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Abstract

Means-tested transfer schemes in Europe and elsewhere tend to include not only income tests but also asset tests of various sorts. The role of asset tests in minimum income protection provisions has been extensively researched in the Anglo-Saxon context. Far fewer authors have assessed the role of asset tests on social policy in a continental European context. Although asset tests may be useful in singling out the more deserving of the poor, we know relatively little of their actual impact on eligibility and social outcomes in European welfare states. This paper looks at the prevalence and design of asset tests in European minimum income protection schemes. We distinguish between two main types of asset tests: outright disqualification when assets reach a certain value, versus a more gradual tapering at a fictional rate of return. We then analyze in greater detail how asset tests in Belgium and Germany, as representatives of these two types, affect minimum income protection eligibility and poverty outcomes. We use the EUROMOD microsimulation model on the Household Finance and Consumption Survey data in order to assess the effects of asset tests. This survey was explicitly designed to more realistically reflect assets and capital incomes.

Acknowledgement

1   Introduction

There has been a massive surge in academic and public interest in wealth and its distribution. This is gradually also finding its way into social policy research. The main focus until now has been on the role of assets in old-age social provisions (see e.g. Sendi et al., 2018; Mandič, 2016). Yet assets also matter in many other social policy domains. People who are identified as financially needy or poor on the basis of conventional income based measures sometimes have very meaningful assets indeed (Kuypers and Marx, 2019). This obviously affects their need for transfers or other welfare state supports. It may also affect their legitimate claim on welfare state resources. Not surprisingly, welfare provisions and benefit schemes in many countries include not only income tests but also asset tests of various sorts. Yet relatively little is known about how they actually work, how important they are and how they affect outcomes.

Focusing on asset tests in minimum income protection (MIP) schemes, this contribution aims to make several important and innovative contributions to the literature. First, we provide a systematic overview of asset tests in MIP schemes in the European Union (EU). We focus on means-tested MIP schemes because these are the most unambiguously needs-based welfare state provisions. Also, final safety net provisions have gained in importance. With Italy and Spain joining the ranks of other countries recently, most EU countries now have nationwide means-tested MIP schemes. Moreover, the numbers resorting to means-tested MIP has surged in many European countries (OECD, 2015). This is in part because a number of countries have expanded the scope of such schemes, so as to include working people with insufficient incomes. However, with budgets under pressure in many places, enhancing efficiency is a paramount concern among policy makers in many places. Asset tests provide the potential for an efficient and perhaps also fair allocation of scarce resources. We will show here that there is quite some variation in how asset tests work. In some countries, assets holdings above certain thresholds disqualify applicants from support.

Other countries apply fictional rates of return. Moreover, there are interesting differences across countries in terms of which assets are taken into account and what level of discretion may apply.

Second, we provide an in-depth empirical analysis of how asset tests actually affect outcomes. Because this requires complex and sophisticated analysis we have restricted ourselves to two interesting contrasting cases: Belgium and Germany. First, these countries act as representatives for the two different types of asset tests. Belgium applies a fictional rate of return, Germany uses disqualification. Furthermore, while Germany has an income distribution and income poverty level that is close to the Belgian one, the country also has far lower wealth holdings among the broader population, in part because of lower home ownership.

To assess how asset tests affect eligibility and thus redistributive outcomes, we have applied the EUROMOD microsimulation model on the rich Eurosystem Household Finance and Consumption Survey (henceforth HFCS) data, which was explicitly designed to more realistically capture assets and incomes from capital (Eurosystem Household Finance and Consumption Network HFCN, 2013). We have adapted EUROMOD to fit that database. To our knowledge this is the first paper that micro-simulates the impact of asset tests in continental European countries in a comparative perspective.

Specifically, we show two things. First, who gets excluded by the two contrasting forms of asset tests applied in both countries and, second, how does this impact on the poverty reduction effectiveness and efficiency of both systems.

The paper is structured as follows. In the next section we position our paper in the literature. In section 3 we provide an overview of asset tests across the EU. Next, we discuss asset tests in Germany and Belgium in more detail. In section 5 we describe the data we use to explore the relevance of assets tests in terms of their effect on eligibility and poverty in section 6. The final section concludes and proposes future steps for analysis.

2   Literature review

Wealth holdings matter for living standards. Most people are able to save for precautionary and life-cycle reasons. These assets can be materialized into living standards and income, which serves as a buffer to smooth consumption during low income periods or to face unexpected costs. Moreover, assets can also be used as collateral against which can be borrowed. Others also argue that wealth ownership advances wider socio-economic development as it creates independence and opens up a wider range of free choice (McKernan et al., 2012; Sherraden, 1991), contributes to achieving or maintaining class status (Keister, 2000; Spilerman, 2000) and implies economic and political power (Cowell and Van Kerm, 2015).

Hence, assets and savings are important contributors to well-being which should be accounted for when making assessments of who is worse off (Kuypers and Marx, 2019; Christelis et al., 2009). Although there exist evident links between income and wealth, previous research has shown that the correlation between them is far from perfect (Jäntti and Jenkins, 2015; Jäntti et al., 2008; Skopek et al., 2012). In other words, there is a non-negligible share of households with low income but high wealth and vice versa.

It thus makes sense to take assets into account in determining eligibility for income support benefits specifically targeted to the less well-off, as it allows to direct scarce resources towards the most needy. However, asset testing also raises a number of concerns. A – mainly Anglo-Saxon – literature has emerged on the issue how asset tests impact on saving behavior of low income groups. Benefiting from natural experiments in US states where different asset tests apply for MIP benefits, Powers (1998) and Nam (2008) find that low income households generally save more when asset tests are more lenient. Other authors however only find this effect when looking at a specific type of asset tests (Baek and Raschke, 2016; Bansak et al., 2010; Sullivan, 2006) or shed doubt on its existence entirely (Hurst and Ziliak, 2006). Yet whether or not asset tests impact on overall savings behavior among low income groups, the more direct impact of shedding assets prior to a claim can be considered highly problematic, as it makes MIP beneficiaries more vulnerable (Paulhus, 2014). It limits their long-term ability to cushion future income shocks (Guo, 2011), making repeated benefit spells more likely (Hamilton et al., 2019). In se, holding assets can be considered more and more as a *conditio sine qua non* for more resilient households (Atkinson, 2015; Milanovic, 2016). A policy measure that actively discourages asset holding by vulnerable households can in this context be considered counterproductive. In addition, there is also a concern about fairness, when strict asset tests leave

people who have saved during their life equally worse off than others (Hills, 2014). Furthermore, asset tests can discourage vulnerable households from applying to MIP. O'Brien (2008) finds for the American asset tested "Temporary assistance for needy families" program, that potential claimants routinely underestimate the amount of exempted savings. Claimants also report that asset tests can be experienced as stigmatizing and intrusive. Also, given the lack of information on asset holdings in many western countries, a focus on asset tests may limit prospects for a more automatized awarding of MIP (Paulhus, 2014), which could substantially reduce non-take-up.

