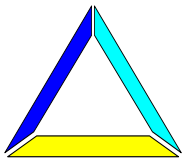
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The Crisis of the German Social Health Insurance System – Lessons for Ukraine

Executive Summary

Ukraine intends to provide more and stable financing to the health system by introducing a wage base social health insurance. The Ministry of Health and the Ministry of Labor and Social Affairs both submitted to the Cabinet of Ministers of Ukraine draft laws aiming at the introduction of a social health insurance. By doing so Ukrainian policy makers state their intention to follow the German role model. However, stable and sustainable financing of health care requires a broad and stable contribution base. Typically, the Western European model of wage-attached social health insurance faces a continuous erosion of the contribution base due to demographic developments and structural changes in the economy. The eroding tax base cause disproportional high individual contribution rates. Contribution rates are propelled even higher due to strong health care expenditure growth, caused by aging and inefficient health care provision. Since Ukraine faces similar socio-economic conditions, in particular demographic development, aging of the society, inefficient health care provision and structural changes in the economy a wage based social health insurance cannot be financed in a sustainable way. Hence we recommend that Ukraine improves and further develops its tax financed health system in order to provide basic health services to the entire population.

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1. Introduction

For many years successive Ukrainian governments pursued the plan of introducing a mandatory social health insurance (SHI). The Ministry of Health and the Ministry of Labor and Social Affairs both submitted to the Cabinet of Ministers of Ukraine draft laws aiming at the introduction of a social health insurance. Ukrainian policy makers openly state that they follow the German role model for social insurance. In doing so, they intend to provide more and stable financing to the presently underfinanced and inefficient health care system. The plans foresee a traditional German-style "Bismarckian" social health insurance to finance health care, with wage based contributions paid by employers and employees. The long-term financial sustainability of such a Bismarck-type SHI-system in Ukraine is taken for granted.

But Ukraine's policy makers may have chosen a model of the past. During the last decades it became a "mission impossible" in many western European countries, including in Germany, to maintain the financial sustainability of the traditional Bismarck-style SHI.

In this paper we will provide a closer analysis of the current state of the German social health insurance and its reforms. We will focus on the persistent challenges to the financial sustainability of the traditional SHI and the continuous financial crisis of the system.

Afterwards we will apply the German lessons to Ukraine and show that the main causes for the crisis of the German SHI are present in Ukraine as well. The given Ukrainian context would very soon undermine the financial basis of the traditional SHI. We recommend that Ukrainian policy makers should take the recent advances and reform concepts in health financing into account and seriously reconsider the current plans of introducing a traditional social health insurance.

2. The traditional German Bismarckian social health insurance

Germany's mandatory social health insurance is part of the country's broader social security architecture. The social insurance system is comprised of five different insurance, including SHI (table 1). In June 2007 the average contribution rate to the social insurance system reached 41.5% of the gross wage bill.[1]

Table 1
Germany: Social Insurance and Contribution rates (June 2007)

Type of social insurance	Contribution rate in % of Gross wage
Pension insurance	19.9
Social health insurance (average)	14.3
Unemployment insurance	4.2
Nursing care insurance	1.7
Work accident insurance (average)	1.4
Total	41.5

Source: www.deutsche-sozialversicherung.de

[1] The progressive personal income tax ranges from 15% and to 45% (2007).

The guiding principle of SHI is solidarity, which consists of two parts: intergenerational and interpersonal redistribution. This implies cross-subsidization from low to high risks, from high-income to low-income earners, and from younger to older members of the insured population.

The German SHI system is based on the assumption that the majority of society has access to health care via employment. Contributions are levied as a percentage of gross wages and are paid by both, employers and employees. All Germans earning below the income threshold[2] are compulsory members of the SHI scheme, which covers almost 90% of the population[3].

Nonworking spouses and children are covered free of charge. Contributions for retirees are shared equally between the retirees and pension funds; contributions for the unemployed are covered entirely by unemployment insurance. But because all German social insurances are organized as "pay-as-you-go" systems, the employed population effectively carries the entire burden of health care financing.

Insurance contributions are collected by sickness funds, which are organized as semi-public-private non-profit organizations. Similar to the state tax authorities the sickness funds receive from employers the information of an employee's wage and collect automatically the insurance premiums from employers.

Medical services are rendered according to medical need. Sickness funds compensate health care providers according to previous negotiated agreements and the actual services provided.

3. Challenges to the German SHI

The setup of the social health insurance was remarkably stable over the last century. However, since the 1970's the system had to cope with two fundamental challenges, the continuous erosion of the contribution base and the ever increasing costs of health care.

