Financial Sustainability of Swedish Welfare Commitments

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Abstract

Sweden’s welfare commitment is one of the most extensive of all high-income countries. Total social expenditures in Sweden - public and private - on pensions, health care and sickness insurance, family policy, unemployment insurance and employment services, and benefits and care services for the functionally disabled and care of the elderly have remained very close to 28 percent of GDP (26 percent after tax on taxable benefits) since 1980. This article explains how Sweden has dealt with the many questions of creating adequate, sustainable and economically efficient social policy. It focuses on the roles of policy supporting labor force growth, benefit and service system construction, and a political consensus reached in the mid-1990s on the budgetary process and debt management.

Keywords: Government debt policy, Debt management, Fertility, Female labor force participation, Social expenditures, Social security, Pensions, Health Care

JEL classification: H50, H51, H53 H55, H61 H63

I. Introduction

The commitments of the Swedish welfare state are among the highest in the OECD. Gross expenditures – benefits and services of all three levels of government (national, county council and municipal) are 28 percent of GDP. Net of taxes - on social insurance benefits, e.g., pensions, they are 25 percent of GDP. The Swedish welfare commitment is universal and benefits and services encompass all the areas usually associated with the welfare state – pensions, health care, family policy, temporary or permanent inability to work due to sickness or injury, unemployment and, for those who need it, day care services for children, and care of the handicapped and elderly. The percent of national income that constitutes the welfare system has been relatively constant since 1980, except during the recessionary period 1990-1995, when the ratio increased primarily because GDP fell dramatically.

Importantly, the events leading up to the recession and the recessionary crisis itself, signaled the need to introduce rule-based fiscal discipline into the country’s budgetary process. Since 1997 this has in turn provided a restriction on the growth of both benefits and services. Benefit expenditures are dominated by pensions, compensation for sick leave from work and disability and unemployment benefits. Pension expenditure stability was achieved by adopting non-financial (NDC) and financial contribution (FDC) schemes for the pay-as-you-go component of the public pension system, implementing stepwise gatekeeping rules
for compensation for time away from work due to sickness and tighter criteria for disability and unemployment benefits. And, within each of these areas, rules have been tailored to promote labor supply and counteract opportunities for moral hazard. Expenditures on services are dominated by health and other care services, where focus has been on efficient provision. The mechanisms used for achieving stability of individual systems are discussed in greater depth in this paper.

More generally speaking, Sweden has been able to maintain a relatively constant ratio of expenditures to GDP because of family and migration policy, that is by enabling growth of the working age population that together with growth of productivity have been sufficient to create the necessary growth of the payment base. To begin with, largely thanks to family policy, a total fertility rate of 1.8 children per woman has made it possible for the population to largely reproduce itself during the entire post-war period – albeit with some cyclical volatility. Adding migration, the total working age population has increased steadily. The tax base has thus been growing at a rate that has been sufficient to maintain fiscal balance both for overall and social expenditures in an environment where considerable effort has gone into creating a financially stable universal pension system as well as financial stability in other universal social insurance systems and in the delivery of universal, publically provided care services for young children, the elderly, persons with severe functional disabilities and universal public health care.

This paper describes in greater detail how Sweden maintains macro financial stability with among the world’s most extensive state welfare commitments.

II. Sweden’s Social Expenditures in an International Perspective

Frequently when we discuss social expenditures\(^1\) we focus on gross (pre-tax) expenditures. Gross figures tell us how much the government spends, but this neglects the fact that benefits may be taxed. In addition, in some countries mandated or quasi-mandated benefits (for example benefits provided in accordance with labor-management agreements) perform the function of publically provided benefits in other countries. For this reason we get a better picture of what countries and governments actually spend after its citizens pay taxes on their benefits by examining after-tax results. Net expenditures are, in fact, what constitute the increment to private disposable income and consumption. In addition, it is important to include relevant mandated and other relevant public expenditures in an international comparison.

When one examines, thus, after-tax figures for both public and private social expenditures (Figure 1) one finds a relatively compact expenditure picture for OECD countries. Although the welfare states of Western Europe are among the heaviest spenders the difference between

\(^1\) In this context OECD data include old age benefits, survivor benefits, incapacity related benefits, health care, family policy expenditures, active labor market programs, unemployment insurance, social housing support and other social policy areas.
them falls considerably viewed in after-tax terms and including both relevant private social expenditures.

Surprisingly, in this perspective, the United States is the second highest spender after France among the high-income countries in Figure 1.² OECD countries, which include both high and middle-income countries, have average net (after tax) public social expenditures of around 20 percent GDP. As Figure 1 includes predominantly high-income countries, it is clear that the much lower overall average reflects the lower scale of social commitments in the middle-income countries in OECD, suggesting a connection between richer countries and higher social commitments.

Most countries also have a private component, which, net of income taxes, is around 2 percent of GDP on average. High-income countries, with relatively large private components of social expenditures are Canada, Japan, the Netherlands and the United States. Notably, the private component in the Netherlands is comprised largely of the occupational pension

² The figure includes high income countries, excepting Poland, which is included in figure 1, is representative of a middle-income country, whose social expenditures are likely to increase with time.
schemes that for long-career employees provide a considerable supplement to a universal basic pay-as-you-go (PAYGO) flat rate defined benefit.

Sweden is among the highest spenders in Western Europe, but with after-tax expenditures of about 26 percent of GDP is close to a large number of European countries that are around 25 percent. We can note that the private component for Sweden consists largely of occupational pension payments.

