions.[71]

Alternatives[72]

Sinn (2002a) argues that the alternatives for delayed integration lead to less welfare. Full migration leads to social policy competition and costs for the receiving countries. With the use of quota economic interesting people are not selected. Selective migration for "needy immigrants" by bureaucrats implies discrimination of weaker Europeans. Moreover, it is unlikely that bureaucrats are able to distinguish which migration is welfare improving and which is not.
At last, a total injunction of migration will make efficient migration impossible, which sharply contrasts with the European objective of the freedom of mobility.

Assessment

Delayed integration has the potential to be a reasonable compromise between the home country and the employment principle. It may reduce pressures on social security systems and has the advantage that efficient migration flows can still enhance allocative efficiency. Further, delayed integration seems to fit within the European context.[73] Both the subsidiarity principle and the four freedoms are in the heart of the European Treaties,

[71] However, there may be some "natural delay" in the practical existence of immigrants, because integration takes time and political rights and participation come with the years. Mazza and Van Winden (1996) developed a model in which the consequences on groups of this "natural delay" are analysed.
[72] In section 8.4 minimum harmonisation levels will be assessed as a policy alternative.
[73] Richter (2001) argues that with respect to social security the time component in European laws should change from 12 months (of delayed integration) to a longer period. The same holds for tax laws, which may according to OECD Model Convention, Article 15, may not be longer than 6 months.

but there are tensions between these objectives when specific policy areas are considered. In a natural way the principle of delayed integration is at work nowadays. Indeed, for specific social security instruments there are (time) requirements before one has entitlement rights. To get the Dutch unemployment benefits, one has to work for several years for example. Another (Dutch) example is that state pensions are proportionally based on the time people live in the Netherlands during their life between the age of 15 till 65.
Nevertheless, there are tensions between the free movement of people -which only seems to hold for workers (and their dependants) in practice- and the economic consequences of attributing the right to get benefits in another country for everyone (Richter, 2002). Delayed integration may than be an attractive compromise. However, there are implementation problems that deserve more attention. Monitoring and reducing moral hazard, developing compensation schemes between countries and the specific (legal) framework should be developed.

8.3 Flexible integration

A larger Europe will probably result in a more heterogeneous EU (Tabellini, 2003). This decreases the desirability of centralisation of policies. Furthermore, according to this author, there is no common European identity and Europeans do not accept common policies decided by majority as is usual in the European countries
The proposal of Persson et al. (1996) to choose for "flexible integration" may reduce the disadvantages sketched by Tabellini (2003). Because the countries differ to a great extent within Europe open partnerships should be possible. This way, countries with similar preferences can choose to form common policies on certain policy areas. Based on an analysis of the Eurobarometer surveys Ahrens et al. (2006) also strongly recommend a flexible integration approach for different policy areas in Europe.[74]
A formal dynamic analysis of flexible integration (or "enhanced cooperation" as they call it) is given by Bordignon and Brusco (2006). The authors show that flexible integration may indeed be Pareto-improving when preferences between countries differ. However, there is a risk that European countries that do not participate are penalised.[75] Alesina et al. (2005) come in their endogenous political model to the same conclusions. However, the authors also show –although they are not able to prove this proposition formally- that when countries can decide to delegate only the parts with the strongest spillovers and / or weakest heterogeneity to the central government, this results always in the same or more efficiency. This way the status quo problem raised by Lockwood (2002) and the related "small size bias" are reduced.[76]
Enhanced cooperation, in which parts of the EU can agree on common policies can also increase welfare. Nevertheless, Alesina et al. (2005) show both winners and losers. Countries with extreme preferences are winners, while median countries may loose. However, this system increases the size of the union compared with the uniformity (the same policy for all countries) assumption. The authors conclude that there is a trade-off

[74] In the next chapter, attention is paid to different preferences for social security in Europe.
[75] So, it is no surprise that for the implementation of "closer cooperation" (which is flexible integration) in the EU there are demanding conditions (Hall, 2000).
[76] The "small size bias" means that international unions do not reach their optimal size, because of the endogenous policy-making at the union level (Alesina et al. 2005).

between a simple "rigid" uniformity approach and a more flexible, but more difficult to implement approach. This lies at the heart of the debate about the European Constitution. Therefore, to implement efficient flexible integration in the European context, losers should have influence on the decisions made by the countries that cooperate (or the cooperating countries should –credibly- take the interests of the non-participating countries into account). This may be hard to do.
Another drawback with respect to the governance structure of flexible integration is that a widespread use of this measure will make the EU-constitution more complex, which reduces democratic control by member states (Hall, 2000).

Social federalism
Cantillon (2004) promotes a division of responsibilities between governments on a functional basis. The author states that some social policy measures should be attributed to the EU, while others should stay with the member states. This is what she calls "social federalism", which contrasts with fiscal federalism in the sense that traditional fiscal federalism learns that redistribution should, in principle, be attributed to the central level. She argues that American social federalism with shared responsibilities between the states and the federation, coincides with the functional theory of federalism. In America, with its hybrid form of fiscal federalism, there are matching grants for regions, but the main responsibilities for redistribution are allocated to the central level, while development policies, which is from a financial point of view the major part of the social security system, are attributed to the state level. Compared with the EU the social system of the United States has a more clear constitution, with more homogeneous social redistribution and with more financial compensation between states.
Next to integration between some member states, flexible integration can also be established by some groups of people. Pieters and Vansteenkiste (1993) e.g. proposed to form a "thirteenth state": a European social security system for intra-community migrants, indeed only those who want (and benefit) from it.[77] This could be interesting for groups such as international workers, students and "pensionado's".[78] Administrative problems can be reduced (PriceWaterhouseCoopers, 2002). Thereby, risk pools may become broader and therefore more efficient.[79] A potential drawback is the adverse selection problem. Indeed, when people may choose to participate in social insurance systems a separating equilibrium may result. People who face high risks want full insurance, while people who face low risks do not want to pay the premiums needed and take no (or less) insurances.

[77] Indeed, at that time Europe consists of 12 member states.
[78] See e.g. the discussions about the Dutch "pensionado's", who live in Southern Europe and get (worse) state health care there, while they have to pay the (higher) Dutch premiums. Or see students, who may (or may not) keep their student benefits from their home-country, when studying abroad.
[79] The European pension directive can be very helpful to reap these economies of scale. Second-pillar pensions can than be provided on a European scale. Furthermore the risk of too low pensions for mobile workers will be reduced (Doorn, 2007).

Assessment
Flexible integration between countries or groups of people seems a promising, welfare improving approach for Europe. In the EU-27 differences in welfare systems and preferences may lead to welfare improving coalitions between specific countries or between different groups. However, the outsiders may loose. This can be (partly) corrected by taking the interest of the non-participating nations into account, but it will certainly create political problems.
Furthermore, there may be an adverse selection problem. Therefore, the social security instruments with the least redistributive elements are, from an economic point of view, the first that can be nominated for a flexible approach. Indeed, within e.g. an actuarial fair (defined contribution) pension system, adverse selection is not a problem. It would be interesting to investigate in greater detail the potential benefits that such flexible systems may provide.

8.4 Minimum harmonisation policies
Cantillon (2004) advocates binding minimum agreements. These are necessary because the integration of capital, product and labour markets (and their institutions) leads to pressure on the social security systems in the new and old member states (Cantillon, 2004, p. 191): "For the less developed welfare states, such binding European agreements can serve as a lever for the development of an adequate minimum protection. For the most developed welfare states, such agreements can help guard against a risky erosion of minimum protection".
These minimum protection levels can be set proportionally to GDP, so that they are not too high for low- and not too low for high- developed countries. Personal redistribution is in this way attributed to the member states, but minimum requirements –in this social union- are declared by Europe. According to Cantillon (2004) this reduces the risks of a social race to the bottom and has the advantages of decentral provision of social security.

Drawbacks
However, there may be problems with the introduction of minimum harmonisation levels. Sinn and Ochel (2003) e.g. consider a very stylised model of the consequences of minimum harmonised social security levels in the enlarged European Union. They state that when the EU sets conditions for economic convergence, social convergence will automatically follow. Price equalisation, combined with factor mobility and competition between country systems lead to this social convergence. The setting of minimum harmonisation levels is detrimental for labour mobility and slows down the speed of economic convergence.[80]
In their migration model the authors show that, without social harmonisation, migration is efficient and convergence occurs. With minimum standards for replacement incomes, migration levels decrease (the wedge between low wage countries and high wage countries decreases) and unemployment rises in the poorer (East European) countries.

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[80] However, Sinn and Ochel (2003) do not state that regulations and / or a social policy of the EU is not desirable in the end, e.g. to prevent the disadvantages of tax competition. During the process of convergence centralised influence on social insurance is detrimental, they argue.

