Economic impacts of selected social security policies covered by international labour standards: a review of recent research

Second draft

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Summary

The original idea behind this study was to have a review of the research findings with respect to broad economic implications of International Labour Standards in general and in the area of social security in particular. However, while there is plenty of research into the economic implications of existing or hypothetical social security provisions, practically none of this looks directly at economic impacts of ILO social security conventions and recommendations being adopted, ratified or implemented. This paper thus reviews the recent literature analyzing economic implications of selected social security programmes implemented at least at the scope and levels required by the respective ILO Conventions. However, one has to have in mind that many of the social security schemes which economic impact is analyzed in the literature have provisions going often far beyond the minimum standards required by ILS.

The review is limited to three branches of social security as defined by ILO Convention no 102 (Minimum Standards): old-age, invalidity and unemployment. Additionally, it looks also at impact of policy measures other than just cash benefits to unemployed, namely various labour market policies (so called "active") which are covered by Employment Promotion and Protection against Unemployment Convention no 168 (1988).

Social security is declared a basic human right. Despite that a large majority of the world's population is not even covered by minimum public social security provisions and thus has no affordable access to basic health services when in need nor basic income security in case of the occurrence of such life contingencies sickness, disability, employment injury, unemployment, maternity and family responsibilities or old age. Majority of countries which ratified ILO conventions in the area of social security are economically developed with extensive social security systems. Majority among them are in Europe (see Annex 1).

Substantial part of the economic literature during the previous two decades was focusing on developed "welfare state" systems in OECD high and medium income countries and its alleged consequences in terms of high and persistent unemployment and a deceleration of GDP growth. At the same time, existence of social security provisions at the minimum level is taken for granted and thus much less attention is paid to the very reasons why in the past minimum social security standards were set and implemented in a number of countries: to reduce and prevent poverty and to provide minimum levels of income security in order to secure sustainable social and economic development and social cohesion.

This debate continues to date – however, it has shifted part of its focus from the industrialized countries to emerging economies and the developing countries. Two factors have been driving the discussion. The first are effects of *internationalization* or *globalisation* – the opening up of national

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economies to international trade and financial flows. Resulting intensified international competition has urged some – both in developing and industrialized countries – to think that lower level of taxes and lower levels of labour and social protection can help both to keep labour costs at competitive levels and attract investors. Others, who think that without labour and social security, developing countries will not be able not only to reduce poverty but also embark on a sustainable development path, argue in favour of setting an internationally accepted social floor to prevent damaging economic and social consequences of such a competition.
The second factor is the demographic *ageing* process. This is relevant in particular among the industrialized countries and has caused a continuous pressure on governments to contain public expenditure and to scrutinize existing social transfer programmes. While there is no doubt that demographic ageing will sooner or later affect also less developed countries, there are many examples proving that thee is no danger of alleged "old age crisis" as demographic challenges can be managed through a combination of adequate labour market and social policies and sound democratic governance of the social protection systems.
Implementing right to social security obviously has various economic consequences. Social security means social transfers in cash and in kind and these transfers have to be funded through taxes and contributions. This has various fiscal implications. Social security is also changing outcomes of the market forces – actually, it is usually indented to change these outcomes: for example to bring different, usually more equal, distribution of income compared to the one resulting from the markets. Social security also changes behaviour of individuals and their households: the intention is that those individuals and households are more secure, better protected in case of various economic and social risks.
But of course the right to social security can be implemented in many different ways; each of these ways may have different implications with respect to the intended outcomes, some may bring unintended ones. Governance matters also, good governance of individual social security schemes and national social security systems means that benefits of social security are helping to achieve desired policy objectives and that provision of these benefits is economically and fiscally sustainable. Flagship ILO social security Convention 102 explicitly requires governments of countries who ratified it to take the responsibility for providing necessary financing for implemented benefits and to carefully monitor its financial sustainability[2]. Fiscally irresponsible social security policies do not comply with social security standards the same way as – for example - do not comply with it policies delivering benefits lower than those required by the convention.

This review focuses on literature presenting research on the impact of social protection arrangements on the economic performance of countries. While there is a large literature on economic effects of relatively extensive welfare state arrangements in the OECD countries, there is still not much research on immediate and longer-term economic effects of implementing social security (or extending its coverage) in low income countries. However, since the turn of the millennium the number of studies that have taken the issue to the developing world has been increasing. Emerging information, data and evidence is still scarce but studies from specialized research institutions – as established for example in Brazil and South Africa – hold a promise for future research.

The various effects have been categorized as 'static' and 'dynamic' effects. Static effects are the immediate impacts in terms of costs and adequacy. Dynamic effects are caused by changes in the behaviour of individuals, households and organizations, which to some extent may offset or reinforce the initial static impact. It is however equally important to look also at economic consequences in situation when there is on social security or coverage is below the minimum standards.

When there is no public social security: informal arrangements and market provision of social protection

[2] Article 71, par.3 of the C. 102 Social Security (Minimum Standards) Convention, 1952 stipulates that the government "shall ensure, where appropriate, that the necessary actuarial studies and calculations concerning financial equilibrium are made periodically and, in any event, prior to any change in benefits, the rate of insurance contributions, or the taxes allocated..."

Informal arrangements. Most of the studies are focusing on to what extent formal social transfer schemes – when introduced - tend to substitute informal arrangements. Not much is researched on to what extent informal arrangements are really substitutes of public social security, to what extent informal "transfers" are actually transfers and not arrangements based on reciprocity and if they can play a truly redistributive role. However, even these studies focussing on alleged "crowding-out effects", point out that individuals or households – that cannot fall back on informal arrangements – suffer when formal schemes are non-existent or insufficient. Moreover, the literature supports the view that public schemes are far more efficient in targeting the right individuals and groups and can avoid the lock-in effects that characterize informal arrangements.

Market provision. There are examples of countries that have been successful in private provision of social services. Most of the experiences are from recent date, hence the evidence on efficiency and effectiveness of private provision still is scarce. What emerges from the available evidence is that it is possible for governments to contract-out some social services to private providers, but at the same it requires strong public regulatory framework (and usually direct additional intervention) to safeguard the social objectives that need to be secured – such as access to services also for the most disadvantaged groups and other redistributive objectives. The question of high administrative cost of private provision is also often being raised.

Are the social security provisions meeting their major objectives? Poverty reduction and social capital.

Social transfer programmes are effective in their main target: to compress income inequality and reduce poverty. The higher social expenditure the lower the poverty rate is.
From the academic debate in the 1990s we know that there exists a negative relationship between income inequality and economic growth. There is less consensus with respect to the exact mechanisms that constitute this relationship – restricted access to credits leading to 'inequality traps', political conflict on property rights, trust and social capital building, are all plausible candidates.
More recent is the debate on whether the benefits from economic growth 'trickle down' to the poor in developing countries. Recent evidence supports the view that there is no automatic trickle down – that it needs government interference in the form of public social transfer schemes, social security, to establish this.

Old age pensions. In the industrialized countries pensions proved to be very effective in preventing poverty in the old age and the elderly still tend to be relatively well protected (although some of the recent reforms seem to be reducing the level of protection substantially). Demographic challenges apparently require integrated response by labour market and social policies which would effectively extend working lives ensuring decent employment for the older workers and weaker incentives to retire early.
In developing countries coverage is often limited as large proportion of the population is either self-employed or works in the informal sector. Efforts to extend the coverage, through – for example - social pensions proved to be effective in reducing the number of poor.
The allocation of pension risks is related to the type of funding mechanism and the type benefit guarantee (Defined Benefit versus Defined Contribution schemes). There is a large literature on these issues but recent studies have not provided genuine new insights. An exception would be the literature on the experiences with pension reform in the transition economies after 1989. There is some evidence pointing at an 'over selling' of the concept of privately managed, defined contribution pension plans in some of these countries. This is the issue of major importance for implementing social security standards: while there is nothing in standards which would exclude private provision of social security in this respect, there is also nothing which would prevent advanced funding of benefits; the respective standards require that beneficiaries have certain minimum replacement rates (ore minimum benefit amounts) guaranteed. Such a guarantee cannot be made when the pension system is solely based a "defined contribution" principle.

Disability Pensions. In developed countries disability pensions (usually earnings related and delivered through contributory social insurance) proved to be an effective policy instrument. This instrument however has to be integrated with policies aiming at reintegration of people with disabilities into labour market. Many developing countries still provide disability benefits only within limited employment injury schemes covering only formal economy workers. There is an intensifying debate on introducing social non-contributory old-age and disability pensions in low income countries to provide at least basic coverage on a universal basis.

Unemployment benefits through social insurance and social assistance. Those industrialized countries that rely more on targeted – means tested – schemes are less effective in their redistributive aims than social security systems with more emphasis on earnings related social transfer schemes. Critics have stressed that long welfare spells cause a depreciation of human capital – people on the welfare rolls do not keep their skills up to date and cannot fill the vacancies at a later moment in time. The conclusion is then that programmes providing income security to unemployed have to be closely linked with other, so called "active" labour markets policies which through training, retraining and other measures allow people to return to work.
In the developing countries the reverse seems to be true: while employees in the formal economy still need unemployment insurance type provisions (which are however rare) is true, well administered targeted schemes may have a higher impact in terms of poverty reduction if coupled with job creation/income generation programmes. Moreover, social cash transfers in the developing countries seem to induce households to invest in upgrading human capital or in productive factors and to increase levels of economic activity.

"Active" labour market policies. With respect to labour market measures other than cash benefits (ALMP) the importance of targeting is universal – both for industrialized and developing countries. For the developing countries it is crucial that labour market policies are supplemented with cash-transfers programmes, as a large share of households will not be reached through the "workfare" programmes.

Costs, affordability and "static" effects

Table1 in the Annex II captures some economic performance statistics and social expenditure data of a number of industrialized countries and developing countries.
Countries with developed social security systems allocate usually between one third and half of their public budget to social security, including health care and this expenditure often exceeds 20% of GDP. Such level of expenditure requires substantial fiscal effort and social security policies should be carefully coordinated, monitored and planned. However, research shows that high levels of social expenditure are not detrimental to economic growth and performance - see particularly Lindert.(2004)
In developed countries, especially in the poorest ones, spending on social security rarely exceeds 5% of GDP and one fourth of the public budget (and is lower in most cases). Social security spending in these countries is dominated by public health care expenditure, spending on cash transfers is often less than 1% of GDP sand usually focuses on pension benefits to government employees and sometimes also to other formal economy employees. Prevailing level of social security expenditure proves to be lower than would be required to reach at least minimum standards with respect to coverage and benefit levels. If Millennium Development Goals are to be reached, expenditure levels have to go up. Recent research show that reaching universal coverage for at least basic social protection package is affordable even for low income countries, but necessary effort to reallocate more domestic resources to social protection in these countries would have to be matched by increased international transfers.

Old age pensions. Expenditure on old age pensions has risen in all industrialized countries and is projected to rise further. Differences between countries relate to differences in scheme design. Programmatic modifications – for example to restore the actuarial balance in existing pension schemes – help to contain the rise of expenditure. Complete shifting from public to private insurance is not helpful, as most of the consequences from ageing will also affect private schemes.

The pension debate in developing countries is shifting recently – from a pure focus on poor governance and the establishment of private insurance to a more balanced focus on the necessity to radically increase the coverage, including the potential role and fiscal feasibility of tax-financed social pensions, targeted or universal.

Sickness and Disability Insurance (DI). The rising number of disability pension beneficiaries in many developed countries has been a topic of research – most studies ascribe the increased inflow into the DI scheme in the industrialized countries as a consequence of institutional factors. Studies on disability and disability pensions in developing countries are scarce.

Unemployment Insurance (UI) and Social Assistance (SA). Fiscal pressures have led to important restrictions of the scope and generosity of unemployment insurance schemes, especially in transition economies in Europe. In developing countries majority of schemes are of social assistance type. Studies on these schemes reveal inefficiencies in administration and targeting of beneficiaries. When these inefficiencies are solved, such schemes are shown to be both affordable and effective.

Active labour market policies (ALMPs). The cost effectiveness of "active" labour market programmes is being challenged by some research. These programmes are shown to be rather expensive and displacement effects have been reported. In several industrialized countries benefit schemes conditional on work have been established – the most renowned example is the American EITC. Labour market policies in developing countries are usually restricted to public works programmes. Existing studies show that these programs have limited cost effectiveness.

Dynamic effects

Microeconomic impact.

The literature seems to converge to the view that some welfare state institutions have caused labour market rigidities, whereas other institutions have had a beneficial impact – for example in terms of skill enhancement and the facilitating of risk taking. Some countries have succeeded in implementing labour market reforms and this has led to improved economic performances. Studies have pointed out that combinations of mutually reinforcing measures have been a key factor to these successes.

Old age pensions. Some studies have argued that public pension schemes crowd-out private savings plans. It is important, however, that the evidence in most of these studies pertains to crowding-out at the margin – incremental changes in the public/private pension mix would have this substitution effect. There is evidence that wholesale shifting to private pension plans would leave the poor under insured. Turning from savings to labour force participation the literature concentrates on decisions towards early retirement. Studies have revealed high marginal effective tax rates around the retirement age in a number of industrialized countries – sometimes exceeding 100 percent – which often result not just from pension scheme conditions proper, but also from the interaction with other arrangements (for example, access to the public health scheme).

Studies into the pension situation in developing countries report negative labour force participation effects on prime-aged males and positive effects on female participation when pension income is transferred to a member in the (extended) household.

Sickness and Disability Insurance. 'Natural experiments' have revealed that making DI schemes more generous leads to work disincentive effects. Most studies have found evidence of moral hazard responses – this implies that on average DI schemes tend to 'over insure' the disability risk.

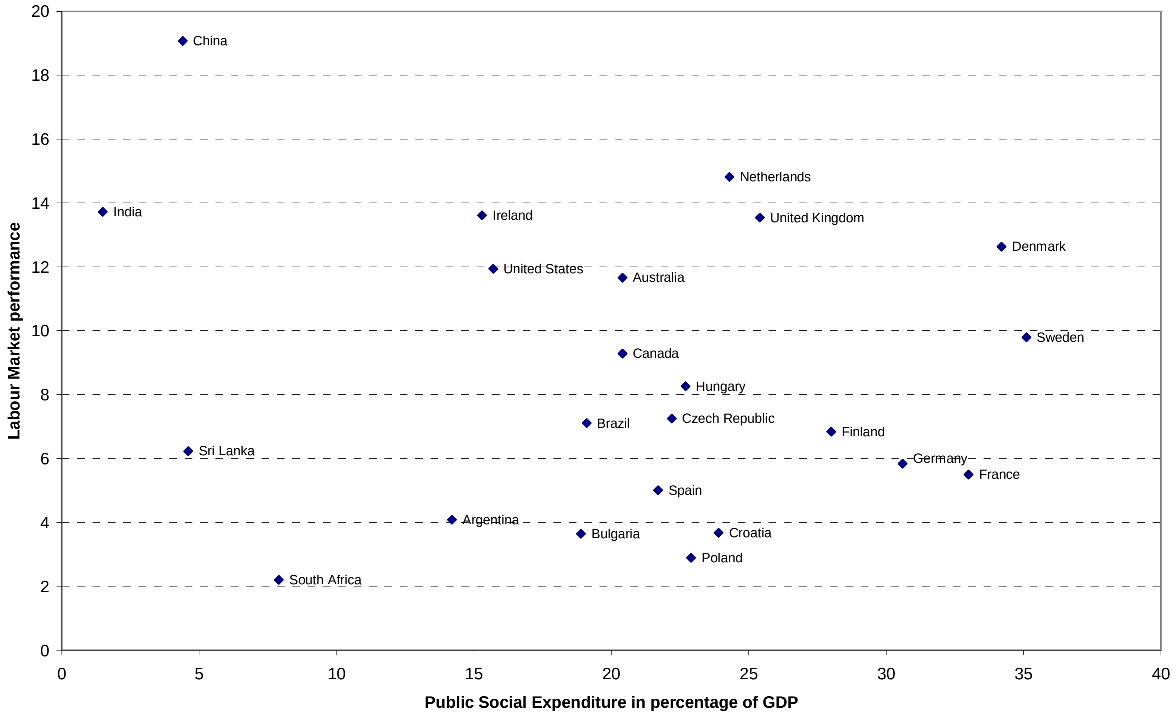
The situation in developing countries appears to diverge widely from the above picture. Most studies have found huge positive effects from disability transfer schemes – provided these are targeted and managed well – on labour force participation. The explanation for this remarkable outcome lies in the fact that such transfers in a situation where poor households are credit constrained can help poor beneficiaries to improve their skills or to invest in the necessary means to earn a living.

Unemployment Insurance and Social Assistance. Restricting benefit levels and shortening the benefit duration could improve work incentives, however the largest impact in improving incentives is found from stringent monitoring and the application of sanctions in case of non-compliance. There is no evidence that public UI schemes would crowd out alternative insurance mechanisms.
In the developing countries again the mechanics are different – UI (if applicable) and SA transfers ease credit constraints and allow investment in human capital and other productive investments. This is the general trust of all the empirical studies we reviewed – in various countries spread across the world. Savings account plans, on the other hand – like, for example, in Chile – were found to do the opposite: extract resources from their most efficient allocation.

