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# **Abstract**

Hybridisation of work is a key social issue as very different forms of social protection and labour law treatment result from different forms of employment. Insufficient social protection will invariably lead to a rise in the number of people exposed to social risks. Against this background of the increase of hybrid employment, the paper focuses the financing of social security, especially aspects of willingness and ability to save.

It is shown, that for each social risk and for each form of serial or synchronised hybrid employment, the situation regarding the provision of social risks has to be analysed in detail.

# **Keywords**

social insurance, hybridisation, social risk

# **JEL Classification**

D14, J21, H55

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# 1 Introduction

It is a common understanding that many self-employed people do appreciate their professional life. Self-employment is seen as having the freedom of choice encompassing i. e. how to work, where to work, when to work, how long to work, for whom to work, and with whom to work or to cooperate. Due i. a. to the processes of digitalisation and tertiarisation the opportunities to become self-employed have drastically increased as e. g. the costs for market entrance have decreased and new work opportunities of clickworking and in the so-called gig or platform economy have emerged<sup>1</sup>. This has not only lead to an increase in self-employment without personnel (solo self-employment) but also to an increase in hybrid employment.

Hybrid employment is defined as forms of employment, which are characterised by

- (i) multiple shifts between independent and dependent work (serial hybridisation) during once working life and
- (ii) different forms of multiple employment and combinations of dependent and independent work during the same time period (synchronous hybridisation).

The often used dichotomy in describing the labour market –self-employed people on one side and dependent workers on the other side or standard work versus non-standard work– is less and less suitable to characterise the changing structure of the labour market as a basis to develop adequate political measures of social policy<sup>2</sup>.

The changing structure of the labour market, the changes in employment relationships, the plurality of employment, and hybridisation is a key social issue as very different forms of social protection and labour law treatment result from different forms of employment<sup>3</sup>. Independent of the form of employment the occurrence of a social risk<sup>4</sup> during working life leads i. a. to a break of employment, loss of income, and in some cases such as illness to additional financial burdens.

Social security systems are constructed very heterogeneously. There exist different objectives, e. g. maintaining once living standard or avoiding poverty and social exclusion, and measures. Therefore, one has to look at the specific construction of different systems and their elements when analysing the insecurity of hybrid workers dealing with the occurrence of social risks.

A lot of research has been carried out regarding the development of the structural changes of the labour market due to digitalisation and its consequences. The on-going debate is extremely vast and it is not possible to go through it here, see for example Oyer (2020); Bogliacino et al. (2020); Brunetti et al. (2019); Gassmann/Martorano (2019); Wood et al. (2019); Howcroft/Bergvall-Kåreborn (2019); Codagnone et al. (2018); Choudary (2018); Holts (2018); Huws et al. (2017); Work and Pensions Committee (2017); De Stefano (2016); International Labour Office (ILO) (2016).

Bogliacino et al. (2020); Holts (2018): 20.

<sup>&</sup>lt;sup>3</sup> Brunetti et al. (2019); Holts (2018): 20 ff.

Such as illness or unemployment.

Given the increasing number of hybrid employment, insufficient social protection will invariably lead to a rise in the number of people exposed to social risks. This will result in increasing poverty and a rise in the number of people suffering from social exclusion.

The paper focuses the financing of social security from an individual point of view. The aspects of willingness and ability to save are problematised. Regardless of the specific structure of a social security system, people have to save if they want to have an insurance against social risks. Whether the system is private or public or whether the system is pay-as-you-go or capital funded does not make any difference. Assessment basis, contributions and tariff rates, guarantee of regularly recurring payments, and problems of premium adjustments will be discussed in more detail.