In this light it makes sense to ask how asset tests are actually organized in European countries. In this paper, we look into the design of asset tests applicable in the MIP schemes of the EU Member States (MSs), before we look more closely into their actual impact on social outcomes in two selected MSs. We focus on MIP schemes, as these schemes, more than others, are specifically designed to identify and support the neediest. MIP schemes, usually financed from general tax revenues, have as prime awarding criterion financial need in their mission to install a last safety net under the welfare state architecture. Whereas there are different approaches to identify the most vulnerable (e.g. through proxy categorical targeting, or self-identified targeting (van de Walle, 1998; Akerlof, 1978)), in Western MIP schemes policy makers usually rely on an assessment of the means of claimants (Bahle et al., 2011; Gough et al., 1996). Eardley et al. (1996), in their detailed overview of institutional characteristics of MIP schemes, note a large variation in these means-tests. As one of few papers, they look more in detail at the assessment of capital in the overall means-test, along the axes of liquid capital disregards and the exemption of the family home.

According to this categorization, especially the Scandinavian countries, Austria and Switzerland are characterized by stringent asset tests. Later studies have predominantly focused on the treatment of earned income within the means-test, and the behavioral conditionality included in eligibility criteria, in light of the shift towards activation (Immervoll, 2009; Marchal and Van Mechelen, 2017). Recently, Frericks et al. (2019) analyzed social security eligibility criteria, including assets, for 10 countries, in order to determine the extent to which the situation of partners and other household members are taken into account to determine individual eligibility.

Empirical literature on the impact of asset tests on social outcomes is fairly limited for European MIP schemes. Country case studies interested in non-take-up of MIP, or the impact of certain reforms, sometimes do calculate the impact of asset tests, but this is done in the framework of their broader research question, and the impact of asset tests as such are usually not analyzed or reported. Rather, authors usually note the high degree of assumptions needed to take account of assets in their calculations of non-take-up or effectiveness, due to the limited asset information available in the most commonly used income surveys (in particular the EU Statistics of Income and Living Conditions (EU SILC)) (see e.g. Bouckaert and Schokkaert (2011); Figari et al. (2013); Tasseva (2016); Fuchs (2007)). One of the rare examples that does mention the impact of asset testing on eligibility and social outcomes is Fuchs et al. (2019), who calculate the effects of abolishing unemployment assistance in favor of MIP with and without asset tests in Austria using the EU SILC. As information on assets is missing from the EU SILC, the authors use the reported capital proceeds as a proxy for actual capital holdings by the respondent, at an assumed interest rate of 1%. As capital income is usually underreported, they acknowledge that this proxy may lead to an underestimation of the impact of asset

testing. They do report a (fairly limited) increase in the overall poverty rate and poverty gap due to the asset test.

In the following section we outline the main principles of asset tests in European MIP schemes in detail, before we describe the specific asset test design in the Belgian and the German MIP schemes, and show how these asset tests impact on MIP eligibility and broader poverty outcomes.

3   Asset tests in EU Member States

To gain a first understanding of the variation in asset tests in European MIP schemes, we use information obtained from MISSOC (2017), the European database of social policy legislation in the EU MSss. We focus on asset tests for the general MIP scheme in each country. Some differences between MIP schemes for different target groups can however be expected, and we will focus more on these differences in our description of asset tests in Belgium and Germany (cf. infra).

We distinguish two main types of means-tests: i) a threshold above which the possession of assets disqualifies for MIP: assets need to be realized first, and only afterwards MIP will be provided, and ii) assets are taken into account at a fictional rate of return, above what can realistically be expected, so that over time, assets will in practice need to be realized. In addition, some countries favor a mixed type, which combines elements of both. Finally, a number of countries have a more atypical assessment of assets: France and Poland only assess assets if there is a large discrepancy between declared income and shown living standards, whereas Estonia fully depends on a discretionary assessment by the municipality of all assets and income in combination.

Among the EU MSs, it is mainly the first type (labelled **disqualification** in Table 1) that is most prevalent. In Austria, Bulgaria, Cyprus, the Czech Republic, Germany, Denmark, Greece, Finland, Croatia, Hungary, Lithuania, Latvia, the Netherlands, Sweden, Slovenia and Slovakia, MIP claimants with a certain amount of assets will not be granted MIP: they will first need to use their savings until their assets are below this specified threshold. The thresholds above which one disqualifies for MIP receipt differ however largely between countries, ranging from virtually no assets allowed (although with discretionary assessment) in Finland to exempt amounts of several thousands of euros[1] in Austria, Hungary, Cyprus and Germany. Additionally, the type of assets included in this exempt amount differ substantially. The family home is usually exempt, even though countries list requirements that it should only be of modest size (Germany, Bulgaria, and Cyprus). Countries that do include the family home in the disqualifying amount (effectively expecting that the value of the family home needs to be realized first) usually have conditions in order to mitigate the impact of this requirement. For instance, whereas in principle the value of the family home disqualifies from MIP in Austria and the Netherlands, MIP can still be provided as a loan against the value of the family home. In Denmark, the family home should not be sold if this would ultimately worsen the housing situation of the family, whereas in Sweden, the law states that realization of the family home is not required when MIP receipt is expected to be temporary. Other real property often immediately disqualifies, or is included in the total amount

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[1] Disqualification thresholds are included in italics in Table 1 if available in MISSOC.

of assets assessed relative to the disqualification threshold. Again, countries make certain exceptions: in some countries, property that raises an income is disregarded (although the income raised will be included in the income test) or exempt amounts apply. Movable property is taken into account in all countries, and will disqualify as soon as it is above the exempt amount, although most countries do allow some limited amounts in cash and savings in the mandatory private pension fund are usually exempt. A substantial number of countries explicitly mention vehicles to be included in the asset test. However, the law usually states that vehicles are allowed as long as they do not surpass a certain value (e.g. Germany), are used for the mobility of disabled (and in some cases elderly persons, or children), are necessary for labor market prospects (e.g. Sweden) or when there is no good infrastructure (e.g. Croatia). In addition, Lithuania, Romania, and Greece explicitly state which (luxury) goods will lead to immediate disqualification. Other countries rather have lists of goods that should *not* be taken into account in order to establish the total value of assets. This usually refers to essential household goods, goods of the children, and goods that are necessary to carry out a profession or to cultivate land.

A second, smaller group of countries takes assets into account at a fictional **rate of return** in the income test. Effectively, this means that households holding assets are not excluded from MIP receipt, but that they will receive lower support than people without assets (and of course, that certain families with high assets will disqualify from MIP altogether). This type of asset test is applied in Belgium, Ireland, and Luxembourg. The fictional rate of return is usually higher than what can realistically be expected to be raised from savings. Even though a certain amount is in most countries exempt from the calculation, the fictional rate of return quickly reaches 5-10%. Malta, Portugal and the UK have adopted a mixed approach, with a relatively high asset ceiling, below which assets are taken into account at a fictional rate of return and decrease the benefit amount awarded. In a certain sense, also Romania adopts a mixed approach, but focuses on assumed fictional proceeds from agricultural property. Again, some countries apply a differential treatment for the family home, vehicles and other specific goods.

Clearly, some EU MSs adopted a range of measures in order to mitigate the negative effects of asset tests discussed in section 2: in "disqualification countries", some countries only expect realization of assets after a certain period on MIP. Others apply relatively high exempt amounts. Of course, this is not the case in all countries of this type, and the negative impact of asset shedding may be very real in some countries. In "rate of return countries", the combination of relatively high exempt amounts and a more gradual expectation of asset realization may mitigate some of the adverse effects of asset testing, at the cost of more complex tests. In the remainder of this paper, we will look in more detail at the functioning and impact on eligibility of asset tests in two countries belonging to these different types: Belgium and Germany.