Active labour market policies. ALMPs in industrialized countries are effective primarily in their activating impact – that is: the threat of being enrolled in these programmes often works as a powerful incentive device. The evidence on the public works programmes in the developing countries is mixed. For low-income countries these programmes were found by some studies to have lock-in effects.

Macroeconomic impact
Open economies tend to have more extensive welfare state arrangements. This indicates that internationalization in itself does not force governments to cut back social expenditure. Most recent studies further argue that countries can reconcile sound macroeconomic performance with sustainable social models – open market policies could not be successful without adequate social arrangements that can accommodate the social consequences of these same market policies.

Figure 1: there is no trade-off between social expenditure and economic performance



In developing countries recent studies have challenged the ‘received view’ that economic growth will on average lead to a proportionate rise in the incomes of the poor. Most growth spells are found not to be ‘pro-poor’. Making growth more “pro-poor” requires more transfers in the form of social security. Last but not least, several studies have pointed out that low-income countries can afford social transfer schemes.

Old age pensions. There is an extensive literature on the impact of ageing on savings. The same applies to the perceived crowding-out of private savings by public PAYG schemes – this literature more or less mirrors the studies on microeconomic impact that have been mentioned above.
As to the impact of ageing on the tax base there is consensus that combinations of measures can be effective in sustaining the tax base that is required for future funding of old age pensions.

Sickness and Disability Insurance. In the process of industrial restructuring in the 1980s and 1990s vast numbers of elder or less skilled workers have been laid off into DI schemes. More recently, some governments have taken measures to redress the rise in DI claimants. In developing countries DI schemes are scarce – some studies have argued that the absence of such schemes incurs costs to the economies of these countries.

Unemployment Insurance and Social Assistance. The literature with respect to UI has pointed to its role in helping to stabilize effective demand over the business cycle and facilitating economic restructuring processes. In developing countries there is also the positive effect on credit constraints, as has been mentioned earlier. UI, and in particular SA schemes have an impact in terms of increased school attendance and investments in productive resources.

Active labour market policies. Studies on ALMPs in developing countries find mixed evidence as to its long-term impact on economic development. In the short-run, however, ALMPs can act as stabilizing forces in times of economic shocks – for example extreme floods or periods of drought.

Conclusions
The following conclusions emerge from this review.

- Social transfer schemes have important *dynamic* effects on economic variables – which may - depending on circumstances – be desired or undesired from the policy perspective. While the prevailing research focuses to a large extent on tracing – and most often excluding - possible negative impacts, there is much less effort into analyzing positive dynamic effects and feedbacks of social security transfers. There are apparent methodological constraints and more research effort is needed here.

- The welfare state debate in industrialized countries cannot be translated on a one-to-one basis to the developing countries. The impact in developing countries appears to be substantially different.

- Social security programmes in majority of industrialized countries provide benefits at the scope, coverage and levels often far beyond the minimum standards requirements in that area. Some studies are even providing evidence that in some cases the welfare state institutions in the industrialized countries have ‘overshot’ their objectives. However, there is a strong consensus among economists that the social security and sound economic performance can be reconciled – moreover, that the two are just the opposite sides of the same coin. Social security is an indispensable part of the instructional framework of the well functioning market economy.

- Social transfer programmes are effective in their prime aim: lifting the poor to a higher welfare standard. The more countries spend on these programmes, the better this aim is met.

- There are solid arguments that low-income countries should implement social transfer schemes at least at the level of minimum standards. Good design and sound governance are important conditions but – if threes conditions are met – social transfer schemes are affordable.

- While there is plenty of research of different economic impacts of well established social security provisions, there is very limited research on economic effects of extending the coverage to those uncovered, especially the poor and the poorest. And the issue of the *mechanics in developing countries* should be explored further and deeper. Filling this research gap would also require significant efforts to improve the statistics in developing countries. There are examples of institutions in the emerging economies that are performing valuable research in this respect.

1. Introduction: aim, background, method and acknowledgements

1.1 Aim and scope of this review

The aim of this review is to explore to what current economic research finds on the relationship between the objectives of the international labour standards in the area of social security and economic and labour market performance of countries. In a broader sense, this document sets out to explore the recent findings on long-term dynamic synergies of social protection policies, productivity growth, labour market mobility and flexibility, and issues such as whether social cohesion facilitates structural adjustment and promotes economic growth, or whether in the absence of (public) social protection arrangements private (formal or informal) alternatives will evolve.

For the purpose of review it assumed that universal coverage is an objective of the respective ILO standards (that is more people covered, the better) even though C102 can be ratified with only certain percentage of employed or residents covered.

For old-age benefits C102 requires in principle that everybody over certain retirement age (not more than 65 unless fixed higher "by the competent authority with due regard to the working ability of elderly persons in the country concerned") should get pension as a periodical payment throughout the contingency (thus pension has to be an annuity and not a not lump-sum). If pension is earnings related it should give at least 40% replacement rate already after 30 years of contributions at least for all those with earnings lower than average levels (C102 provides alternative definitions of those average, typical earnings which can be selected by the ratifying country). Certain reduced benefit should be secured already after 15 years of contributions or employment. Old-age benefit (similarly like invalidity and unemployment benefits below) can be also provided as a flat rate amount benefit, with entitlements based on certain contributory record, residence test or means test. In case of these flat rate pensions, monthly benefit amount should not be less than 40% of "typical earnings of unqualified manual worker", also more precisely defined by the convention.

For invalidity benefits, the contingency covered is "inability to engage in any gainful activity, to an extent prescribed which inability is likely to be permanent or persists after the exhaustion of sickness benefit". The benefit shall paid "throughout the contingency or until an old-age benefit becomes payable". The replacement rate for the earnings related benefits should be 40% should be after required period not longer than 15 years of contributions or 10 years of residence at least for all those with earnings below typical average earnings (defined by the Convention). Reduced benefit should be paid already after 5 years of contribution. Flat amount benefit (contributory, universal or means-tested) should be not less than 40% of typical low earnings (also defined by the Convention).

For unemployment benefits, unemployment benefit should be paid case of "suspension of earnings, as defined by national laws or regulations, due to inability to obtain suitable employment in the case of a person protected who is capable of, and available for, work". Benefit can be earnings related or flat rate and entitlements based either on a required contributory record or means test. Duration of payment of the unemployment benefit can be limited to 13 weeks within a period of 12 months for the contributory benefits and 26 weeks within 12 months in case of means-tested benefits. Replacement rate of the benefit should not be nor less than 45% in case of contributory benefits at least for all those with earnings below a typical average earnings (defined by the Convention). For flat amount benefits, level of benefit should be not less than 45% of typical low earnings (also defined by the Convention).

Additionally, Employment Promotion and Protection against Unemployment Convention, 1988 (No. 168) requires ratifying country "shall declare as a priority objective a policy designed to promote full, productive and freely chosen employment by all appropriate means, including social security. Such means should include, inter alia, employment services, vocational training and vocational guidance…shall endeavour to establish, subject to national law and practice, special programmes to promote additional job opportunities and employment assistance and to encourage freely chosen and productive employment for identified categories of disadvantaged persons having or liable to have difficulties in finding lasting employment such as women, young workers, disabled persons, older workers, the long-term unemployed, migrant workers lawfully resident in the country and workers affected by structural change…Each Member shall specify, in its reports under article 22 of the Constitution of the International Labour Organisation, the categories of persons for whom it undertakes to promote employment programmes…Each Member shall endeavour to extend the promotion of productive employment progressively to a greater number of categories than the number initially covered."

Annex I gives detailed information on what countries and when ratified the above conventions, including if parts of Conventions 102 related to old/age, disability and unemployment were accepted by the ratifying countries. With respect to old-age pensions 44 countries ratified respective chapters of either C.102 or C.128 or equivalent provisions of the European Code of Social Security. Among these 44 countries, 30 are in Europe, 8 in Latin America and Caribbean, 4 in Africa, one in Asia and one in Middle East. With respect to invalidity, 31 countries ratified respective chapters of the international standards, of which 20 are in Europe, 8 in Latin America and Caribbean and 3 in Africa. For unemployment protection, 29 countries ratified either respective chapter in C102 or in European Code of Social Security or C168, 26 of them in Europe, one in Asia, one in Latin America and one in Africa. Convention 168 was ratified only by 7 countries, 6 of them European.

The focus in this review then is, whether recent literature provides evidence in terms of a functional relationship between scope and level of benefits on one hand, and selected economic variables on the other hand. Is there a positive or a negative connection? Is the linkage between the two perhaps hump-shaped? Or is the matter even more complicated: have specific conditions been identified under which social protection arrangements have a positive impact on economic variables, whereas the impact turns negative when these conditions are not met. Recent economic literature seems to point into this direction.

1.2 Background and method

In the 1980s and 1990s the welfare state has become a topic of intense academic debate following the observation that levels of (long-term) unemployment had increased in European countries, unlike the United States. This induced a debate as to whether income inequality would be conducive or adversarial to economic growth and labour market performance. This debate provides the point of reference for this review. Departing from the mid 1990s, the more recent literature has been reviewed.[3]

The focus in this document is twofold. First, we ask ourselves whether recent literature has provided new perspectives (arguments, insights) and new evidence with respect to the channels via which social security arrangements impact on economic behaviour of individuals and organizations. And second, we have reviewed the literature with respect to social protection in developing countries – our focus there has been in particular on whether similar mechanisms are at force in those countries like the ones that have been documented for the industrialized countries.

This report supplements the theoretical review with some statistics on economic and labour market performances in combination with information on social security provisions in a number of selected countries.

This review applies a distinction between 'static' and 'dynamic' effects. *Static* effects are the immediate impacts of social security provisions, for example in terms of poverty reduction and the change in the income distribution.

The introduction or extension of social security provisions also provokes changes in the behaviour of individuals, households and organizations (for instance: firms). These are labelled *dynamic* effects. These effects may to some extent offset (through 'feedback mechanisms') or reinforce ('multiplier mechanisms') the initial static impact. It is crucial to have a clear understanding of these dynamic effects; as at the end of the day, these effects may render social measures either successful, or a waste of effort and resources. The long-term (equilibrium – 'steady state') impacts, such as the effect of a public pension scheme on household saving measured as a share of GDP, could also be taken as static effects – for pragmatic reasons however, in this document these are listed in chapter 3 where the

[3] This review concentrates on the most recent literature published in the main economic journals and reports of the OECD, World Bank and ILO. Relevant NBER, CEPR papers and papers of several other economic policy institutes (in Germany, the Netherlands and Sweden) have also been included – including these research papers enabled us to take note of the most recent studies. For developing countries this review has concentrated in particular the *Journal of Development Economics* and *World Development*, as well as papers of two renowned institutions: the EPRI in Cape Town and UNDP/IPC in Brasilia. Of course, when relevant other articles, papers, and reports have also been reviewed.

dynamic effects are reviewed. The reason for this is that such effects are the outcome of various dynamic processes, so it wouldn't be convenient to list them before the mechanisms that ultimately lead to an equilibrium impact have been reviewed.
A final objective of this review is the identification of gaps in the existing literature. To what extent is there a balance in the existing research in finding both 'static' and 'dynamic' effects? For example, have the effects of social security provisions on human capital and productivity been studied enough? And what does the literature tell us about the impact of social protection on economic performances in the countries outside the OECD area?

1.3 Outline of this review and acknowledgements

Before we start with discussing the literature two remarks need to be made. First, this review has been undertaken in a limited time span. This entails that it cannot claim to have been exhaustive. Authors have concentrated on the main sources of information and further included reports of interest encountered during the process. Almost all articles in our review have been published in high-standard academic journals or in working paper format from renowned economic research institutions. There will, no doubt, be other papers, not included.
The second remark is on the interpretation of the labour standards and the method used to assess their impact on economic performance. One approach could take the countries that have ratified C102 as a group and compare the economic track records of this group against another group of countries that have not done so. Such an approach would fall short for three reasons: (i) ratification does not equate application, (ii) the industrialized countries differ in their levels of social protection, but the variance is well above the minimum levels that are prescribed in the Convention, and (iii) social protection will have an impact on economic performance, but we do not have some 'controlled experiment' type of situation where we just can switch off all other elements that also influence economic performance.
The literature has dealt with these issues and has tried to isolate the effect from social programmes from other effects. Therefore we feel that reviewing this literature enables us to provide an answer to the question as to what is the impact of the labour standards in the selected areas of social security on economic performance.
The outline of this document is as follows. In chapter 2 the static effects will be discussed and chapter 3 turns to the dynamic effects. In chapter 4 we will review some of the literature on alternative instruments to provide social protection – this can either be informal arrangements or formal private provision through insurance markets. In all these chapters we start with the more general literature and proceed with the studies that cover the specific contingencies (old age pensions, sickness and disability schemes, and unemployment and social assistance programmes). Chapter 5 contains conclusions.

2. Static effects (costs and benefits) of social security

2.1 Fiscal costs, in terms of overall public finances

2.1.1 The direct costs of the welfare state

The direct costs of the sum of the welfare state provisions in countries can be measured through the share of social expenditure in GDP. Table 2 in Annex II compares a number of industrialized countries and developing countries according to their gross public social expenditure.
The table reveals clusters of countries spending more or less on welfare state provisions. The Continental European and Scandinavian countries spend between 20 and 32 percent of GDP. The same is true for the Central European countries. The Anglo-Saxon countries spend between 16 and 20 percent of GDP on welfare state provisions. And Mexico and South Korea spend less than 10 percent of GDP. When we focus on the schemes that are the subject of this review then we see more or less the same groupings of countries. Now we can also include some non OECD countries for which data were available. We see that public social expenditure Argentina is close to the Anglo-Saxon countries, whereas Bulgaria and Croatia are in the range of the Central European group, and the Asian countries – China, Indonesia and Sri Lanka – all spend less than 5 percent of their GDP on public cash transfer schemes.

However, gross public expenditure is not an accurate measure of welfare state spending. Some countries retrieve part of the social transfers in the form of taxes levied on benefit income – others provide benefits free of tax. And several countries provide social transfers in the form of tax exemptions. Therefore, social expenditure net of taxes provides a better comparative measure. Moreover, some countries provide social transfers through mandated private insurance arrangements. Adema and Ladaique (2005) have calculated net total (public + private) social expenditure for a number of countries. Table 3 in the Annex 2 gives an overview.

2.1.2 Old age pensions

Industrialized countries – 'Traditional studies'

Projections of public pension expenditure in OECD countries have been the topic of a large number of studies (for example: Roseveare et al. 1996 and Turner et al. 1998). These studies all point to a similar direction: (public) pension expenditure will increase significantly over the coming decades. OECD (2001) and European Commission (2006) focus on the impact of ageing on public expenditure – including expenditure on public old-age pension schemes. Public old-age pension spending in the OECD area is expected to increase from an average 7½ percent of GDP around 2000 to 11 percent in 2050. There are, however, huge differences between individual countries. These disparities have less to do with the ageing process itself, but relate to specific programme characteristics; such as the financing mix, eligibility and benefit generosity. Countries with rather large flat-rate public pension tiers – that are designed to provide a basic income – will see public expenditure rise less than countries with large public earnings-related pension schemes (OECD 2001).

Programmatic reforms can help to ease the financial burden. In their extensive studies that cover 12 industrialized countries, Gruber and Wise (2002, 2005) examined the fiscal implications of three hypothetical reforms that were simulated by several analysts for their respective countries. These reforms included increases in early retirement age, actuarial adjustments of benefits and changes in the benefit level, and were estimated to make a 20 to 50 percent reduction of current program costs possible. So, reforming current schemes without a necessary structural redesign can nevertheless substantially relax the tax burden (Gruber and Wise 2002, Gruber and Wise 2005).

The focus on the fiscal implications of ageing, however, does not take into account that ageing also has an impact on pension schemes that are financed through the private sector. In the first place, these schemes do not have to be in actuarial balance.[4] And, second, future pensioners with private plans at some point will need to draw upon their savings and there is a chance that this will have an impact on asset prices – and hence on their pension wealth. For some the accumulated pension savings would then fall below certain standards. In such a scenario it is likely that the state will be called upon to 'bail-out the victims' (Lachance and Mitchell 2003).