# 2 Coverage of social risks

In principle, making provisions means financial insurance for coping with income losses or with additional financial burdens in the context of the occurrence of a social risk. Social risks are social relevant situations, which are of consequences for individuals, households and families and which give reasons for political measures. What situations are thought of relevant varies with space and time. For example, at present in Germany the following situations are presumed to be social risks<sup>5</sup>:

- Health care and sickness
- Invalidity
- Accident at work and occupational diseases
- Long-term care
- Old-age (biometrical risk of longevity)
- Survivors
- Maternity
- Unemployment

In Germany, most employees are mandatory insured in the social security system against those risks e. g. to avoid negative external effects. Additionally –by analogy with unemployment– following social risks exist for self-employed people:

- lack of orders
- shortfall of payment
- bankruptcy

In 1994 the long-term care insurance was introduced.

The occurrence of one of the listed social risks leads to a break in employment, to income losses and –in cases such as sickness– mostly to an additional financial burden. Furthermore, the risks are not independent of each other. For example, a longer period of illness or an accident at work can lead to unemployment or –in case of self-employment– to lack of orders. Therefore, the accumulation of risks has to be taken into account.

Not all social risks are covered by social security systems or are insurable. For example, for self-employed people there exist no insurance against bankruptcy. Furthermore, the insurance of social risks may be impossible in certain cases. For specific risks such as maternity or lack of order, there exists no insurance market. Furthermore, a selection of risk takes place on insurance markets. This means on one hand risk-oriented premiums and on the other hand partial or total systematic exclusion of specific types of risks because of a higher potential risk.

Taking a look at the social insurance of people with hybrid employment for each social risk, it can be distinguished between six cases, which are not mutually exclusive. The provision could be –voluntary or mandatory– carried out in the first employment<sup>6</sup> (quadrant I in Figure 1) and/or in a further employment (quadrant III in Figure 1). If there exist no insurance in the first employment (quadrant II in Figure 1) further employment can lead to a provision (quadrant III in Figure 1). However, it is possible that –even in case of a full-time or part-time employment– no social insurance exists (quadrant IV in Figure 1). Furthermore, the insurance has not to be once own but derived entitlements could exist (quadrant V in Figure 1).

Figure 1: Cases of provision against social risks via social insurance

Social insurance

# First I II IV Further employment V VI Derived entitlements

Source: Author's representation.

<sup>&</sup>lt;sup>6</sup> First employment is defined as the employment with the most working hours per week, normally done as full-time work.

In Figure 1, problematic cases are identifiable<sup>7</sup>. For example, it can be assumed that it would be problematic if no social insurance exist in connection with the first employment (Quadrant II). In such cases, it would be possible that a provision against social risks exists in connection with further employment (III) or that derived entitlements exist (V) and people are reliant on the partner's claims<sup>8</sup>. The most problematic case from an individual point of view would be where no social insurance exists at all. In such a case, the person has to choose whether or not to cover a social risk and is free to take up a risk insurance, considering all the opportunity costs.

However, Figure 1 is just a snapshot of a situation in time. For people with hybrid employment the status of social insurance can change. For example, the labour status of a person can change from employee to self-employed or vice versa in the first employment as well as in the further employment at any point in time. The consequences of such changes regarding the insurance of social risks can be very serious, depending on the social security system.

- It could lead to a restriction or even a loss of the insurance of a specific social risk, where compensation or substitution may not always be possible. The coverage of the insurance may deviate, which is often overlooked in the political discussion or scientific debate. For example, in Germany, the statutory pension system covers the risks of old age, survivors, and invalidity. In the private insurance market, to cover those social risks, one has to take out three different insurances. There is even the danger that it is not possible to insure against the risk of invalidity, depending on the occupation and pre-existing conditions. Moreover, for specific occupational groups it is not possible to take out an invalidity insurance in the private market at all.
- Additionally, the consideration of the time dimension regarding benefits is important. In some social security systems, a qualifying period exist to receive benefits, which can lead to a loss of all entitlements by a change of employment status.
- Furthermore, there is the problem of a lack of flexibility. Parallel work as employee and as self-employed may lead to a dual insurance of a single social risk with a corresponding high financial burden. This can happen e. g. if the employment status changes in the first employment from self-employment to dependent employment with a mandatory insurance in a statutory old age pension system. In such case, additionally to the private insurance of the risk of longevity (old-age insurance) to cover the risk during the self-employment phase, a mandatory insurance in the statutory pension system may exist. This may lead to payments of contributions to the private old-age insurance and additionally to

<sup>&</sup>lt;sup>7</sup> Joyce et al. (2019); Berg (2016); Strom/Schmitt (2016); Gassmann/Martorano (2019); Choudary (2018); Codagnone et al. (2018): 49 ff.