Together with the finances needed to pay more and higher social security benefits, the economy grows slower. In the end, there is less convergence of economic growth and social convergence.[81]
The authors argue that this is what happened during the reunification of Germany. East Germany got the same social benefit levels as West Germany, which resulted in mass unemployment, financing problems for social security and slower convergence. The same occurred in the Italian Mezzogiorno.
Sinn and Ochel (2003) warn for the consequences of the EU-constitution on economic development: "The problem lies in the proclamation of European citizenship (article I 8), in combination with the prohibition of discrimination on the basis of national citizenship (Article I 4), the proclaimed goals of social protection and social cohesion (Article I 3 and I 13), the provision of extensive social inclusion rights (Article II 34), the setting of minimum social standards (Article I 13 in connection with Article III 104), as well as the co-ordination of Member States' social policies (Article I 14) ". This leads to pledges for every immigrant to pay for social contributions in the country to which they emigrate, combined with rights to get all social benefits. Sinn and Ochel (2003) state that high benefits for immigrants will result. This induces too much migration. The authors therefore propose delayed integration, such that migration takes place but at an efficient level. People pay taxes and social security contribution in the new country, but have only partial rights. So, efficient migration takes place, the race to the bottom will not occur, the harmonisation of replacement incomes is not necessary and the economic forces that bring social convergence will do their work.
Next to the problems raised by Sinn and Ochel (2003), there are serious practical and technical drawbacks on minimum harmonisation rules. How to set standards for such diverse countries with such diverse systems, how to evaluate them and which incentive effects should be expected (Goudswaard and Vording, 1996)?

Sinn (2002a, 2002b) argues that setting minimum social regulatory standards is generally not welfare enhancing. Only in a market where employers have monopsony power, setting minimum social standards may be desirable. Usually, however, social standards are part of the wages paid. More risks on the working floor result in compensation wages and the other way around. There is no (economic) reason to prevent international competition on both elements. Sinn (2002a, 2002b) states clearly that competition on social standards and social security competition are very different things. And that, only when the last one occurs, intervention is needed.[82]

[81] Sin and Ochel (2003) also consider social standards. They show that having the same social standards leads to inefficient high levels of migration, leading to dead weight losses and less convergence speed.
[82] However, this is too simple to conclude. Indeed, people may value (some) minimum working conditions in other countries. In such case, intervention may be welfare improving.

Assessment

The practical and technical implications of minimum harmonisation levels are a serious disadvantage of this mechanism. Furthermore there are theoretical arguments why minimum harmonisation levels are not preferable. Social convergence may decline and for social security standards competition may be economically efficient. Furthermore, as will be shown in the next chapter there are no signs that a race to the bottom –that should be avoided with this measure- occurs actually in Europe.[83]

8.5 Open Method of Co-ordination

Some authors state that there is an asymmetry between policies that promote market efficiency and policies that promote equality and social protection. Scharpf (2002) proposes a re-establishment of the constitutional parallelism between "market-making" and "market-correcting".

The used Open Method of Co-ordination (OMC) is too weak to elevate these constitutional problems, according to this author. Policy learning occurs, but is not enough to re-establish the balance. According to Scharpf (2002) framework directives (European rules) are needed for all countries, whereby the OMC can be used for groups of similar countries. A description of the OMC is given in box 4.

Box 4: the Open Method of Co-ordination (based on Cantillon, 2004)

The OMC with respect to social policies was laid down in the Treaty of Nice (2001). It is a relatively new method of the EU to harmonise pension and employment policies and to reach "social inclusion". Member states co-ordinate their policies to reach common policy goals. With respect to social inclusion the Lisbon agenda provides a framework to reach this, consisting of three policy areas: 1) eradicating policy and social exclusion; 2) adequate and sustainable pensions and 3) accessible, high quality and sustainable health and long-term care.

The main parts of the OMC are agreeing on common objectives and indicators to measure if these objectives are reached. National reports should be made how to reach these goals, which are assessed by the EU. Furthermore, the EU makes a common action program to promote policy cooperation, disperse good practices and to establish learning effects.

Against other kinds of law, the goals are described, not the way to reach these goals. Output counts. Because there are no sanctions when countries do not reach the promised goals, the OMC is often seen as soft law. Diverse economists therefore argue that OMC will have (very) few effects in reality (Scharpf, 2002).

Goudswaard and Van Riel (2004) distinguish three kinds of social policy co-ordination in the EU. First, co-ordination of social protection systems related to migrant workers, pensioners and students. Second, minimum harmonisation of some working conditions. Third the OMC, which is about social inclusion and reforming health and pension systems. The authors conclude that there is no urgent economic need for social policy co-ordination on the EU level (the race to the bottom seems not to occur). However from especially a political point of view they state that some (open) co-ordination may be

[83] However, indeed the question may be raised if this is likely to happen in the future.

wished. Thereby, there may be some economies of scale from central co-ordination (e.g. benchmarking and putting European pressure on member states to reform inefficient sectors).[84]
Zeitlin (2005) investigated empirically if the expected effects of the OMC in the European Employment Strategy (EES) do really take place. First, it should be stated that causality between the OMC and policies of the member states is difficult to prove. Indeed, other –more important- mechanisms have simultaneously influence on the change of social policies. However, the author tries to distinguish the effects of the EES-OMC. He found that policy thinking (as economy of scale), peer pressure and naming and shaming are forces that are taken place. Learning effects from decentral policies are not found as first order (direct) effect, but could be there in mutual learning. However, the general conclusion is that the OMC indeed seems to induce some economies of scale.

Assessment
The OMC can provide some economies of scale. By policy thinking, naming and shaming and putting pressure on reforms of inefficient social security mechanisms this could be done. Furthermore, there is room for mutual policy learning from good examples by the benchmark studies done. However, the OMC is soft law. Member states are fully responsible to reach the commonly agreed goals and can not be held accountable for results. Therefore some people argue that the OMC will have little positive effects. The future will learn whether the economies of scale will be realised.

8.6 Conclusion
When assessing the optimal division of responsibilities within the EU centralisation measures should be proportional. Therefore, the subsidiarity principle and tests could be used. In this chapter four cooperation methods were analysed and assessed.
First, matching grants as "solution in between". It was shown that although theoretically interesting, in practice a lot of assumptions have to be fulfilled to make this a feasible alternative. There should be externalities of social security provision in member states. Whether they are relevant in Europe is discussed in the next chapter, which is based on empirical research. Thereby, member states should be myopic, the EU should have all the relevant information, "money may not stick where it hits" and a homogeneous provision of social security as a result should not be a reasonable problem.[85] Therefore the arguments to introduce a matching grant system for social security in Europe do not seem to be that strong.
Secondly flexible integration was assessed. This seems a promising approach. Specific countries or groups of people can together integrate in a social security system to reap the economies of scale (less administrative procedures and a broader -and more efficient- risk pool). Due to the adverse selection problem this system gives opportunities for the least redistributive function of social security. A defined contribution system for mobile European workers can be an example of that. However, there are practical problems of

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[84] In a theoretical model Conesa and Kruger (1999) analyse e.g. that all the considered efficient reforms from an unfunded to a funded pension system will never get a political majority in a country. European pressure may help to facilitate efficient reforms.
[85] However, as will be shown in chapter 9 Europe can be characterised by (strong) heterogeneous preferences.

such a system and when countries integrate flexibly the interests of the non-participating nations and / or groups of people should be taken into account. Further investigations on the solutions to these problems can contribute to a deeper assessment of this approach.
The third method, minimum harmonisation rules, do not seem to provide an economically interesting alternative. Theoretically they can even lead to less social convergence. Moreover, the introduction will lead to serious practical and technical problems.
Fourth, it was assessed whether the OMC will be a useful European cooperation alternative. Member states remain responsible for social security policies with this approach. Theoretically, some economies of scale due to policy thinking, peer and reform pressure could be reached by this approach. There is some evidence that these effects are occurring. However, further empirical evidence is needed to conclude whether the OMC will really have the expected effects.

In part III (and chapter 8) different cooperation methods between governments were analysed and assessed. For developing an extended framework to attribute social security functions to different government levels, these "solutions in between" must be taken into account. Indeed, centralisation must be proportional. The most welfare enhancing approach may lie in between a complete central or decentral provision of social security functions.
It was argued that delayed and flexible integration and the OMC are promising forms of cooperation, while the setting of minimum harmonisation standards and matching grants seem not to be welfare improving alternatives. The results of this analysis are used to construct the framework for the attribution of responsibilities for the functions of social security in chapter 10. However before presenting the extended framework, the empirical relevance of the described relevant factors for Europe are analysed in chapter 9.

Part IV: The optimal decision level for social security in Europe

"The relevant question here is, thus, not "whether the EU should do more", but rather "what is the most desirable distribution of competences between different levels of governance?""

Begg et al. (2001, p. 26)

9. A closer look at Europe

To assess the optimal division of responsibilities for social security it is necessary to take a closer look at Europe. How does Europe look like with respect to the distinguished relevant factors? In this sector an analysis of these factors is provided based on the empirical economic literature.
Section 9.1 deals with the preferences of the Europeans and section 9.2 with the race to the bottom argument. In section 9.3 economies of scale are further investigated and section 9.4 pays attention to political economy considerations. Section 9.5 concludes.