Generational accounting

During the 1990s a different approach was introduced: generational accounting (Auerbach et al. 1999, Kotlikoff and Leibfritz 1999). Generational accounting is a means to assess to what extent the public finances are in balance. Generational accounts are defined as the present value of net life-time taxes (taxes paid minus transfers received) under current policies. The comparison of the generational accounts of the current new-borns and the growth-adjusted accounts of future new-borns provides a measure of the generational imbalance, under the assumption that the current public debt will have to be paid by the future generations at some point in time (Auerbach et al. 1999). This approach led to new insights. In all the countries that were studied in Kotlikoff and Leibfritz (1999), except for Sweden and Canada, an imbalance emerged affecting future generations. The differences between the countries that

[4] For example, until recent a large share of the private occupational ('second tier') pension funds in the Netherlands was defined benefit, with a pension promise that linked the benefit level to best earnings.

were studied were large – however, to some extent this reflected assumptions that were made about institutions and policies.[5] Agulnik et al. (2000) use generational accounting to argue that the proposals for pension reform in the 1998 British Green Paper would (further) worsen the existing generational imbalance.
The number of generational accounting studies since 2001 has been rather limited.[6]

Pension provision in developing countries
Since the 1990s there has been a vivid debate on pension reforms also in the less-industrialized parts of the world (for example World Bank 1994, Gillion et al. 2000, Holzmann and Stiglitz 2001). The focus has been much on the financial sustainability of existing public pension schemes – often provident funds – and the role of private markets in pension provision. The 1981 pension reform in Chile set the stage for this discussion. With perhaps a few exceptions, it has not been the fiscal burden related to ageing that has challenged the existing schemes in the majority of developing countries, but rather economic pressures (high inflation) and poor governance of the schemes (Gillion et al. 2000).
The recent debate has shifted its focus towards coverage issues. Despite the fact that the costs of pension schemes in some countries are substantial, few people are covered (Barrientos and Lloyd-Sherlock 2002). This, for example, is the issue in Brazil (Bonturi 2002, Giambiagi and De Mello 2006, Immervol et al. 2006). And to some extent this also applies China (Dorn 2000, Li and Hatton 2004, Wang et al. 2004) and India (Gupta 2003).

2.1.3 Sickness and Disability Insurance (DI)

The increase in the number of DI claimants in the past decades and the associated rise in scheme expenditure has been the topic of studies in a number of industrialized countries. Autor and Duggan (2001, 2003, 2006) have studied the trend for the United States. Their view is that the rapid increase in DI enrolment in the 1980s and 1990s was the effect of institutional reform (in particular in the assessment conditions) and labour market developments (the increase in female labour force participation and rising earnings inequalities – we will return to this issue in chapter 3).
Studies on costs of DI pension schemes in developing countries are scarce. In most developing countries disability is not – or not to a significant extent – included in the social insurance framework. There are several explanations for this. The main is that social insurance tends to cover the formal sector but not the larger proportion of the work force that is active in the informal sector. Some countries however, have established social protection schemes that provide subsistence for disabled in the form of not-work related grants[7].

2.1.4 Unemployment Insurance (UI) and Social Assistance (SA)

Fluctuations in the costs, in particular of UI, have a strong relationship with the business cycle. The introduction of UI schemes in the Central and Eastern European transition economies after 1989 did not have the protective impact that had been foreseen – due to cuts in benefit levels and the tightening of eligibility conditions, that was the response to fiscal pressure in times of economic downturn (Vodopivec and Raju 2002). The same thing occurred with respect to the SA programmes. Stricter means testing and more emphasis on self-reliance were called-upon to ease the pressure off the SA programme expenditure – but the prolonged economic downturn so far has failed to do so and the result has been that those who were supposed to be eligible were excluded from the benefits of the programme (Cerami 2005).
The literature on UI and SA in the industrialized countries centres much around programme design, pointing to institutional characteristics affecting the expenditure on UI schemes. We will deal with those studies in Chapter 3.

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[5] Bovenberg and Ter Rele (1999), for instance, show that generational accounts for the Netherlands are extremely sensitive to various assumptions as to future labour force participation and changes in private pension plans.
[6] Lindbeck and Persson (2003) being the one that attracts the most attention – their article is a literature survey.
[7] For example, South Africa (Samson et al. 2004) and Brazil (Soares et al. 2006).

UI schemes are rare outside the economically advanced parts of the globe, and so are studies that deal with the fiscal impact of UI schemes in the developing countries. When UI schemes do exist coverage tends to be restricted. Developing countries do operate social transfer schemes, often SA-like programmes. Studies with respect to these programmes have been conducted. The programmes often suffer of high inefficiencies in terms of bureaucracy, ill-targeting and insufficient compliance and monitoring. The conditional transfer programmes in Africa suffer from these problems. Studies that question the beneficial impact in terms of fiscal costs and output of these programmes, such as Schubert and Slater (2006), point to these factors.

The Basic Income Grant that Samson et al. (2002) propose for South Africa is set to deal with these problems of poor implementation and lack of institutional capacity. Due to the universal character transaction costs will diminish. Samson et al. (2002) further expect that around half of the programme costs will be recuperated in the form of income tax and VAT receipts, due to an increase in the tax base.

Several ILO studies have found that basic programmes that deliver a minimum of social protection could be affordable for low-income countries, provided that these programmes are designed well (Pal et al. 2005, Gassmann and Behrendt 2006, Mizunoya et al. 2006). In the longer-run such programmes can be financed out of national resources – however initially some external funding would be required. Likewise a pilot social cash transfer scheme in a local district in Zambia, initiated in 2003, proves to be affordable. If international donor organizations and the government would share the costs, the programme could even be extended to cover all destitute households in the country. The total costs would amount to 4 percent of the annual inflow of foreign aid – equivalent to 0.4 percent of Zambian GDP (Schubert 2005).

Hence, proper design of schemes is an important issue for both groups of countries. In the industrialized countries this relates to work-disincentives which are held to be the result of these schemes (Chapter 3), whereas in the developing countries it is more an issue of proper targeting and institutional capacity to operate such schemes.

2.1.5 Active Labour Market Policies

A number of countries have sought to implement Active Labour Market Policies (ALMPs) in addition to cash-transfers. These programmes are often expensive – involving measures such as training programmes and wage subsidies. Moffit (2003) has argued that this additional expenditure is defendable from a welfare-economic perspective in so far as the resources are spent on job seekers with low skills and poor perspectives to find a job on their own. Again, this requires proper targeting (De Koning et al. 2005).

ALMP programmes tend to have three, partly offsetting, effects (Productivity Commission 2002). Apart from the skill-enhancing impact from the programme itself (the program effect), there is also a compliance effect: often, the prospect of being enlisted in such a programme may work as an extra incentive to search for a job. These two effects reinforce each other. However, the third effect (the attachment effect) works in the opposite direction – this is the effect of being *locked-in* in a programme, and for the duration of the programme not being available for the labour market. This pertains in particular to training programmes. These three effects determine the net-impact of the programme and this net-impact is not in all instances positive.[8] Hence, the cost-effectiveness of ALMPs is not unchallenged. The effectiveness of ALMPs on the macroeconomic level may even be further impaired due to substantial displacement effects: jobseekers in the programme displace other jobseekers (De Koning et al. 2005).[9] However, OECD (2005) does not find evidence for a displacement effect in their review of the empirical literature covering a number of member-countries.

[8] There are a lot of studies into some or all of these effects – for example: Hujer and Wellner (2000), Larsson (2000), Black et al. (2002), Rosholm and Svarer (2004), Kluve et al. (2002), Bolwig et al. (2003), Frederiksson and Johannson (2003).

[9] De Koning et al (2005) have undertaken an extensive survey of the literature of the past three decades and find that there is not much evidence of a positive effect on the macro level.

A special kind of ALMPs are the work-conditional benefit schemes or in-work benefit schemes, that have been implemented in a number of countries. Examples are the Earned Income Tax Credit (EITC) in the United States and Working Families Tax Credit in the United Kingdom. These in-work benefit schemes provide subsidies (sometimes in the form of a tax refund) for households with two working partners that nevertheless fall below a certain income target level. Expenditure on these schemes has become substantial over the 1990s – for example, 22 million American families received 34 billion USD through the EITC in 2004 (Eissa and Hoynes 2005).[10]

ALMPs are less prevalent in the developing countries. An example are the public works programmes in South Africa. Costs and benefits of these programmes have been studied and the result was rather disappointing (McCord 2004). Samson et al. (2001) elaborate on the feasibility of a workfare programme in South Africa. Both Mc Cord and Samson et al. emphasize structural weaknesses that inhibit an affordable implementation of these programmes. These studies point to deadweight effects – due to insufficient targeting (McCord 2004) – displacement effects in the face of high unemployment, and administrative incapacities to deliver such programmes in a proper manner (Samson et al. 2001).

The fact that ALMPs in developing countries often fail to target sufficiently the right groups and are ambivalent in their aims, enlarges the negative consequences of the existing administrative deficiencies. For example, Argentina's Plan Jefes y Jefas de Hogar Desocupados, an income support programme to families with dependants to protect against the loss of income due to the economic crisis, was unsustainable due to its universal character. The adjusted work requirements were intended to reduce the costs yet imposed an extra burden on the capacity of the institutions. This together with the rather disappointing levels of protection and coverage has rendered the programme expensive (Ravaillon 2004).

2.2 Costs for individuals, households and firms: average and effective tax rates

Table 4 in Annex II gives average personal income tax rates plus social insurance contributions for selected countries where such statistics were available. The table provides data for two intersections of the earnings distribution: the first is a low-earnings point – represented as two-thirds of the average wage – and the second is the average earnings point. Of course, the personal income tax is also used to finance other government expenditure. Therefore the table does not provide an accurate measure of the costs to individuals, households and firms. Table 5 in the Annex II provides further information in the form of social insurance contribution rates for workers and firms.

For the developing countries refined statistics concerning effective tax rates are not available. Table 5 and 6 in Annex II provides statistics for a few countries.

2.3 Benefits: coverage and adequacy

2.3.1 Old age pensions and Disability Insurance

Table 5 in Annex II gives an overview of the main institutional parameters of pension insurance schemes: the benefit replacement ratio, the duration of benefit payments, contribution rates, and legal coverage.

The pension schemes in developing countries tend to cover a restrictive share of the work force – several studies have pointed to this imbalance. Giambiagi and De Mello point to the large differences in the entitlements of public sector and private sector pension schemes. In the same line, Immervoll et al. (2006) observe that, despite the fact that tax revenue in Brazil (35 percent of GDP) and social spending (more than two-thirds of revenues is spent on social transfers) are in line with OECD countries, income inequality in Brazil is among the highest in the world. This relates to the fact that redistribution occurs *within*, not *between*, income

[10] Hotz and Scholz (2003) provide a literature overview with respect to the EITC, and Brewer et al. (2007) evaluate the effects from the WFTC.

groups. Formal social insurance schemes are earnings-related and net replacement rates exceeding 100 percent are no exception.

Incomplete coverage is a general trend. Given the fact that a large proportion of pension schemes provides benefits on an earnings-related basis, some groups with a lesser past work record tend to fall behind. In particular women, low-skilled workers and ethnic minorities are among them.[11]

Gender aspects are important in the accrual of entitlements – this applies both under an earnings related benefit rule as well as under a DC scheme. Basakova and Basakov (2001), for example, argue that the transition towards a multi-level state pension in Russia put female retirees in a disadvantaged position due to their shorter work track records.

2.3.2 Unemployment Insurance and Social Assistance

Table 7 gives an overview of the main institutional parameters of UI and SA schemes: the benefit replacement ratio, the duration of benefit payments, contribution rates, and legal coverage.

3 Dynamic effects of social security provisions

3.1 Microeconomic impacts

3.1.1 Incentive issues related to the welfare state in general

In their articles on labour market rigidities in European countries as compared to the United States, Nickell (1997) and Blanchard and Wolfers (2000) emphasize the need to gain a good insight in the functioning of labour market institutions. There are huge differences between labour market institutions and some of these could be regarded as rigidities whereas others perform useful functions. Gruber (1997) and Sinn (1995) also drew attention to the efficiency enhancing mechanics of Welfare State institutions. In the view of these authors ex ante sharing of risks of loss of labour income has a positive impact on ex post income inequality. Insurance against the loss of income induces risk taking and is therefore efficient. However, there is a risk of 'overshooting' (Sinn 1995).

This last point is taken further by Lindbeck (1994, 1997) and Ljungqvist and Sargent (1998) who argue that the long-term effect of large welfare states is towards moral hazard. Since the disincentive effects of welfare state schemes appear with a considerable time lag, politicians do not anticipate them and therefore welfare state policies tend to overshoot their objectives. Some support for this argument is found in a mid-1990s report from the OECD, where the persistence of unemployment in continental European countries is ascribed to their extensive welfare state institutions (OECD 1994). Despite changes in institutions from the 1980s onwards, structural unemployment rates have remained at their high 1970s level, and this suggests, according to the OECD, that there is a considerable time lag between reform measures and their impact. Ljungqvist and Sargent (1998) point to the impact of the tax/benefit structure on labour supply. Pissarides however, has illustrated that such conclusions concerning the inside of the 'welfare state black box' hinge much on the theoretical model that is applied. Ljungqvist and Sargent used a *search model* to draw their conclusions – Pissarides shows that in other models the (dis-) incentive effect accruing from the tax/benefit structure is less (Pissarides 1998).

Nickell (2003), Nickell et al. (2005), and Saint-Paul (2004) have reviewed the issue on the basis of more recent developments. These authors observe differences within European economies, with on one hand some of the larger Continental European countries where unemployment has remained on a high level, and on the other hand some other European countries that have somehow reformed their labour market institutions have succeeded in reducing the equilibrium rate of unemployment. In each of the successful countries, there was a specific mix of reform measures – hence there were large differences within the group of reformers – but a common feature is that it was not one single measure but a package of

[11] See for example, Casey and Yamana (2002), Bingley and Lanot (2004), and Kulu and Reiljan (2004).

measures (Auer 2000, Nickel 2003, Saint Paul 2004, De Groot et al. 2004). The unsuccessful group did not reform their labour markets – this often was the outcome of political-resistance from 'insiders against outsiders', and interdependencies between the various rigidities (Saint Paul 2004). Other barriers to reform were in the area of ideologies and beliefs – for example, that unemployment is Keynesian requiring expansionary fiscal measures, and the so called 'lump of labour fallacy'[12] (Saint-Paul 2004). Other studies have reviewed pairs of countries – often with the United States as the benchmark case.[13] Time-restrictions did not allow us to review these studies.

3.1.2 Old age pensions

Pension schemes may have an impact on incentives to save and to offer labour. This subsection discusses subsequently both channels.

Impact of pension systems on incentives to save

Public PAYG pension systems have been blamed to crowd out private savings. The idea is that people expect and anticipate a stream of income from the public scheme in the future (under the assumption that there is no myopia and a perfect dissemination of information) – this will induce them to stop saving in a private plan. Scholz et al (2006) and Poterba et al. (2006) find evidence for this, using a life-cycle model based on 1992 household survey data from the United States. Bottazzi et al. (2006) likewise, find evidence of rational expectations in the case of the Italian pension reform in 1992. And Disney (2000) suggests on the basis of his study of several OECD countries that cutbacks in public pensions might stimulate a positive private savings response. In particular, when governments offer new funded retirement schemes "individuals were able to differentiate the incentive structures of different types of plans sufficiently well to make sensible choices" (p. 971). It is important to make a distinction whether or not one speaks about shifts *at the margin*. For example, Disney (2000) found that individuals would *not* save enough in case of complete privatisation. Low income households generally save little. Hence, for these households the introduction of a public PAYG pension system would not depress savings – these households wouldn't have saved anyway.[14] Diamond (2004) assumes that workers would not provide themselves a reasonable replacement rate, but does not base this assumption on an empirical analysis. Davidoff et al. (2005) and Rooij et al. (2007) emphasize risk-aversion and information imperfections leading to different responses to public pension provision than the rational expectations theorists would predict.

Impact on work incentives

The second micro-economic incentive channel would be the impact of pension provisions on work incentives. This tends to focus around early retirement decisions. To what extent is the design of pension schemes responsible for early retirement? Most studies suggest that DB schemes – or similar state provision that older workers are eligible to – create incentives for early retirement. In the United States, the introduction of the 401 (k) DC plans (that operate on an individual account base) reduced the incentives for early retirement according to Bingley and Lanot (2004). For the United Kingdom with a mix of private and state pension provisions, Blundell et al. (2002) find that early retirement incentives prevail nevertheless. Lindbeck and Persson (2004) argue that notional DC schemes through tightening the link between contributions and benefits will incur efficiency gains.

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[12] This is the perception that there is a fixed stock of jobs. Jobseekers can only find jobs at the expense of others (displacement). This was a perception that supported the French move to a 35 hour working week.

[13] For example: Blanchard and Portugal (2001) who ascribe the worse Portugese labour market performance to its more stringent EPL.

[14] Kohl and O'Brien (1998) found in their survey of the empirical literature that public PAYG pension systems exert a minor downward effect on other forms of private household saving. The negative effect of private pension schemes (contractual savings schemes) on private household saving is far more substantial.