For example, due to their partner's workplace pension or in case of eligible dependants (spouse and children) in the statutory health care system in Germany.

the statutory pension system, if an adaption in the private insurance is not possible.

 The general conditions and the regulatory framework are changing over time. Nevertheless, people made their decisions considering the regulation at a specific point in time. This is problematic, as afterwards an adjustment is partially or in total not possible, even if it normally goes hand in hand with higher costs. A drastic example is the paradigm shift in the old-age security scheme in Germany<sup>9</sup>.

The stated examples show, that for each social risk and for each case in Figure 1, the situation has to be examined. The decision to change the employment status and/or doing parallel work may have tremendous consequences for the coverage of social risks. For example, self-employed and employee status have very different implications in terms of social security. In countries with a fully developed social security system as in most states of the European Union, the self-employment status generally provides lower social protection than open-ended employment contracts, e. g. in terms of social insurance against unemployment, accidents or occupational diseases. The freedom of choice, which may come through the hybridisation by digitalisation, goes hand in hand with the insecurity of insurance against social risks 10.

Person in hybrid employment may be unable to adequately hedge against social risks due to lesser or even missing integration into the social security system and lower stability of employment<sup>11</sup>. People may not be integrated into occupational health care and pension systems because they are not working full-time or working as contract or temporary workers. Additionally, lower monthly income due to e. g. lower working hours lead to lower entitlements in income related systems concerning old-age pensions or unemployment and health care cash benefits<sup>12</sup>.

In such cases, people have to rely on products of private insurance markets. As the principles of private insurances and statutory social security systems are very different, it is not always possible to compensate for a loss of social protection by the statutory social insurance system. This aspect will be discussed in further detail in the following, showing that with rising hybridisation and freedom of choice of employment, also the overall insecurity regarding the provision against social risk may increase.

Joyce et al. (2019); Codagnone et al. (2018): 60 ff.

<sup>9</sup> Schmähl (2003).

Joyce et al. (2019); Holts (2018); Broughton et al. (2018); Lepanjuuri et al. (2018); Huws et al. (2017).

This also leads to lower revenues for the institutions of social security and may even lead to an erosion of their financing base. As this cannot be discussed in more detail see Fachinger/Belz (2019) and Fachinger (2007).

# 3 Ability and willingness to save

Independent of the specific structure of social security systems, people have to save if they want to have an insurance against social risks. Whether the system is private or public or whether the system is pay-as-you-go or capital funded does not make any difference. However, the ability to save is crucial, as even with a high willingness to save, it poses a necessary condition for financial precautions. Contributions and tariff, guarantee of regularly recurring payments, and problems of premium adjustments are major aspects, which people have to deal with.

### Income

The starting point for the discussion of the ability and willingness to save is the income out of the specific occupations. The case where a person is statutory insured due to the first employment and the income is high enough to accumulate adequate entitlements in earnings-related benefits, e. g. in the case of unemployment or retirement, would be unproblematic. If people have limited financial capabilities the opportunity costs of an insurance against social risks maybe too high – and the costs are the higher, the lower the income even if the contributions are earnings-related <sup>13</sup>. This may lead to avoidance of risk provision or to underinsurance.

It is well known, that people with more than one employment (synchronous hybridisation) carry out further jobs mainly to supplement their main household income because of low income out of the first employment<sup>14</sup>. If income from further employment is needed to help to cover the cost of living and to pay rent and bills, it will be difficult to pay additional contributions for the insurance of social risks.