Table 1. Asset test characteristics in European minimum income schemes, 2017

	type	immovable property		movable property	treatment of in-kind elements of movable property	
		family home	real property	savings	vehicle	goods
AT	Disqualification *€4315.20 in Vienna*	granting of benefits may be subject to registration of the claim of the social welfare authority after 6months	needs to be sold	included above exempt amount	included, important exemptions	exemptions
BE	Fictional rate of return	imputed rent (cadastral income) is included as income, subject to certain exemptions		fictional income of 6 – 10% of savings above +/- €6000		
BG	Disqualification *€256 per family member*	exempt, if < 1 room per family member	disqualifies	included above exempt amount		exemptions
CY	Disqualification *See specific amounts.*	exempt, if < 300 m²	included if > €100000	included, amounts above €5000 disqualify		
CZ	Disqualification	exempt	disqualifies (unless used for gainful activity)	included, limited exempt amount, pension savings under certain limit exempt	included, important exemptions	exemptions
DE	Disqualification *€3100-€10050*	exempt if appropriate size	included (some exceptions)	included, certain state pension capital exempt	included, important exemptions	exemptions
DK	Disqualification *€1345 for a single*	discretionary (exempt if required to maintain necessary housing standard)	included	included, exempt amount, discretionary exemptions possible		
EE	discretionary, municipality must deem list of immovables and movables sufficient to cope	exempt		included	discretionary, must be reported	exemptions
EL	Disqualification *see specific amounts*	Total taxable value of real property must not surpass € 90000 (increases for dependents apply)		max. €4800 for a single	if value < €6000	List of disqualifying goods and services
FI	Disqualification *Easily realizable assets are taken into account. No formal threshold; some discretion may be used.*	exempt	included; if not easily realizable, support can be granted as a loan	included		exemptions
FR	Flat rate evaluation of lifestyle in case of discrepancy between lifestyle and means declared.					
HR	Disqualification *Assets need to be realized first*	not mentioned	disqualifies	included	included, important exemptions	
HU	Disqualification *See specific amounts*	exempt	disqualifies: one piece of property (incl. vehicles) should not exceed €2697; all property combined should be below €7913	included, see limit real property	included, important exemptions	

	type	immovable property		movable property	treatment of in-kind elements of movable property	
		family home	real property	savings	vehicle	goods
IE	Fictional rate of return	exempt	Included on notional basis	amount higher than exempt €5000 is included on notional basis (assessed in combination with real estate)		
LT	Disqualification .	Assets must be lower than state established property value		included, exempt amount for certain types of assets		List of disqualifying goods
LU	Fictional rate of return	Included, converted into a life annuity according to multipliers laid down in law		included, converted in a life annuity		
LV	Disqualification	exempt	included	included above exempt amount (€128 of cash holdings per family member)		exemptions
MT	Mixed *€14 000 for a single*	exempt	converted into annuity (5.5% of amount > €585), certain exemptions	cf. real property	one private car is excluded	exemptions
NL	Disqualification	Disqualifies, support can be provided as a loan against the value of the house	disqualifies			
PL	Generally not taken into account, unless flagrant disproportion with income status					
PT	Mixed	Included at a fictional rate of return of 5% only if its value > an exempt €193 005.	If no actual rents are earned, 5% of its value is included as income.	Disqualifies if > €25153.20, fictional rate of return of 5% is taken into account on top of actual revenue	Included	
RO	Mixed	exempt	Disqualifies, unless useful: the net production value of non-monetary assets (fictional return established by the Ministry of Agriculture) is then included as income.	disqualifies if savings above certain amount	included	List of disqualifying goods. Others are included at the net production value of non-monetary assets
SE	Disqualification	not immediately	Included.	included	disqualifies except for employment	exemptions
SI	Disqualification	exempt, up to the value of an appropriate apartment set by law	included, certain types of gainful property are exempt	certain amounts and pensions savings are exempt. Included.	included, important exemptions	exemptions
SK	Disqualification	exempt	included	included	included, important exemptions	exemptions
UK	Mixed *€19,382*	exempt	for property > €7,268; weekly income of €1.21 is assumed per €303	treated as immovable property		

Source: (MISSOC, 2017).

4   The design of asset tests in Belgian and German MIP schemes

In the remainder of this paper, we zoom in on the design and impact of asset tests in MIP schemes in Belgium and Germany. We focus on Belgium and Germany for both substantial as pragmatic reasons. First of all, these countries act as representatives for the two different types that we identified in section 3: Belgium as a fictional rate of return country, and Germany as a disqualification country, and both apply, comparatively speaking within their type, fairly generous thresholds. Importantly, both countries have well-described asset tests, either in legislation (Belgium) or in jurisdiction (Germany), for all of the different aspects of the asset tests described in the previous section. For the empirical exploration, it is also relevant that for both countries we have high-quality information on asset holdings across the population (see method section). In addition, there are important similarities between both countries. They both belong to the most advanced economies in Europe, have relatively similar social security systems, and relatively similar income distributions. Also MIP benefit levels are comparable in both countries, around 70% of the poverty threshold for a single household, putting them in the middle group of western European countries (Van Mechelen and Marchal, 2013). Yet at the same time, median wealth holdings in Belgium are among the highest in Europe and wealth appears to be less unequally spread than in other countries, in part thanks to traditionally high home-ownership rates. Furthermore, income and wealth appear to be relatively weakly correlated (Arrondel et al., 2016), including in the lower strata of the income distribution (Kuypers and Marx, 2019). Germany, on the other hand, although characterized by an income distribution that is close to the Belgian one, has far lower wealth holdings among the broader population, that are also more unequally distributed (Mertens, 2017) .

In Belgium, the applicable MIP schemes are the *leefloon* (for those of active age) and the *inkomensgarantie voor ouderen* (for the elderly). In Germany, these target groups are covered by three different MIP schemes: *Arbeitslosengeld II* for those of active age who are able to work, *Sozialhilfe* for those of active age not covered by *Arbeitslosengeld II*, and *Grundsicherung im Alter und bei Erwerbsminderung*[2]. All of these schemes are income- and asset-tested, but the design of these means-tests differs substantially. Tables A1 and A2 in the appendix provide a detailed overview of the specific means-tests. Here we highlight the main differences in its asset tests.

MIP schemes generally top up means-of-existence to a base amount. In Belgium, these means-of-existence include all incomes, as well as fictional income from assets (Vanderheyden and Van Mechelen, 2017). Figure 1 shows what this means for the MIP benefit a single person will receive in active and in old age, depending on the amount of assets she possesses, and assuming she has no other income. We distinguish between the impact of immovable and movable property, since both are assessed differently in the Belgian MIP schemes. Movable property is assumed to have a fictional rate of return, that will one on one decrease the value of the benefit (see also Table A1). However, a first band of around €6,000 is disregarded, the second band is assessed at 6% (4% for the elderly), and only assets higher than €12,000 (€18,000 for the elderly) are assessed at 10%. As the fictional rate of return,

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[2] The means-test in the Sozialhilfe scheme aligns closely to the *Grundsicherung im Alter* scheme. In the following discussion, we only discuss the latter asset test, but the results (section 6) do include both schemes

combined with some general, non-asset related disregards, are more generous for the elderly, Panel A of Figure 1 shows a slightly flatter taper for the elderly, that also starts at a higher level of assets. The calculation of the rate of return of immovable property hinges on the unindexed cadastral revenue of the immovable property the claimant owns. This is a notional income that has been set by the administration for each property in Belgium, based on the theoretical annual rent in the seventies. Clearly, this is a rather imperfect measure of both the value of one's home, and even of the actual income one may derive from it. In addition, important amounts of the cadastral income are exempt, and these exemptions increase with the number of children living in the dwelling. For those of active age, if property is rented out, the actual rent income is taken into account. This does not apply to the elderly.