A number of scholars pointed out that negative work incentive effects are often the result of interaction between various social protection programs. Powers and Neumark (2003), for example, argue that early retirement option in the public scheme in combination with the benefit formula of the supplemental security income program creates the incentive to claim pension earlier in the United States. And Disney and Smith (2002) find that the abolition of the earnings rule (that is: the rule that benefits are reduced on a one-to-one basis against earned income) in the United Kingdom reduced the effective tax rate on work at and around retirement age, so that participation of male workers rose by 4 hours a week. Duval (2003) comes to similar conclusions for a number of OECD countries.
Gruber and Wise (2002, 2005) conducted an extensive study in three phases on the basis of contributions from analysts from 12 different countries (Belgium, Canada, Denmark, France, Germany, Italy, Japan, The Netherlands, Spain, Sweden, United Kingdom and the United States) on the impact of old age security schemes on labor force participation of the elderly, on retirement age and on the resulting fiscal implications. Their findings confirm the above views. In several countries labour force participation has fallen from over 70 percent in the 1960s to less than 20 percent in the late 1990s. According to the authors, this can be explained by a strong correspondence between the age at which benefits are available and the departure from the labour force. As stated above, this does not only concern the availability of old age pension benefits but also the availability of disability and special unemployment programs for elderly. In fact, they found in may countries that the present value of expected social security benefits declines with each year above early retirement age. In the second phase of the study the magnitude of these adversarial effects were estimated and found to be large in *all* countries (Gruber and Wise 2002, Gruber and Wise 2005).

In South Africa, social pension was found to stimulate work migration and higher participation rates as it allows grandmothers to take care of their grandchildren while the mother migrates to the work place (Case 2000). And pensions transferred to female members of the household had a large effect on the health of the girls (Duflo 2000). On the other hand, Bertrand et al. (2000) found also for South Africa that old-age pensions induced the male prime-earner in the extended household to substitute labour for leisure. The household income increases when one of its members becomes eligible but this causes other members – in particular prime-aged males – to participate less. Bertrand et al. found that a 10 percent income rise led to a 2.8 percent fall in labour supplied in the household.[15]

3.1.3 Sickness and Disability Insurance

The increasing inflow in the past decades in these schemes in a number of countries has led to studies pointing to moral hazard in combination with loose eligibility conditions. Although Barmby et al. (2002) out of international comparative statistics found no clear effect from benefit levels on prevalence and duration of sickness absence, other studies did. Bound and Waidman (2000), for example, ascribe the increase in DI enrolment in the United States to changes in screening procedures. Autor and Duggan (2003, 2006) also emphasize institutional characteristics. And institutional factors and labour market trends are seen as the main driver of the developments also in the Dutch DI scheme (De Jong et al. 2006[16]).
Hence, Lindbeck's 'overshooting' thesis is also relevant for DI. This becomes explicit in Bound et al. (2002). Their article asks whether the *actual* replacement rate is below or above the *optimal* level, given moral hazard. For each USD direct costs (the actual cash transfer from contributors to beneficiaries) 0.50 USD indirect costs (resulting from disincentives) are

[15] This may be inconsistent with a finding from Maitra and Ray (2003) that there is no income pooling within South African households. We haven't been able to check whether this inconsistency is real or not.
[16] We also refer to the various recent discussion papers from the CPB Netherlands Bureau for Economic Policy Analysis that have been listed in the references – for example Koning and Van Vuuren (2006), Van Vuren and Van Vuuren (2005).

involved, according to their findings – Okun's "leaky bucket".[17] Still, the average worker would be willing to insure given the empiric levels of risk aversion. In particular for the lower-income groups the welfare gains associated to insuring are relatively high, whereas for higher income groups there is a net welfare loss. Bound et al. estimate that 1 USD insurance 'costs' low-wage contributors 0.34 USD in welfare terms, whereas the welfare costs for high-wage contributors would be 7 USD.
For obvious reasons it is difficult to disentangle institutional factors from other possible causes. Moreover, an observed inverse relationship between replacement rates and labour force participation could be just the reflection of a third variable that impacts on both (Krueger and Meyer 2002). Sometimes however, efforts to filter out the institutional impact have been undertaken. An example is Gruber's (2000) article on the Canadian DI scheme. In Canada, two parallel schemes exist: one specifically for the Province of Quebec and the other for the remaining provinces. Both schemes are similar in most respects. In 1987 the Canadian authorities enacted a steep increase in benefit levels (an instant 36 percent rise) and loosened assessment conditions for the national scheme, but not for the Quebec scheme[18]. This provided a 'natural experiment' with two similar groups and similar exogenous conditions to test the impact of the institutional reform. Gruber found an elasticity of labour force participation with respect to the benefit level of *minus* 0.28 to 0.36.
Even without moral hazard induced behaviour, some advocate a modification of the existing scheme design. Bovenberg and Sørensen (2006) have studied optimal lifetime income taxation and DI. Without assuming moral hazard, Bovenberg and Sørensen argue that the optimal tax-transfer system involves lifetime taxation rather than annual taxation. This would mean two things. First that the optimal benefit structure should rise steeper with previous earnings – this is to allow for higher skilled workers to insure their level of earnings. And second that the effective marginal contribution rate depends on the individuals lifetime earnings capacity. The optimal scheme, according to these authors, has the features of an individual saving plan.

Another, but related issue concerns whether DI schemes have been used for their proper purposes. Several studies have perceived a relationship between high labour productivity (measured per hour) in a number of Continental European economies as compared to the United States, and the large share of the work force that in the former countries is 'parked' in social insurance schemes for disabled during the 1980s and 90s – suggesting a 'bail-out' of low productive workers from the active labour force (Cichon 1997, De Groot et al. 2004).

What does the literature indicate about incentives of DI schemes in developing countries? Samson et al. (2004) have argued that what counts for industrialized countries or for higher wage earners in developing countries does not *per se* count for low-income earners in the latter countries. Their report on the impact of schemes providing grants to the disabled in South Africa applies a series of regressions on household panel data and finds that these grants increase both labour force participation – with as much as 22 to 25 percent – and the demand for labour. Samson et al. also find that households receiving these grants also succeed in more rapid wage increases over time – this suggests, according to the authors, that these cash transfers allow individuals in the household to become more productive than individuals in households that do not receive such grants.
Gertler and Gruber have studied the extent to which low-income households in Indonesia are able to insure against health risks (Gertler and Gruber 2002). Their finding is that these households experience huge difficulties in insuring against major health shocks – health impairments that cause incapacity for work. From a household panel the authors find that low-income households manage to insure 100 percent of minor health costs, 71 percent of costs that relate to illnesses that cause a moderate impairment, and only 38 percent of the costs relating to illnesses that limit economic functioning to a severe extent. Gertler and Gruber

[17] Okun (1975) has argued that income redistribution leads to dead weight losses.
[18] In fact it was an exercise to catch-up with the benefit level and conditions of the Quebec Province scheme that had diverged during the previous decades into a more generous pension scheme.

argue in favour of a public insurance scheme that covers severe disabilities and observe that existing schemes tend to do exactly the opposite, that is: cover minor illnesses that households could also absorb themselves.

3.1.4 Unemployment Insurance and Social Assistance

Replacement rates. Several studies ascribe the salient fact that unemployment rates in European countries remain well above the rate in the United States, to the more generous UI schemes that prevail in European countries.[19] The arguments are the same as in earlier studies. The reservation wage moves upward as the benefit increases the value of leisure – and the substitution effect, working against the incentive to work, outweighs the income effect. There is little consensus, though, as to the size of the disincentive. Some econometric studies have estimated directly the impact on employment and labour supply.[20] In this respect, Røed and Zhang (2005) have used the particular features of the Norwegian UI system to conduct a quasi-random assignment in replacement rates. Røed and Zhang found evidence for the substitution effect – a 1 percent increase in the average UI benefit replacement ratio causing a *minus* 0.65 percent probability of re-employment. Similarly, Tatsiramos (2006) found significantly lower transition rates (from a benefit to a job) for UI recipients in France, UK and Germany relative to their non benefit receiving counterparts.

On the other hand, Spieza (2000) reviewed the existing literature and found no strong empirical evidence of negative work incentives. He argues that the arguments against UI are typically applicable to pure unemployment assistance schemes and that for example positive incentive effects accruing from eligibility conditions tend to be neglected. Spieza argues that exactly such conditions compensate and diminish a great part, if not all, of the disincentive effects. This argument relates to earlier studies that have stressed the importance of programme design.[21]

Benefit duration. Spikes in programme outflow just prior to the exhaustion of the UI benefits suggest some strategic behaviour on the side of beneficiaries. Røed and Zhang (2003) for instance, in their econometric study estimate that the employment hazard rises substantially, namely with 40 percent and 60 percent for men and women respectively in the months just before the end of the UI benefit duration.

Sanctions. Abbring et al. (2005) have studied the effect of UI sanctions – an average reduction of the welfare benefit of 20 percent – on the employment hazard in the Netherlands. They have found a significant effect of the imposition of the sanction on work-resumption: an increase of 58 percent and 67 percent for males and females respectively.

The combined impact of design characteristics. In two studies, Frederiksson and Holmlund (2003a and 2003b) address the importance of scheme design. Frederiksson and Holmlund have reviewed three different mechanisms that indirectly improve the incentives related to UI and impose a penalty on less active job search: declining benefits over time, monitoring and sanctions and workfare – the latter being discussed in a later section. Empirical research supports the expected crucial effects of these instruments on the behaviour of the welfare recipient. Declining benefits are perceived to have proven effective in restoring the distorted

[19] Older studies include OECD (1994), Nickel (1997) and Sargent and Ljungqvist (1998). Moffitt (1992) is the classic reference into the incentive effects of the US welfare scheme. More recent studies are Feldstein (2005), Vodopevic and Raju (2002), Blanchard and Wolfers (2000) and Lalive and Van Ours (2006).

[20] See also the studies of Holtz (2002) of welfare recipients in California and Lemieux (2004) of SA recipients in Quebec. Both report negative effects on the employment rate.

[21] Also stressed by Feldstein (2005), the ILO (2004), Krueger and Meyer (2002) and Atkinson and Micklewright (1991) and Atkinson (1995).

search effort; yet two caveats are the potential positive effect of a 'tax' on unemployment[22] and the pressure on wages as a result of the improved position of the short-term – often high ability – unemployed. However, both caveats don't overturn the conclusion with regard to the incentive enhancing effect of declining benefits over time. Likewise, monitoring and sanctions have a significant positive impact on job search and the exit rates (out of unemployment). The available evidence is strong, although not wholly conclusive. Earlier studies have pointed to the substitution of informal job search by formal job search, leaving the net effect to be ambiguous, yet the authors perceive full substitution to be unlikely (Frederiksson and Holmlund 2003a). In their later study they apply their own quantitative model to compare the impact of the three different instruments reviewed above. Monitoring and sanctions is found to be the most effective instrument to restore search incentives as it provides additional incentives to search actively as well as it provides the highest utility to workers (Frederiksson and Holmlund (2003b).

Crowding-out. Apart from distorting labour market incentives, public UI schemes may just replace alternative sources of income. Several studies point to the crowding-out of other, self-insurance mechanisms. First, in the household as the spouse of the benefit recipient reduces working hours or even withdraws from the labour market (Gruber 1997 and 2001). Second, saving behaviour could be affected. Engen and Gruber (2001), simulating a life-cycle model on household panel data, conclude that a 50 percent reduction in the UI replacement rate would lead to 14 percent higher financial asset holding – this effect would be even higher for those facing higher risk of job-loss and less for older workers, according to Engen and Gruber. However, Acemoglu and Shimer (2000) find that changes of 10 percent in benefit levels or duration have little positive effect on average asset holding. Acemoglu and Shimer argue that recipients might actually be induced to save more in order to undertake more effort to search a better job. Arjona et al. (2001) note that unemployment protection schemes – in particular SA – redistribute resources towards households with a low propensity to save. The potential welfare recipients have a higher propensity to consume instead. The impact of these schemes on savings so far, however, is not conclusive.

Response from the demand side. Firms also change their behaviour (Feldstein 2005, Spieza 2000). In the first place, the direct increase in payroll taxes has an effect on labour demand as well. However, there appears to be consensus among academics that in the longer run workers face the consequence in terms of lower take-home earnings. Moreover, for firms as well as for workers UI changes the decision to maintain less productive workers at the margin. It has been a long established fact in economic literature that temporary lay-offs increase as a result of UI.[23] More recently, Winter-Ebmer (2003), in his study on the impact of the extension of the benefit duration in Austria, finds evidence[24] of a causal link between an increased incidence of lay-offs of elder workers and the rise in unemployment among this group, as companies rid themselves of high-tenured and therefore expensive staff. Jurajda (2002) however, finds no empirical evidence of any effect of the UI duration on firm's lay-off behaviour in the United States.

Behavioural response in developing countries. In developing countries the mechanisms seem to be different from those in the industrialized countries. In fact, there is no empirical evidence that would relate transfer schemes to adverse labour market incentives. Freije et al. (2005) in their micro simulation of the Mexican conditional cash transfer scheme 'Oportunidades', estimate the effect on labour supply to be negligible for small changes and amounts. A (non-plausible) high transfer benefit would be required to see small changes in hours worked. The

[22] This penalty on becoming unemployed provides another means to decrease unemployment and UI receipt. However, as they argue, a certain waiting period could equally prevent temporary lay offs and direct to private savings as to insure against short unemployment spells.
[23] Feldstein (1978), Atkinson and Micklewright (1991).
[24] However, one must be careful since it is very difficult to disentangle the voluntary from involuntary quits.

adverse effect on incentives experienced in more advanced industrialized countries is absent. The income received is spent – or, to put it differently: the income effect outweighs/cancels out the substitution effect. A very significant effect of extra income is found in terms of school attendance; an increase in transfers of 1000 pesos a month increased the likelihood of school attendance with 76 percent in rural areas and 20 percent in urban areas. School attendance is the most determinant factor of child labour. Hence, these transfers decrease child labour. We will return to this issue below.
Cunningham (2000) likewise, found no work disincentives in Brazil. The duration of the UI benefit didn't have any significant effect on the exit rate from unemployment. She did find that the UI scheme had a remarkable and crucial impact on the transition into self-employment – UI provides the required capital, and in stead of acting as a disincentive to work the resources are used to start alternative economic activities. And this is also what Barrientos (2006) in a review of a number of social protection programmes in low-income countries concludes. For example, the 'Bono Solidario' programme in Bolivia lifts credit constraints for the poor and stimulates investments in agriculture. And the 'Red de Protección Social' in Nicaragua prevents a steep asset fall for farmer households in times of unexpected drops in coffee prices. More in general Barrientes observes that the evidence does not point to an adverse impact of these social transfer programmes on work incentives (Barrientos 2006).

Savings accounts. The Chilean income support programme for the unemployed that was introduced in 2002, is based on the mechanics of personal savings accounts. Moral hazard is therefore no real issue, as cost and benefits are internalised at the cost of reduced risk pooling – and levels of savings increase (Sehnburg 2004).[25] However, Acevedo et al. (2006) argue that the value of savings should be critically compared with the value of the consumption forgone, and question the beneficial impact of additional savings among these groups on productive investment. This seriously questions the relevance of institutional savings schemes in the context of the developing countries.
An interesting example that seems to support the last point is provided by the cash-transfer pilot in Zambia that was mentioned in Chapter 2. The participants of this pilot made a free choice to save and to pool their savings in small groups of 5 beneficiaries. The excess amount of saving is used for investments. The participants have engaged in collectives that aim to save and accumulate capital to finance productive investments (Schubert 2005). Rabbani et al. (2006) point to a similar development in Bangladesh. The CFPR/TUP programme in Bangladesh aims to support the ultra poor. The programme exists of various components, among which are cash transfers, skill training, social awareness initiatives, and mobilisation of local elites. The participants actually increase savings and have more access to credit which suggests, according to Rabbani et al., that the extra income is used as a mechanism to undertake productive investments.

3.1.5 Active Labour Market Policies

As mentioned above, ALMP are introduced to enhance the employment and skill development of welfare recipients. Although the positive effects in terms of an increase in labour supply have been recognised[26], the further dynamic effects render the conclusion about the overall effect ambiguous. Lise et al. (2005) have studied the impact of the Self-Sufficiency Programme – a temporary earnings supplement to those who are a specific period on Income Assistance in Canada. The dynamic impact was rather disappointing; SA participants did indeed exit welfare earlier and become employed. However, they displaced other low-skilled workers and the unemployed experienced longer spells of unemployment. In addition, SA recipients remained longer on welfare to become eligible, yet the increased search effort afterwards dominated and the average SA spell has shortened. In their theoretical and empirical review of ALMPs in 20 OECD countries, Boone and Van Ours (2004) likewise find that welfare recipients often also mimic low-ability workers to gain access to the active labour

[25] Brown et al. (2006) advocate such a personal accounts scheme exactly for this reason.
[26] See for example Phelps (1994) and Lise et al. (2005).

market programme. Bartik (2002) also finds substantial displacement effects related to ALMPs.
Frederiksson and Holmlund (2003a) recognise the stringent conditions to rationalise workfare as an effective means to improve the incentives related to UI programmes[27]. They argue however that the case for workfare is stronger when the problems of moral hazard and screening are taken into account. The very little empirical research available suggests that workfare can actually be especially effective as a mere threat to be obliged to participate in work or training programme, reducing the leisure and thus the value of being unemployed. Workfare consequently enhances self selection and a further boost in job finding. The same authors however do conclude workfare to be an inferior policy to the other instruments quantitatively analysed in terms of utility (Frederiksson and Holmlund 2003b).
In studies on the negative income tax in the United States (Moffit 2003) and the in-work benefit schemes in a number of OECD countries (Doudeijns et al. 2000, OECD 2005) trade-offs in terms of work incentives have been found. The resulting effect on labour supply is therefore ambivalent. The in-work benefit does provide financial incentives to start a low paid job, whereas high marginal tax rates – as benefits are reduced with earned income above a certain limit – provide a work disincentive. This affects work incentives on the household level –for households with children in particular (Doudeijns et al. 2000, OECD 2005).