### Contributions and tariff

The definition of contributions and tariffs are central aspects in determining the ability to save. It has to be distinguished between income-related contributions and lump sum payments. If the contributions are income-related, the percentages stay the same for each income. This is normally the case in statutory insurance systems. If the contributions are a fixed amount, the absolute burden is the same for each income, which is the case e. g. in risk-oriented premiums in private health- or life-insurances. The differences in the respective tariffs are presented in Figure 2 strongly stylized and typified <sup>15</sup>.

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<sup>&</sup>lt;sup>13</sup> Broughton et al. (2018): 53 ff. and 97 ff.; Lepanjuuri et al. (2018); Wood et al. (2019); Berg (2016).

Broughton et al. (2018): 53 ff. and 97 ff.

The data are 18.6% for income related contributions and 592.41 Euro for risk-oriented premiums. 18.6% is the contribution rate for the statutory pension insurance in Germany and 592.41 Euro is the regular contribution for self-employed people, who are obligatory insured in the German statutory pension insurance.

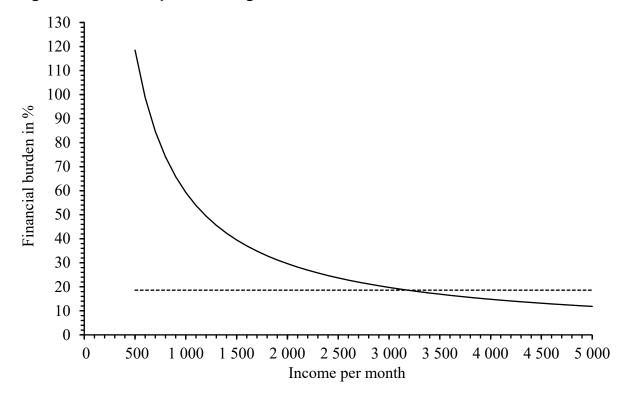


Figure 2: Cases of provision against social risks via social insurance

Source: Author's representation.

Whereas the ability to save could be directly taken into account by income related contributions, by risk-oriented premiums the contribution depends on the individual risk at the time of signing the contract. For the same risk, the absolute amount of the contributions is the same. By contrast, the relative amount is the higher, the lower the income, i. e. the relative financial burden will rise disproportionate with decreasing income. Therefore, it is possible to avoid the disproportionate high financial burden by risk-related payments with income-related contributions to encourage the ability to save and to influence the willingness to save in a positive way.

## Adjustment of premiums and contributions

The definition of a tariff must include a method for the adjustment of the contribution rate or the absolute value over time. Adjustments of the financial structure may be necessary because of changes of general conditions such as macroeconomic development, transformation of the employment structure, or socio-demographic changes. Therefore, contributions for statutory social security systems and for occupational or private social security schemes are changing over time. To give an example, the changes of the contributions of the statutory health insurance and the average change of contributions of the private health insurance companies are shown in Figure 3.

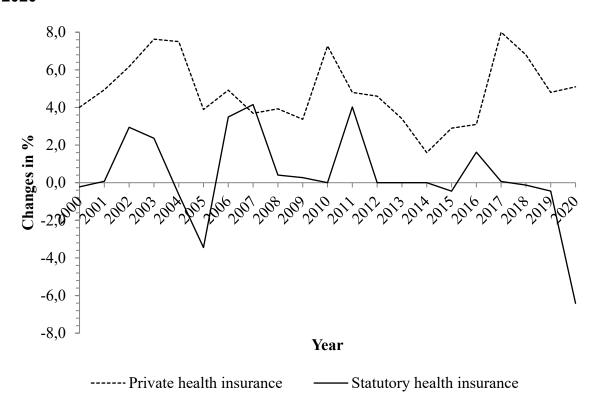


Figure 3: Changes of contributions for health insurance in %, Germany, 2000 to 2020