As Figure 2 shows, Sweden’s gross (pre-tax) expenditures are presently around 28 percent of GDP, where they have been for about the past 15 years, following the recessionary drop in GDP 1990-1995. In fact, Sweden’s social expenditures are not much higher in 2000-2013 than they were in 1980 expressed as a percent of GDP. Note also that Japan’s expenditures have grown rapidly since 1990 and at the last data point, 2010, had reached the OECD average. Note further that the UK has experienced a strong expenditure increase in gross social expenditures since 1980. Finally, we can observe that Sweden, Germany and the UK, with very different models are nevertheless relatively close to each other in terms of overall expenditures – and all are above the OECD average.

Figure 2. Total Public Pre-tax Social Expenditures. Selected OECD Countries. Percent of GDP

![Graph showing social expenditures for selected OECD countries from 1980 to 2013.]

Source: OECD

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3 The increase in Swedish gross social expenditures as a percent of GDP in 1990 – 1995 is almost entirely attributable to the almost 5 percent fall in GDP during the deep recession of 1990-1994. Unemployment increased from around 2 percent to 12 percent. Of course unemployment benefits increased, but pensions were not indexed fully. Full indexation was restored in 1997, with some compensation. See “Was the Burden of the Swedish Recession Equally Shared?” Björn Gustafsson and Edward Palmer. The Review of Income and Wealth, vol. 38, no. 4, pp.537-560.
III. Swedish Family Policy, Labor Supply and Economic Growth

The financial stability of a welfare state that relies on taxes from workers to provide the funds for public expenditures on benefits and services is necessarily connected to a country’s demography. Generally speaking, a stable or growing labor force is required to finance a steady flow of transfers if a given set of rules is to be inter-generationally neutral. We will return to this in a separate section. What is important here is to establish that the Swedish welfare state was founded with this thought clearly in mind – and this led to the establishment of Swedish family policy with roots in the Swedish political discourse of the 1930s. It is safe to say that, everything else equal, Swedish family policy was a necessary – albeit not a sufficient - condition for intergenerational financial stability of the vast Swedish Welfare commitment.

So, let’s go back to when the Swedish welfare state began to take form to understand better how Sweden ended up where it is today. The Swedish welfare state began with ideas and legislation already in the 1930s. In this decade embryos of almost all present-day Swedish welfare policies emerged – as did welfare policy in many other countries around the world. The Swedish political dialogue at that time was especially influenced by a publication of two economists, Alva and Gunnar Myrdal, with the publication of their book *Crisis in the Population Question* published in 1934. This book warned of the dire consequences for “the welfare state” of the declining birth rate and the ageing population – a topic as current now as it was then. Then, as now, the question was, “how can a country afford to pay for the growing number of elderly citizens?” It was from this work that the embryo to Swedish family policy - addressing both fertility and women’s participation in the labor force – emerged, but today’s systems had to wait until after the war for full implementation.

The year 1955 is a landmark date. The rights to be away from work in conjunction with childbirth and to income replacement benefits following childbirth were legislated by 1955, albeit the generosity of the system increased into the 1970s. What distinguished Sweden – together with its Scandinavian neighbors – from most of the rest of the world at the time - was the awareness of the importance of *universal* public day care from a very early pre-school age together with child care before and after school during the initial years of school attendance - for women’s participation in the labor market. Policy directed municipalities to provide day care services and after-school activity centers for a minimal user fee – and no fee at all for low-income single women with children.

Swedish family policy consists of other components than day care for young children. It “begins” with the right to be away from work in conjunction with childbirth. In Sweden parents (together in total) have the right to be away from work 18 months and with a family benefit that replaces 80 percent of earnings up to a ceiling. They also have the right to be at home to care for a sick child with income replacement, for children eight months to twelve years of age (before eight months they are presumed to be at home with a family benefit). Working time can also be reduced by 25 percent for children up to eight years of age. There is also extra financial and other support for severely handicapped children.
With this combination of family policy measures Sweden has seen a total fertility rate of 1.8 for women born in the 1940s and later. The remaining “gap” up to the 2.1 children per woman needed to reproduce the population has been more than closed with the help of generous immigration policy – especially for working aged persons and their children. Sweden has not escaped the challenge of the ageing population, as it has had one of the oldest populations in the world for many decades due to high life expectancy, but through family policy has supported the growth of the labor force.

Summing up, most experts are convinced that Sweden’s family policy has been critical for both Sweden’s high rate of fertility throughout the post-war period and women’s high rate of participation in the formal labor force, as has Sweden’s liberal immigration policy. In this way, family policy has contributed labor force growth and with this overall growth and financial robustness of the Swedish welfare system.

IV. The economic crisis 1990-1995 and the Emergence of Political Consensus on a Model for Management of Public Finances

Following a period of financial irresponsibility from 1975-1990, spanning over both social democratic and center-right growth optimism, together with wage-cost increases that undermined Sweden’s competitiveness, and finally a home-grown financial bubble, the international recession of 1990-1994 led to a fall in Sweden’s GDP of 5 percent. This event made blatantly clear the need for major structural reforms and a multi-party consensus on how to move forward to prevent future economic collapses. In March of 1993 a government commission delivered an extensive list of necessary structural changes to modernize Sweden’s economy and political apparatus. What is important for the topic of this paper is that the 1990s became the dawn of the introduction of rule-based policy in many key areas – for the state budget and macroeconomic policy, tax reform, for the execution of central bank policy, for wage policy, and for the public pension system – all anchored in broad political consensus. Prior to the recession, reform had already begun with a consensus-backed reform of personal taxes implemented in 1990/91, so the ground had already been set for further consensus.