The public work programmes in the transition countries have proven to be mostly a means to provide income to those most in need instead of a sustainable employment programme (Fretwell et al. 1999). Ravaillon (2004) and Marshall (2004) have studied the income support programme of Argentina. The programme has been partly introduced to enhance job creation as well as to provide income security. The provision of short-term work at relatively low wages aimed to target the people in need yet the programme still has a rather universal nature. Both authors find an increase in labour force participation and a decrease in unemployment. However, both warn to be cautious when interpreting the employment rates as a result of the programme. A large proportion of the participants are non-eligible, have not been in the labour force prior to the introduction of the programme or have left their preceding jobs in order to participate in the programme. Ravaillon (2004) estimates the decrease in unemployment to be 2.5 percent, 2 times lower than earlier estimations. Slater et al. (2006) point to the risk that public works programmes in low-income countries lock-in productive labour. An example would be the Ethiopian public works programme that aimed to provide an outlet for temporary redundant labour in times of agricultural slack. The effect was, however, that also in times when productive labour was needed on the land, labour resources continued to flow to the public works programme.

3.2 The functioning of markets

3.2.1 Old age pensions

Pensions are nothing more than deferred wages.[28] Current earnings are set aside – either to be used as income transfers to current retired or to be turned into financial assets. Hence, apart from the incentive issue on the labour and capital markets (discussed in the previous Section), pension schemes as such cannot be expected to have a large impact on the functioning of markets.[29] One exception however, would be the functioning of capital markets. Large pension funds (whether public or private) are major actors on the (inter-) national capital markets. Börsch-Supan and Winter (2001), for example, argue that the expected growth in pension savings and the associated more prominent role of institutional pension funds will have

[27] Crucial in this respect is the sufficiently large gap between high and low ability workers and the different valuation of leisure.
[28] The classical reference is to Edward P. Lazear's article: Why is There Mandatory Retirement? 1979
[29] Thompson (1998) provides a balanced treatment of the macroeconomic mechanics of pensions.

beneficial effects on corporate governance and, hence, on return to investments of those firms in which these funds participate.

And another exception where pensions have an impact is the functioning of private insurance markets. Krueger and Kubler (2006) theoretically show that the introduction of social security, including pensions, can be a Pareto improving reform. However, these authors argue that the gains are often outweighed by the capital crowding-out effect of social security.

Barr (1992, 2004) argues that a private old age insurance market with no public involvement would not function well because it would fail to insure against inflation. Therefore, Barr claims, the state is to provide a minimum level of old age protection. Others have pointed to insufficient private savings for retirement (Disney 2000, Diamond 2004) and lack of financial expertise (Davidoff et al. 2005, Rooij et al. 2007, Rocha & Vitta 2001) However, this applies in particular to less advantaged groups. Most people would be able to distinguish between different incentive schemes and to respond accordingly (Scholz et al. 2006, Bottazzi et al. 2006, Disney 2000). The literature on this issue seems to support the conclusion that public involvement in pension provision enables a private insurance market. Krueger and Kubler (2002) use an overlapping generations model to test whether the introduction of a pension scheme is efficient when markets are incomplete (as, in fact, markets *are*), and argue that a public pension scheme can accommodate income shocks that insurance markets cannot.

3.2.2 Unemployment Insurance and Social Assistance

We did not find a literature on the impact of UI or SA on the functioning of markets, other than de microeconomic impact (the labour market) that has been covered in section 3.1.

3.3 Poverty reduction and social stability

3.3.1 The impact of welfare state arrangements in general

Social protection programmes – provided that these programmes are targeted well – have a direct 'static' impact in terms of poverty reduction. However, also in a more indirect 'dynamic' sense, social protection programmes may have an impact – for example, through the lifting of credit constraints that prevent the poor to set up their own businesses, through reducing political pressures for income redistribution or in preventing social exclusion. A brief overview of the literature on these channels will be provided below.[30] First we will take a look at the statistics.

Smeeding (2006) studies poverty rates in 11 industrialized countries – he draws his data from the LIS (Luxemburg Income Study) data base. He applies various definitions of poverty, looks into several age and household categories, and studies point in time statistics (around 2000) as well as historic trends. Smeeding finds that poverty rates among children and elderly are particularly high in Ireland, the United States and the United Kingdom. However, since 1999 the United Kingdom has made a large progression in reducing the child poverty rate. Smeeding relates this to the fact that the British government at the same time has increased spending on measures that target child poverty with 0.9 percent of GDP – this additional spending, as Smeeding remarks, is higher as a share of GDP than total US spending on EITC, TANF and food stamps combined. Moreover, he finds a very significant statistical relationship between non-elderly poverty rates in these countries and the share of cash social transfer expenditure in GDP.[31]

Table 8 in Annex II lists income distribution and poverty rates in selected OECD countries, while Table 9 lists similar statistics for developing countries.

The first channel, through which social transfers may have an impact on economic performance, starts from capital market imperfections – credit constraints that prevent the poor

[30] This overview has benefited from the work of Benabou (1996) and Barro (1999).

[31] $R^2 = 0.6099$

from undertaking an efficient amount of investment.[32] This can be financial constraints but it also includes for instance restrictions on the exploitation of arable land. In some studies this is further elaborated in a form where the poor do not have access to education, this has a negative impact on labour productivity and economic growth.[33] Some studies combine the credit constraints channel with a second channel where the balance of power in politics is important. The impact of redistributive pressures is voiced through the political process.[34] Lowering the income of the median voter unleashes pressures for redistribution. This, in turn, discourages investment. Hasler et al. (2003) have applied this political institutional approach in combination with insights from game theory, to examine under which conditions present voters would find it rational to either continue or abolish the welfare state. Third, there are studies that have focused on the impact on the accumulation of social capital. These studies find a strong empirical link between trust and investment.[35] Granovetter (2005) lists examples of how economic outcomes are determined by social networks. In Zak and Knack (2001) economic subjects can either trust their transaction partners or invest resources in verification procedures. The outcome is, not surprisingly, that low-trust environments reduce investment. And Burdett et al. (2003) examine the relationship between income inequality, unemployment, and crime – departing from the observation that the number of people in the United States that was around the turn of the century either in jail or released on parole exceeded the number of unemployed. And a fourth channel would be intergenerational mobility.[36] World Bank (2005) lists numerous examples how the lack of resources for the poor creates 'inequality traps' – that is situations where economic, political and social inequalities reproduce themselves over time and across generations.

Another angle in looking at the theoretical debate on extensive and residual welfare states would be the observation that the institutional fine print matters in the impact on economic performances.[37] The design of the various schemes and the effectiveness of the administration determines to a large extent the impact. Related to this is the view of the welfare state as a system. This restricts the scope for radical retrenchment.[38] This point has been reiterated by Canoy and Smith (2006) in their argument that countries cannot just shift from one welfare state model to another.

So where does this take us with respect to the less developed countries?

Sala-i-Martin (2002) after investigating data for a large number of countries and a long time period (1970-1998), found a reduction in global income inequality. However, there are two caveats. The fist is that the narrowing down is the result of reduced across-country inequalities – convergence, whereas within-country inequalities have risen. Second, the impact of the rise of China accounts for much of the across-country result. Moreover, Sala-i-Martin predicts

[32] For example Aghion and Bolton (1992), Galor and Zeira (1992) and Saint Paul and Verdier (1996)

[33] Perotti (1996).

[34] Alesina and Rodrik 1994, Persson and Tabelini 1994, Perotti (1992) all found a negative relationship between income inequality and economic growth. All have modelled this through the political process: initial inequality leading to pressures for redistribution. Saint Paul and Verdier (1996) and Brandolini and Rossi (1996) question whether redistribution is harmful for economic growth, which is an implicit assumption in the other articles that have been mentioned at the beginning of this footnote.

[35] Knack and Keefer (1995), but also Perotti (1992) and Glaeser et al. (1999). Durlauf (2002), however, calls attention to the various measurement problems in this literature – in particular the development of good indicators for 'social capital'. And Sobel (2002) reviews the literature on social capital – his focus is more descriptive and less analytical.

[36] For example Borjas (1995) has pointed to a close link between social (and racial) segregation and intergenerational immobility in 'residual welfare states'. See also Cutler and Glaeser (1997) for this effect of racial seggregation. Sethi and Somanathan (2003) come to different conclusions – they show that racial segregation may also occur in situations with less income inequality between racial groups. Björklund and Jäntti (1997) have compared intergenerational income mobility in Sweden and the US.

[37] Atkinson (1995a, 1995b, and 1997).

[38] Freeman (1995) has argued that welfare states are systems. Pierson (1994) has elaborated upon the idea of path dependency. He shows how the Reagan and Thatcher administrations in the US en UK in the 1980s were restricted in their capability to implement drastic welfare state reforms.

rising income disparities in the future if economic growth in Africa doesn't pick up (Sala-i-Martin 2002). Dollar and Kraaij (2004) in a cross-section with 137 countries found clear evidence that increased international trade does not have an impact on the income distribution – both as measured through the GINI coefficient and the income share of the poorest 20 percent of the population. Their conclusion is a hopeful one: 'the poorest on average benefit from internationalization'. This seems like telling someone that the 'glass is half full', while the other person may perceive the 'glass to be half empty'. Indeed, later studies have been more sceptical. The World Bank in its World Development Report 2006 in reviewing the literature on this subject lists studies that have found inequality enhancing effects from the opening up of countries to international trade. And the WDR also refers to empirical data from East and South East Asia, including China, India and Russia, indicating that income inequality has risen dramatically during the 1990s (World Bank 2005). The WDR points to studies that have found that the growth elasticity of poverty reduction is inversely related to initial income inequality. This means that countries with a high initial income inequality – such as Brazil and South Africa, both with GINI coefficients close to 0.6 – would find no effect from higher economic growth in terms of a lower number of households below the poverty line (World Bank 2005).[39] These results are consistent with findings from Topalova (2005) for India, Ravaillon and Chen (2007) for China, and Chaudhuri and Ravaillon (2007) for China and India. Topalova finds that the reduction of poverty in the rural Indian areas – that were most exposed to the opening up to international trade – has been less than it could have been in a situation where the opening up had not occurred. The author advocates additional policies to redistribute some of the gains from the winners to the losers (Topalova 2005).[40] Ravaillon and Chen, likewise, find that external trade has not benefited the poor much. Moreover, provinces where income inequality was relatively high saw the least impact from economic growth on poverty. Chaudhuri and Ravaillon (2007) make a distinction between 'good and bad inequalities'. Their argument is that most of the inequalities in the previous decades in China and India have been growth enhancing. However, inequalities that inhibit the access of the poor to economic resources, that lead to corruption and social exclusion, pose a risk for economic growth in the near future (Chaudhuri and Ravaillon 2007). Besley and Burgess (2003) make an interesting observation in noting that the growth rate that would be required to reduce the number of poor in sub-Saharan Africa with 50 percent, would be 28 times the historic average GDP growth rate for that region. And if we still need to be further convinced to be cautious about the 'trickle down' effect of trade and economic growth on poverty reduction, we can turn to recent work from Kakwani and Son. First, Kakwani and Son have recalculated the poverty headcount index that is used in the writings of the World Bank. The index should not stand at 1.08 USD but at 1.50 USD – when measured according to the standards that have been set by the World Bank itself. This would have a large upward effect on the headcount (Kakwani and Son 2006).[41] Second, Son and Kakwani have constructed a new measure[42] – 'pro-poor growth' – to capture the impact of economic growth on the poor. Pro-poor growth is economic growth that benefits the poor proportionally more than the non-poor. The authors find that in less than 50 percent of the growth spells in their data set (237 growth spells for 80 countries), growth was beneficial for the poor (Son and Kakwani 2006b).

[39] Barro (1999) finds a similar result. However, he attributes this to the Kuznets curve that predicts for low-income countries at first a rising inequality as a result of economic growth, and subsequently in a more advanged stage of economic development, a narrowing of income disparities.

[40] Without further elaborating upon it we just mention an article from Kapur Mehta and Sjah (2003) that signals that various public and private programmes so far have had a limited impact on the ultra-poor ("destitute") in India.

[41] See also Wade (2003) who – from interpreting the statistics in an alternative way – observes widening income disparities and increasing poverty across the globe. He further argues that there is much politics hidden in statistics.

[42] Datt and Ravaillon (1992) provide a decomposition of growth and distribution effects on poverty reduction in Brazil and India in the 1980s. Their article could hence be interpreted as a forerunner of Son and Kakwani's.

3.3.2 Old age pensions

Poverty reduction

In industrialized countries pension arrangements – sometimes in combination with social assistance schemes – tend to be effective in their aim to lift the elderly above the poverty threshold. Table 10 in the Annex II illustrates this. Therefore it is not too surprising that few economic studies have addressed this issue.

The picture in developing countries is different. Where pension systems are in place they are largely effective for those, who are covered. Immervoll et al. (2006) observe for Brazil that the the old-age pension scheme has a regressive nature. There are, however, schemes that target low-income families and these do have an effect in terms of diminishing the GINI coefficient. The rural social assistance pensions cut the incidence of destitution among poor older people by 95 percent according to Bertranou et al. (2004).

In South Africa account was taken of gender roles in the extension of the old age pension programme. It turned out that pension benefits, if paid to *female* recipients, were far more successful in improving the health and nutrition of children, especially girls (Duflo 2000).

Risk reduction and attitudes towards risk

DC schemes incur an investment risk on participants, that is the risk that the value of the financial assets will be insufficient to allow for a lifetime flow of income.[43] Lachance and Mitchell (2003) point out that this investment risk in individual account schemes necessitates guarantees by the state – assuming its role as the 'final guarantor' – that may imply substantial costs.[44] Correspondingly, drawing upon financial market data from the United Kingdom, United States, Germany, Italy and France, Burtless poses that "… the empirical magnitude of retirement risk is almost certainly larger than would be tolerated in rich democracies" (Burtless (2003 p. 354).

Feldstein and Ranguelova (2001), however, argue that saving accrual rates under a pure DC scheme would be substantially lower than contribution rates under a PAYG DB scheme. The risk that beneficiaries in the DC scheme would receive less benefits is perceived by them to be small – this risk could be further reduced by using a mixed system. This view is shared by Nataraj and Shoven (2003) who find on the basis of theoretical modelling that a two-tier programme with substantial individual account component is utility maximising even for highly risk-averse participants. Bogomolova et al. (2006) propose such a programme for a developing country like Uganda. In their view this would reduce pension expenditures to the same extent as under a pure DC scheme, while providing higher average replacement rates. And Clark (2004) points to governance as a means to further reduce the risk of a multi-tier arrangement.

Two caveats could be entered here – to illustrate where academic assumptions fall short from practice. First, political considerations sometimes overrule prudence. This is when people are ill-advised to leave one scheme for another. In Hungary, actually half of the labour force voluntarily joined the new multi-pillar system (Rocha & Vitta, 2001). However, according to Rocha and Vitta the new system was 'oversold' as elder workers who would be better off in the old system joined the new system as well.

And second, people are not neutral in their attitude towards risk. Miles and Cerny (2006) and Rooij et al. (2007) discuss attitudes towards different pension arrangements – risk aversion is an important factor in this respect. Individual persons differ in their degree of risk tolerance/aversion which in turn relates to their financial expertise. This leads Rooij et al. (2007) to conclude that individual pension plans are not a good idea. Davidoff et al. (2005) and Disney (2000) support this with empirical evidence. For example, Davidoff finds that pensioners with individual plans in the United States do not themselves opt for annuities – which would be a rational thing to do. In stead these pensioners prefer a lump sum amount at

[43] In World Bank 1994, Chapter 4, the risks associated with either DB or DC plans are discussed.
[44] See also Heller (1998).

the time of retirement. Risk-aversion entails that a move from a DB to a DC plan – all other things neutral – leads to a welfare loss for (future) pensioners.

Social stability

Barrientos (2006) provides examples where social transfer programmes were implemented with a view to counteracting real or perceived threats of social unrest. The Bono Solidario programme has been used as a means to gain public support for a privatization of the utilities. The promise was that a pension fund would be institutionalized and funded from the proceeds of the sale of the assets of the utilities companies. However, when the privatization was accomplished the government defaulted on its promises. Not until a new government was installed, and after lots of public pressure, the pension fund was established.

3.3.3 Sickness and Disability Insurance

In developing countries the targeted social transfer programmes are the most cost effective ones with respect to poverty reduction.[45] Soares et al. (2006) have studied the impact of several cash transfer programmes in Brazil. Using econometric techniques, the authors single-out the effect of the (means tested) cash transfer programme for disabled and elderly from other sources of (transfer) income. Whereas other social transfers – often earnings related schemes – are rather expensive in performing their redistribution aim[46], the means tested cash benefit programme appears cost-effective. The programme is found to be responsible for one third of the reduction in the GINI coefficient in the period 1994-2004. The joint impact of retirement funds (earnings related) and pensions (flat rate) and the cash benefit programmes is a reduction of the poverty rate with 7 percentage points (from 38 to 31 percent) and the programmes are also effective in targeting the extreme poor households: here also a reduction of 7 percentage points is achieved.