9.1 Preferences

An important factor by the determination of whether European influence on social security could be welfare improving are the preferences people have for social security and the differences of preferences between countries. If European altruism takes place, the (decentral) preference matching argument loses weight. However, an assumption of European altruism seems to be in contrast with reality. Mau (2005, p. 81) shows –based on Eurobarometer studies- that especially people in Scandinavian countries, where social security levels are the highest of Europe, oppose against a European social security system: “The results suggest that the institutionalised mode of national solidarity cannot be converted into European solidarity; on the contrary, since the European project challenges the arrangements of national security, Scandinavians are rather reluctant to support a joint European social policy”.
With respect to (vertical and horizontal) redistribution and insurance based on income solidarity it may therefore be expected that preference matching is an important argument.[86]

With respect to the preferences for ways to finance pensions (completely public, with a defined benefit or defined contribution system) the initial circumstances in a country are important for the preferences of people (Van Groezen et al., 2006). Based on Eurobarometer surveys, these authors investigate the preferences for reforms and show that not only between, but also within countries preferences for pension financing differ.[87] Therefore a European pension system may not be a good idea, while flexible integration –according to the preferences of the people- may be the most feasible outcome (Van Groezen et al., 2006).
Also with respect to health and social welfare a large majority of the European people prefer that policies in these areas are attributed to the national level. Ahrens et al. (2006) show this in their analysis of Eurobarometer surveys. However, new member states, Spain, Greece and Italy are relatively stronger supporters of a European influence.

[86] In chapter 7 the example of Bolton and Roland (1996) was cited where the United Kingdom saw European integration as “socialism through the backdoor”, while Scandinavian countries saw integration as a threat to the welfare state.
[87] Differences in preferences within a nation are especially relevant in Germany and the United Kingdom.

Different welfare states

The differences in revealed preferences for the amount of social security provision are also reflected in the different kinds of welfare states that are present in the European countries (De Mooij, 2006). The concept of a social union is even misleading, according to Sapir (2006). European social models differ a lot. He distinguishes the Anglo-Saxon, the Nordic, the Continental and the Mediterranean models.[88] The Anglo-Saxon system is characterised by an efficient economy, with weak unions and a centralised provision of a minimum level of social security. Inequality is relatively great. The Nordic countries combine an efficient economy with high labour participation rates, high taxes, strong unions and relatively less inequality. These two systems are efficient. The traditional trade-off between efficiency (Anglo-Saxon) and equity (Scandinavian) exists between these systems, see figure 4. The other two systems are inefficient and reforms are needed.[89] The continental countries have insurance (Bismarckian) based systems. Unions are relatively strong. The Mediterranean countries spend the money especially on pensions. Early retirement and employment protection are important. Countries with these systems need major reforms. They are not “sustainable” according to Sapir (2006). Figure 4 shows the country systems and their performance.

Figure: 4 Country systems and performances

		EFFICIENCY: *Low*	EFFICIENCY: *High*
EQUITY	*High*	Continentals	Nordics
	Low	Mediterraneans	Anglo-Saxons

Source: Sapir (2006)

EU-altruism

Preferences can differ, but there can still be altruism on the EU-level. However, when the amount of social security spending within countries and redistributive EU-funds (on structural funds e.g.) are compared, there are little indications of the importance of EU-altruism. Furthermore, the extensive debates about the UK rebate and the net contribution of the Netherlands show that altruism seems to be much more important on the member state level than on the European level.

[88] Where the Nordic countries are Finland, Sweden, Denmark and the Netherlands; Anglo-Saxon countries are: Ireland and United Kingdom; the Continental countries are Austria, Belgium, France Germany and Luxembourg and the Mediterranean countries are Greece, Italy, Portugal and Spain.

[89] This is in line with De Mooij (2006), who evaluates policy options for the Netherlands. He shows that a centralised, collective responsibility (Scandinavian) system scores well as does the centralised individual responsibility (Anglo-Saxon) approach, while the decentralised collective responsibility (continental) approach is less efficient than the Anglo-Saxon and less redistributive than the Scandinavian approach. These are (roughly) equal to respectively the first two and the continental models of Sapir (2006).

Conclusion

Based on these surveys, it can be concluded that preferences in Europe for the amount of social security provision for all instruments of social security differ substantially. This is also reflected in the different welfare states of the European countries. The majority of inhabitants does not want a shift of responsibilities for social security instruments to Europe. As such, there is no indication that Europeans ask for social security instruments provided at the European level, nor that they have equal preferences. Therefore, preference matching on the member state level is still an important argument in the discussion about the optimal decision level of social security.

9.2 Race to the bottom

To prevent a race to the bottom, it is often argued that Europe should have influence on social policies. In this section it is investigated of this race to the bottom is a theoretical argument only, or that it really exists in practice.

Swank et al. (2003) present a literature review on economic integration in Europe. The authors argue that labour mobility between countries is theoretically more relevant than capital mobility when considering the optimal decision level for social security. However, labour mobility between nations is of less importance in the EU (Swank et al., 2003). They state that the movement of workers between member states was limited to 0.1 per cent of the population in 2000, which can be judged as relatively low, both from an economic as well as an international point of view.[90]

De Giorgi and Pellizari (2006) investigate if social welfare tourism in Europe is a motive for migration. In their investigation from 1994 till 2001, they find –based on the European Community Household Panel and the OECD data-base on benefit entitlements and replacement rates in the different countries- that this is the case in Europe. However, only a small proportion of the movements can be clarified by this tourism. The authors state e.g. that wages are approximately ten times as important as a motive for migration than social security levels.[91]

However, De Giorgi and Pellizari also state that the negative effects of migration combined with an adverse shock may outweigh the benefits of efficient migration in a simulation model.[92]

[90] PriceWaterhouseCoopers (2002) state in their analysis that the movement of workers between member states is limited to 0.4 per cent of the population per year.

[91] The authors also state it in this way: when comparing the rise of wages and the rise of welfare benefits in a country by one standard deviation, the rise in welfare benefits induces only 27 per cent of the migration effect of the rise in wages.

[92] However, these simulations are very stylised. The authors assume two potential migration countries. An exogenous unemployment shock (that differs for both countries) and thereafter a reduction in welfare benefits in the adversely hit country and an increase in these benefits in the other country. Then, the allocative benefits of migration are outweighed by inefficient social welfare tourism.

The low figures for labour mobility suggest that a “race to the bottom” with respect to (redistributive) social security instruments is not a serious problem. However, Swank et al., (2003) show that capital is relatively mobile within the EU, especially on the longer term. Does this induce a social race to the bottom?
Three empirical studies on the convergence of social expenditure ratios confirm the hypothesis that a social race to the bottom in Europe is not manifest. Goudswaard and Caminada (2006) even find an increase in average gross public spending levels (as percentage of GDP) for the EU-15 between 1980-2001 (see table 7).

Table 7: Public social spending for selected countries as % of GDP, 1980-2001

	1980	*1990*	*2000*	*2001*	*Change 1980-2001*
Australia	11.3	14.2	18.6	18.0	+6.7
Austria	22.5	24.1	26.0	26.0	+3.5
Belgium	24.1	26.9	26.7	27.2	+3.1
Canada	14.3	18.6	17.3	17.8	+3.5
Denmark	29.1	29.3	28.9	29.2	+0.1
Finland	18.5	24.8	24.5	24.8	+6.3
France	21.1	26.6	28.3	28.5	+7.4
Germany	23.0	22.8	27.2	27.4	+4.4
Greece	11.5	20.9	23.6	24.3	+12.8
Ireland	17.0	18.6	13.6	13.8	-3.2
Italy	18.4	23.3	24.1	24.4	+6.0
Japan	10.2	11.2	16.1	16.9	+6.7
Luxembourg	23.5	21.9	20.0	20.8	-2.7
Netherlands	26.9	27.6	21.8	21.8	-5.1
New Zealand	17.2	21.9	19.2	18.5	+1.3
Norway	17.9	24.7	23.0	23.9	+6.0
Portugal	10.9	13.9	20.5	21.1	+10.2
Spain	15.9	19.5	19.9	19.6	+3.7
Sweden	28.8	30.8	28.6	28.9	+0.1
Switzerland	14.2	17.9	25.4	26.4	+12.2
United Kingdom	17.9	19.5	21.7	21.8	+3.9
United States	13.3	13.4	14.2	14.8	+1.5
Average EU-15 Members	*20.6*	*23.4*	*23.7*	*24.0*	*+3.4*
Coefficient of variation	*0.263*	*0.186*	*0.171*	*0.171*	
Standard deviation	*5.41*	*4.35*	*4.06*	*4.09*	
Average OECD-22	*18.5*	*21.5*	*22.2*	*22.5*	*+4.0*
Coefficient of variation	*0.303*	*0.242*	*0.201*	*0.201*	
Standard deviation	*5.61*	*5.19*	*4.46*	*4.52*	

Note: EU-15 Members (all countries are included): Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom.

Source: Goudswaard and Caminada (2006)

Another analysis of convergence is performed by Bouget (2003). He found convergence, but not to the bottom in the empirical analysis. Bouget suggests that reductions in relative social expenditure ratio's (social expenditures as percentage of GDP) possibly follow from economic recession rather than from (radical) changes in countries' social security systems, because of policy competition.
Adelanto and Cuevas (2006) state that although there is no social race to the bottom, there seems to be a relative decline in social expenditure ratio's in purchasing power parity per head in Europe. Countries with relatively low social security provision increase their expenditures and countries with relatively high social expenditures relatively decrease their social expenditures between 1995 and 2001, according to their measure. According to the authors, a convergence towards the middle with respect to social security could be seen in this period.