What is important in the present context are the pension reform, with legislation dating from 1994, and new budget rules introduced in 1997. The pension reform is summarized in a separate section. Here we focus on the budget rules. In 1995, the national debt had reached 77 percent of GDP, and there was concern that coming governments might find it hard to reduce the debt without a plan encompassing all the major parties. From this emerged under a Social Democratic led government an agreement between the four center-right parties and the Social Democratic party to construct and implement tax-expenditure rules, with an anti-cyclical construction. At the foundation of the agreement reached was a rule that government

expenditures, at all levels, should give a surplus of on average of at least one percent of GDP per year over the strong growth years of a “business cycle”. The aim was also agreed to be not only to create surpluses to move tax money from better growth years to poorer growth years when deficits would arise, but it was also to reduce the large debt accumulated in the two preceding recessions in the late 1970s/early 1980s and in 1990-1994.

Given Sweden’s intention at the time to join the European Union, the debt-GDP ratio was too high given the Maastricht criteria which took effect in 1993. At the same time there was a public debate on whether a fund should be created to provide resources to cover increasing long-term commitments for the elderly as baby-boomers born in the 1940s become the elder elderly. Debt repayment was seen as an alternative to creating such a fund and this is the course that Sweden has pursued since then, although it’s probably safe to say that there has been little public discussion of the latter since then. By the end of 2008, as the next recession set in, Sweden’s national debt had been successively reduced to 39 percent of GDP (Figure 3).

There is a second component of the budget legislation that sets out a procedure governing the budgetary process. We explain this briefly here. During the normal budget process, the Parliament is instructed by the legislation to set a ceiling on expenditures (excluding interest payments on the national debt) for the coming budget year. The ceiling is set with respect to a goal for public sector savings – income less expenditures – of one percent per year over the economic cycle. The fact that targeted yearly savings goal applies to a “cycle” is reminiscent of the Keynesian idea of spending more during low growth/recessionary periods and less during high growth periods. And, during an economic slowdown or recession it is up to the Parliament to decide how large a deficit and debt increase the country can afford. The guiding overall principle is that deficit financing during an economic slowdown should not lead to a long-term debt increase.

The savings goal and ceiling on expenditures categories are based on detailed expenditure and revenue projections for the coming three years. The economic assumptions underlying the projections for the coming projection period are tested initially in March of the year and again in September. If in September the Ministry of Finance’s new forecasts for the coming year’s expenditures and revenues indicate it is likely that expenditures will exceed the ceiling set in March, the government is required by the budget law to propose expenditure reductions or tax increases.

Figure 3. Ratio of Sweden’s Government Debt to GDP

Source: Eurostat

5 The treaty set the debt limit at 60 percent of GDP, a criterion that has long since fallen by the wayside for many EU member countries, albeit Sweden is not one of them.
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set in March, the government is required by the budget law to propose expenditure reductions
or tax increases to minimize (or balance) the projected deficit. The final budget is analyzed
and discussed in the Parliament’s financial committee and voted on in Parliament.

The budget law applies to the entire public sector. This gives the Parliament the power to
limit tax increases at the county council, the governmental level responsible for health care
services, and municipal levels, responsible for day care and care of the elderly. The
alternatives to allowing tax increases at this lower level of government, while maintaining a
given level of services, is for the Parliament to increase the central government subsidy to
health care and/or to municipal provision social services using the various means at its
discretion (increased national taxes, reductions in state administered cash benefits and/or
increased borrowing) to create the desired budget room.

The budget law of 1996 was created under a Social Democratic minority government in
consensus with the center-right opposition. It was upheld first under a Social Democratic
government that also restored some of the benefit reductions necessitated by the 1990-1994
recession. The government shifted from the Social Democratic led government to the center-
right coalition in October 2006 which has reigned to the present date, 2014. Notably, during
this overall timeline of almost two decades social expenditures and other important
commitments have been maintained. In addition, after it took office in the autumn of 2006,
the center-right government abolished the wealth tax and decreased personal income taxes
on five occasions. The five decreases in the personal income tax have amounted roughly
calculated to around 1.8 percent of GDP per year, based on an overall total figure for the first
five years from Statistics Sweden.

Recessions in 2001-2002 and 2008-2009 provided stress tests for each political regime.
With the latter, Figure 3 shows that the debt to GDP ratio increased from 38.8 to 42.6 percent
of GDP. But, it fell again to 39.4 percent in 2010 and further to a level around 38 percent in
2012-2013 – in accordance with the intention of the budget law.

Summing up, Figure 3 illustrates that Sweden’s counter-cyclical deficit and debt reduction
policy implemented from 1997 has withstood the “challenges” of governments to the left and
right of center and the pressures of the recessionary periods of 2001-2003, with the Social
Democratic minority government, and 2008-2009, with a center-right majority coalition.

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6 The next election at the time of this writing is September 14, 2014.
This picture is significantly different from the picture during the two decades leading up to a debt to GDP ratio of almost 80 percent, the point of departure for budget policy since 1997 that has brought the debt level down to half the 1997 figure.

V. Sweden’s Labor Market Policy Has Focused on Structural Improvements Aimed at Labor Supply and Mobility

A simple way to view financing of the welfare commitments of a state is through the taxes they require out of national income, in the present context represented by GDP. National income consists in principle of income from labor of all kinds and profits. A simple way of looking at this is that profits comprise $\theta$ percent of GDP and wages ($wL$) the rest:

\begin{equation}
1 \ BNP = wL + \theta \text{ profits}
\end{equation}

where $w$ is the average wage rate (total earnings per worker per year) in the country and $L$ the average number of workers in the same time period.