Samson et al. (2004) find a significant impact of the earlier mentioned grants in South Africa. Cash transfers appear to be more effective than other social programmes. And it is important that measures are well-targeted. The take-up of the disability grant in South Africa is estimated at 36 percent (Samson et al. 2004). The various social assistance grants reduce the number of households below the poverty line 8.4 percent. This understates its impact: the poverty gap is reduced as much as 22 percent (Samson et al. 2004).

3.3.4 Unemployment Insurance and Social Assistance

In the OECD countries, income redistribution programmes have a significant impact not only on the point-in-time poverty rates, but also on the persistence of poverty (OECD 2001). It has been observed that the more extensive European welfare states are far more successful in reducing poverty and income inequality than the less generous welfare states, like for example those of the United States and United Kingdom (Cichon et al. 2004). De Neubourg et al. (forthcoming) critically review and compare a selected group of western welfare states with respect to the performance of their targeted social assistance programmes. De Neubourg et al. also emphasise the effectiveness of the continental European social protection system in reducing the duration as well as incidence of poverty over the life cycle. The poverty reduction effect is mainly due to the high level of income redistribution, whereas SA programmes only play a modest role in the extensive European welfare states. Other programmes already provide an effective safety net *before* SA is turned to, while in the United States (and less so in the United Kingdom) SA plays a larger role in poverty reduction as the preceding safety net is less effective in lifting individuals out of poverty.

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[45] This does not necessarily mean targeting exclusively on people with disabilities – this may be difficult in developing countries given administrative complexities. Mitral (2006) has therefore argued to make other transfer schemes “disability inclusive”.

[46] If at all: earnings related old age pension schemes and other sources of income – such as interest from government bonds – is found to ‘replicate’ or increase existing inequalities.

The poverty reducing role has also been important in the Middle and East European countries during and after the transition. Although poverty reduction has not been the direct objective of the introduced UI systems in Poland and Hungary, respectively 3.2 and 4.1 percent of the total population was pulled out of poverty due to the UI schemes (Vodopevic et al. 2005). The success was limited in other transition countries due to low coverage and relatively low benefit levels (Vodopevic and Raju 2002). Cerami (2005) agrees that social transfers have reduced inequality and poverty, yet also points to another, related positive effect of the introduced programmes in transition countries. SA helped to reduce the individual costs of transition and facilitated its acceptance. As such, SA recombined the communist heritage of a high value of solidarity with the need to fight poverty. SA has therefore contributed to social cohesion, economic stabilisation and the democratisation process itself.

Critical views have pointed however, to the adverse dynamic effects. Fortin et al. (2004) analyses the impact of welfare benefits on the welfare dependence in Canada. The increase in welfare spell causes depreciation of human capital. Dellas (1997) even argues that the provision of UI in itself already reduces the incentive to accumulate human capital in order to ascertain income security. The consequent increase in the supply of low skilled indirectly causes high unemployment among the low skilled. Furthermore, the induced risky behaviour by UI and related potential reduction in productivity reduces the demand for the lower skilled (Phelps 1994). The employability of the lower skilled will therefore decrease and they become trapped in the lower end of the income distribution. The disincentives – which have been described in the preceding chapter – therefore also cause UI to have a negative, dynamic effect on poverty and inequality (Fortin et al. 2004).[47]

The poverty impact in developing countries is heavily related to the institutional capacity and the effectiveness of targeting. This is well illustrated by the conditional cash transfers in Mexico, the 'Oportunidades'. Transfers up to around 150 USD are given to selected families conditional on school attendance and regular visits to health clinics. An expansion of the programme in urban areas would have no effect on poverty, as Freije et al. (2005) find. This suggests that the targeting of beneficiaries is ineffective. However, eliminating the programme in the rural areas would increase poverty with 4.9 percentage points, while doubling of the benefits would reduce poverty with 7 percentage points. The authors have simulated perfect targeting and find that poverty would fall with around 2.6 percentage points in both areas. Doubling the benefits would further reduce urban and rural poverty with around 1.6 and around 9.6 percentage points respectively (Freije et al. 2005).
The intensive CFPR/TUP programme in Bangladesh mentioned earlier as well points towards better social inclusion of the participants, but also, although to a lesser extent, of the non-selected ultra poor. The participants in addition reported to be more confident (around 9 percentage points) that villagers or neighbours would lease them land 3 years after the introduction of the programme. The programme, including social awareness programmes and mobilisation of local elites, has an overall social impact favouring economic as well as social inclusion and wellbeing (Rabbani et al. 2006). Slater et al. (2006) are a little more sceptical about cash transfers in low-income countries. Their size often is too small to make a significant difference (Slater et al. 2006).
The rather unique Chilean UI system so far has not provided a safety net for the poor. The conditions set in combination with the developing labour market have caused the system to protect primarily the formal workers with good quality jobs and stable, long-term contracts. This implies that a large share of workers is insufficiently covered. The vast majority of the unemployed, especially the long term unemployed, will not benefit at all, or receive only minimal benefits as only a small proportion is added from the solidarity fund (Sehnburg

[47] The latter effect is only a partial equilibrium effect. The role it plays in the overall poverty reduction effect depends on several factor, among which the size of disincentive effects and the design and features of the programme in question.

2004). The Chilean system therefore fails to guarantee the poor full income protection and hence has a limited effect on poverty reduction.

3.3.5 *Active Labour Market Policies*

Arjona et al. (2001) promote 'active spending' in order to make social protection programmes more efficient and effective. ALMP raises the incomes of those targeted and hence reduces poverty and stimulates social inclusion. Although other studies support the positive income effects for the lower skilled participants[48], the emphasis in Arjona et al. on targeting is important. Boone and Van Ours (2004) stress the difficulty of targeting those individuals and households that are most in need. Vodopevic and Raju (2002) even argue that ALMPs tend to favour the middleclass. This, however, would be an argument to supplement ALMPs with other social security programmes.

Samson et al. (2001) likewise have emphasized the importance of targeting of support transfers in developing countries, in their case South Africa. Workfare programmes in South Africa would reduce poverty but not sufficiently. In particular child headed households, the disabled, women and skip-generation households would be insufficiently reached. Samson et al. actually argue that the introduction of a workfare programme could intensify poverty. McCord (2004), researching public works programmes in two provinces in South Africa, found no impact in terms of poverty reduction. This, according to her, was mainly because the dual objectives of these programmes tend to hamper their effectiveness.

As to India, an important contribution has been made by an analysis of the Employment Guarantee Programme (EGP) in Maharashta. Imai (2003) not only empirically studied poverty-in-time, but also long term, transient poverty effects. The EGP provided unskilled manual work to all that wanted to work at a relatively low piece-wage rate. The programme had significant protective effects, in particular for those individuals and households that were close to the poverty line. For others, suffering severe poverty, the programme had little impact. In an overall assessment, Imai concludes that the programme did reduce long term poverty and provided insurance against an income shortfall (Imai 2003).

3.4 Macroeconomic impacts

3.4.1 *Internationalization, technological change and the size of the Welfare State*

The macroeconomic impact of welfare state arrangements in general, and social transfer schemes in particular, lies first and foremost in the channelling of exogenous economic developments. Social transfer arrangements allow economies to absorb the *raw* consequences of macroeconomic shocks, such as the opening up to international trade, technological change, and ageing. In this respect, social transfer schemes serve to facilitate economic adjustment processes. This implies that it would be a serious mistake to view social protection as something that can only be established when the economic restructuring process has been completed and economic growth has provided the base for it. *Slicing the cake* is an important precondition – it is not a coincidence that welfare state arrangements emerged in the industrialized countries at the same time when the industrialization process accelerated.[49]

The welfare state debate in the industrialized countries

Rodrik (1998) has found evidence that in open economies (in terms of international trade) the share of government expenditure in GDP tends to be large and explains this from a government role to 'insulate' employment from external shocks. Moreover, government spending on social protection is the crucial variable (Rodrik 1998). Sengenberger (2005)

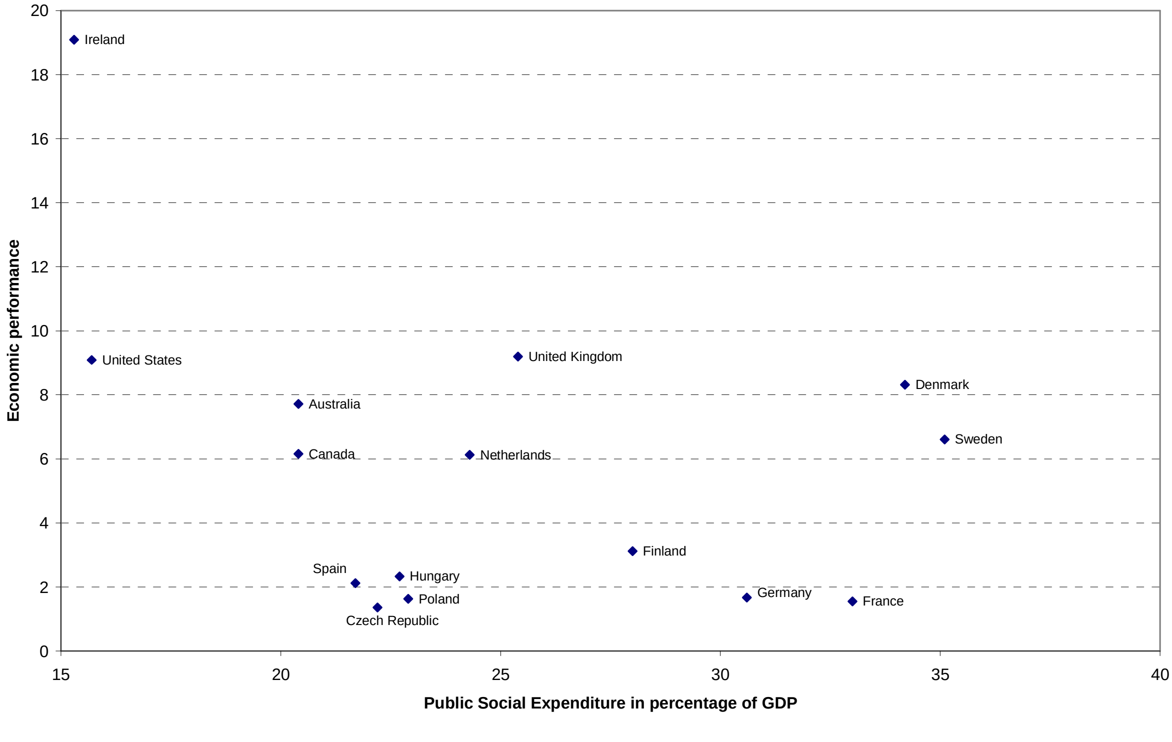
[48] See for example Ford (2003) and Banks (2005).

[49] For example, Eichengreen (1994) has illustrated the importance of institution building – including the establishment of welfare state arrangements – in the European countries in the post-WWII decades.

argues that it is no coincidence that the most open European economies are at the same time the ones with the most extensive welfare state arrangements.

Widening earnings differentials in a number of industrialized countries have been attributed to internationalization and technological change.[50][51] However, there are major differences between various countries as to the extent to which this trend has materialized. Wage differentials in Germany and Sweden, for example, have remained relatively constant over the past decades. Gottschalk and Smeeding (1997) found that institutional constraints on wages are an important variable in this respect. This implies that there is a 'capacity to act' for national governments. Canoy and Smith (2006) elaborate upon this argument, emphasizing – like for example Sapir (2005) and De Groot et al. (2004), but unlike Tanzi (2002) – that countries do not face a trade-off between efficiency and equity. Income redistribution (through the social security system) does not necessarily lead to lower participation and higher unemployment as long as countries supplement it with active labour market policies (De Groot et al. 2004). Tanzi (2002) claims that increasing tax competitition will force countries to scale down their Welfare State arrangements. Tanzi envisages the residual Welfare State with a further private social insurance market as the future model. Canoy and Smith (2006), however, see open market policies and the social model as 'communicating vessels'. In their view countries can reconcile sound macroeconomic performance with sustainable social models. Moreover, open market policies could not be successful without adequate social arrangements that serve to absorb the consequences of these same open market policies (Canoy and Smith 2006).

Figure 2: the famous trade-off between social expenditure and economic performance

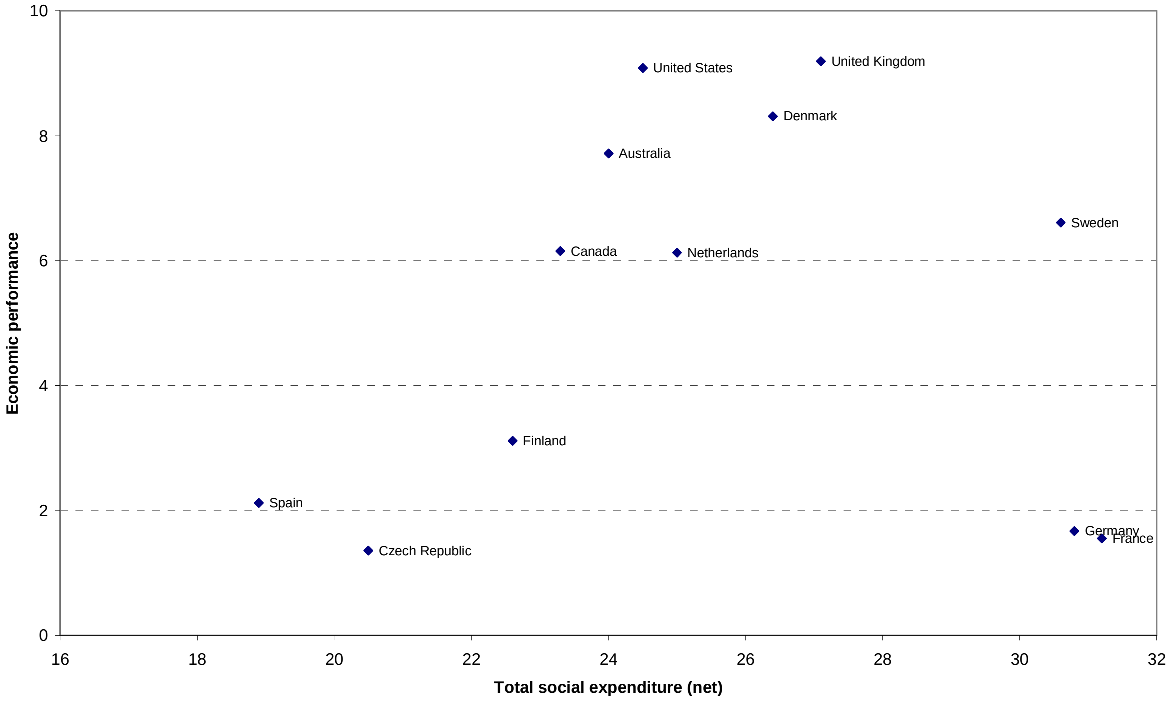


[50] Acemoglu (2003) provides a different explanation focusing on the impact of wage compressing labour market institutions (union wage bargaining and legal minimum wage setting) – we will not elaborate upon this in this paper.

[51] Kijima (2006) takes this debate to the developing countries' scene and argues for India that widening wage disparities have not been due to internationalization but to increases in the return to skills. Chamarbagwala (2006) adds a gender component to the debate. Internationalisation in less skilled manufacturing hurts women in particular, whereas the outsourcing of skilled services to India benefits both the educated men and women.

Figure 2 reveals the trade-off that would exist between social expenditure and economic performance.[52] One could infer from the figure a small negative connection between public social expenditure and economic performance.
However as figure 3 reveals, this trade-off disappears when we measure social expenditure, including private social transfers and tax allowances for social purposes – using the OECD social expenditure database. The picture then becomes one of countries that combine sound economic performances with generous social transfer arrangements (either public or private).