Fiscal pressure
However, mobile labour can lead to pressure on social security systems. The cost of inefficient social welfare tourism may outweigh the gains from efficient migration. This was also reflected in section 8.3 by the direct fiscal impact of immigrants in West Germany and Sweden. Therefore, delayed integration (or the home-country principle for a certain period of time) formed by the national governments with respect to horizontal and vertical redistribution and insurances based on income solidarity seems to be adequate. Furthermore, with the OMC policy learning and pressures for efficient reforms can occur between member states, without an inefficient transformation of power to the European level.
The low figures for labour mobility suggest that a "race to the bottom" with respect to social security expenditures is not a serious problem. Different empirical studies support the view that a social "race to the bottom" does not occur in Europe. Furthermore, market distortions may be exported when redistribution policies are centralised in the European context. However, low rates of labour mobility may also have (fiscal) consequences on member states, which may require some central (co-ordination) policies.

Capital mobility
Although the assumptions of Perotti (2001) are very specific, Europe's characteristics seem to fit well to this model. Capital is relatively mobile, while labour is not (Swank et al., 2003). Furthermore, Sapir (2006) showed that there are substantial differences between the efficiency of the economy of the different European countries. Combined with the ageing of the population (and therefore a majority of voters, who will possibly vote for more redistribution) a centralisation of redistribution policies might therefore lead to an export of market distortions from inefficient to efficient countries.
Thereby, capital mobility may lead to the export of negative effects between countries with different pension systems, as was shown in chapter 6. Furthermore, mobile capital may –in very specific circumstances- even lead to a social "race to the top" as was argued in chapter 5. All these analyses lead to a pledge for some central co-ordination to reduce negative external effects to increase welfare. This may be especially important with respect to the diverse pension systems.[93]

[93] As was argued, the assumptions to come to a "race to the top" are very demanding. Furthermore, the empirical evidence discussed in this section does not show that the race to the top occurs at present.

9.3 Economies of scale

According to a (very) general analysis of Dekker et al. (2003) economies of scale with respect to European social security provision are not expected. The authors state that economies of scale due to a more efficient implementation not seem to occur. The four largest countries in the EU have to spend more on social security to reach the same reduction in inequality than the smaller countries. This fact provides no support for the hypothesis that there are economies of scale with respect to implementation of social security, according to the authors.[94]

With respect to insurance based on reciprocity there seems to be a greater potential for Europe. For supplementary pensions for mobile workers there seems to be room for a European scheme. There may be economies of scale from reducing administrative procedures. In a case study of 25 multinational businesses PriceWaterhouseCoopers (2002) argues that one of the key barriers to labour mobility is formed by international differences between pension schemes. According to this research, they are difficult to transfer between nations and not standardised at all, which reduces efficient migration. Moreover, a broader risk pool may enhance efficiency further. The usual costs of centralising -less preference matching- are minimal because it is an actuarial fair insurance.[95] Furthermore, it may be expected that moral hazard problems with respect to pensions are not very relevant factors.[96] And as was argued in chapter 6, adverse selection problems do not arise when pension have actuarial fair conditions. So there may be room for an efficiency enhancing flexible integration between some countries or specified groups. However, the question may be raised if the arguments to provide this scheme publicly are strong (Ferrera, 2003). With a well-developed legal framework it may become a form of a (more) private insurance mechanism.

Risk solidarity

The moment for a European provision of insurances based on risk solidarity seems not to be there right now. However, the case for unemployment, disability and health insurances does not have to be the same. Indeed, when the risk pool and the degree of (risk sharing) altruism between the different European countries are big enough and intra-industrial European trade emerges, a European unemployment benefit system could be an alternative. In their literature review Swank et al. (2003) show that a nuanced picture arises with respect to specialisation and diversification in the EU-15. Intra-industrial trade seems to be reduced between 1970 and 1997. However, Europe can be seen as a continent where intra-industrial trade is an important characteristic.[97] Of course, still

[94] However, the measure used (total social security spending) is indeed very rough, while the dependent variable “inequality” does not represent all the functions of social security. So, this empirical evidence must be considered with prudence.
[95] Indeed it was shown by Van Groezen and et al. (2006) that preferences for pension funding are different in Europe. However, it was also shown that there are groups of regions, countries and people who have the same preferences. Flexible integration can than be an attractive possibility.
[96] Indeed, it is difficult to see living longer to profit optimal from pensions as “moral hazard”.
[97] For most European countries more than 50 per cent of the trade can be characterised as intra-industrial trade; which means that a country imports as well as exports products from a certain economic industrial sector (Swank et al., 2003). The other way around: a comparison for industrial specialisation (where the

there are differences between countries. Denmark, Greece, Ireland and Portugal have relatively (strong) specialised production sectors. Furthermore, the new member states differ from the EU-15 (Verkaart and Mul, 2006). Nonetheless, from 1999-2002 the authors show a strong convergence of production structures in these countries due to more trade integration. So the picture changes when the new member states are included, but at the same time there are indications for a converging trend.
Given the relatively high intra-industrial trade there may be arguments for an efficient unemployment risk pool at the European level. However, with the new member states production structures within the EU are less diversified. These countries may be confronted with (continuing) adverse shocks.
Furthermore, Fatás (1998) analyses in an empirical study that the gains of interregional risk sharing are often overestimated. European countries have relative big government budgets, which can insure a large part of the fluctuations. Moreover, the introduction of an efficient risk sharing system in Europe is rather complex. Risk sharing can evolve in permanent redistribution and, when not properly defined, even to redistribution from the poor to the rich regions. Fatás (1998) states that the probable small gains -if any- do not weigh against the losses of a European interregional insurance mechanism.
Furthermore, there are other arguments against a European unemployment system. As was shown, there are large differences in preferences in the EU. Therefore, it seems not to be welfare improving to develop such a European system now. In addition, reforming the diverse systems will come with substantial costs. The national autonomy, combined with delayed integration and the European OMC seems to be a more reasonable alternative under the current circumstances. Nevertheless, with continual convergence and an increase in labour mobility the arguments for a European unemployment system can become stronger.

With respect to health and disability insurance the number of asymmetric shocks that an economy faces is irrelevant. Here the quality of health care and level of insurances in the member states is different (as are the premiums).[98] However, there may be some (semi-) private parts of health care insurance that can optionally be provided at the European level, especially where economies of scale and / or specialisation benefits can be reached.[99] Indeed, flexible integration may also here lead to an efficient outcome. This may hold less for disability insurances, because adverse selection is certainly relevant here. Flexible integration then raises financing and / or provision problems with respect to disability insurances.[100] Further research to the specific characteristics and circumstances of social security instruments based on risk solidarity is needed to come to solid conclusions.

Gini-coefficient is 1, if specialisation is complete) shows that between 1994 and 1997 industrial specialisation in the EU was 0.26 and in the United States 0.37.

[98] See the discussion about the “pensionado’s”.

[99] Dutch people who move to Spain or Germany for medical treatment are an example of this.

[100] Indeed, this certainly holds for (substantial parts of) health care insurances also.

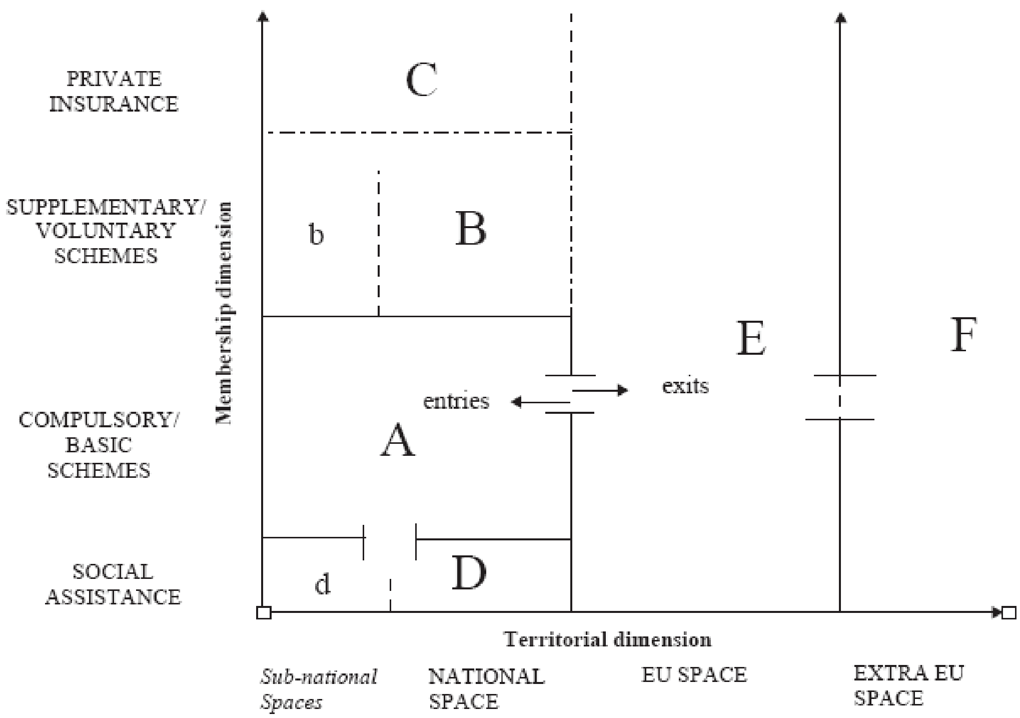
9.4 Political economy

Political economy considerations are relevant when considering the optimal decision level for social security. Does the EU act like a Leviathan, are member states more corrupt (with respect to social security) than the EU should be, on which government level do lobby groups have more influence? However, it is not easy to draw general conclusions about political economy related cases, or as Persson et al. (1996, p. 3) state: "…when allowing for political economy considerations, straightforward normative conclusions on the appropriate degree of centralisation are much more difficult to draw. The use of generalised second best arguments requires a case by case approach and careful empirical analysis to measure the pros and cons of centralisation and decentralisation".