3.1 Erosion of the contribution base

3.1.1 Demographic change

Like many European countries Germany faces over the next decades dramatic demographic changes due to a declining and aging population. The birth rate remains too low to sustain a stable population size, while the rising life expectancy leads to an aging society (see table 2).
As a result of demographic change a shrinking working-age population (15 - 64) has to support a growing number of retirees. For example, while in 2000 each retiree was financed by on average more than four working age persons this ratio will decline to less than two by 2040.[4] In other words, because of the demographic development, the contribution base to the SHI is constantly shrinking

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2 The current threshold for compulsory membership is set at the level of €3,525 per month.

3 R. Busse and A.Riesberg (2004): *Health Care System in Transition: Germany 2004.* Copenhagen: WHO Regional Office for Europe on behalf of the European Observatory on Health Systems and Policies. 2004

4 In order to keep the support ratio constant until 2050, an average of 3.4 million working-age immigrants would be needed each year. To keep the total population constant (with a decline in the support ratio from 4.1 to 2.3 in 2050), an average of 324,000 immigrants per year would be required. Nevertheless, there is no consensus policy on immigration.

Table 2
Germany: population by age groups (2000-2040, medium fertility variant)

	2000	2010	2020	2030	2040
Total population in m	82.30	82.36	81.16	79.35	76.85
0-14 in %	15.60	13.50	12.80	13.20	13.20
15-64 in %	68.00	66.00	64.80	59.50	56.50
65+ in %	16.40	20.50	22.40	27.30	30.30
Ratio of 65+ to 15-64	0.24	0.31	0.35	0.46	0.54

Source: UN population data http://esa.un.org/unpp/

3.1.2 Structural changes of the German economy

Since the 1970's the German economy is shifting from a manufacturing to a service orientation. This shift, together with rigid labor market regulations and the comprehensive social security design facilitated the growth of structural (long-term) unemployment. While the official unemployment rate in 1980 was just 3.8% it increased to 11.7% in 2005, with high regional disparities.

Furthermore, the increasingly competitive European and global markets forced the creation of jobs outside the typical but expensive statutory social insurance system. Especially low skill/ low wage jobs were affected by this development, as the high social insurance burden reduced the competitiveness of these jobs. In turn the number of small entrepreneurs increased manifold. Through these developments a large and growing number of individuals was disconnected from the regular employment-attached social insurance. In turn the contribution base of social insurance shrank, causing further increases of the contribution rate in order to compensate the losses, what again in a vicious circle triggered labor shedding. The social security system increasingly became a not sustainable burden on German labor.

As a result of the high taxes on and social contributions from wages the shadow economy increased, which was estimated at the level of 17% of German GDP (2003).

In an attempt to counter the competition pressure on low wage jobs the government ordered that for low wage jobs the contribution rates to the SHI were reduced.

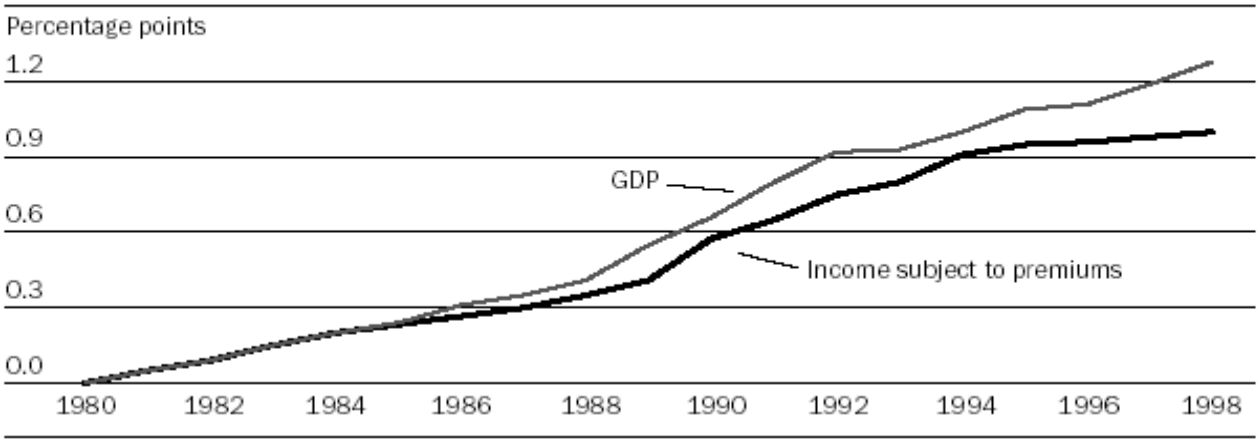
During the past 30 years, most western economies, including Germany, grew faster than wages (figure 1). As a result the relative percentage of income subject to social contributions to GDP declined. While in the early 1970's the share of socially taxed wages reached 52.5% of GDP it declined to around 47% by 2001.[5] The development caused a relative erosion of the contribution base.