Figure 1. Impact of financial assets and cadastral income on the minimum income protection benefit of a hypothetical single in Belgium

Panel A. Financial assets
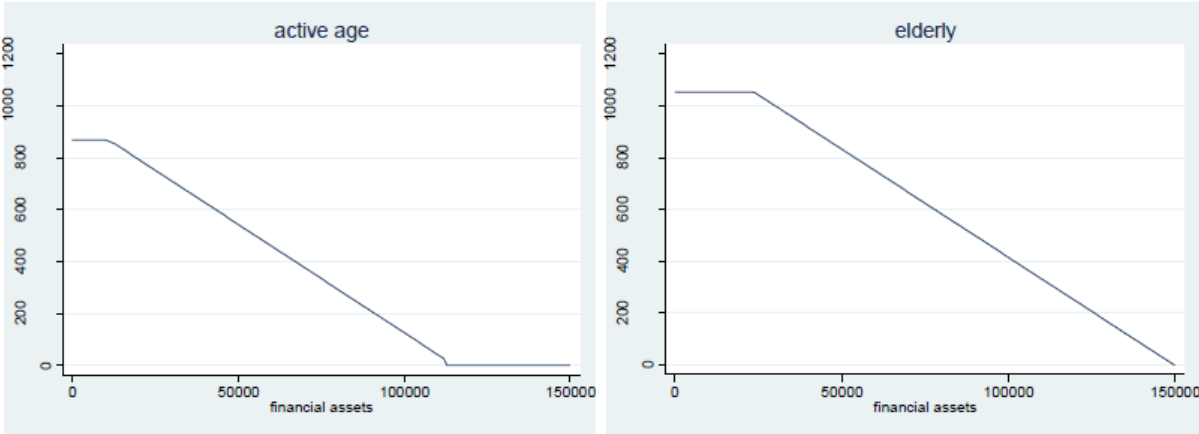
Panel B. Immovable property
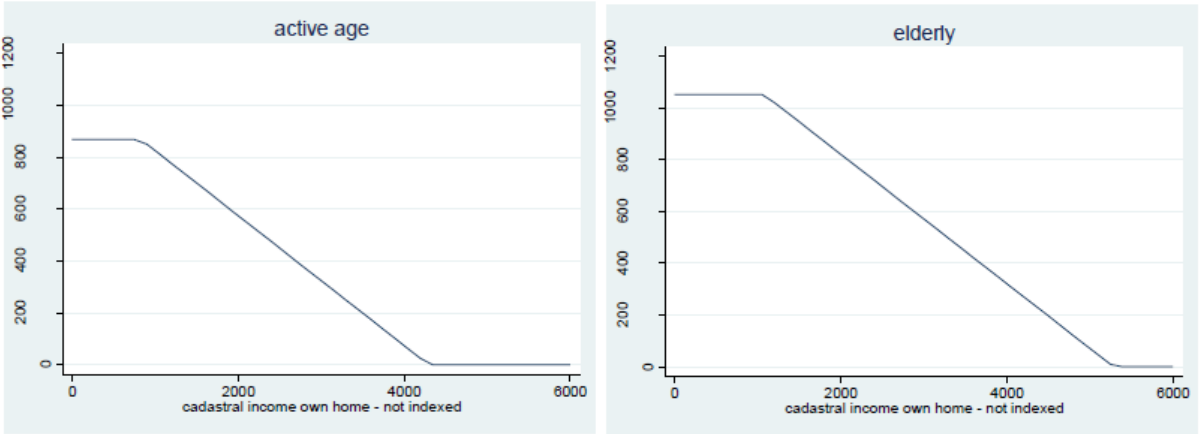
Note: social assistance benefit refers to the minimum income protection benefit scheme in active age, the minimum income guarantee elderly to the minimum income protection benefit for the elderly. Cadastral income refers to the measure used by the administration to assess the value of one's real estate property.
Source: EUROMOD – HHoT (see Hufkens et al., 2018; Sutherland and Figari, 2013), own calculation

Note that it is hard to name a disqualifying amount of assets in Belgium, since this also depends on other incomes. Effectively, when the household has no other income or assets, the value of built property (as measured by the cadastral income) may amount to over €4,000 in the case of active age persons, or over €5,000 for the elderly[3]. Alternatively, when someone has absolutely no income and no built or unbuilt property, she can have financial assets around €115,000 before completely losing the MIP benefit (or €150,000 for elderly). In reality however, different types of incomes will be combined, having an impact on the value of homes and financial capital that will be allowed in each individual case.

Figure 2. Impact of net wealth holdings on minimum income protection benefit of a hypothetical single in Germany

Note: the graph assumes that the single does not own a reasonable home. If this were the case, the graphs would shift to the right with the value of the owner-occupied h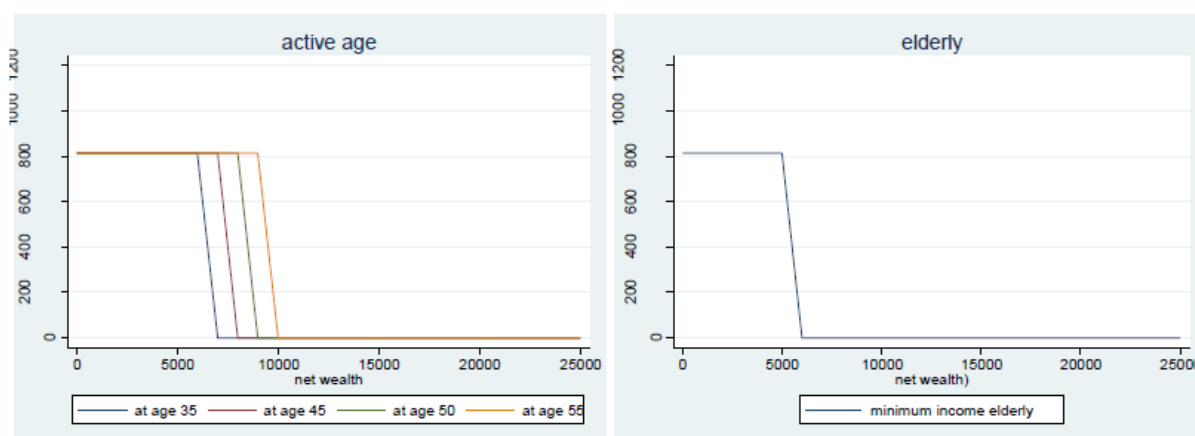ome. Social assistance benefit refers to the minimum income protection benefit scheme in active age, the minimum income elderly to the minimum income protection benefit for the elderly.
Source: EUROMOD – HHoT (see Hufkens et al., 2018; Sutherland and Figari, 2013), own calculation

The German MIP schemes fall under the "disqualification" type, as all assets higher than a specific threshold disqualify. Rather than a tapering out range, Figure 2 hence shows a firm cut-off eligibility threshold. The actual threshold differs between the active age population and the elderly. Whereas for the active age population it increases with age and has a maximum of €10,050 per adult[4] (heightened with €3,100 for each child), it is €5,000 per adult for the elderly (with an additional allowance of €500 for each child). The German MIP schemes assess all property in combination: in se, there is no different treatment of the value of immovable property, vehicles and financial assets. Rather, the total of all wealth combined is compared against the wealth allowance. There are some exceptions. This is most notably the case for certain private pension savings, the reasonable family home, a reasonable vehicle and a number of other goods (see Table A2 in the supplementary online material). According to jurisprudence, a family home is considered to be reasonable if it is an apartment smaller than 80m²

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[3] The average cadastral income for the own home in Belgium is €1,093 euro.