This careful empirical case by case approach is beyond the scope of this paper. Indeed, the objective is to extend the existing (global) fiscal federalism framework with the functions of social security. An analysis of social security instruments in the specific political economy context is therefore left for further research.[101]
However, one of the prominent relevant political economy factors of the EU is the constitutional design. The EU is not a federation. It can be described by democratic federalism, which may not be appropriate to fully decide about social security issues. As was argued in chapter 7 "the riding of the commons" and "I'll-scratch-you-back-if-you'll-scratch-mine" policies do especially exist in this type of "federalism". Moreover bureaucrats may not be in the position to decide about highly political (social security) issues.
Further, complementarities are relevant. The European policies with respect to the common market sometimes have direct effects on social security policies (Persson et al., 1996; Geelhoed, 2004). This is –of course- related to the discussion about delayed integration. Indeed, the free movement of people can be a threat for social security policies. Again, analysing the consequences of EU-laws in detail is beyond the scope of this paper. However, Ferrera (2003) provides an institutional-historical approach to the current sharing of responsibilities in Europe.
Ferrera developed a scheme in which he distinguished the changing responsibilities in Europe for different instruments of social security, see figure 5.

[101] To analyse this thoroughly, next to the specific circumstances of all social security instruments the specific political economy situation in all member states must be compared with the political economy of the EU.

Figure 5: Responsibilities in Europe's social security



Source: Ferrera (2003)

Based on the boundary theories of Rokkan the author describes the different boundaries between social security instruments and relates this to Europe's geographical space.[102] The territorial dimension is represented by the horizontal axes. Geographical and physical borders and the rules that are related for passing these borders are relevant here. Because of the institutional setting and the four freedoms of movement, the EU has (in)direct influence on the social security systems of the member states. The territorial dimension consists of: sub-national, national, EU and extra EU space.
On the vertical axes, we see the "membership dimension". This dimension sketches the diverse membership pillars of social security. From first-pillar (general, tax financed and compulsory) benefits, to second-pillar (occupational, supplementary) and third-pillar (private) schemes.

Ferrera argues that the core of social sharing systems is not really affected by European policies right now. Following Rokkan's historical approach the author claims that these spaces were developed on a national scale in history and are "frozen landscapes". Indeed, the spaces A, d and D have (quite) close borders with other countries of Europe. However, due to the free mobility of people it is possible to enter from other European countries and get social benefit rights from another member state. The small, dashed gap

[102] According to Ferrera (2003), Rokkan investigated the formation of states and nations from a historical perspective. Rokkan considered the complex development of Europe from a functional and territorial approach.

between A and E indicates that this is still not easy to realise and has a (relatively) small influence on member states first-pillar social security systems.[103]
For more recently developed second-pillar instruments, especially pensions and health care, endogenous as well as European developments lead to smaller geographical and membership dimensions. Therefore, the lines between B and E are broken. A European market for second-pillar insurance contracts is nearby. For private insurance (C), a European market is already in place, due to the liberalisation of the insurance market. Space E is the “underlying floor on which national spaces rest”. Ferrera shows that a couple of authors state that the EU paid attention to market-preserving policies instead of market-breaking or positive integration. There are however cases, where the EU (or its judges) facilitates that member states can still provide social security in the way they prefer.

Ferrera (2003) argues further that tensions will arise between public and private and / or basic and supplementary pensions. He states that for countries such as the United Kingdom, with a small first-pillar and a large amount of private pensions, the changes are not that substantial. On the other hand, in countries like Italy, where pensions are largely publicly financed, the expansion of supplementary pensions will lead to pressure on the system. The author also claims that the highest pressure is on the Scandinavian model, because this system is based on high uniform pensions. The tendency to more multiform, individualistic systems will there result in a greater role of private insurance mechanisms in social security provision.

[103] The closed line between D and E explains the existing system that non-country members have no rights on means tested benefits. The small “d” shows that (some) regions within countries have some freedom to redistribute to their poor. However, the dashed and open part between d and D shows that people are free to move and have the same rights as other members of their country.

9.5 Conclusion

When taking a closer look at Europe one can see that preferences for all functions of social security seem to differ to a great extent within the EU and sometimes even within countries. Furthermore, labour mobility is relatively low and there is some evidence that a race to the bottom with respect to social security does not occur. Thus in general, there seem to be few arguments for a centralisation of social security policies in Europe.

Intra-district trade is relatively great in the EU. The risk pool for unemployment may therefore be relatively efficient, also with the new member states. However, given the differences in preferences for social security provision in the EU and implementation problems a European risk sharing system does not seem to be a welfare enhancing solution.

When complementarities arise it is interesting to analyse what the role of the EU could be, especially if the subsidiarity principle and the "four freedoms of movement" conflict. Indeed, allocative intra-EU migration can raise total welfare, but social welfare migration may reduce it. Therefore it is needed to think about cooperation between governments and / or a European influence. This can be done by Europe to give member states the possibility for delayed integration measures. As was already shown in chapter 8, this is sometimes more, sometimes less practice at present. With respect to the most redistributive parts of social security policies, this delayed integration may be a welfare enhancing compromise. Indeed, when social insurance is actuarial fair, there is no reason for delayed integration. Moreover, in this case, the risk pool may be broadened and there may be economies of scale from reducing administrative problems with respect to these social security instruments.

Ferrera (2003) shows that borders are (more) open between supplementary and voluntary schemes. A flexible approach can accommodate efficient migration by providing economies of scale. Countries and groups of people differ to a great extent in their preferences for social security instruments. However, there may be groups (in different countries) who have the same preferences. When adverse selection can be mitigated (to an acceptable extent) flexible European systems may be welfare improving. This implies that -to prevent adverse selection- these are probably the least redistributive parts of social security.

Great differences in preferences, low labour mobility rates and lacking evidence for a race to the bottom make the arguments for a role for Europe with respect to social security policies not convincing. Due to complementarities and economies of scale for insurances based on solidarity of chance, there are however some cooperative proposals that have welfare improving potential. Furthermore, as was shown in chapter 8, the OMC may theoretically provide some economies of scale for all functions of social security.
In the next chapter the extended framework for the attribution of the different functions of social security in Europe will be discussed, based on this empirical overview.

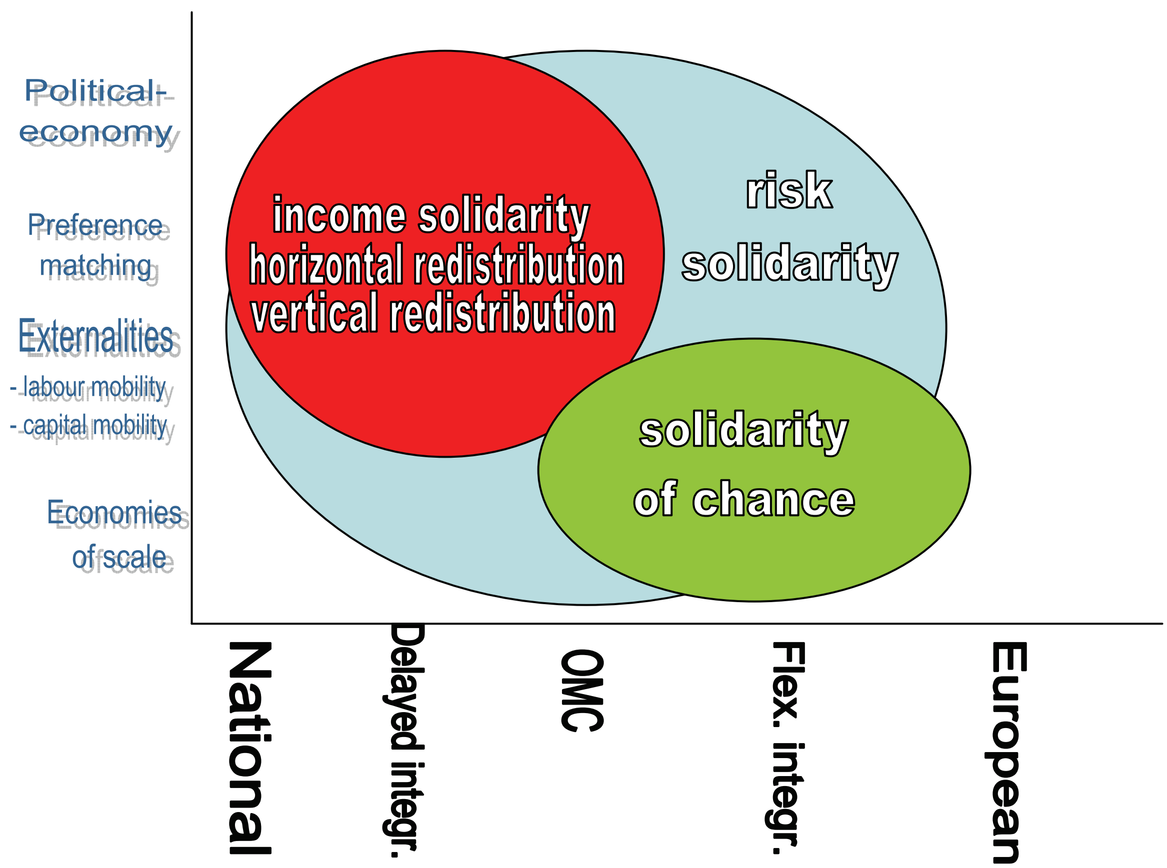
10. An extended framework for Europe

In this chapter an extended framework is developed to determine the optimal decision level for social security in Europe. Hereby, an answer is given to the first research question raised in the introduction.
This framework is based on the five functions of social security described in chapter 3 and on the theoretical analysis of the relevant factors that determine the optimal decision level for social security in chapters 4-7. Moreover, the analysis of the different forms of cooperation that were assessed in chapter 8 is included in this framework. At last, the closer look at Europe from the previous chapter is used.