Source: Author's representation; own calculations for 2000 to 2010 on the basis of Bundesregierung (2012): 2; for 2011 to 2016 Assekurata Raiting Agentur (2016): 8; for 2017 Bundesanstalt für Finanzdienstleistungsaufsicht (2017): 158; for 2018 Bundesanstalt für Finanzdienstleistungsaufsicht (2018): 114; for 2019 Bundesanstalt für Finanzdienstleistungsaufsicht (2019): 119; for 2020 Bundesanstalt für Finanzdienstleistungsaufsicht (2020): 84; for the statutory health insurance Deutsche Rentenversicherung Bund (2019b): 255.

As can be seen in Figure 3, especially the average contribution of the private health insurance increases markedly sometimes by more than 7.0 %. People are not able to anticipate such changes, but they affect immediately the ability to save. An average increase of 7.27 % in 2010 can hardly be compensated by an increase of income. Furthermore, the increase is based on the premiums and does not reflect the actual financial burden from an individual point of view. As stated above, such an increase leads to a disproportionally high burden for low income earners: the lower the income, the higher the burden.

But the amount of contributions not only affects the ability to save but also the willingness. It is presumed, that people do not accept high contribution rates above a specific ceiling. This is one political argument for establishing e. g. an upper limit of 22% for the contribution rate of the statutory pension insurance in Germany<sup>16</sup>. However, there exist on objective criteria regarding the acceptance of a financial burden of social security

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Paragraph 154 Section 3 Number 1 Sozialgesetzbuch VI (Social Code Book).

schemes. For example, in Germany at present the contribution rate for the statutory pension insurance is 18.6%, whereas the contribution rate for the Miners' Pension Insurance within the German Pension Insurance Fund for Miners, Railway and Maritime is 24.7%<sup>17</sup>. This is 2.7 percentage points higher than the contribution rate of 22%, of which is seen as unacceptable.

# Guarantee of regular recurring payments

Not only the relative and absolute amount of the financial burden is relevant for the ability to save, but also the continuity of financing especially by risk-oriented contributions such as premiums for private health or life insurances. Normally contributions have to be paid periodically —often every month. Therefore, a steady income stream is relevant to ensure adequate risk protection. The higher the income mobility, the higher the probability of being not able to pay fixed contributions regularly, and the lower the ability to save.

It is thought, that if the hybrid employment consists partially of self-employment, marginal employment, contract work or of other forms of non-standard work, the income stream will be unstable 18. People in such employments with high income mobility will have problems to ensure a steady income stream from which risk-oriented fixed contributions for the insurance of social risks could be paid. To deal with such problems, in statutory social insurance schemes contributions are earnings-related, sometimes between a lower and an upper threshold. This makes it easier to deal with income mobility as long as the income is above the lower ceiling.

# Assessment basis

The definition of the assessment basis is a central aspect in determining the ability to save especially in earnings-related contribution. The broader the income concept, the higher the financial burden of the person. In statutory insurance systems, usually a specific earned income is used as assessment, e. g. gross wages out of insured dependent employment –sometimes even between a lower and an upper threshold–, and unearned income is not included <sup>19</sup>. If other income components are used as assessment basis additionally, such as income out of self-employment, the overall financial burden will increase and the ability to save will decline.

Modification of the assessment thresholds, for example an adjustment to the overall increase of earnings, will have manifold effects on the financial burden of households. For example, it may lead to falling out of the statutory insurance, if the income for assessment lies below the increased lower threshold<sup>20</sup>.

Deutsche Rentenversicherung Bund (2019a).

Brunetti et al. (2019); Holts (2018): 21 f.; Huws et al. (2017); Berg (2016); Lepanjuuri et al. (2018); Broughton et al. (2018): 49 ff.; De Stefano (2016).

For an overview see e. g. https://www.missoc.org/missoc-database/ comparative-tables/.