Figure 3: *net total* social expenditure and economic performance – no trade-off



Developing countries
The size of the welfare state in *developing countries* is not a much debated topic in the literature. This, no doubt, is related to the emphasis in these countries on informal kinds of social protection – for example within the extended household or in small communities. Moreover, there is a fear that establishing social transfer schemes will do harm to the international competitiveness. Developing countries argue that social transfer programmes are unaffordable for them until a higher level of economic welfare has been attained. These countries, hence, would not want to sacrifice their perceived comparative advantages. Ironically, the same arguments have been voiced in the industrialized countries. Welfare state retrenchment has often been justified with the argument that competition from low labour cost countries does not permit them to advance or even maintain their labour and social standards (Sengenberger 2005).
Now, one can wonder whether there is a way out from what seems to be a *Catch-22* situation. One line of reasoning refers to what is known as the 'trickle down' argument. The opening up of developing countries to international trade will increase economic growth, the argument goes.[53] And an increase in growth rates will on average lead to proportionate increases in the incomes of the poor. (Dollar and Kraaij 2004). Son and Kakwani (2006b) have challenged the Dollar and Kraaij argument. Their results do not support a conclusion that openness to trade is

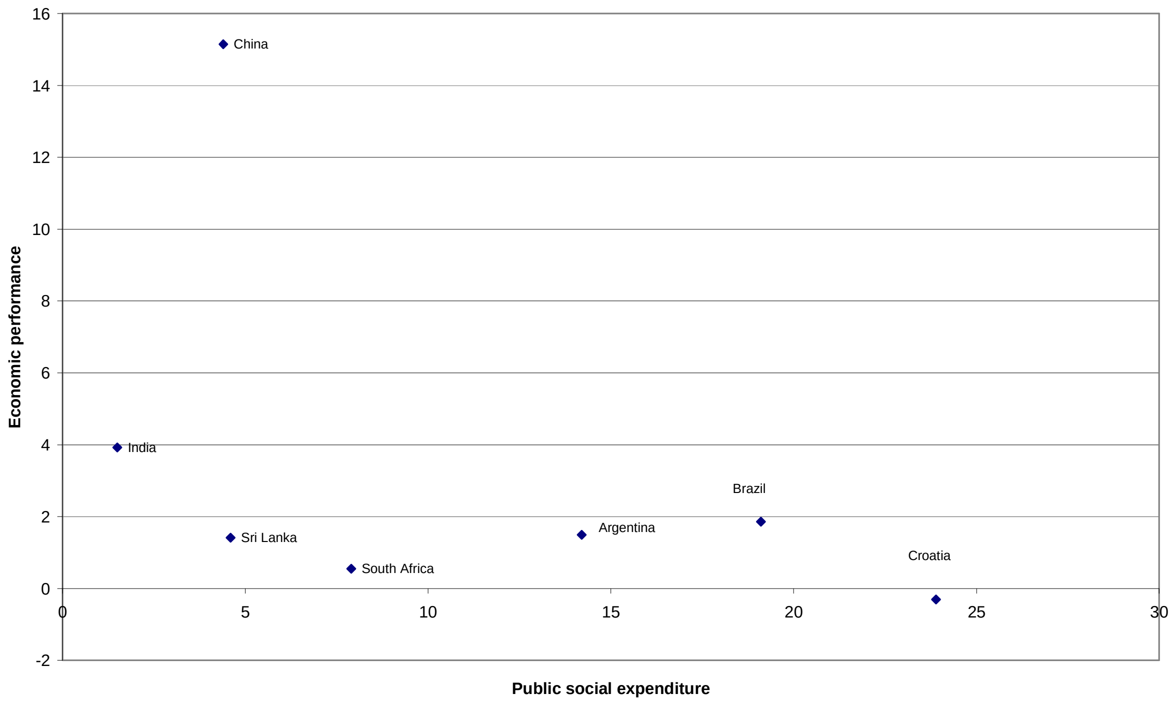
[52] The indicator for economic performance has been calculated from a combination of labour force participation rates, the unemployment rate and the per capita growth rate of GDP, using the figures from table A1 (Annex).
[53] This might be just circumstantial evidence, but Rodrik (2006) observes that the opening to international markets has not lead to accelerated economic growth and full employment in South Africa.

good for economic growth. Moreover, openness to trade does not lead to pro-poor economic growth (Son and Kakwani 2006b).
This would support a view that active government interference is required in order to allow the poor to benefit from the gains of internationalization. Several recent ILO studies have pointed out that low-income countries can afford social transfer schemes (Pal et al. 2005, Gassmann and Behrendt 2006, Mizunoya et al. 2006, Behrendt and Hagemejer 2006). During a transition phase, funding from international donors would be required but afterwards the programmes would be self-sustainable. Townsend (2006) also argues for international sponsoring. Funding explicitly formulated social transfer programmes may also help to achieve what Collier and Dollar (2004) have labelled: a poverty efficient allocation of donor resources. Barrientos (2006) argues that this international involvement is a consequence of a high share of poor households in low-income countries which generates a rather narrow base for domestic revenue raising. Barrientos argues for introducing social protection programmes in developing countries as these would serve to overcome what he calls the 'low income – low social protection trap'. This means that countries are in a vicious circle where people work in the informal sector and do not contribute in formal social transfer schemes. These schemes subsequently do not have sufficient resources to provide a broad coverage (Barrientos 2006).

Data restrictions make it difficult to research the links between social expenditure and economic performances in developing countries. Cichon and Scholz (2006) ran a series of regressions on available cross-country statistics from the ILO and World Bank with promising results. First, aggregate social expenditure is not correlated with the level and growth rate of GDP. Second, for a number of non-OECD countries the authors found a correlation between per capita health expenditure and labour productivity per hour (Cichon and Scholz 2006).

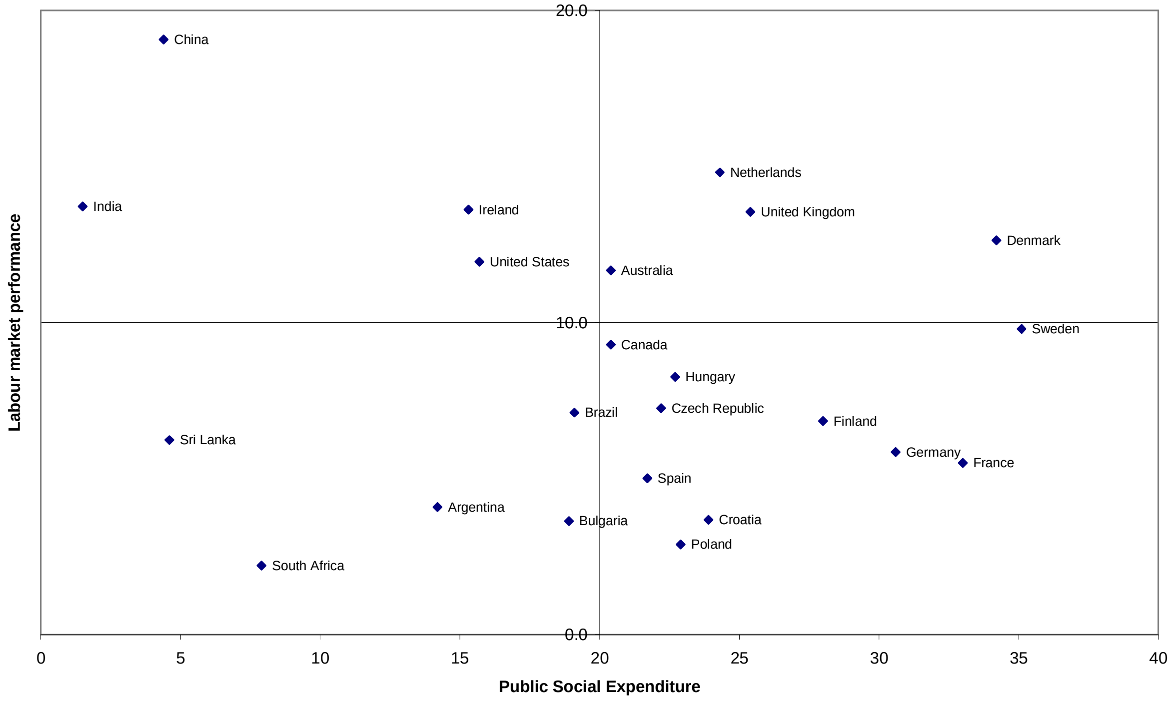
Figure 4 reveals a similar trade-off like in figure 2 – now for selected developing countries. At first sight one would infer from the figure that a trade-off exists.

Figure 4: social expenditure and economic performance in selected developing countries



However, when we plot public expenditure against another performance indicator (labour market performance), and when we combine developing countries and industrialized countries it again appears that it is possible to have both high standards of social protection and sound economic performances. This has been done in figure 5.

Figure 5: there is no trade-off between social expenditure and labour market performance[54]



3.4.2 Old age pensions

The macroeconomic function of pension schemes lies predominantly in their channelling of the economic impact of ageing. Differences in pension scheme design then matter, as these differences lead to more or less tempering of the impact of ageing on economic variables. This section discusses three of these channels.

The impact of ageing on savings and economic growth

Ageing in the short run tends to drive up savings, whereas in the longer run there will be a depressing impact on savings – this is when the large post WWII cohorts pass their retirement age (Broer 1999). Elmendorf et al. (2000) when looking into the optimal saving response to ageing, find two contradicting effects on ageing in the United States. On the one hand, ageing raises future demand providing an incentive to save more today. On the other hand, ageing exerts a downward pressure on the rate of return from saving and therewith lowers the attractiveness of savings. The authors conclude in light of this ambiguity that to continue the current savings pattern would cause the future generation to bear the burden (Elmendorf et al. 2000).

There has been some debate as to the impact on interest rates. One would expect interest rates to fall at the time when large numbers of pensioners start to convert their financial assets into cash. But, as ageing does not take place at the same time around the world the internationalization of capital flows would provide an outlet (Turner et al. 1998). It is interesting to note that this contradicts the views of Pemberton (1999) and Pemberton et al. (2000). These authors argue that international co-ordination of pension policies would ease the trade-off that the authors perceive between income redistribution and savings. The idea is that countries cannot act on an individual basis without causing a fall in pension wealth due to

[54] The indicator for labour market performance is the labour force participation rate in the numerator and the unemployment rate in the denominator. It is a crude indicator but sensitivity analyses with alternative indicators would not lead to a completely different picture.

reduced savings. When countries combine their effort, however, this would lead to reduced saving on a global scale and then interest rates would rise, offsetting the fall in pension wealth (Pemberton 1999).
It has been argued that public PAYG pension schemes crowd-out private savings (Disney 2000, Bottazzi et al. 2006, Krueger and Kubler 2006). Disney (2000) for example finds that public pension systems in the past have led to less savings. Attanasio and Rohwedder (2003) support this view for the United Kingdom – however, these authors differentiate between flat rate pensions which do not have a significant impact, and earnings-related pensions which are shown by them to have a high substitution elasticity with private savings. Hence, in the coming decades countries with DB schemes would see their national savings falling more than countries with DC plans. Diamond (2006) on the other hand, argues that shifts to funded schemes do not necessarily contribute to national savings – the extent to which this is the case depends on accounting rules, transition costs and operating expenses. Moreover, Lambrecht et al. (2005) come to some interesting results. These authors take the discussion on saving and investment a little outside the mainstream and take account of the income prospects of current children during their future adulthood – as Lambrecht et al. argue, this is an element in the utility function of current parents. It follows that public pensions reduce savings but increase investment in human capital for parents that face liquidity constrains. Apparently the parents do not perceive the need to save themselves for their pension and now use the available resources to invest in the human capital of their children.

Empirical evidence from the developing countries is scarce. In their study on the 1996 pension reform in Bolivia which replaced the public PAYG scheme with a private managed defined contributions plan, Mackenzie et al. (2001) conclude that this did not result in higher savings.

It seems fair to conclude from the available literature that the effect of public pensions on investment (savings) and on economic growth is not that clear-cut and neither is the effect of ageing itself.

The impact of ageing on labour participation, wages, and employment
As outlined earlier, public DB pension schemes deter labour participation according to most of the reviewed studies. This was for example found for early retirement in the United States (Bingley and Lanot 2004, Powers and Neumark 2003), in the United Kingdom (Blundell et al. 2002, Disney and Smith 2002), and in a number of other OECD countries (Duval 2003). All these studies refer to the participation of older workers. However, with regard to prime-age individuals in lower income groups Posel et al. (2006) have observed the opposite in South Africa where the social pensions allow grandmothers to support grand children so that the mothers could migrate to work.

Burniaux et al. (2004) suggest that possible labour market reforms targeting prime-age workers and youth need to raise or at least stabilise average participation rates in OECD countries over the next 25 years. In line with this, Blake and Mayhew (2006) argue that demographic pressure makes measures to increase participation among older people and immigration inevitable in order to maintain the current benefit levels – although prudent economic management could serve to ease some of the pressure. The introduction of individual accounts in pension schemes could help to raise labour force participation rates among elder workers (Lindbeck and Persson 2004, Feldstein 2006).

The impact of ageing on the tax base
Concerns as to the financial sustainability of defined benefit PAYG schemes have led a great number of academics and policymakers to advocate pension reform. This is not restricted to the industrialized countries.[55] For China, for example, Li and Hatton (2004) and Wang et al.

[55] Schwartz (2006) provides examples for a number of developing countries.

(2004) advocate the transition to a multi-pillar system. Wang et al. suggest financing this transition out of VAT revenues (Wang et al. 2004).
Mixed ‘multi-tier’ systems or notional defined contribution (NDC) schemes, however, may not solve the fiscal pressure. Agulnik et al. (2000) expect that the pension reform in the United Kingdom towards a sort of three-pillar system will in fact marginally increase the tax rise needed to ensure intertemporal solvency, and slightly worsen generational imbalances. For the 401(k) investment plans in the United States, Samwick and Skinner (2004) point to substantial administrative and operating costs. In this context Diamond and Orszag (2005) argue that a combination of modest benefit reductions and revenue increases would be sufficient to restore the financial health of Social Security in the United States.
Sinn (2005) goes one step further in addressing the need to secure the future tax base. He basically proposes to introduce an additional child-pension pillar, supplementing the existing public PAYG pillar and the private savings schemes. Only households that raise children would be eligible. Moreover, the child-pension should be on a PAYG basis, according to Sinn. The reason for this is that people who raise children offer a future asset to society and hence it is justified that society co-finances this investment.

3.4.3 Sickness and Disability Insurance

The literature on the macroeconomic impact of DI schemes is rather scarce. This may be surprising as it can be argued that ageing and technological developments do have an impact in terms of increased ‘depreciation of human capital’.[56] Autor and Duggan (2006) have studied the causes of the rapid increase, during the 1980s and 1990s, in DI enrolment in the United States. Apart from the static impact of loosened screening, described in section 2.1, the authors also describe another – dynamic – channel: the increase in replacement rates has been the consequence not of some legislative decision, but from the interaction between the benefit formula and the growth of earnings inequality in the US economy. And a third factor that contributed to the rise in DI benefit claimants according to Autor and Duggan has been the rise in female labour force participation. This factor has also been mentioned in several studies for other countries (for example OECD 2003).

Gertler and Gruber in their article on insurance against health risks for low-income households in Indonesia, conclude that “[t]here are nontrivial costs to the Indonesian economy from incomplete insurance.” (Gertler and Gruber 2002)

3.4.4 Unemployment Insurance and Social Assistance

The income support programmes in various European Welfare States have been accused to contribute to the persistency of unemployment in Europe. The argument is that the increase in welfare spell causes a depreciation of human capital over time and renders the unemployed, often low skilled workers, less employable and productive (Fortin et al. 2004).[57] Economic downfalls and macroeconomic shocks further aggravate this (Blanchard and Wolfers 2000).[58]

Another strand of theorists views UI and SA programmes as automatic stabilisers, assuring the stabilisation of consumption. Scholz (2005), for example, refers to the stimulation of mass consumption, triggering output and growth as a major rationale for introducing income support mechanisms. Again another argument emphasizes the opportunity to ‘buy out’ less

[56] The concept ‘depreciation of human capital’ is derived from Scholz (2005).
[57] There are many articles written with respect to the effect of UI on unemployment rates. In general, the evidence tends to be in favour of higher UE due to UI. See for example, Vodopevic and Raju’s review on income support systems for the unemployed (2002). However, Auer (2007) as well as Spieza (2000) argue that the evidence is rather inconclusive and more notion should be made of ALMP and design features.
[58] Their argument is close to the Lindbeck and Snower (1988) ‘hysteresis argument’.

productive workers and replace these with more productive labour. These income transfer schemes would in this view enhance economic growth and allow for the required restructuring of the labour market (ILO 2005). Winter-Ebmer (2003) finds evidence for the incentive to firms to replace high-tenured, relatively expensive workers in Austria. Both programmes (UI and SA) can also indirectly help to absorb reforms and shocks. Cerami (2005) in this respect credits the introduction of social assistance during the transition in Eastern European countries. The introduction of income support aimed to compensate for the negative side-effects of reforms and therefore enhanced the constituency for the market oriented reforms and the stabilisation of transition.

It has been argued that UI – through subsidizing some time off work – induces a better job search (Holmlund 1997). Acemoglu and Shimer (2000) use a quantitative model to investigate this positive incentive in the United States. Their finding is that the improvement in job composition and increase in more productive jobs compensates for distorting search incentives and the increase in unemployment. A moderate increase in UI from its current level in the United States would raise output and improve economic risk taking (Acemoglu and Shimer 2000). Several other studies also find improved 'matching' and the related positive effect on productivity.[59] Sánchez-Páramo (2002) provides evidence for indeed longer welfare spells, but better matching jobs and an increase in jobs in the private sector, due to the UI system in the Slovak Republic. However, Van Ours and Vodopevic (2006) and Addison and Blackburn (2000) both find no significant effect on improved job quality or stability, nor do these authors find any effect on post-employment earnings in Slovenia and the United States respectively.