10.1 An extended framework for Europe

The extended framework to determine the optimal way to divide responsibilities between different government levels for social security in Europe is represented by figure 6.

Figure 6: Social security functions and its attribution in Europe



The different degrees of centralisation are given on the x-axes: from a national provision to delayed integration and the OMC, to flexible integration and a European provision. In chapter 8, it was argued why matching grants and minimum harmonisation levels does not seem to be welfare improving proportionality measures. Therefore, these "in between solutions" are not included in figure 6. Furthermore, it can be questioned if "delayed integration" is really a proportionality measure. However, given the tensions between the "four freedoms", the no-discrimination requirements and the subsidiarity principle, the EU could decide to leave room for delayed integration with respect to social security instruments, or to give priority to the principle of "freedom of movement". Therefore, it was argued that delayed integration can be seen as cooperation between different governments levels.
On the y-axes the factors that are relevant to determine the optimal decision level for social security are given. These factors (economies of scale, externalities, preference matching and political economy considerations) are all relevant as was shown in chapters 4-7.
The five functions of social security are all connected to the relevant factors and the diverse degrees of centralisation. Now, Figure 6 will be explained more profoundly.

Economies of scale
In chapter 9 the importance of the different relevant factors for Europe was assessed. It was shown that economies of scale can be reached by reducing administrative procedures and forming efficient risk pools. This may especially be interesting for insurances based on solidarity of chance. Broadening the risk pool and paying actuarial fair contributions may indeed be efficient. Thereby, administrative procedures for (second-pillar) pensions are a serious horde for efficient migration (PriceWaterhouseCoopers, 2002). In the previous chapter it was analysed that with respect to other social security functions, economies of scale are more difficult to reach. Monitoring moral hazard on a European level may be more problematic and implementation gains are not expected (Dekker et al., 2003).
A cooperation method that can provide economies of scale is the OMC. As was argued in chapter 8 naming and shaming, peer pressure and policy learning may provide some economies of scale, without taking responsibilities away from the member states. The OMC may therefore with respect to all functions of social security be an interesting, possibly welfare enhancing, method.

Externalities
Capital is relatively mobile in Europe, while labour is still relatively immobile. Thereby, the "race to the bottom" seems not to be a real threat in Europe under current circumstances. However, also relatively small labour mobility may have consequences for member states. Especially with respect to the most redistributive social security functions: horizontal and vertical redistribution and insurances based on income solidarity. Therefore cooperation between countries –as proportionality measures- may be welfare improving. Delayed integration may be a reasonable alternative.
For insurances based on risk solidarity the same arguments may be relevant, because bad risks can be attracted to member states that provide generous insurances. This does not hold for insurances that are based on reciprocity. Indeed, when people pay an actuarial fair contribution, labour mobility does not lead to negative externalities.[104]

Preference matching
Preferences between member states for social security differ to a large extent within the EU for all kinds of social security provision. Preference matching is thus an important factor that pledges for a decentral provision of social security. It seems also to be the case that EU-altruism is not a serious force in this discussion, as was analysed in chapter 9. However, preferences are measured for whole groups of people within countries and / or regions. Yet, it is not implausible that certain groups of people (or certain countries) may prefer flexible integration for specific functions of social security. Indeed, European workers face problems with assuring their pensions. Moreover, there may be economies of scale by the provision of a European pension for mobile workers. A flexible integration for certain groups with respect to actuarial fair pensions may therefore be welfare enhancing, because there are no negative externalities and economies of scale can be reached. It may be expected that preference matching for actuarial fair social security instruments is not that important. Indeed, people can choose their preferred "social security" and reveal their own preferences then.

Political economy
Political economy considerations remain important, but must be assessed very precise for the different functions and instruments of social security. However, some European characteristics could be distinguished. Due to the constitutional design, Europe seems not well-equipped to decide about social security issues. Thereby, common pool problems may arise.
With respect to insurances based on the solidarity of chance, political economy considerations are less important, because when it is more efficient, this insurance can be provided by private parties too.[105]

[104] Indeed, as was analysed the effects may even be positive due to broadening the risk pool and therefore make it more efficient.
[105] However, when one comes to the implementation, the world is not that simple and problems will arise. See e.g. the differences in pension systems and rules in Europe. To what extent should second-pillar pensions be obligated? Another problem –which is heavily debated nowadays- is the freedom that (international) pension funds should have in their investment strategies.

Most redistributive functions
With respect to the most redistributive functions of social security (vertical and horizontal redistribution and insurance based on income solidarity) it was shown that preference matching is important, while economies of scale are not plausible. So, provision on the member states' level would be optimal from a public economic point of view. Furthermore, labour migration may induce (some) externalities and it could therefore be welfare improving to follow the principle of delayed integration to reduce inefficient migration. In addition, the OMC can theoretically induce (some) economies of scale by policy learning and naming and shaming. Precise political economy considerations may be relevant, but must be considered in greater detail for all specific social security instruments. However, it was shown that the EU constitutional design may not be appropriate for social security polices. Therefore, horizontal and vertical redistribution and insurances based on income solidarity are placed in the area, where the factors "preference matching", "externalities" and "political economy" are relevant. "Economies of scale" are not expected and therefore the area of these functions does not include this factor. On the horizontal axes, it is shown that "national", "OMC" and "delayed integration" are relevant. The most redistributive social security functions should be left to the member states. However, some economies of scale could be provided by the OMC and to prevent negative fiscal effects of labour migration delayed integration may be a welfare enhancing policy.

Insurance based on solidarity of chance
With respect to social insurance based on solidarity of chance some economies of scale from further European integration may be reached. Preference matching for actuarial fair insurances may be expected to be less important and the same holds for political economy considerations. Flexible integration for specific groups may be a welfare enhancing policy. Given the large differences in preferences for European pension systems a total Europeanization of second-pillar pensions may not be welfare enhancing. Differences in the existing pension designs between countries may induce enormous adjustment costs and provides a second argument against total Europeanization. Therefore, also insurances based on solidarity of chance are not included in the "European" area in figure 6.
The OMC may also with respect to insurances based on solidarity of chance provide some economies of scale and therefore lies within the area.

Insurances based on risk solidarity
With respect to insurances based on risk solidarity all factors are relevant: political economy considerations, preference matching, externalities and economies of scale. The optimal decision level for these insurances depends on the specific circumstances of instruments.

The time for a European provision of insurances based on risk solidarity appears not to be there right now. On the other hand, the case for unemployment, disability and health insurances is not the same. Indeed, when the risk pool and the degree of (risk sharing) altruism between the different European countries are big enough and intra-European trade emerges, a European unemployment benefit system could be an alternative.

Nevertheless, there are large differences within current preferences in the EU, so it seems not to be welfare improving to develop such a European system now. The national autonomy, combined with delayed integration and the European OMC appears to be a more reasonable alternative under the current circumstances.
With respect to health and disability insurance the number of asymmetric shocks that an economy faces is irrelevant. It was argued that some economies of scale and / or specialisation benefits could possibly be reached by flexible integration with respect to some parts of health care insurances. However, adverse selection is a serious threat for insurances based on risk solidarity. A more specific analysis of the circumstances is needed to draw general conclusion with respect to these social security instruments.
The considerations in this paragraph lead to the area for insurances based on risk solidarity as is shown in figure 6. It is shown that all factors are relevant. Depending on the circumstances of the social security instruments different combinations of attribution of power to the government levels may be optimal.

Social security instruments
Based on the analysis in this and the previous chapters an indicative table can be provided, which gives an overview of the possible welfare enhancing policy measures and the different instruments of social security. This is done in table 8.[106]

Table 8: Social security instruments and its attribution in Europe

	National	**Delayed integration**	**OMC**	**Flexible integration**	**EU**
social assistance	x	x	x		
child benefits	x	x	x		
public old age pensions	x	x	x		
unemployment benefits	x	x	x		
supplementary pensions			x	x	

From a public economic approach it is again shown that a role for Europe with respect to most social security policies should be marginal. Indeed, preferences for redistributive instruments for social security are diverse while large externalities are not there. The OMC can provide some economies of scale with respect to social security policies. Furthermore, Europe should allow member states to choose for kinds of delayed integration. Only with respect to supplementary pensions there is a role for flexible integration. As was argued, then, adverse selection, moral hazard and preference matching become less important factors, while economies of scale may be reached.

[106] However, health and disability insurances are not included in this table, because these instruments have diverse aspects that are relevant to assess whether a kind of European influence would be welfare enhancing. Further research is necessary to draw (general) conclusions with respect to these social security instruments, which is beyond the scope of this paper.