German reunification in 1990 aggravated the erosion of the contribution base. Structural economic changes, high unemployment and low and stagnating wages lead to shrinking contribution base and low revenues. At the same time, the demand for health care in East Germany quickly adapted to the West German levels.

[5] Sachverständigenrat zur Begutachtung der gesamtwirtschaftlichen Entwicklung (2002): Zwanzig Punkte für Beschäftigung und Wachstum. Jahresgutachten 2002/2003: S. 165 ff.

Figure 1

Growth In Germany's Gross Domestic Product (GDP) And Income Subject To Premiums For Social Health Insurance, 1980–1998



Source: Stephanie Stock, Marcus Redaelli, and Karl Wilhelm Lauterbach (2006): The Influence Of The Labor Market On German Health Care Reforms, Health Affairs, Vol 25, Issue 4, 1143-1152

3.2 Strong expenditure growth of the SHI

Health care costs are on the raise in all OECD countries. The average total health care expenditures of OECD countries more than doubled between 1960 and 2005, from 3.8% of GDP to 8.8% of GDP respectively. The trend is expected to continue in the future.

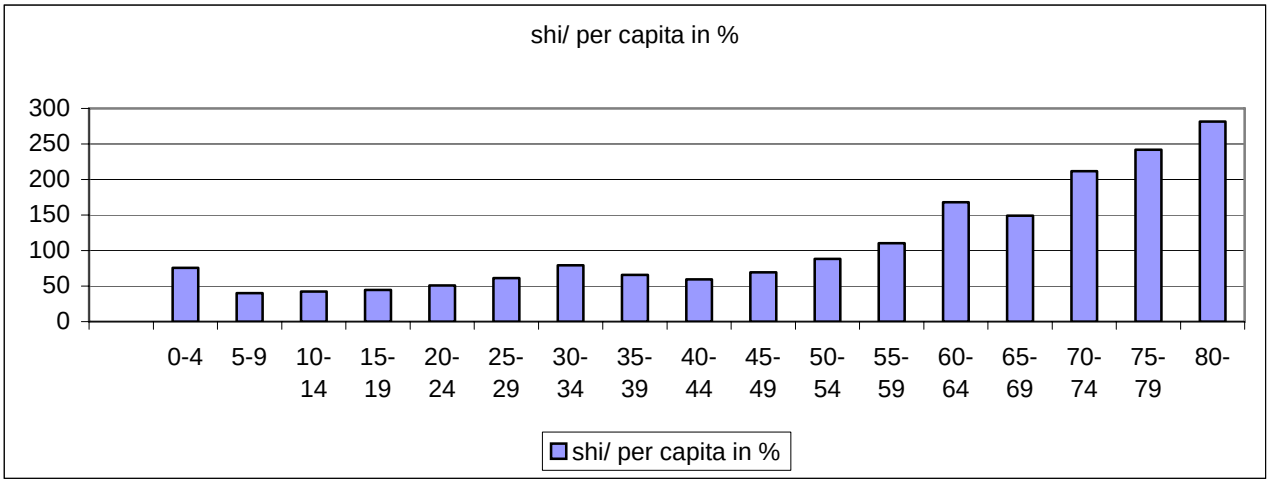
A main reason is that with rising incomes, demand for health care saturates less than demand for other consumption goods.[6] Other important cost drivers in the German health sector are the aging of the society and lack of competition in the health sector.

3.2.1 Impact of aging on health expenditures

The so-called double aging process of low birth rates and rising life expectancy causes drastic changes in the age structure of a society. The younger generations will be weaker in number while the old age groups will gain. Furthermore, the individual demand for health care increases significantly beyond the age of 55 years. Old age groups consume several times more health services than younger (see figure 2). Figure 2 shows the intergenerational balance of health care consumption. The 100% level would be an age group, which consumes exactly that amount of health care expenditures which would be its share in population. The per capita SHI expenditures for the age group 65-69 are three times the per capita level of the age group 20-24.