[4] Slightly lower maxima apply for older cohorts: €9750 for people born between 1948 and 1958 and €9900 for people born between 1958 and 1963.

for a single or a couple, or a house smaller than 90m² (HartzIV.org, 2018). Larger surfaces are allowed for larger families. Also on the reasonable vehicle requirement in the *Arbeitslosengeld* scheme jurisprudence exists. Here the value should be below €7,500. Yet, this applies only to the active population, for the elderly vehicles are not excluded from total wealth.

5   Data and Method

For our exploration of the relevance of asset test for eligibility and poverty outcomes, we use the HFCS data, a dataset covering detailed household wealth and gross income information across Eurozone countries (Eurosystem Household Finance and Consumption Network HFCN, 2013). The inclusion of the HFCS as an input dataset in EUROMOD, the European microsimulation model, has expanded the possibilities for analysing social policies in a more refined way. Since it provides more information on wealth than the current database underlying EUROMOD, the EU-SILC, previous studies have only been able to include proxies of wealth (see literature review above), while we use directly observed information on assets. EUROMOD simulates cash benefit entitlements and direct tax and social insurance contribution liabilities on the basis of the tax-benefit rules in place and information available in the underlying datasets for all EU countries. Not-simulated policies (mainly contributory pensions), as well as market income, are taken directly from the data (Sutherland and Figari, 2013). As such, EUROMOD is of value in terms of assessing the first order effects of tax-benefit policies. For details on the integration of the HFCS data in EUROMOD and a comparison of the results with those based on EU-SILC we refer to Kuypers et al. (2016; 2017) and Boone et al. (2019).

For the analyses presented in this paper, we use the second HFCS wave (2013 incomes for Belgium and Germany), with incomes and assets uprated to 2017 with empirical uprating indices specific for different income sources and asset types. For incomes we apply the uprating indices included in the standard version of EUROMOD, for the assets we defined uprating factors based on their corresponding categories in the national accounts (for more information see Boone et al., 2019). The figures reported in this paper take into account the multiple imputations in which the HFCS data are supplied and confidence intervals are estimated using the bootstrap method with 100 replicate weights included in the HFCS data. We used EUROMOD (policy year 2017) in order to simulate net income components from the gross income information in the HFCS. Using the HFCS effectively allows to fine-tune the asset tests that are only programmed in EUROMOD insofar the information is available in the EU-SILC. In order to assess the impact of asset tests on the eligibility of MIP schemes, we refined the means-tests included in the standard version of EUROMOD, such that they reflect in more detail the actual regulations regarding the inclusion of assets. In addition, in order to explore the impact of these asset tests, we simulated an alternative situation in which asset tests were abolished from the MIP means-test for both Belgium and Germany, and two alternative scenarios for Belgium where the assessment of movable and immovable assets are abolished separately. The asset tests and MIP schemes included in the analyses are those discussed in the previous section.

Importantly, MIP schemes are notoriously characterised by high non-take-up rates (Hernanz et al., 2004; Eurofound, 2015; Bargain et al., 2012). This means that real-world take-up rates will be far lower than those based on strict applications of eligibility rules in a microsimulation model. EUROMOD does include for active age MIP in Belgium a non-take-up correction. Since this non-take-up correction is,

however, purely random (and hence does not take account of which cases would be more or less likely to take-up), we chose *not* to correct for non-take-up in the different scenarios that we simulate. As we are interested in the impact of asset tests, we are foremost concerned with *differences between scenarios* rather than the levels simulated within a single scenario. Hence, we favor looking at the theoretical impact of asset testing under the assumption of full-take-up, making full use of all the available information in the dataset, rather than randomly excluding observations.

Just like other surveys the HFCS suffers from the fact that it is hard to get a good coverage of incomes at the extremes of the distribution. While the HFCS applies an oversampling for the top of the distribution, there are relatively few MIP recipients observed in the data. Hence, we decided to combine the active age and the elderly in the analyses.

The coupling with EUROMOD furthermore allows us to simulate the various net income components in line with the applicable tax benefit legislation. Unfortunately, not all possible benefits are included in EUROMOD, most importantly because the conditions are too detailed to capture in micro data. Here the limited information on benefits that is included in the HFCS comes into play. The HFCS includes information on some major benefit categories separately (i.e. pensions, unemployment) and on a residual 'other benefits'. The most important benefits included in the 'other benefits' variable are likely MIP and child benefits, which can both be relatively accurately simulated in EUROMOD based on other information taken from the data. For the calculations of final disposable income, we include other benefits minus all simulated benefits that could be included, a long as this result is positive.

6   Exploration of the relevance of asset tests

6.1   Who gets excluded by asset tests?

We assess the change in eligibility that follows from the functioning of the asset test. Eligibility, i.e. the share of the population in principle eligible for the benefit, decreases significantly when the asset test is applied. In Germany, asset tests exclude 25% of those who would be eligible solely on the non-asset related components of the eligibility criteria (equivalent to a 2.89 percentage point decrease of eligibility relative to the active age population) (see Table 2). The decrease in eligibility in Belgium is far more modest, and remains limited to only 7%, or a mere 0.57 percentage point decrease in eligibility rate. In addition, it is especially the inclusion of financial capital that leads to a significant difference. The relatively mild assessment of real estate value has no obvious effect, eligibility remaining basically the same.

The impact of the asset test is far larger when we look at the MIP benefits for active age individuals and the elderly jointly (Table 2, rightmost columns). In Belgium, even though assets for the elderly are less heavily taken into account, the asset test clearly has an impact on eligibility, which decreases by 14% or 1.24 percentage point. This is in line with earlier research for Belgium, that situates the largest asset holdings with the elderly (Kuypers and Marx, 2019). Again, the decrease is mainly driven by the inclusion of fictional revenue of financial assets, and far less due to real estate property. Still, taking account of real estate value has (somewhat) more of an impact when including the elderly than when solely looking at those of active age, for two reasons. For one, the elderly have amassed more real estate

property. Second, the asset test for the elderly only looks at notional value of real estate property, even when it is rented out, whereas for those of active age, the asset test includes rental income for rented out property, and the notional value otherwise. Since rental income constitutes an actual income, this remains in the means- test in our "no asset test" scenario, whereas in the case of the elderly, all real estate value is then disregarded. In Germany, the decrease in eligibility due to asset tests is around 4 percentage points of the adult population. This is somewhat higher than the impact for active age only, likely due to the stricter asset test for the elderly as well as the distribution of wealth among the underlying target population. Compared to Belgium, the German asset test has a larger impact, which is not surprising in light of its stricter definition[5].