10.2 Conclusion

The functions of social security consist of more than redistribution only. In chapter 2 five functions were distinguished: horizontal and vertical redistribution and insurance based on income solidarity, risk solidarity and the solidarity of chance. Based on the factors that are relevant to determine the optimal decision level for government policies, the traditional fiscal federalism framework was extended by these functions of social security for Europe.

Furthermore, different ways of cooperation between the EU and member states are taken into account as measures of proportionality.

It was assessed which factors are relevant for which functions, and what forms of cooperation may be efficient under which circumstances. Indeed, preference matching is relevant for all functions of social security, but may be less important for actuarial fair insurances. The same holds for political economy circumstances. Economies of scale are not plausible by functions characterised by the most redistributive instruments, but may be relevant by more insurance-based functions. For these functions flexible integration may make it possible to take advantages of the possibilities of economies of scale, when differences in preferences in Europe and / or between groups of people are present.

The OMC may provide some economies of scale with respect to all functions of social security.

Externalities due to labour mobility are relevant and therefore cooperation measures could be taken by the EU and member states. Delayed integration may reduce the negative externalities of (inefficient) labour mobility.

All these considerations are summarised in figure 6.

11. Assessing the proposals

Several proposals for a kind of European social security system were formulated recently. However a coherent analysis of which functions of social security should be provided by the EU and which by the member states was lacking (Cantillon, 2006). This analysis was provided in the previous chapters.
In this chapter several proposals to come to a "Social Europe" will be evaluated following the extended framework. To answer the second research question, it is analysed which proposals fit the extended public economic approach best.

11.1 Euro-stipendium and basic income

Schmitter and Bauer (2001) develop a proposal to come to a euro-stipendium for the poor. Everyone who earns less than 1/3 of the EU's average income can get an amount of 1.000 euro from Europe. This vertical redistributive fund is meant for people who live in "extreme poverty". The euro-stipendium is –according to the authors- ethically justified, because it redistributes money to the new member states and to the victims of the Economic and Monetary Union. Furthermore, the EU committed itself to fight social exclusion and to provide a life for everyone in human dignity.[107]
With the stipendium, people can feel that European "social citizenship" does really exist. The stipendium is distributed by the EU itself and is, for "symbolic" reasons, the same for every European who has the right to get it. As such, it is not based on differences in purchasing power parities. The stipendium is financed by a reduction of the budget on Europe's Common Agricultural Policy. When "extreme poverty" is reduced the authors state that the threshold can be shifted to ½ of EU's average income or in the end even to a basic income for every citizen.

Van Parijs and Vanderborght (2001) criticise the euro-stipendium proposal. It creates moral hazard by member states that have an incentive to decrease their policies to reduce the number of poor in their countries. Secondly, it creates big, unequal effects for those who live nearby the border of getting the stipendium or not. So, a huge poverty trap is created. Thirdly, the stipendium is based on a "shaky floor". When new member states enter the EU, average income will change, while the circumstances of the current receivers of the stipendium do not. Due to enlargement, parts of the poor of the old members states will loose their 1.000 euro, which will create strong political (xenophobic) problems. Given these practical problems it may be doubted if Europe can provide benefits to the poor more efficiently. It may therefore be questioned if there are any economies of scale from a European provision. Furthermore, as the analysis in the previous chapters shows, preferences for redistribution throughout the EU differ to a large extent.[108] With respect to externalities, in general delayed integration is currently

[107] The authors also claim that the euro-stipendium is in line with the subsidiarity principle, because major social security provisions are left with the member states and the stipendium may reduce the negative externalities of European policies (e.g. enlargement and the EMU). However, subsidiarity is not assessed in the right way. Indeed, the question is not whether European influence is big or not, but if national governments are not able to provide assistance to the poor in a more efficient way.
[108] However, it may be claimed that one of the three social policy goals of the European Employment Strategy is reducing poverty. Politicians declared that they want to reduce the number of poor, which could be an argument to claim that people have the same preferences in Europe with respect to this policy area.

the practice, which does not give immediately rights for immigrants to vertical income redistribution in other member states. So, externalities are small. Therefore, there seem to be no economic arguments to provide a euro-stipendium to the poor.

Van Parijs and Vanderboght (2001) are less critical about the long-term perspective of Schmitter and Bauer (2001). A basic income -or "euro-dividend" as they call it- for all Europeans does not have the disadvantage effects of the stipendium and is a promising alternative, according to the authors. The level of this "dividend of durable peace" must be proportional to the purchasing parity of the euro in the diverse countries.
However, from an economic approach this "dividend of durable peace" must be seen as an expensive political symbol. Indeed, taxes must be raised from Europeans first, which implies economic distortions; after which the same people get their (but less) money back. Such a proposal would probably be known as a symbol of wasteful Europe instead of reflecting a social face.

11.2 Universal child benefits

Begg et al. (2001) state that the OMC is worthwhile in the present European context, but that European social policy should be reinforced in the future. They suggest that this can be done with an identifiable, categorical cash benefit, where reaching the goal of diminishing social exclusion must be the central issue. A European birth grant could be a proposal that fits within these criteria.
In 2004, the High-Level Group on the future of social policy in an enlarged European Union states that with respect to ageing it is recommended that people can have the number of children they desire. This would lead to a greater labour force in the next decades. Further, more than a quarter of European children live in a household with a risk of poverty (European Commission, 2004). To mitigate this problem, the authors propose a basic income for children. This income must be based on a percentage of the median income in a country and must be provided by the member states.
Earlier, Atkinson (1996) did a comparable proposal. In the future a basic income can be formed to guarantee a Europe-wide minimum income. However, the author states that a good start would be a basic income for children. A minimum should be based on the general incomes of member states and the way it is provided (e.g. by tax credits, benefits, tax deductions) should be left to the individual countries. So, Atkinson states, subsidiarity (in the provision of this good) is guaranteed. The author did the same proposal again in 2005.
Inspired by Atkinsons' idea Levy et al. (2006) made simulation models of a European provided child basic income by a flat tax rate. They show that a reduction of child poverty by 50 per cent –which is the goal of the European Commission in 2010 (Matsaganis et al., 2006)- can be reached with a flat tax rate on all non-benefit income (including pensions) of about 3 percent.

However, when this is done, one endogenises the problem. Indeed, then all the proposals politicians accept will be efficient from a public economics approach, because they reflect the preferences of the European people. However, looking at the studies considered in the previous chapters, there seem to be little support for European redistributive policies.

With the universal child benefits the authors try to reach the goal of reducing child poverty. With this horizontal redistributive proposal again there is no reason to expect that there exist economies of scale and / or externalities, which will make a European provision more efficient. In fact, especially families with children are less mobile than other families, which reduces the negative external effects, if any (PriceWaterhouseCoopers, 2002). Moreover to reach the goal of reducing child poverty with a universal measure is doubtful. Indeed, why subsidise also rich parents when reducing poverty is the goal? Furthermore, there is little public support for a direct influence of the EU on social security instruments. To conclude: there seem to be no gains from a public economic point of view to provide or set minimum standards for child support at the European level.

11.3 European pension system

Chapon and Euzéby (2002) propose to develop a "Social Europe" by a system that reflects a greater solidarity at the EU-level. A European minimum pension could be an example of that.

The differences in tax treatment of pensions in the EU can lead to inefficient migration (Stevens, 2003). The cash-flow treatment of pensions (the contributions and capital income from these contributions are tax-exempt while pension benefits are taxed) is part of the problem.[109] People have an incentive to tax free save for their pension and migrate to a country where pensions are not (or less) taxed. Therefore a harmonisation of pension policies in Europe may be welfare improving. However, Stevens states that measures must be in line with the free movement of goods, persons and capital and therefore e.g. an exit tax for pensioners is not preferred. Or stronger, following EU directives an exit tax is even forbidden. Stevens (2003), thus proposes a right of tax for the country where pensions were build up. So, application of the source based tax instead of a residence based tax on pension benefits.

Ferrera (2003) also considers this second-pillar of pensions. He discusses the evolving regulatory developments and evolving laws in the EU and states (p. 639):

"The final and more general conclusion (…) is that the case law and regulatory developments so far have had a differential impact on distinct areas or tiers of national social protection. Regarding pensions, member states have been able to preserve effective barriers around the principle of compulsory membership in public schemes in their first-pillars (an essential bulkwark for domestic redistribution) but have lost considerable grounds at the second-pillar level".

The residence principle holds for redistribution, but not (or less) for occupational pension benefit. Therefore there is room for EU intervention in the second-pillar, Ferrera (2003) argues.