According to modelling results of Cunningham (2000), the Brazilian UI system also didn't enhance better job matching or higher quality jobs, nor did she find any increase in net wages. The increase in UI benefits in 1994 didn't increase formal sector attachment, yet stimulated self-employment among the male recipients. The UI suggests to have provided the needed extra capital to investment in economic initiatives, as well as, so argues Cunningham, does this development suggest that participation in the informal sector is not an inferior choice.

Most developing countries suffer from imperfect capital markets that prevent borrowing by the poor. The absence of credit requires inefficient and costly consumption smoothing mechanisms and restraines the poor to invest in productive assets like education and health (Chetty and Looney 2006). The simulated increase in income due to the Basic Income Grant in South Africa for example stimulates further productive consumption and economic activity, which indirectly favours employment and productivity and has a significant effect on output (Samson et al. 2002). Adams and Kebede (2005) studied the cash transfer programmes in Ethiopia and report increased access to social services, higher circulation of cash, increased competition and local trade. Overall, the programmes have had a boosting effect for the rural economy. Recent studies support the evidence on the positive effects of income transfers in developing countries in terms of productivity and growth. Especially the benefits with respect of increased school attendance and improvement of health conditions are proved in different countries[60].

An interest study has been conducted in South Africa in this respect. Samson et al. (2004) provide evidence that social assistance expenditure in South Africa promotes investment, economic growth and job creation, and that these expenditures improve the trade balance. This result is derived from the composition of household expenditure over the income distribution. Low-income households spend more on domestic goods and services – hence an increase in their income will favour the domestic industries. A second important channel is the impact on education – in particular the education of girls. This leads to a much more productive labour

[59] See also the studies done by Tatsiramos (2006) and Marimon and Zilibotti (1997), the latter also estimate a positive effect on wages.

[60] Mentioning them all would be beyond the scope of this paper. Interesting are the studies done by Freije et al. (2005), Morley and Coady (2003), Rabbani et al. (2006) and Schubert (2005).

force and a higher GDP growth rate[61]. Samson et al. (2004) provide empirical evidence that this is indeed the case for South Africa.

3.4.5 *Active Labour Market Policies*

As we have elaborated on before, the net employment effect of ALMPs in OECD countries is not straight forward (see also Martin and Grubb 2001). Phelps (1994) however criticizes the EITC scheme in the US and argues that the subsequent increase in labour supply would suppress wages and indeed have further deteriorated the position of the disadvantaged. Low wage subsidies, he argues, would yield extra labour tax income and savings in the form of less welfare expenditure. Ford et al. (2003) support his view; the decrease in income recipients in Canada and the increase in employment due to the Self-Sufficiency Project increased the tax base. Lise et al. (2005) add that the project also contributed to lower wages. The effect on wages should be taken into account in evaluating the protection impact, as well as its impact on the individuals not covered by the programme.

McCord (2004), in her study of the two public work programmes in South Africa, has not found much long term effect on economic development. Due to their rather short-term, temporary character the programmes failed to enhance accumulation of capital, consumption smoothing or an increase in consumer demand in the long run. Employment has also not been enhanced due to underlying structural economic problems; labour demand and supply didn't correspond to each other. Samson et al. (2001) point to the same problem. Workfare, they state, is based upon the assumption that there is indeed work. In South Africa there is no evidence that indeed these 'uplifting' jobs exist (Samson et al. 2001).

The Argentinean ALMP programme mentioned earlier had been introduced to compensate the population for the lost income during the crisis. In that sense, although the coverage was limited, the programme did absorb part of the income losses the crisis would have caused and reduced extreme poverty (Ravaillon 2004). The preceding programme 'Trabajar' was much smaller scaled but effective in reaching the poorest segments. In addition, the participants contributed to useful projects aimed at providing assets of value to the poor, e.g. local infrastructure (Ravaillon 1999). Eisenstadt (1998) indeed found evidence that the Trabajar programme was efficient; the indirect benefits compensated the direct costs and favoured further economic development. The EGP in India also stimulated investment in productive assets favourable for local development. The EGP in Maharashta is especially focused upon measures to minimise the recurrence of droughts. So far, there is no clear evidence until what extent these projects have succeeded in shielding localities for (un-)anticipated shocks in India (Imai 2003).

4 Non-public social security arrangements

4.1 Informal arrangements

4.1.1 *General*

Son and Kakwani (2006a) point to the underemployment in developing countries. Large number of individuals who cannot find a job in the formal sector are somehow active either in the informal sector or in their households. Barrientos (2006) argues that the inflow in the informal sector and the lack of formal social transfer schemes are related – people are trapped in situations of low-income, no opportunities for skill enhancement and no securities against adverse income shocks.

There has been a debate as to whether public social transfer schemes crowd-out informal arrangements, and to what extend that would be an argument against formal (public)

[61] There is a vast economic literature on this issue including Aghion and Bolton (1992), Galor and Zeira (1992), Brandolini and Rossi (1996), and Barro (1999).

arrangements. The following subsections will cover this debate. The conclusion will be that there is indeed evidence of crowding-out, but this does not lead to inefficiencies.

4.1.2 Old age pensions

Cox et al. (2003) find for the Philippines evidence of crowding-out effects – meaning that introducing a public pension scheme would lead to a reduction in private income transfers. This, in turn would render the redistributive objective of the public scheme less effective. Maitra and Ray (2003) and Jensen (2004) draw similar conclusions for South Africa. One rand increase in public pensions leads in Jensen's study to 0.25 – 0.30 rand reduction in income transfers from children living and working elsewhere. However, Jensen also finds that the income rise that is associated with the introduction of a pension scheme has no negative impact – for example on work incentives. Maitra and Ray (2003) find evidence for crowding out among the poor households, whereas public and private pension arrangements appear to be complements among the non-poor. This leads them to question whether the South African pension system is sufficiently targeted (Maitra and Ray 2003). Jensen and Richter (2004) find for Russia that a recent crisis in which a large number of pensioners were not paid for an extended period of time, led to substantial adverse health effects. About one-fifth of the income loss was compensated for through other resources.

This reverses the picture substantially. Perhaps there is some crowding-out when public pension schemes are introduced. However, when existing public schemes are abolished or fail to deliver according to expectations pensioners are faced with extreme personal consequences, and private transfers cannot compensate for that.

Cai et al (2006) find evidence from recent household panel data suggesting that low household pension income tends to be compensated – in part – through private income transfers. For example, for those living at 50 percent of the poverty line, a one yuan reduction of (pre-transfer) income leads to a net private per capita transfer of 20 to 26 cents. At the same time, however, these transfers from private resources are insufficient to cover the shortfalls that arise with severe pension arrears and low retirement income. One of the conclusions of Cai et al. is that the introduction of a public pension scheme does not crowd-out private transfers. Government could encourage intra-family income transfers through tax measures – however, as Cai et al. remark, this would not reduce income inequality across families.

4.1.3 Unemployment Insurance and Social Assistance

As to crowding out, Jalan and Ravaillon (1999) find that the poorest among rural households in Southern China are not able to insure themselves against adverse shocks through informal arrangements. The authors further conclude that their results strengthen the case, on both equity and efficiency grounds, for public action to provide better insurance in underdeveloped rural economies (Jalan and Ravaillon 1999).

Klasen and Woolard (2000) found that the absence of an UI scheme has an impact on household formation in South Africa. Individuals without a job tend to delay the set up of a household of their own – sometimes for decades. The household provides an alternative access to resources for those who cannot draw from a public UI benefit. This is reinforced through the old age pension scheme that awards rather generous benefits to retirees[62], often living in the rural areas. Klasen and Woolard have applied regressions on household survey data and found that the non-existence of formal insurance has a lock-in effect: people are distracted from urban areas where the chances of finding a job are higher than in rural areas where their resource base lies. This, as Klasen and Woolard concluded, is inefficient.

Winters et al. (2006) have found that the conditional SA schemes enabled men to undertake risky activities and to migrate to more promising regions in Nicaragua during the coffee crisis. In absence of these transfers, family and community ties and networks dominate. Samson et al. (2002 and 2004) point towards the informal transfers and distribution mechanisms that provide security to relatives and members of the same social or community network in South Africa. Their argument is that these remittances deter the accumulation of capital and subsequent

[62] See Bertrand et al. (2000)

productive investment of the sender. Samson et al. therefore argue that the provision of income support would reduce the drain caused by remittances and result in more productive investment and consumption. Caution is needed however with respect to potential negative side-effects of income programmes on these informal arrangements and community networks (McCord 2004).[63]

Summarizing the literature on informal arrangements in developing countries, it is not hard to conclude that formal social protection programmes outperform informal arrangements. Formal transfer schemes (a) succeed better in targeting the right groups, (b) have a broader pooling base, and (c) avoid the lock-in effects that characterize most informal arrangements.

4.2 Market provision of social protection

4.2.1 General

It has been argued that extensive welfare states are more efficient in the provision of social insurance. For example, because private insurance markets cannot adequately solve the adverse selection problem. Probabilities may be unpredictable (as in the case of future inflation in relation to pension insurance), interdependent (cyclical downturns in relation to unemployment insurance), or close to unity (chronical illness in relation to health insurance and DI schemes). These issues call for *social* insurance (Barr 1989, 1992). More recent scholars have pointed out that financial markets and insurance markets have evolved and have developed tools to insure some of the mentioned contingencies (Bovenberg 2000). This does not rule out, however, that public schemes tend to have less administration costs than private insurance plans. This is because of transaction costs and economies of scale. For example, the administrative costs in the Chilean pension scheme is a multiple of that in public schemes, such as in Austria or Canada (Gillion et al. 2000).

4.2.2 Old age pensions

The distinction between public pension schemes and private pension insurance plans is related to the distinction between defined benefit and defined contributions plans and between pay as you go financing versus funding. Therefore, most of the studies that deal with public versus private pension arrangements have been dealt with in the previous sections.

4.2.3 Sickness and Disability Insurance

Aarts and De Jong (1997) have taken the issue of moral hazard as a main argument for private DI schemes. The advantages in terms of a more efficient provision outweigh the disadvantages in terms of higher administrative expenses, according to them (Aarts en De Jong 1997).
De Jong and Lindeboom (2004; Swedish Economic Policy Review 11) discuss the privatisation in the Netherlands after 1996. In 1994 and 1996 in two stages Dutch firms were made financially responsible for the first 52 months of sickness benefits and experience rating was introduced in the employer contributions for the DI scheme. Furthermore, firms were allowed to opt out of the public DI insurance scheme and act as their own insurers (large firms) or purchase insurance in the private market. A final measure in this series was the introduction of the 2002 Gatekeepers Act. Under this Act both the sick worker and his/her employer need to keep a record of the activities with respect to work-resumption that have been undertaken during the sickness spell. The public insurance organization assesses whether these activities have been sufficient to allow access to the public DI scheme. Koning and Van Vuuren (1996) find for the Netherlands that enrolment in Sickness decreased from 34 percent in 1996 to 2 to 3 percent after 2000.

[63] An earlier study by Cox and Jiminez (1995) simulated the effects of UI on private, informal transfers in the Philippines. The estimated crowd out effect was remarkable and significant, which caused the net income effect of the UI to be very little.

On the other hand, Bovenberg and Sørensen (2006) argue against full insurance through the private market. Private insurers do not take the external effects of full DI in to account (the authors do not stipulate what these externalities are, but these are not difficult to conceive – for example health services, transportation costs etc.). Bovenberg and Sørensen write that government faces an incentive to prevent private insurance companies from fully insuring disability (Bovenberg and Sørensen 2006).

4.2.4 Unemployment Insurance and Social Assistance

The literature on private provision of UI or SA schemes is scarce. There are studies that review the experiences with government contracting-out of welfare to work services. In the United States arrangements exist where the state government has contracted-out both the benefit distribution component and the reintegration component to private contractors – for example in the Wisconsin Works (W2) Scheme. Given time restrictions we have not been able to look into this strand of literature.

4.2.5 Active Labour Market Policies

A number of countries have taken the step to privatize their public employment service and to open up the market for job matching and/or reintegration to work. Services include job brokerage, the listing of vacancies, skill assessments, medical assessments, training programmes and placement services. The Australian Job Network – established in 1997 – was the first in the world. The Netherlands followed in 2002. In several other countries private provision of reintegration services has been implemented on an experimental basis – to enable the public service to learn from these private providers and to enhance the effectiveness and efficiency of the public service. Examples are the United Kingdom, Israel, and the Belgian region of Flanders. There is a growing literature on the experiences with private provision of job matching and reintegration services.[64] However, time has been too short to be able to judge whether these initiatives have been successful. Most of the literature on the Australian Job Network reports positive results (OECD 2001, Productivity Commission 2002, DEWR 2001, DEWR 2003, Grubb 2003) – although others are more sceptical (Burgess 2003, Cowling and Mitchell 2003, Considine 2005) who point to the fact that the market model requires a large involvement from the side of the Australian government to make it function proper. Finn (2005) reviews studies on the British situation and concludes that the private providers succeed in achieving higher placement results than the public service. Van de Meerendonk (2004) has compared the Australian and Dutch models and concludes that the Australian managed market model has two important advantages over the Dutch model. The first is that the role of the commissioner has been firmly established in the Australian situation. Central government does the contracting and has learned to do this in a professional manner. In the Netherlands the contracting-out is done through local governments (municipalities) and the social insurance administrative organization (UWV). These organizations – in particular the municipalities – face more difficulties to develop into professional commissioners, due to their smaller scale. The second advantage of the Australian model lies in the centralized data structure, which enables the operation of a sophisticated performance benchmark to monitor the performances of the private providers.

An important conclusion from the available literature would be that it is indeed possible to shift the provision of services to private providers, while at the same time retaining some crucial responsibilities – for example, for safeguarding the quality of the services provided and maintaining an unrestricted access to services for disadvantaged clients – within the public domain. It is possible, but at the same time it requires a process of careful engineering. Experiences with a wholesale transfer of these services to the private market in a limited time span – such as in the case of the German Hartz Reforms – have been rather disappointing (OECD 2006).

[64] Bruttel (2005) – in German – provides an extensive overview of the available literature.

5 Conclusions

We will not repeat the extensive arguments that have been reviewed above. We will just list a few common threats that emerge from our review of the literature. The following points deserve to be listed as conclusions.

First, apart from *static* effects – often in terms of expenditure – social transfer schemes have important *dynamic* effects on economic variables. Some of these dynamic effects may be in certain circumstances undesired: like for example causing disincentives to work or to save. However, there is solid evidence of a multitude of desired, positive effects from social protection programmes on economic performance. There is certainly more research needed here and there are also methodological challenges to be taken in order to properly account for the dynamic effects.

Second, conclusions from the vast literature on "welfare state" arrangements in industrialized countries cannot be translated on a one-to-one basis to the developing countries. We have found a large number of examples where the arguments that relate to the welfare state impacts in the OECD area, simply loose their relevance when applied to developing countries. For example, while large portion of the research done on social transfers in industrialized countries focuses on alleged work disincentives, the research looking at social transfers in developing countries points to advantageous impacts like easing of credit constraints for poor households, enabling these households to undertake productive investments and associated risks. And, notwithstanding the argument that individual saving plans lead to a more balanced decision to either work or retire – most studies with respect to developing countries reveal that these individual savings plans extract resources from their more efficient potential allocations.

Third, the views on the economic impact of social protection programmes with respect to the industrialized countries have converged to the following: some of the "welfare state" institutions have been responsible for labour market rigidities, and there is evidence that some of the extensive schemes have 'overshot' their objectives – DI schemes in a number of OECD countries are perhaps the most telling example. However, there is a strong consensus among economists that the social security and sound economic performance can be reconciled – moreover, that the two are just the opposite sides of the same coin. Social security is an indispensable part of the instructional framework of the well functioning market economy. Social security is thus not something that a country can afford only until has achieved certain level of per capita GPD. It is necessary to be put in place in order to make sure that sustainable economic growth will take place.

Fourth, public social transfer programmes are effective in their prime aim: lifting the poor to a higher welfare standard. The more countries spend on these programmes, the better this aim is met. Informal arrangements or private market cannot fully replace public schemes – such arrangement will never be equally effective in reducing poverty and particularly reaching the poorest.
Market provision *can* sometimes partially substitute public provision – but this requires careful regulation and other public intervention. The experiences in advanced economies, where effective governance conditions prevail, have shown that even in those countries it is extremely difficult to set the stage right for private social services.

Fifth, there are solid arguments that low-income countries should implement social transfer schemes at least at the level of minimum standards. Good design and sound governance are important conditions but – if threes conditions are met – social transfer schemes are affordable.

Future research agenda
Two gaps emerge from this literature review. There is a pressing need for *statistical upgrading* with respect to the developing countries. The welfare state debate in the industrialized parts of the world emerged from its initial ideological trenches only when more sophisticated statistics

allowed for solid research. There is a growing number of research institutes, such as EPRI in Cape Town and IPEA in Brazil, which are making important progress in this area but there is need for more. While there is plenty of research worldwide of different economic impacts of well established social security provisions, there is very limited research on economic effects of extending the coverage to those uncovered, especially the poor and the poorest. The issue of the social security impacts in developing countries should be thus explored further and deeper.