Table 2. Eligibility of MIP benefits, under different asset test assumptions

		Eligibility to MIP scheme for active age, relative to active age population	Confidence interval	Eligibility to MIP schemes for active age and elderly population, relative to adult population	Confidence interval
BE	Full Asset Test	7.46%	[5.93%;8.99%]	7.74%	[6.49%;9.00%]
	No Cadastral Income	7.55%	[6.04%;9.06%]	8.04%*	[6.76%;9.32%]
	No Capital	7.99%***	[6.43%;9.56%]	8.61%***	[7.26%;9.96%]
	No Asset Test	8.03%***	[6.47%;9.58%]	8.98%***	[7.62%;10.34%]
DE	Full Asset Test	8.25%	[7.28%;9.23%]	7.92%	[7.05%;8.78%]
	No Asset Test	11.14%***	[10.04%;12.23%]	11.90%***	[10.85%;12.94%]

Note: */**/***: significant difference with estimated eligibility at Full Asset Test at p< 0.05/0.01/0.001 level (with stata's mi testtransform command). Full Asset Test: means-test as legislated; No Cadastral Income: Part of the means-test including real estate value is disregarded; No Capital: part of the means-test including financial assets is disregarded; No Asset Test: part of the original means-test focusing on wealth is disregarded.
Source: HFCS, own calculations

To further assess the functioning of asset tests, we should look not only at the impact on eligibility, but also consider the profile of the persons excluded from benefit receipt through asset tests. Table 3 shows the median value of MIP benefits under different asset test scenarios. In Belgium, the fictional rate of return scheme implies that the asset test has an impact on awarded benefit levels not only through lower eligibility, but also the benefit level of those who still receive MIP is lower because of the

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[5] We reiterate (cf. methods section) that the eligibility calculated here clearly differs from actual coverage of the minimum income protection schemes in each country. We experimented with reweighing the eligible population to account for non-take-up, such that coverage rates are in line with the administrative recipiency numbers for each country (for Belgium, resp. Germany, the actual coverage rate is 2.9%, resp. 6.10% of the adult population). This reweighing exercise results in similar significant differences between the different asset test scenarios (results available upon request

assets they own. We indeed observe that the median MIP benefit awarded to original beneficiaries (i.e. beneficiaries in the base line scenario with asset test) would increase from €519 to €574 euros in the no asset test scenario, but this increase is not statistically significant. Second, in the no asset test scenario the group of 'excluded beneficiaries' (i.e. beneficiaries eligible in the no asset test scenario, but excluded in the baseline scenario with asset test) would clearly receive lower benefits: the median benefit awarded to this group is only €82, significantly different from the median value of €574 awarded to the original beneficiaries under the no asset test scenario.

Table 3. Median value of MIP benefits, original and excluded beneficiaries

			median MIP benefit (active age and elderly)	confidence interval
BE	original MIP recipients	median value under full asset test	519	[372;666]
		median value without asset test	574	[502;645]
	excluded MIP beneficiaries	median value without asset test	82***	[27;138]
DE	original MIP recipients	median value under full asset test	469	[405;534]
		median value without asset test	469	[405;534]
	excluded MIP beneficiaries	median value without asset test	284***	[207;362]

Note: monthly amounts are shown.
Source: HFCS, own calculations.

In Germany, the first consideration self-evidently does not apply. A certain level of assets disqualifies for the benefit, without an initial tapering off of the benefit (see above). The median benefit for the original beneficiaries therefore remains exactly the same, at €469. As in Belgium, the excluded beneficiaries do appear to be better off than the original beneficiaries overall: the top-up from the MIP scheme to their own income is for this new group significantly lower than it is for the original beneficiaries: €284 instead of €469.

Table 4 finally shows some more general indicators of socio-economic status available in the HFCS. Unsurprisingly, we find for both countries that the excluded beneficiaries are on average older. This links to the earlier described phenomenon that elderly people are more likely to have amassed assets throughout their lives. They will therefore more likely be affected by asset tests. This also explains why we find a larger share of pensioners among the excluded beneficiaries, and a lower share of unemployed. Furthermore, and more surprisingly, we find in Germany that the excluded beneficiaries are more often higher educated, which appears to signal that the persons excluded by asset tests are in fact (somewhat) less vulnerable than original beneficiaries. We do not find such differences for Belgium. Finally, we find in both countries that the excluded beneficiaries less often live together with children, although this observation is only significant for Germany.

Table 4. Median benefit levels and socio-economic status of original and excluded beneficiaries

		Belgium				Germany			
		original	confidence interval	excluded	confidence interval	original	confidence interval	excluded	confidence interval
education	low	0.52	[0.43;0.62]	0.43	[0.27;0.6]	0.41	[0.34;0.47]	0.13***	[0.07;0.19]
	middle	0.30	[0.22;0.38]	0.36	[0.18;0.55]	0.50	[0.43;0.56]	0.64*	[0.55;0.74]
	high	0.17	[0.11;0.24]	0.20	[0.07;0.34]	0.10	[0.07;0.13]	0.23***	[0.16;0.3]
labor status	other	0.19	[0.12;0.27]	0.25	[0.08;0.42]	0.08	[0.05;0.11]	0.02***	[0;0.04]
	work	0.19	[0.11;0.26]	0.08*	[0;0.15]	0.51	[0.46;0.57]	0.46	[0.37;0.55]
	pension	0.23	[0.16;0.31]	0.57***	[0.39;0.75]	0.17	[0.12;0.22]	0.42***	[0.33;0.51]
	unemployed	0.38	[0.31;0.45]	0.10***	[-0.02;0.22]	0.18	[0.15;0.22]	0.05***	[0.02;0.09]
	sick					0.06	[0.03;0.09]	0.04	[0.02;0.07]
mean age		48	[45;52]	62***	[54;71]	45	[43;47]	57	[54;61]
mean number of adults		1.96	[1.72;2.21]	2.16	[1.63;2.68]	1.65	[1.53;1.77]	1.46*	[1.33;1.6]
mean number of children		0.41	[0.24;0.59]	0.25	[-0.09;0.6]	0.36	[0.28;0.44]	0.16***	[0.09;0.22]

Note: original beneficiaries: minimum income beneficiaries under the original asset test. Excluded beneficiaries: the group of beneficiaries that became eligible in the no asset test scenario. */**/***: significant difference with estimated share of original beneficiaries at p< 0.05/0.01/0.001 level, computed with stata's mi testtransform command.
Source: HFCS data, own calculations

6.2 Poverty impact: effectiveness and efficiency

The lower MIP eligibility has a limited impact on effectiveness, i.e. it does not translate into significantly higher income poverty rates in Belgium. The insignificant impact may be due to the fact that the MIP scheme is relatively small, and the impact of the few percentages of the population that are not eligible because of their assets may not be consequential. In addition, MIP benefits are notoriously low, and often below the 60% at-risk-of-poverty threshold. Therefore, we also assess the impact of asset tests on poverty rates as measured against the 40% at-risk-of-poverty threshold, and by looking at the mean poverty gap among the poor (see Table 5). Yet, the results show that even according to these indicators there is no significant impact of asset testing on income poverty in Belgium. In Germany, where the decrease in eligibility was more pronounced, poverty rates, both at the 60% and at the 40% at-risk-of-poverty threshold, increase significantly as a consequence of the asset test (under the assumption of full take-up of rights). Both poverty rates increase by 1 percentage point in the base line scenario compared to the scenario without asset test. Also the mean poverty gap, again under the assumption of full take-up, increases as a consequence of asset testing.