This gives a tax rate, $t$, on overall wages to support public expenditures on welfare:

\begin{equation}
2 \ t = \frac{\text{Benefit per capita} \cdot \text{Recipients}}{(wL \cdot 1 / (1 - \theta))}.
\end{equation}

In this context it makes no difference whether the tax behind the financing of benefits is a direct income tax, an employee contribution, an employer contribution passed over to the worker, a value added tax on consumption or a combination of these.\(^7\)

This simple equation is typically used to illustrate the major role for financial stability played by the number of contributing workers relative to the number of benefit recipients, i.e., the system dependency ratio, in a pay-as-you-go setting. The same mathematical connection exists, obviously, whether we are considering pension benefits per recipient or other welfare expenditures per recipient — e.g., parental benefits, unemployment benefits, benefits for temporary and permanent work incapacity, health care and institutional care of the aged, etc.

The determinants of the size of the labor force ($L$) are the total fertility rate, immigration and the rates of participation of men and women in the various age groups. We have already discussed fertility and, briefly, migration in the Swedish context. The growth of the average wage ($w$) is determined by the country’s rate of growth of productivity. Together $w$ and $L$ determine the denominator of the equation. Benefits and services are determined by the number of recipients and the average amount paid for benefits or the average per capita cost of services. The tax rate for the sum of expenditures on all social benefits and services in relation to total covered earnings, e.g., taxes of all kinds paid on income of employment.

\(^7\) We can also add a tax on profits, etc., if we like, which for general revenues means that the direct burden on labor income is less.
So, the expenditure to GDP ratio, has hovered around 28 percent – or around 26 percent net of taxes paid on benefits. By the 1990s, there was a relatively strong consensus among Swedish economists that Sweden could expect at best annual productivity growth of around 1.5 percent, but that it would be too optimistic to believe in more – and maybe more realistic to believe in less. The recent 25 years have shown variations in both directions around this number.8

A country’s productivity depends in the long run on education and synergy between research, venture capital and private enterprise. How to achieve high quality in education, and generate a creative and innovative environment, has been an ongoing topic in both the international and Swedish discourse. As in many countries, this has led to extensive cooperation between university research and private enterprise in Sweden, and also to collaboration with venture capital – something that was practically non-existent until the 1990s. Furthermore, both lower and higher education are important and the issues important for policy regarding the outputs and efficiency of educational institutions are being identified and researched by social scientists, and can eventually influence government policy.

Already in the 1990s Sweden’s taxes and benefits for older workers did not provide noteworthy disincentives for older workers to remain in the labor force, as opposed to many other European countries. This conclusion emerged in an international comparison (Gruber and Wise 1999)9, where Sweden, the US and Japan were the countries where the “tax force” to leave the labor market at later ages was the weakest – and the study showed that this was correlated with the de facto average age of exit from the labor force – which at the time was around 63.

The NDC pension reform implemented in 1999 further reduced structural disincentives for older workers to remain in the labor force. The benefit is calculated as an annuity, based on the individual’s notional account and the individual’s cohorts’ life expectancy. As life expectancy increases, people will have to work longer to receive the same benefit that earlier cohorts with lower life expectancy but the same account amount at retirement could receive. This provides an incentive to work longer as life expectancy increases – and to the extent workers don’t then benefits decline with increasing years of life. Equally important, in the NDC framework, older workers once they have reached the minimum retirement age can combine full or part-time work with a full or part-time benefit – with in principle no maximum age limit. All additional work yields contributions that enhance the individual’s account, while postponing retirement yields a more favorable life expectancy factor in computing the benefit.

Since 2000 over 70 percent (about 73 percent in 2013) of persons 55-64 are employed

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8 What’s more, although not important for the argument here, in the developed economies there has been a tendency towards slow wage growth or wage stagnation for workers with lower skill levels – but even for some professional groups, which is seen in an increasing inequality in the income distribution.

and about 15 percent of persons 65-74. What has been important in this context, in addition to better work environments and tax-benefit rules not containing disincentives to work, has been a much more restrictive use of disability benefits, where these had previously been liberally used to “pension” older workers in the course of downsizing firms. In a series of legislative changes disability grants have become increasingly more - and since 2008 - strictly based on medical criteria. The average age of exit for men who were in the labor force at the age 50\textsuperscript{10} is presently about 64 for men and 63.5 for women.

The major challenges to Swedish employment policy are nevertheless employment of younger and migrant aspiring new entrants. Finally, it is noteworthy that there is an independent department within the Ministry of finance responsible for performing 25-year economic calculations of the economy and to identify and commission studies of critical long-term policy issues. The most recent reports published in 2008 and 2011 focus on promoting the supply of labor in younger and older ages, structural factors affecting labor mobility and unnecessary take-up of social insurance. The problem begins for many in not having an adequate or appropriate education to be attractive for employers. This remains major structural challenge.

VI. Financial Stability Features of Individual Benefits

This section provides a brief description of Sweden’s major benefits and discusses their stability features.

Pensions

*Overview of the overall Swedish pension landscape*

The new Swedish public pension system that emerged in steps in the 1990s is comprised of a non-financial notional defined contribution (NDC)\textsuperscript{11} and financial defined contribution (FDC) scheme.\textsuperscript{12} In addition, there is an income guarantee for those with insufficient earnings-related contributions to receive a pension above the guarantee level. The guarantee is also supplemented with a “housing” allowance that is means-tested against all income sources and wealth. This approach ensures that “only” 6 % of old-age pensioners are in

\textsuperscript{10} The purpose of calculating from 50 is to exclude persons who have left the labor force prior to the age of 50 due to disability. These calculations are performed by the Swedish Pensions Agency.