[6] Robert E. Hall and Charles I. Jones (2004): The value of life and the rise in health spending. NBER Working Paper No. 10737

Figure 2
Germany: Social health insurance expenditures per capita (2005)



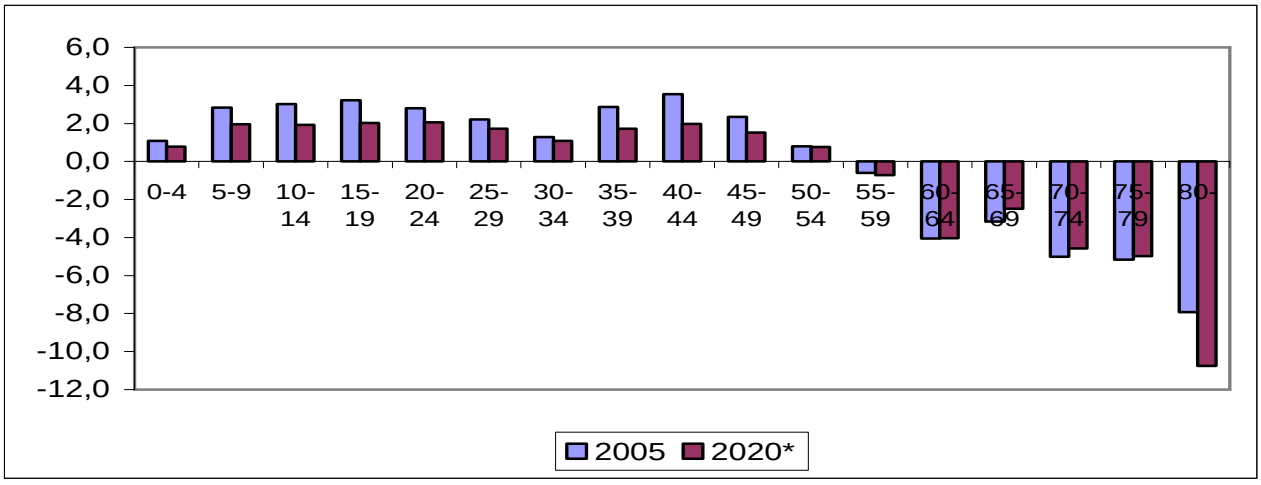
Source: own calculation

While the aging of society will not change the per capita spending patterns, it will change the balance between age groups. Figure 3 illustrates the development. Because of lacking data as regards financial contributions to the SHI by age groups we use SHI expenditure for the year 2005 by age groups and subtract these from the total share of the given age group in total population in 2005. For the year 2020 we use the demographic projections and assume a similar expenditure pattern by each age group.

Figure 3 shows, that beyond the age of 55 the generational balance turns negative, i.e. the age group consumes more in SHI expenditure than its share in population. In 2020 the balance between the age groups changes significantly to the disadvantage of the young generation. While figures for the groups younger than 55 decline significantly, the figures for the older age groups remain almost unchanged.

The two factors taken together mean that a smaller group of working age individuals needs to cover the even higher costs of health care. On the individual level this means increased contribution rates to the SHI.

Figure 3
Germany ratios of population share over share in SHI expenditure



Source: own calculations

In order to provide a rough estimation of the aging effect we calculated the social health insurance expenditures per capita. In 2005 the total SHI expenditures were 140 bn Euro or 1699 Euro per capita. When considering different age groups then the SHI per capita for children up to the age of 14 years was 882 Euro per capita, for the working age population between 15 and 64 years of age 1331 Euro, and for individuals age 65 and older[7] the per capita SHI spending amounted to 3608 Euro. We then considered the same per capita spending in 2020. Despite a slight decline in population by 2,4 m persons, the total SHI expenditures slightly increase to 144,4 bn Euro (in 2005 Euros) and the SHI per capital to 1805 Euro, what translates into an increase of 6,2%. However, if assuming that only the working age population contributes to the SHI, then only the impact of aging would increase the financing burden for this group by 9,7% (table 3).

Table 3
Germany: Impact of aging on SHI expenditures

	total	0-14	15-64	65+
2005				
population in m	82.4	11.9	54.9	15.6
share in population (in %)	100	14.4	66.6	18.9
SHI expenditure in bn EUR	140	10.5	73.1	56.3
SHI exp. per capita in EUR	1699	882	1331	3608
2020				
population in m	80	9.8	51.6	18.6
share in population (in %)	100	12.25	64.5	23.25
SHI expenditure in bn EUR	144.4	8.6	68.7	67.1
SHI exp. per capita in EUR	1805	882	1331	3608

Source: UN population data, VGR, BFS, own calcullations

For Germany it is estimated that only the aging effect alone will lead to a cost increase of 28-30% until 2050[8].