Table 5. Poverty rates among the total population under the assumption of full take up, different asset test scenarios

Poverty rate at 60% of median equivalent disposable household income			
BE, all	Full Asset Test	12.61%	[10.30%;14.93%]
	No Cadastral Income	12.51%	[10.16%;14.86%]
	No Capital	12.71%	[10.44%;14.97%]
	No Asset Test	12.53%	[10.24%;14.82%]
DE, all	Full Asset Test	16.64%	[15.10%;18.18%]
	No Asset Test	15.77%***	[14.16%;17.39%]
Poverty rate at 40% of median equivalent disposable household income			
BE, all	Full Asset Test	1.17%	[0.19%;2.14%]
	No Cadastral Income	1.13%	[0.12%;2.14%]
	No Capital	1.02%	[0.14%;1.91%]
	No Asset Test	0.95%	[0.05%;1.85%]
DE, all	Full Asset Test	4.86%	[4.18%;5.54%]
	No Asset Test	3.67%***	[3.03%;4.31%]
Mean poverty gap among the poor (in euro)			
BE, all	Full Asset Test	177	[147;207]
	No Cadastral Income	175	[145;205]
	No Capital	167	[135;200]
	No Asset Test	165	[133;196]
DE, all	Full Asset Test	276	[251;302]
	No Asset Test	225***	[206;244]

Note: */**/***: significant difference with estimated poverty rate/mean poverty gap at Ful lAsset Test at p< 0.05/0.01/0.001 level (using stata's mi testtransform command). Full Asset Test: means-test as legislated; No Cadastral Income: Part of the means-test including real estate value is disregarded; No Capital: part of the means-test including financial assets is disregarded; No Asset Test: part of the original means-test focusing on wealth is disregarded.
Source: HFCS: own calculations

How should we interpret this (limited) impact on poverty? A useful way to contextualize the role of the asset test design is to use efficiency measures as proposed by Beckerman (1979). These measures show how much of the budget of a certain transfer goes to the poor and thus relates the effects of a transfer to its cost. We present here two indicators, notably i) the vertical efficiency of the MIP program (VEP), which is the proportion of total MIP benefits received by those households that were poor before the MIP benefit, and ii) the poverty reduction efficiency (PRE) as the proportion of MIP benefits that effectively contribute to a reduction in poverty, expressed by the poverty gap. These measures and their underlying components are shown in Table 6. It is clear that the use of asset tests results in a budgetary gain. In Belgium, the budget going to MIP decreases by 13% due to the use of the asset test, in Germany, where the asset test excludes a far large share of the population, the budget decreases by 34% (both under the assumption of full take-up). Efficiency of MIP with asset test is very high in Germany as 92% of the budget goes to people who are poor without MIP in Germany, and 86% of the budget goes below the poverty line. Efficiency is somewhat lower (though still high) in Belgium with a VEP of 83% and a PRE of 72%. The scenario without asset test would lead to a (small) reduction

in efficiency: in Germany the VEP reduces to 91% and the PRE to 84%, while in Belgium the VEP decreases to 80% and the PRE to 70%.

Table 6. Budget, efficiency and effectiveness of MIP schemes with and without asset tests.

	Belgium		Germany	
	Full asset test	No asset test	Full asset test	No asset test
Total budget MIP, in million euro (1)	3840	4322	33240	44880
Budget to pre-transfer poor, in million euro (2)	3186	3469	30480	40920
Poverty gap reduction, in million euro (3)	2781	3013	28440	37920
Vertical efficiency of the program [(2)/(1)]	83%	80%	92%	91%
Poverty reduction efficiency of the program [(3) / (1)]	72%	70%	86%	84%

Note: Annual budgets under the assumption of full take-up.

It is interesting to note that in Germany the asset test scenario leads to a decrease in effectiveness of MIP, as poverty is significantly higher than if the asset test would not apply, while efficiency somewhat increases. In Belgium, the limited effect of the asset test on eligibility only translates in a modest, non-significant impact on poverty and a somewhat stronger increase in efficiency.

7   Discussion and next steps

This paper has looked at the design of asset tests in MIP schemes in Europe, with an empirical exploration of their impact for two contrasting cases, Belgium and Germany. Specifically, we explored the effects of two different types of asset tests on MIP eligibility and poverty.

Our exploration of MIP asset tests in the wider European context shows that there is significant variation in their actual design. We distinguish between countries applying assets tests to disqualify potential beneficiaries with asset holdings above a certain threshold and countries that include a fictional rate of return in their means-test. The first approach is adopted in Germany, whereas Belgium is an example of the second approach. We find that the respective asset tests in place in both countries decrease eligibility. Yet, the impact is substantially larger in Germany, with its stricter disqualification test, than it is in Belgium. It is interesting to note that in Germany the asset test leads to a decrease in effectiveness of MIP, as poverty is significantly higher than if the asset test would not apply, while efficiency increases somewhat. In Belgium, the limited effect of the asset test on eligibility only translates in a modest, non-significant impact on poverty and a somewhat stronger increase in efficiency.

At the same time, median benefit values in the no-asset test scenario show that mainly persons who still have some form of income would become eligible. For Belgium this is self-evident. Assets need to

be quite sizable before they exclude someone from MIP receipt, at least in the absence of other incomes in the household. Therefore, it will rather be the combination of income and assets that render people ineligible for MIP. Still, also in Germany, with a fixed cut-off threshold, those that do are eligible still hold higher incomes. Those that would become eligible if abolishing the asset test hence appear to be the "better off" of the poor, even when not considering their higher assets. This is an important consideration when assessing the impact of asset tests: in terms of legitimacy asset tests clearly have the function of excluding those that are not in need. If policy makers consider loosening or abolishing asset tests in order to decrease poverty or in a quest for administrative simplification, it is important to consider to what extent the needs- based rationale would be violated. Our exploratory analysis indicated that persons solely excluded by the asset tests are more often older and pensioners, as this population group has generally amassed more wealth over their life span. In addition, we also find that those excluded by the asset test in Germany are generally higher educated, which reinforces the image of a relatively better-off group that is excluded by asset tests.

Still, in the future, we should further chart the socio-economic profile of those excluded by the asset test, and assess whether the current thresholds are the most suitable, in light of different objectives, including fairness among the vulnerable and the legitimacy of the system. A promising avenue for this further research is to assess the position of original and excluded recipients not only from an income distribution perspective, but also from the joint distribution of income and wealth. This would allow to assess whether the most vulnerable are indeed targeted when also wealth holdings are incorporated in the concept of living standards, or whether one should start thinking of a different asset test.

A second avenue for further research is to look into how the underlying distribution of income and wealth impacts on the design of asset tests. Clearly, there are important differences in the underlying logic of asset tests in the European MIP schemes. An interesting question is whether asset tests relate to broader state attitudes when it comes to encouraging asset accumulation. We find such different attitudes for example in housing policy or pension policy (see e.g. Dewilde, 2017). One would expect these widely different state attitudes towards asset accumulation to be reflected in the way asset tests play a role in the allocation of MIP benefits.

A final reflection is of a more normative nature. What role should asset tests properly have? While fairness seems to dictate that asset holdings ought to matter for determining eligibility to non-contributory public support provisions, the reality of declining safety nets and old age provisions in many countries leaves people with little alternative but to try and accumulate some assets. If people who are at risk of poverty are actually discouraged from doing so to the fullest of their capability because of asset tests, they risk falling into a double poverty trap. They may well end up accumulating just too many assets to be excluded from public provisions while not actually having enough to make ends meet. The question of how asset tests in welfare provisions actually affect people's behavior arguably deserves to be higher on the research agenda than it currently is. That is especially important because, as we have shown here, such asset tests are often opaque and complex.