\textsuperscript{12} Accounts for NDC, which were created from 1960, were completed in December 1998 and the first account statements were sent out in January 1999. FDC fund choices were possible first from 2000.
relative poverty, slightly below the poverty line – measured as 50 percent of the median income for all households in Sweden.\textsuperscript{13}

Both NDC and FDC are individual account schemes. However, NDC is a PAYG scheme with notional accounts and a rate of return based on the growth of contribution-based wages, whereas in the FDC scheme individual account balances are invested in and earn a return in the financial market. The essential differences between both NDC and FDC compared with the typical PAYG scheme is (i) that in NDC the individual’s benefit at retirement is proportionate to his or her own contributions, enhanced by the internal rate of return that ceteris paribus keeps past earnings on a par with an average of current earnings, with the same rate for all; and (ii) that the NDC annuity, which is calculated on the basis of the individual’s account balance at retirement and cohort life expectancy, involves risk-sharing within a cohort and not across generations, i.e., it is inter-generationally neutral. The NDC scheme offers only a single life annuity. In addition to a single life annuity, the public FDC scheme offers a survivor and joint annuity option. The NDC\textsuperscript{14} and FDC schemes are financially autonomous from the public budget and are financially sustainable with the current contribution rates for each. The low-income guarantee is financed with general tax revenues.

Contributions for the mandated public pillar are in total 18.5 percent of earnings up to a ceiling for earnings - in 2013 about 70 000 USD (43 500 £).\textsuperscript{15} The NDC and FDC contribution rates are 16 and 2.5 percent, respectively. Contributions, amounting to roughly one percent of GDP per annum, have been paid into the public FDC scheme since 1995. The total value of all FDC accounts was about 15 % of GDP at the end of 2012.\textsuperscript{16}

Sweden also has an extensive network of occupational pension schemes, which have all converted from financial DB to FDC after the conversion of the public scheme to NDC and FDC with the 1994 legislation. The first occupational scheme to convert from defined benefit (DB) to DC was the scheme for blue-collar workers (about 40 % of all workers) in 1995. In

\textsuperscript{13} Poverty among individuals 65+ is reported to be 6.2 % in Pensions at a Glance 2011. OECD.

\textsuperscript{14} Financial autonomy in the NDC scheme is maintained by calculating a solvency ratio, where liabilities at any given date are based on individual accounts during both the accumulation and decumulation phases and where assets are the fund and an estimate of contributions, called contribution assets. There is an automatic adjustment of the internal rate of return when liabilities exceed assets, based on a solvency ratio. This is explained in detail in the Orange Report - Annual Report of the Swedish Pension System 2012, Swedish Pensions Agency, 2013.

\textsuperscript{15} The ceiling is 8.07 times what is called an income base amount. The value of this amount is the preceding year’s value indexed with nominal wage growth to get the current year’s amount. The ceiling is 451 920 SEK in 2014.

\textsuperscript{16} It is important to note that the public NDC and FDC schemes are supplemented with redistributive components: nominal contributions are added for periods insured by other public insurances - unemployment, sickness, disability and compensated parental leave. Also, non-contributory credits are given for military service, higher education and to parents (one at a time) for up to four years after the birth of a child. All supplementary rights are financed with general tax revenues (and in the case of e.g. sickness an employee component). Together with the guarantee, these constitute the distributional components of the new Swedish public pension system.
the occupational schemes the insured worker typically chooses one of a number listed insurance providers (≈ 10), which in turn offer a relative long list of funds. About 90 percent of all employees belong to one of these schemes. The average contribution rate is 4 percent for earnings below the level of the public ceiling, which provides a supplement to the public benefit. Above the ceiling the occupational scheme provides the entire benefit up to a new earnings ceiling that is tapered off. The following figure summarizes the overall Swedish pension landscape.

Figure 4 shows public pension expenditures now as well as projected future expenditures, for Sweden and a selection of other EU countries expressed as a percent of GDP. Swedish public pension expenditures in this figure include the NDC pension scheme, the accompanying public guarantee and the transfers from the public budget to individual public NDC and FDC accounts just described. Together these expenditures will be only slightly higher expressed as a percent of GDP in 2060 compared with 2010. This is primarily a result of the NDC scheme’s built-in stability features, which we will describe below.

Financial stability of the Swedish pension system

Public expenditures on pensions constitute a little over 40 percent of the total public expenditures of the Swedish welfare state. Several of the EU countries in Figure 4 appear to have substantial expenditure problems looking into the future. Sweden is not one of these.

This has to do with the design of the NDC scheme which accounts for about 90 percent of total public expenditures on pensions. And, of course, the occupational schemes are privately inanced.

There are several features of the Swedish overall pension landscape that contribute to overall financial stability. These are
• Both public and private occupational schemes are defined contribution DC schemes with individual accounts based on contributions and annuities calculated on the basis of account balances at retirement and projected (birth) cohort longevity. The contribution rates are fixed at specific levels. The exception is the low-income guarantee that is means-tested against the public NDC and FDC schemes.

• The public and private occupational FDC schemes are always in balance by definition. Account values are determined solely by contributions and the financial return on individual investment portfolios.