3.2.2 Inefficient health care provision in German SHI system

Individuals paying high contribution rate adopt a demanding attitude. But German SHI-insurants are almost never aware of the total costs of their health treatments, because providers are directly compensated by sickness funds. Health care providers receive payments for actual services performed. Hence health care providers compete among themselves for clients (patients) through prescribing expensive medicine and treatments, in order to keep clients pleased (demanding attitude) and willing to visit the doctor more often. In many cases very expensive but not medically indicated treatments are ordered. Further, German health care providers increasingly compete with the non-medical wellness industry.

Cost control is supposed to be enforced by the non-profit sickness funds by checking *post factum* the services performed. In case of differing opinions between the health care provider and the sickness fund, the latter needs to challenge the health care provider in court.

[7] The official retirement age in Germany will be stepwise raised from 65 years to 67 years for both, men and women. However, the effective retirement age is some years lower than the official one.

[8] DIW Berlin (2001): Wirtschaftliche Aspekte der Märkte für Gesundheitsleistungen. S. 98 ff.

But because of lacking competition between the sickness funds for these find it more convenient to pass on the higher costs to all insurants through slightly increased mandatory contribution rates. And as the higher costs of an individual treatment are passed on all insurants, the increase will initially not be significant for each individual. However, the more health care providers and sickness funds employ such practices, the higher the increases of contribution rates. While in 1970 the average contribution rate stood at 8.2%, it peaked in 2002 at a level of 14,32 %. In economically depressed regions the contribution rates surpassed the 15% level and are constantly higher than in economic advanced regions.

The incentive structure and lack of competition in German health care is not well suited for controlling costs and expenditures. Of course, medical- technological innovation must be mentioned as cost driver as well.

3.3 German policy reform outlook

For more than 20 years German policy makers try to prevent further increases of the SHI contribution rates by piecemeal reforms. All attempts to increase efficiency within the health system, introduce of more competition between sickness funds and health care providers, implement administrative measures to contain costs and shift the financial burden onto patients failed or achieved only very short lived success. The SHI contribution rates continued to increase (see Table 4). Despite the very high expenditure levels the German health system rather achieved below average results if comparing health indicators and spending levels with other OECD countries (see Box 1 in appendix).

All the reforms failed because they did not address the main reason for the ever increasing SHI contribution rates, the erosion of the labor market attached contribution base in combination of ever increasing health care costs. In this respect is Germany a late reformer among the European countries. For a brief overview see Box 2 in the appendix.

Table 4

Germany: Average contribution rate to sickness funds (West Germany)

Year	1970	1975	1980	1985	1990	1995	2000	2002	2005	2007
average contribution rate in %	8.2	10.5	11.4	11.7	12.8	13.4	13.5	14.3	13.3	14.3

Source: the BFS

Today two distinct proposals are on table, how to disconnect health care financing from the labor market and how to broaden the contribution base.

The first proposal is called the "All Citizens Health Insurance" (ACHI, *in German*: Bürgerversicherung). The ACHI shall complement the existing wage based SHI by including the entire population and enlarging the contribution base to tax contributions from all types of personal income. The ACHI proposal emulates to a certain extent the French "Contribution Sociale Généralisée (CSG) and the "Contribution pour le Remboursement de la Dette Sociale"

(CRDS).[9] The ACHI would introduce an earmarked personal income tax for social purposes, which would be used to prolong the lifespan of the current existing social insurance system.

While the proposal would significantly broaden the contribution base and partially disconnect SHI from the labor market, it does not address the challenge to contain the increasing health care costs. Even worse, it would undermine the existing fully funded private health insurance, currently covering more than 10% of population. Another disadvantage of the proposal is that the earmarked tax collection would be done for SHI by the sickness funds, which would be a competing bureaucratic structure to the state tax authorities. The collection and redistribution of income related taxes through the social insurance system, while corporate and consumptive taxes would by collected and redistributed through the tax system would create a rather inefficient system of parallel taxation and paper work.

The alternative reform proposal is the "Flat Rate Premium Scheme" (FRPS). The FRPS would completely decouple SHI financing from the labor market. Every citizen would pay a flat rate of approximately EUR 110 per month, regardless of income level. Health care would be provided without any income related discrimination like any other service. Employers would contribute additional EUR 60 per month for each employee. For children and the poor the FRP would be paid from the budget. Redistribution would be completely shifted to the tax system. The FRPS proposal would allow the private health insurance companies to provide complementary insurance cover. The FRPS follows the reforms implemented in Switzerland and the Netherlands.

Whichever reform proposal will be introduced would mean the end of the classical Bismarckian labour market based SHI in Germany. Most experts today agree that a sustainable future health system would combine the public provision of basic health care in combination with complementary private insurance according to the individuals taste and needs.