Furthermore uncertainty about pension benefits, because of different pension rules and regimes in different countries, may result in over savings by international mobile

[109] These benefits are usually taxed at a lower rate than during working age.

workers.[110] This problem can be related to the proposal of Pieters and Vansteenkiste (1993) for a "thirteenth state" with respect to migrants. Ferrera (2003) described that European influence on the second-pillar pensions is greater nowadays than it was and he expects that pressures on current pension systems will rise. Therefore a voluntary European pension system may lead to economies of scale (due to less administrative problems and more certainty). Van Groezen et al. (2006) also support a flexible integration of pension policies. The authors investigated that opinions about the kind of provision of pensions differ to a great extent between – but also within- European countries. They state therefore that a complete centralisation of policymaking for pensions is not feasible in Europe. However, groups of people and / or countries have the same preferences.
Disadvantages of a flexible pension provision are technical (the compatibility with national pension systems) and practical problems (who is responsible, when there are fund shortages (Goudswaard and Vording, 1996))? Furthermore, the question must be raised if from a political point of view this is the "Social Europe" the different authors want. Indeed, possibly the high skilled, high incomes will use this system first, which are not the groups that can cause warm feelings by social feeling politicians and scientists.[111] Even the feeling that Europe is only good for the lucky can be strengthened. However, this is not the benchmark of this study. The benchmark in this paper is the public economic approach. The question is, if the proposals for different kinds of European social security can be welfare enhancing and with respect to supplementary pensions this seems to be the case.

Minimum pension standards
Atkinson et al. (2002) investigate the consequences of European minimum old age pension standards. Indeed, the income of the elderly consists to a large extent of social security. A European minimum pension is meant to prevent poverty under elderly.
The authors set a minimum pension in purchasing power parities of 40 percent of mean equivalent disposable household income in the United Kingdom and show that the introduction of a European minimum pension will reduce the number of poor pensioner households substantially.
However, Atkinson et al. (2002) do not look at the dynamic consequences of their proposal. What are the behavioural effects of introducing a (relative) minimum pension in the member states? The risk of slowing economic and in the end social convergence, combined with financial troubles for new member states with respect to minimum social security levels, articulated by Sinn and Ochel (2003), are also relevant here. Thereby the feasibility problems with minimum standards raised by Goudswaard and Vording (1996) come into being. Furthermore the authors themselves doubt whether the goal (reducing the number poor) is reached in an efficient manner with this proposal. Given these objections, the minimum pension harmonisation does not seem to be a welfare-enhancing alternative.

[110] When people have to insure themselves, over saving is the usual result (see Heijdra and Van der Ploeg, 2004).
[111] On the other hand, the free movement of people in the enlarged European Union could –depending on the specific institutional form- make such a voluntary pension system interesting also for lower skilled people (from new member states) who work in old member states.

Nonetheless, differences in pension systems between countries may lead to inefficient migration (Lejour and Verbon, 1994; Uebelmesser, 2003). The PAYG income-solidarity based systems can –in combination with ageing- get under pressure due to labour migration and moving pensioners. Therefore, some co-ordination with respect to public old age pensions is needed. A combination of OMC measures and / or delayed rights for public old age could provide an optimal policy mix to prevent inefficient migration flows. Developments in the relevant production factors (especially labour mobility) should be followed, but currently the European policy seems to be adequate.

11.4 Minimum standards for social security

Dispersyn proposed in 1992 a "social snake": European social standard benefit levels for social security should be agreed on, from which member states should not deviate too much (Goudswaard and Vording, 1996). When countries provide too much social insurance they have to pay for a fund, while countries that provide too less can draw from the fund. The social standard should be raised until the level of the countries with the highest protection levels is reached.

The incentive structure of this proposal is perverse. Countries are financially rewarded if they provide "too low" levels of social security, while countries that provide "too much" are punished. It is difficult to think of a system that has worse incentives to prevent policy competition.

11.5 European transfers

In 1993 Italianer and Vanheukelen proposed a transfer scheme for countries that face an asymmetric shock, measured by a substantial increase in unemployment (Goudswaard and Vording, 1996). This scheme can reduce the adverse effects of the asymmetric shocks of an economic and monetary union as pointed out by Krugman (1991) and can thereby stabilise economies of the member states. It was shown in chapter 7 that there are serious theoretical arguments against matching grants. Furthermore, as was analysed in chapter 9 also empirically the advantages of matching grants funded by a European unemployment fund may be outweighed by the disadvantages of the practical implementation.

Drèze (2002) proposed a European matching grants system to subsidise low-skilled workers, so that externalities of labour migration can be compensated.

The same arguments against matching grants are valid here. Therefore, European matching grants on social policies should not be advocated.

11.6 Conclusion

In this chapter an answer was formulated to the second research question. Applying the extended framework to several proposals in the literature shows that none of the proposals should be accepted unconditionally from a public economic approach. A European basic income is inefficient in itself (also when it is provided by member states) and a stipendium may be criticised, because Europeans have different preferences and there are serious feasibility problems. A European child benefit has also to be rejected, because preferences for horizontal redistribution are different in Europe and externalities are relatively small. Further, a more selective benefit is more efficient to reach the goal of reducing (child) poverty than a general payment to every family.

European minimum rules can even lead to slow social (and economic) convergence. The Dyspersyn proposal even has perverse economic effects.

European transfers should not be advocated, because it is not expected that the conditions on which it is efficient to use matching grants are fulfilled.

Only the oldest proposal -a flexible European pension system- offers the possibility of enhancing welfare by providing economies of scale from a larger risk pool and reducing administrative procedures. However, also this proposal has some serious administrative and political drawbacks.

Part V: Conclusion

"All member states have well functioning political systems and a variety of redistributive instruments at their disposal. It is up to them to decide how, to whom and how much to redistribute. In this case the prescriptions of the theory of fiscal federalism, that redistribution ought to be centralised, seem inapplicable, at least in the near future".

Tabellini (2003, p. 90)

12. Conclusion

Traditional fiscal federalism theories cannot simply be copied and used for Europe. It is far too simple to state that the "redistribution branch" should be devoted to the central government. Social security consists of more than redistribution. Therefore in this paper the traditional fiscal federalism framework was extended with different functions of social security: horizontal and vertical redistribution and insurance based on income solidarity, risk solidarity and solidarity of chance.
It was assessed which of these functions could be best attributed to Europe and which should be left with the member states. The relevant factors that determine the optimal decision level for social security were evaluated. Preference matching, capital and labour mobility, economies of scale and political economy considerations are still in the heart of the debate.
Furthermore, co-ordination methods as intermediate policies were assessed. It is analysed if and under which circumstances delayed integration, OMC, minimum harmonisation standards, European transfers and flexible integration may be welfare enhancing. This is in line with the subsidiarity principle -with its proportionality criterion- laid down in the Amsterdam Treaty.

Concerning functions with the most redistributive elements, the arguments for centralisation are rather weak. At present the "race to the bottom" due to mobile production factors seems not to occur. Furthermore, economies of scale are not plausible and information problems are likely for Europe with respect to the different preferences of the people in the member states. However, mobile labour can lead to (fiscal) pressure on member states and its social security systems. Therefore, delayed integration (or the home-country principle during some period) formed by the national governments with respect to horizontal and vertical redistribution and insurances based on income solidarity, seems to be adequate. Furthermore, policy learning and pressures for efficient reforms (due to the OMC) can occur between member states, without an inefficient transformation of power to the European level.
Proposals for a basic income, euro-dividend or a European child benefit, seem to be based on ideological grounds. From an economic point of view there is no need to support these ideas. The same holds for minimum harmonisation levels for social security. As Sinn and Ochel (2003) analyse, there are –next to feasibility problems- considerable negative consequences, possibly even on social convergence.

With respect to insurance based on solidarity of chance, there seems to be a greater role for Europe: there is room for a European scheme for supplementary pensions for mobile workers. There may be economies of scale from reducing administrative procedures and a broader risk pool may enhance efficiency further. The usual cost of centralising, less preference matching, is minimal because it is an actuarial fair insurance. Furthermore, adverse selection and moral hazard problems may be not that substantial.

A European provision of insurances based on risk solidarity is not acute. When the risk pool and the degree of (risk sharing) altruism between the different European countries are big enough and intra-European trade emerges, a European unemployment benefit system could be an alternative. However, there are big differences in preferences in the EU and the conditions for welfare improving European unemployment transfers are rather stringent. It appears that Europe does not fulfil these conditions, so it does not seem to be welfare improving to develop such a European system now. The national autonomy, combined with delayed integration and the European OMC seems to fit best to the current circumstances.
On the other hand, there may be some (semi-)private parts of insurances based on risk solidarity that can benefit from flexible integration. Especially, when economies of scale and / or specialisation benefits can be reached. Nevertheless, differences in preferences, adverse selection, moral hazard and practical difficulties may be serious disadvantages. Further research is needed to come to convincing conclusions about the (dis)advantages of flexible integration of insurance instruments based on risk solidarity.

From a public economic approach there seems to be no urgency to centralise social security policies in Europe. The call for a "Social Europe" is more based on ideology than on a cost-benefit assessment of the arguments for centralisation. Perhaps paradoxically, the least "social" social security instruments (which are based on reciprocity) are the first where (flexible) integration can provide benefits. Further research could be focused on the optimal conditions under which these insurances can be provided in a welfare enhancing way.
Also concerning the precise conditions for delayed integration and the related tension between the European objectives of the four freedoms of movement and the subsidiarity principle, detailed analysis on the level of social security instruments may be helpful. Thereby, it would be interesting to analyse the specific political economy context with respect to social security instruments. Furthermore, the impact of the OMC should be assessed. Does it really provide the expected economies of scale, or is it only wishful thinking?

In the future things could change. Factors could move. Preferences can shift. Constitutional institutions evolve. Future research could be focused on the emergence of these processes. However, at this moment, under current circumstances and by using a public economic approach, it must be concluded that proposing a "Social Europe" is a political utopia rather than efficient economics.

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