• In principle, the NDC scheme is generally in near balance through indexation to the covered per capita wage. Indexation could also include covered labor force growth (positive or negative), but doesn’t in the Swedish scheme. To cover the contingency of negative growth in contributors and other technical considerations Sweden computes a solvency ratio for the NDC scheme.

The NDC solvency ratio is based on actual liabilities at the end of an accounting period (the end of the year in Sweden) and an estimate of the future flow of contribution assets, plus the financial value of the NDC fund. If the solvency ratio falls below unity liabilities to both workers and pensioners are indexed downwards to bring the ratio back up to unity (and after a negative adjustment there can be a positive adjustment back up to the indexation that otherwise would have occurred in the absence of the downward adjustment). This mechanism is referred to as the balancing mechanism. There is no distribution of a surplus above unity. Instead, this money remains in the system’s fund.\(^{17}\)

Of course it means a lot for overall public social expenditure sustainability that the pension system is financially stable through its DC construction. In addition it is equitable in

![Figure 4. Old Age Public Pension Expenditures. Selected EU Countries. Percent of GDP.](image-url)
the sense that there is a one-to-one connection between individual contributions and their benefits. Everyone gets the same value for his or her contributions. Adequacy for those with low income, due mainly to short working careers is achieved through the low-income guarantee.

Other Individual Public Benefits

**Sickness income-loss insurance and disability benefits**

Sickness and disability expenditures, including special benefits for persons with severe functional disabilities, are around 3.5 percent of GDP. We describe these briefly here.

Social insurance provides 80% income replacement for loss of income due to the insured’s own sickness or injury or if the insured must be at home with a sick child. An earnings-related disability benefit can be granted between the ages of 18 and 64. There is also a tax-financed guarantee for persons with permanent disability who have no or only a small earnings-related benefit, which becomes a top-up for disability benefits with only a small earnings-related benefit based on previous work. The means-tested housing allowance available for old-age pensioners is also available for disability recipients.

In some cases illnesses and injuries are incurred at the workplace and may entitle the worker to full earnings replacement with a work injury benefit, rather than the normal sickness or disability benefit with less than full income replacement. In principle, to obtain a work injury supplement to the disability benefit, the injury must reduce the worker’s capacity permanently and be proved to be incurred at the workplace.

Sweden has pursued the following strategies to curb increases in expenditures for this component of social insurance:

- After experimenting with generous models of determination of work injury short and long-term benefits social insurance now
  - requires strong proof that the sickness or injury was incurred at the workplace
  - only cases qualifying for long-term work-injury annuities are granted – short-term compensation has become almost exclusively a private occupational insurance.  

  • The process determining the requirements placed on persons who qualify for

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18 Note that occupational insurances generally provide an additional 10 percent earnings replacement above social insurance’s 80 percent replacement rate – which already brings total replacement to 90 percent for temporary sickness compensation.
compensation for earnings replacement due to temporary sickness or injury now requires a determination at 90-180 days of the individual’s prospects of returning to his current place of employment; a determination at 180-365 days of the individual’s prospects of getting any kind of employment in the labor force; after 365 days the individual can continue to receive sickness compensation if there’s no reasonable job he or she can perform, given continuation of the present health condition. There is also a determination made as to whether the individual’s condition can nevertheless improve, which entitles him/her to continued compensation. If this is not the case, the individual in principle should qualify for disability.

- Disability is granted only on medical grounds, as we have already discussed in the context of measures to support supply of older workers.

As we have already discussed, tightening up the sickness insurance system has been a major focus of policy during the past decade, and to date, overall, this policy has worked, albeit, there is still more to accomplish in helping persons with especially serious psychological disorders to reintegrate into the workforce once their disorder has occurred.

Psychological disorders reach their peak of prevalence in the age group 25-40, i.e., prime age workers. The majority can reintegrate back into the labor force with suitable support, and this increasingly a focus of the Swedish Social Insurance Agency and the National Employment Services (Arbetsförmedlingen).

Family cash benefits

We have already discussed Swedish family policy in some depth. Expenditures on family cash benefits (excluding day care facilities) are about 2 percent of GDP. Each child entitles the parent(s) to a fixed-amount allowance per child up to age 18. There is a “bonus” for three or more children. Mothers who cannot work during pregnancy due to medical complications are entitled to a maternity allowance and the parents of a newly born child are entitled to 80% income replacement or if they have no work record prior to childbirth a minimum small fixed amount per day for a period of one year following the childbirth. Parents of children under the age of 18, whose joint income falls below a specified amount, have the right to a means-tested housing allowance. Even single persons 18-29 (who would often be students) can claim this benefit.

There are no restrictions on family benefits other than that they require one or more children to be in the right age group, which is determined by the benefit. Research in the area shows that individuals’ personal economic situation influences the propensity to give birth to a child. The period birth rate is lower for persons without work and falls during economic downturns as unemployment rises and rises during better economic times. Although total fertility is stable, the timing of births is, thus, affected in the short-run, but with a tendency to fall during periods when public finances are more pressed and increase in better times.
Benefits for the functionally disabled

Parents of handicapped children who require extraordinary care can receive an allowance until the child reaches the age of 18. A handicapped adult whose handicap gives rise to expenditures connected solely to the handicap may be entitled to a handicap allowance. Individuals with extreme handicaps, who are under age 65 when the handicap arises, can qualify for income compensation to pay for contracted hours of assistance in normal activities.

Because these benefits are very generous the criteria for them are very strict in order to target user categories and persons whose capacity to function in society is severely restricted due to their particular incapacity. Benefits in this category are not granted past the age of 64.