4. Is the context of Ukraine favourable for a social health insurance?

We identified the continuous erosion of the contribution base and the strong expenditure growth for the German Case as the main causes undermining the long term financial sustainability of the German SHI. The contribution base erodes mostly due to demographic developments and structural changes in the economy (unemployment, and large groups of individuals outside the regular social insurance). The continuous growth of health care expenditures is caused by the aging of the society and the inefficient provision of health care.
In this section we will use the German experience in order to check, whether the Ukrainian context would be favourable for the introduction of a social health insurance.
Ukraine currently intends to introduce a "Bismarckian-style" social health insurance in order to complete its social security infrastructure. At present four different social insurances exist (see table 5). The average contribution rate to the Ukrainian social security system in 2007 is rather close to the German average of 41.5%.

[9] While the 7.5% CSG replaced permanently the employee SHI contribution, the 0.5% CRDS is a temporary tax to stabilize the SHI by reducing its deficits.

But the Ukrainian system does not comprise a social health insurance, which contributions shall be added on top.

Table 5
Ukraine: Payroll tax and deductions from wages, 2007

	Contribution made by employer (%)	Contribution made by employee (%)	Total contribution (%)
Pension Insurance	33.2	0.5 – 2.0*	33.7-35.2
Social insurance in case of temporary working disability	1.5	0.5-1.0*	2.0-2.5
Social unemployment insurance	1.3	0.5	1.8
Social insurance in case of working accidents	0.66-13.6**	0.0	0.66-13.6**
Total	36.66-49.6	1.5-3.5	38.16-53.1

Source: The Law On the size of contributions to compulsory types of insurance, the State Budget Law for 2007.
* the lower rate is paid by employees with wages below the subsistence minimum set for working able individuals, and higher rate is paid by those with wages above this level.
** the rate depends on the class of occupational risk.

4.1 The contribution base

4.1.1 Demographic change

As regards the demographic development, Ukraine's social system already today needs to cope with an unfavourable dependency ratio, which Germany is projected to achieve only by 2020. Until 2030 the Ukrainian population will decline and age faster then the German one. By 2030 and beyond the ratio of working age population to retirees will be similar (Table 6).

Table 6
Ukraine: population by age groups (2000-2040, medium fertility variant)

	2000	2010	2020	2030	2040
Total population in m	48.85	45.17	41.68	38.05	34.47
0-14 in %	17.50	13.60	14.00	12.70	12.10
15-59 in %	61.60	65.50	61.70	60.10	57.10
60+ in %	20.90	20.90	24.30	27.20	30.80
Ratio of 65+ to 15-64	0.34	0.32	0.39	0.45	0.54

Source : UN population data http://esa.un.org/unpp/

4.1.2 Employment outside the social insurance system

Ukraine's economy is undergoing significant structural changes. Already today a large number of jobs in Ukraine remain *on the contribution side* outside the regular social insurance system[10]. More than 4 million employees in agriculture working under the fixed agricultural tax (FAT) and more than 2 million individuals working under simplified taxation are not participating to the full extent in the wage attached financing of the social insurance system.

The potential contribution base of the SHI within Ukraine social insurance system is already rather narrow and will erode further due to the demographic development and further structural changes of the economy. From this perspective, any wage attached social health insurance would be financially not sustainable in the long run.

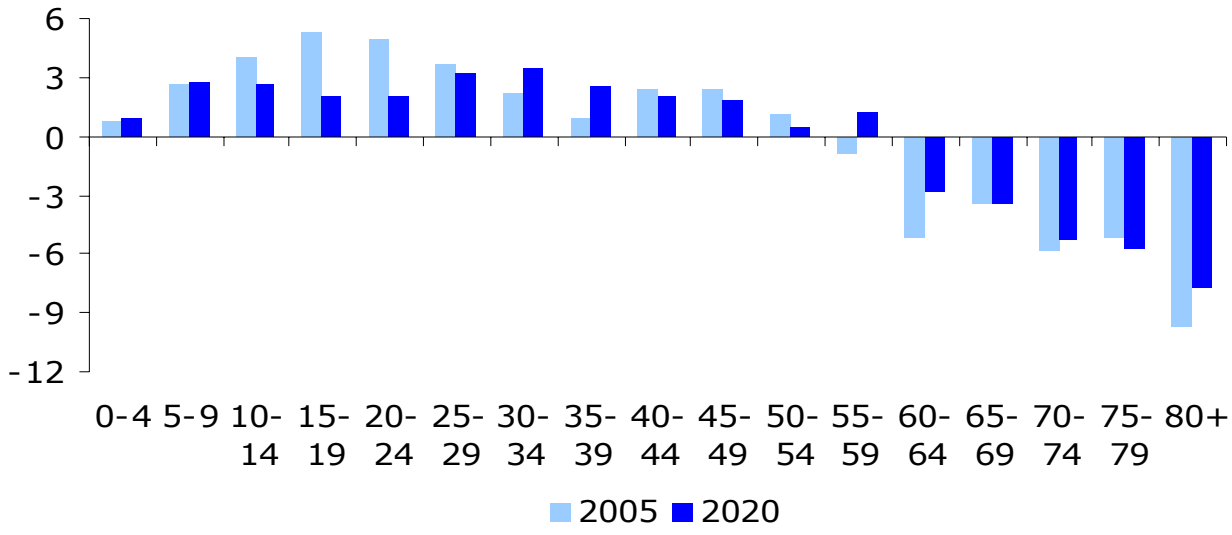
[10] For a more detailed analysis see IER Policy paper V17 "Reforming the revenue side of the compulsory social insurance system: Assessing the potential for lower payroll taxes in Ukraine", December 2006.