For example, in 2013 in Germany the lower threshold for mandatory insurance in the statutory pension insurance was increased from 400 € to 450 € (Gesetz zu Änderungen im Bereich der geringfügigen Beschäftigung, Bundesgesetzblatt Teil I Nr. 58: 2474).

Another problem may occur, when people work in the gig- or platform economy and are paid in cryptocurrency or in credits to be spent on platforms. Neither in statutory social security systems, nor in private insurances against social risks cryptocurrencies or credits are accepted and such payments are by no means used as an assessment basis.

### Final remarks

Having the ability to save does not mean that people are willing to save<sup>21</sup>. The willingness to save depends not only i. a. on individual risk-preferences, myopia<sup>22</sup>, or financial literacy<sup>23</sup>, but also on knowledge about the legal framework or institutional regulations regarding social provision as well as the status of the insurance market to name a few<sup>24</sup>. The willingness to save is also influenced by period effects such as financial crises<sup>25</sup>, pandemics<sup>26</sup> and legal changes<sup>27</sup> or unexpected changes of personal circumstances e. g. unemployment, accident, divorce, death of husband or wife, or birth of a child.

# 4 Summary

The rising hybridisation of work will become a complicated and serious issue with respect to the provision against social risks. The heterogeneity and instability of once employment situation –having more than one job at a time or being employed and working parallel in a specific form of (self-)employment on platforms, and the change of employment status – may lead to inadequate insurance or even to a loss of entitlements and coverage.

Whether and for whom the level of social protection and coverage is inadequate has to be analysed in more detail across all types of social risks considered. For each social risk and for each form of serial or synchronised hybrid employment, the situation regarding the provision of social risks has to be analysed. Which aspects are relevant for the identification of challenges concerning the provision against social risks in case of hybrid employment shows Figure 4 in a schematic manner.

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<sup>&</sup>lt;sup>21</sup> Codagnone et al. (2018): 87 ff.

<sup>&</sup>lt;sup>22</sup> Codagnone et al. (2018): 45.

<sup>&</sup>lt;sup>23</sup> Elliehausen (2019); Bongini et al. (2015); Stolper (2018).

<sup>&</sup>lt;sup>24</sup> Codagnone et al. (2018): 87 ff.

For example in 2008, see e. g. Organisation for Economic Co-Operation and Development OECD (2009): 32 ff.; Financial Crisis Inquiry Commission (2011).

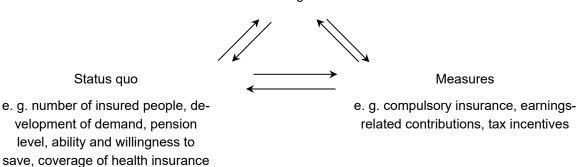
For example, the so called Corona pandemia in 2020.

For example, the introduction of the statutory long-term care insurance in Germany in 1994.

Figure 4: Dimensions of the analysis of social policy

### Political objectives

e. g. increase of social welfare, maintaining once living standard, guarantee of sustainable provision of health and long term care



Source: Based on Schmähl (2009): 121 f.

The challenges have to be seen against the background of the specific political objectives and can be identified on the basis of a status-quo analysis by means of a target/performance comparison, which should encompass the development to date as well as the future development. If deviations are identified, the derivation of adequate measures is possible taking into account the political objectives. Which factors should be considered are in principle determined by the status-quo analysis, which may also give an explanation for the actual status and may help to identify the relevant determinants, their direction of influence and interaction.

Overall, a holistic analysis is necessary to decide whether and how a reform of social security systems is necessary to make them more responsive to the needs of the increasing hybrid workforce. Against the background of the development of hybridisation, much further research is needed to obtain a more complete picture of coverage of hybrid employed people against material losses caused by the occurrence of social risks. On the basis of such analysis adequate measures of social protection for all kind of heterogeneous forms of employment could be developed to close existing gaps in terms of social security.

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