Unemployment benefits

Expenditures on unemployment insurance, including the cost of the employment services, amount to about 1.5-2.0 percent of GDP. The employment services are administered by a state agency, the National Employment Service (Arbetsförmedlingen), to be discussed below.

Unemployment insurance is administered by 32 independent, private occupation-related unemployment insurance funds, with rights to benefits being conditional upon payment of (employee) contributions to one of these funds. Unemployment insurance is, thus, voluntary. At present, around 80 percent of all employees are insured. Benefits have historically been highly subsidized from general state revenues in times with high unemployment. In addition, the state now provides a minimum benefit. Because of this unemployment benefits are regarded by many as quasi-state benefits. In order to receive an unemployment benefit, the worker must be registered with the National Employment Service, i.e., state employment service, and actively seek employment.

The unemployment benefit has a very low cap, which for most recipients makes work at even the lowest normally occurring wage a better alternative than unemployment. The low cap is thought to increase the incentive to choose work over a benefit.

Social assistance benefits

Social assistance benefits, which are means-tested, are administered at the municipal level in line with the philosophy that screening is performed best at this level. Their annual cost is about 0.3 percent of GDP.

To obtain a social assistance benefit, an individual has to be without any other means (low or no income and no wealth, i.e. no owned home, automobile, bank or other savings whatsoever). The minimum social assistance amount is determined at the national level by the National Board of Health and Welfare, which is also responsible for the supervision of this welfare component, which is Sweden’s safety net of last resort.
VII. Public Provision of Welfare Services

Daycare services

These services have already been discussed. By way of summary, day care is provided by the municipalities and according to legislation all children in the specified age groups have the right to day care, including children with functional disabilities. Day care extends from the first through the sixth grade in the form of pre- and after school recreational facilities that children can choose to go to if they wish.

All children have the right to a place in day-care center or recreational facility as close as possible to their home. A co-payment is required per child. There are also private alternatives available, covered by a “voucher”.

Employment services

Employment services are provided by the Labor Market Board through a nation-wide network of local offices. These services include job availability information, job placement services and arranging courses to improve the skills of certain groups of unemployed.

Since 2006 the government has moved the focus of employment services towards cooperation with the provider of sickness insurance for income loss due work incapacity. Another focus group is immigrants seeking work. The focus has been on providing more services for persons who do not have full capacity but nevertheless have the capacity to work given their sickness or injury. This effort has gone hand in hand with legislation tightening the gatekeeping of sickness insurance provision. The changes were in response to a general political consensus that the number of days of compensation from temporary sickness insurance and disability take up 1998-2005, were unwarranted.

Health care services

Health care constitutes the second largest individual public welfare expenditure commitment, after pensions. Health care expenditures have held steady at around 7.5 percent of GDP for some time and are expected to increase only moderately to 8 percent of GDP in the long run. This projection may be optimistic, however, since it factors in continued productivity gains that may be difficult to realize in reality with the increase in the number of aged, despite the fact that a large part of the increase in longevity is expected to be healthy years.

The county councils are responsible for the provision of health and medical care in their geographical regions. Health care is financed primarily through tax revenues, although there is a small user fee with cap based on accumulated fee payments during a period of twelve-months. The small fee is intended to be a deterrent against unnecessary visits. At least six percent of revenues also come from sales of services, among these services covered by private insurance and individual payments. Table 1 provides a breakdown of how Swedish
health care expenditures are financed.

The country councils are political entities responsible for the administration of health and dental care services, in addition to regional planning, local traffic and culture. There are 20 of these geographical entities and they finance their activities through a personal income tax which presently varies between a little over 10 percent for the least expensive to 12 percent for the most expensive county council. The tax is a proportional tax on individual income.

What is noteworthy is that a considerable component of overall financing is covered by the state budget and that through this mechanism the government and parliament can earmark funds for specific priorities. Relatively recently the government intervened by allocating money for increased provision of cognitive therapy and polyclinic rehabilitation of musculoskeletal problems, with the intention of promoting more efficient return to work from sickness absence due to psychological and musculoskeletal diagnoses – in accordance with best practice procedures, determined by literature reviews of the State Institute for

Table 1. Breakdown of financial sources for health care services. Based on revenues for 2006

<table>
<thead>
<tr>
<th>Source: National Board of Health and Welfare</th>
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<tr>
<td>1. Country council tax revenues</td>
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<td>2. Transfers from the Swedish state (general revenues)</td>
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<td>3. Patient fees</td>
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<td>4. Sales of services and other revenues</td>
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Assessing Health Care Interventions. As we have already mentioned, the government and the parliament have the power to intervene regarding tax rates, which seldom happens in practice.

Doctors, clinics and hospital units are generally financed based on a per patient and diagnosis categorization. The level of health care technology is generally the state of the art, and although some forms of technology are expensive investments they very often lead to better quality results for patients and lower bed-patient costs per capita. Not all hospitals provide the full range of services. Large regional hospitals provide full-scale services for a large geographic area. And, even in the larger cities hospitals may specialize. Some less frequently employed and very expensive procedures are only offered at a small number of designated hospitals.