4.2 Expected expenditure growth

4.2.1 Impact of Aging on Health care expenditures

The future aging of the Ukrainian society will have a significant impact on health care expenditures (see figure 4). We assume the spending level by age group like in Germany and use the demographic data and projections for 2005 and 2020.

Figure 4
Ukraine: Ratios of population share over share in SHI expenditure



4.2.2 Low efficiency of health care provision

Finally, Ukraine's health care providers do not face neither significant competition in the sector nor a very inefficient incentive structure. Currently hospitals are the main source of health care provision. Health care providers administer broad budgets, where funds are allocated not according to the provided services, but to the existing facilities.[11] In such a system patients are seen as a cost factor and an item of spending, where each additional patient and treatment cuts into the budget. Health care providers face little incentives to become more productive, since increased productivity will have no positive impact on the budget allocated or salary paid to employees.

The significant increases in health care spending during the recent years were mostly directed towards wage increases. According to the information of the Verkhovna Rada in 2006 share of wages reached almost 70-75% of total healthcare spending. But at the same time due to overstaffing and inefficiencies the wage level in the sector remains one of the lowest in Ukrainian economy. In short, the incentives and structure present in Ukrainian health care are not feasible for a Bismarckian Social health Insurance.

[11] See for details IER policy paper U8 "Improving efficiency of public health care provision in Ukraine and getting the private sector involved", July 2005.

5 Policy recommendations

Economic and demographic conditions in Ukraine do not favour the introduction of a social health insurance.

While the payroll taxes on wages are already prohibitively high at 41% of the gross wage, any further addition will have significantly negative effects on employment, reduce the already low compliance and push economic activities further into the shadow economy.

Furthermore, the foreseeable demographic challenge to Ukraine is to maintain its already existing social insurance infrastructure. Overburdening the system would not only lead to shortfalls in revenues for the social health insurance, but would endanger the fragile set-up of the pension system as well. In any case, a labor attached social insurance system in Ukraine would have to cope with a **significantly declining labor, hence a shrinking contribution base**.

A Social Health Insurance in Ukraine would be financially not sustainable.

Instead, Ukraine should further develop its tax financed health system. Ukraine spent in 2006 around **6% of GDP on health care**, a level similar to the neighbouring countries Poland and Slovakia. 68% of total health care expenditures derived from the state budget, hence taxation. This is a significant improvement in comparison to the previous years. Instead of increasing contribution rates and taxes Ukraine should focus on **broadening the contribution base and improving compliance** (see policy paper V17[12]).

As we have argued in a previous paper, the main reason for Ukraine's poor state of its health system is not underfunding, but the **inefficiency of the health care provision** (see policy paper U8[13]). Therefore, Ukrainian policy makers should first improve efficiency of the system. Furthermore, we recommend the promotion of a complementary voluntary and private health insurance.

Authors: Lars Handrich and Sasha Betliy
Lector: Ferdinand Pavel

[12] Reforming the revenue side of the compulsory social insurance system: Assessing the potential for lower payroll taxes in Ukraine Lars Handrich, Oleksandra Betliy December 2006

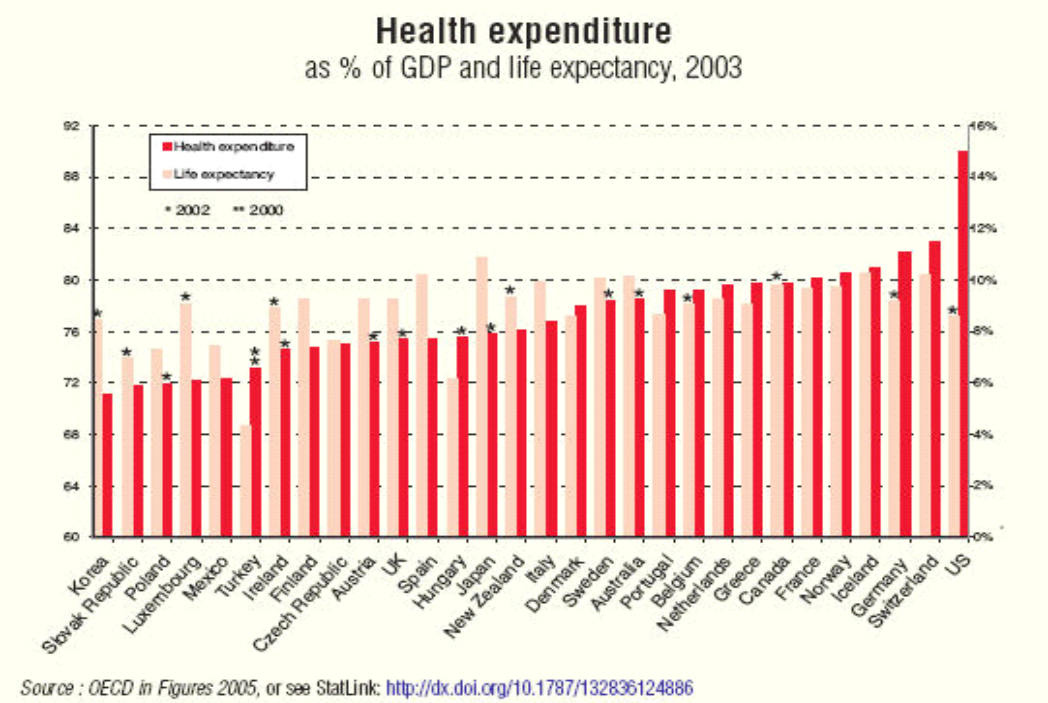
[13] "Improving efficiency of public health care provision in Ukraine and getting the private sector involved", July 2005

Box 1

Expensive but inefficient health care

Today, Germany spends more than 11% of GDP on health care, ranking third in the world in this category. However, there seems to be no relationship between the higher German health care spending and the quality of health care provision, as the German population has at best similar and on most indices poorer outcomes than other western European countries, which often spend much less on health care. For example, life expectancy in Germany is below most other western European countries. While Finland, Austria, the UK and Spain spent less than 8% of GDP on health care, life expectancy in this countries is the same or even higher.

Figure 4



Source : OECD in Figures 2005, or see StatLink: http://dx.doi.org/10.1787/132836124886

In sum, the expensive health care system does not lead to significantly better health of the population. When taking health indicators as a benchmark, then the comparison with other countries and health systems indicates the German SHI model is rather inefficient because of the high costs and inferior as regards the quality of health of the German population.

Box 2

Reform of social health insurance in European countries

Germany is not an isolated case where the traditional Bismarckian SHI increasingly proved to be financially not sustainable. Systemic reforms and changes became necessary in almost all European countries with Bismarckian social security systems. Denmark (1973), Italy (1978), Portugal (1979), Greece (1983), and Spain (1986) abolished the Bismarckian SHI altogether and switched to predominantly tax financed health care, joining the group of countries with tax financed health systems (Norway, Sweden, Finland, Iceland, the UK, Ireland).

Switzerland (1996) and to a some extent the Netherlands[14] (2005) abolished the "solidarity" principle within the health insurance system and introduced Flat Rate Premium Scheme (FRPS). Low-income individuals receive tax financed transfer payments for health coverage. Coverage for children is completely tax financed.

French SHI reforms aimed at mobilizing all possible sources of health financing. In addition to the mandatory social health insurance contribution an earmarked health tax on capital income was introduced. Furthermore, the French government actively promoted the complementary private health insurance, now covering more than 80% of the population.

Austria followed somehow the French model. Today more than 25% of Austrian health expenditures are tax financed and about 30% are private expenditures.

The reformers in all the mentioned European countries drew the conclusion that the traditional wage based financing of health care is a too narrow contribution base for providing universal health care. Instead, they opted for a predominantly tax financed system, which provides the broadest contribution base possible.

[14] The Dutch system combines a flat rate contribution by individuals (80-95 EUR per month) and a 6,5% contribution rate by employers.