Generally speaking, Sweden has followed international best practice in containing health care costs. The following administrative organizational and other practices have helped curb health care costs:

- The introduction of individual choice of (listing with) personal general practitioners (GPs) in the 1990s - to increase the doctor’s familiarity with patients. Nevertheless, the individual can seek the help of any GP other than the one he or she is listed with.
- Small patient fees are charged and nurse-administered screening procedures for normally benign medical conditions (colds, influenzas, etc.) are used to discourage unnecessary visits.
- Reduction of inpatient days at hospitals to a necessary minimum. Outpatients are generally the responsibility of the individual’s personal GP and that GP’s clinic. Outpatients who need temporary help with their homes and shopping get home help from the local community and subsidized taxi transportation.
- Small patient fees are charged per hospital day.
- Medical appointments with specialists in clinics or at hospitals must go through GPs, who thus are responsible for the first level of screening.
- Qualified nurses provide services that do not require a doctor, and these can be home visits.
- Twenty-four hour telephone advice, including whether it may be advisable to go to the emergency services.
- Emergency service queuing based a degree of emergency – among other things this procedure discourages persons who simply want to use the emergency service for a spontaneous visit to the doctor.
- Opening provision of services to private for-profit service providers (through bidding or other approval procedures) to create competition, and hopefully efficiency and quality in provision of services.
- Publically provided patient insurance (as opposed to private, legal professional driven insurance processes).

Sweden is a European leader in developing and allowing private delivery of publically
mandated and financed care services (e.g., health care, care of the elderly and of persons with serious functional disabilities). The individual’s right to go to any GP represents a sort of voucher service guaranteed by the state.

Competing care companies obtain contracts through a bidding process and a significant and increasing number of larger hospitals and clinics are privately run.

**Family and handicap services and services for the elderly**

The municipal level of government provides and finances social assistance benefits for the poor, welfare services for families (e.g. day care centers for children, family counseling), welfare services for the aged (e.g. home care services for the disabled elderly) and welfare services for the handicapped (e.g. leisure activities for persons under 18 years, provision of group homes and help in daily living for handicapped persons 18 and older, employment and leisure activities for handicapped adults).

Home help services for younger persons with incapacities and the elderly are accessible to all who need them and are largely tax-financed, but with a small user fee. Services for the elderly and handicapped in need of 24-hour help are provided in public institutions – homes specifically for those with severe functional disabilities and the elderly who cannot care for themselves are financed on an ability to pay basis. Since these services provide a private living quarter and meals, the primary source of funds for paying for these services is usually the individual’s cash benefits (pension, housing allowance, etc.).

Persons who become handicapped through illness or injury in older life also receive disability benefits, a housing allowance if their income is low and even handicap benefits if they qualify, but they are more likely to live in normal home circumstances, except in cases where intensive care is required. The overriding principle is that home care is preferable than institutional care where feasible.

The local community is also required to provide handicap adaption of homes and transport services for the handicapped of all ages. Transport services carry a small user fee. To obtain this service the recipient must be unable to use normal public transport.

**Monitoring of welfare service provision**

Both private and public service provision is monitored by the country councils (health) and the local municipalities (care of the elderly and functionally disabled). These procedures are in turn monitored at a higher level by the National Board of Health and Welfare, which represents the country as a whole. There has been and still is considerable public discussion about emphasizing quality of services, regardless of whether the facility is managed privately or publically. Part of the discussion is formal through government commissions and part initiated by the research community.
VIII. Summary

This paper has outlined how Sweden has maintained financial stability – defined as a relatively constant ratio of public social expenditures to GDP – of its extensive social welfare commitment over the past two decades. The analysis indicates that it is likely to do so even in the coming decades, with the present benefit rules.

One of the key features of the Swedish welfare state, which it has in common with other Scandinavian countries, is extensive family policy consisting of both family benefits, insurance that covers parents when they are at home to care for sick children and day care and after-school facilities. It is generally thought that this component of policy has been significant in holding the total fertility rate close to two children per woman and is why the labor force participation of women born after 1945 is practically the same as that of men. In addition to this, labor market policy has been focused on raising the labor supply of workers over 64, helping younger potential new entrants and increasing the mobility of persons who otherwise might move into disability benefits. The final component of the overall model is a generous attitude towards migration into Sweden, complemented with a focus on education as a driver of future productivity.

A deep recession in 1990-1995 led to the establishment of budget rules, including a rule requiring at least net yearly government financial saving of one percent of GDP, employed since 1997. The rule includes in principle all levels of government and is embedded in a routine that involves a forecast and planning process during the year prior to a budget year.

Stability of the Sweden’s new pension landscape, encompassing both the public scheme and occupational supplements, is assured by the combination of a transition beginning in the 1990s from defined benefit to defined contribution schemes - with NDC in the public scheme and both financial DC components in the public and occupational schemes. Even the new public NDC pay-as-you-go pension scheme is equipped with a combination of demographically adjusted annuity provision, indexation and a solvency ratio that maintains near perfect financial stability in the long run. The NDC pension scheme is autonomous from the state budget, but in a more general sense still accounts for about 40 percent of total public expenditures on welfare. So, its per-definition financial balance constitutes a significant contribution to long-term financial stability of overall social expenditures.

Finally, the rules of the public insurance schemes for sickness insurance, including disability, and unemployment are also designed to minimize the risk of moral hazard, i.e., unjustified (over) use of insurance. The paper also enumerates procedures that are designed to curb unnecessary expenditures in health care, including a number of screening procedures that are designed to direct people into the most efficient inputs, for various needs. The supply of health care services is nevertheless expected to require a larger percent of GDP in 2060 (the European Commission’s Ageing Report estimate is an increase by 1.0 percent of GDP) compared with today, driven to a significant extent by an ageing population. Swedish (and European) health care is nevertheless relatively inexpensive today expressed as a percent of GDP if one uses US health care expenditures, which are about twice the Swedish (European)
level, as a benchmark.