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Annex

Table A1. Means-test for the living wage and the income guarantee for elderly in Belgium, 2017

	Active age minimum income protection (*Leefloon* – Living wage)	Minimum income protection elderly (*Inkomensgarantie ouderen* – income guarantee elderly)
Income from work	Net taxable income from work[a] of the previous month[b], including meal vouchers, holiday payments, severance pay, income from holiday work Exempt: • exemption of wage income of €244.03 per month (for a maximum of 3 years in a 6 year period; students with a scholarship: exemption of €68.06 per month) • Exemption of income from artistic activities of €2928.35 per year (for a maximum of 3 years) Reimbursement for the costs of commuting	Gross taxable income: 75% of gross annual wage for employees; 100% of net annual income for self-employed; 75% of real gross wage or of the fictional wage presented to tax authority for self-employed aid. Exempt: €5000 annually
Replacement incomes	Net social benefits (unemployment insurance,, sickness, invalidity, work accident or work illness) Reimbursement after accident: only the part that reimburses for income loss, not the part that covers damages	Gross social Benefits (unemployment insurance, sickness, invalidity, work accident or work illness) Gross annual amount of extralegal rents (old age rent and widowers rent) Gross annual alimony (treated as pension) 90% of gross annual pensions; 90% of annual pension bonus (holiday allowance and alimony paid is exempt)
(income from) immovable property	Cadastral income above exempt amount * 3 * share in ownership - annual amount of mortgage interest [c]	Cadastral income above exempt amount * 3 * share in ownership - annual amount of mortgage interest [c]

	Active age minimum income protection (*Leefloon* – Living wage)	Minimum income protection elderly (*Inkomensgarantie ouderen* – income guarantee elderly)
	If the property is rented, rent (* share in ownership) or cadastral income (calculated as described above) are taken into account, whichever is highest. Exempt amount of cadastral income: Built property: (€750 + €125 per child) * share in ownership Unbuilt property: 30 euro * share in ownership	Exempt amount of cadastral income: Built property: (€743,68 + €123,95 per child) * share in ownership Unbuilt property (only if there is no built property): 29.75 euro * share in ownership
(income from) movable property	savings < €6200: 0 € 6200 < savings < €12500: 6% of savings savings > €12500: included at 10%. In case of shared accounts: * 1/number of owners of the account. Savings include cash, savings accounts and other financial products, including private pension funds. An unexplained drop in movable property in five years prior of the claim, can be reclaimed from the children.	savings < €6200: 0 € 6200 < savings < **€18600: 4% of savings** savings > **€18600**: included at 10%. In case of shared accounts: * 1/number of owners of the account. Savings include cash, savings accounts and other financial products, including private pension funds.

	Active age minimum income protection (*Leefloon* – Living wage)	Minimum income protection elderly (*Inkomensgarantie ouderen* – income guarantee elderly)
income from sold (or donated) immovable property	if sold or donated in the past 10 years: Value is taken into account according to the rules of movable property (yet the values are not added to other movable property). The value to be taken into account is determined for • The family home (if no other built property) or a single unbuilt immovable property (if no other property): Market value minus personal debts[d] : exempted amount of €37,200, and an additional exempted amount of €1250/2000/2500 per year (depending on family situation). • Other immovable property: Market value minus personal debts. • Personal debts are not subtracted if the property was donated. • 100% of market value if full ownership, 40% if usufruct, 60% if bare owner. Ownership share taken into account when calculating market value	• *idem to assessment for living wage*
exempted income sources	Child benefits Reimbursements for political mandates Regional housing premiums Alimony for children Student Scholarships Premiums for vocational training in a company Regional premiums for sheltering children Irregular gifts without maintenance duty War- and war prisoner rents Reimbursement for supporting disabled persons The refundable tax credit	Child benefits Living wage and other assistance benefits Personal assistance budgets for the disabled Alimony between ascendants and descendants, War- and war prisoner rents , Heating allowance (in employee system), Regional premiums for sheltering children, Rents from the previous mandatory capitalization pension system

	Active age minimum income protection (*Leefloon* – Living wage)	Minimum income protection elderly (*Inkomensgarantie ouderen* – income guarantee elderly)
	Reimbursement for internship or occasional employment through voucher scheme (if part of active labour market programme) Reimbursement for volunteering Reimbursement wardens of unaccompanied minors	
lump-sum exemption on all income sources	• cohabiting person: €155/year; single person: €250/year ; head of family: €310/year • Income from partner up to € 7,077.88 per year (this is not the case if a family amount is asked) • Income from cohabiting children and parents at least up to €7,077.88 per year (the local welfare agency can use higher disregarded amounts)	€625 per year for a cohabiting person €1000 per year for a single

[a] Reimbursement for minding children is included insofar the reimbursement surpasses the costs made for minding the child; [b] Income is included for the moment to which it refers, not the moment of pay-out: it can be used to repay living wage paid at the moment of reference, or will otherwise be included in the means-test as movable property). Monthly income combined with annual disregards by multiplying monthly income * 12; [c] Insofar this amount does not surpass half of the first part of the equation; [d] Debts must be personal, (partly) repaid by the sale of the property and incurred before the sale.

Source: (Vanderheyden and Van Mechelen, 2017) (POD Maatschappelijke Integratie, 2018)

Table A2. Means-test for minimum income protection in Germany

	Active age minimum income protection *(Arbeitlosengeld II -* unemployment benefit II*)*	Minimum income protection elderly *(Grundsicherung im Alter und bei Erwerbsminderung -* Basic security in old age and reduced earning capacity)
Income from work	Market income, contributions and taxes are subtracted Benefits are unaffected by an additional (gross) employment income of 100 euros per month. Employment income between 101 and 1,000 euros reduces benefits at a rate of 80%, income between 1,000 and 1,200 euros at a rate of 90% (1,500 euros for households with children). Above this level, earnings are deducted at 100%.	market income from (self-)employment, contributions and taxes are subtracted Income allowance of: 30% of earned income, with a ceiling at 50% of the basic benefit rate From 1/1/2018 onwards: additional allowance for additional voluntary old age provisions: basic allowance of €100 per month, income from additional old-age provisions above this amount treated at the 30% rate (with a maximum of 50% of the grundsicherung benefit).
Replacement incomes	Insurance payments such as unemployment benefit, parental allowance or sick pay; Alimony Child benefits Pensions of every kind; Vocational training allowance, training allowance, BAföG.	most net benefits: pensions (also from private or company pension plans), child benefit, benefits under the Maintenance Advance Act.
Immovable property	Rental and leasing income, agriculture and forestry; Income from shared ownership; In addition, property is also important to determine eligibility to the benefit. If all wealth holding (sum of immovable and movable property) is higher than the sum of certain allowances, the family becomes ineligible. Certain elements are exempt: • A reasonable self-occupied house (According to the federal social court, a reasonable flat for a single or a couple is max. 80m², + 20 m² per additional person. A reasonable house starts at 90 m² for a single/couple, + 20m² per additional person) • a reasonable car (according to jurisprudence with a value below €7500) • items necessary for employment • adequate household goods • certain assets and rights exempted from the pension insurance obligation	Wealth allowances: €5000 per adult in the household, and €500 per child. If the wealth of the household is greater than the permitted allowances, then the household loses its entitlement to this benefit. Except for the reasonable car, exemptions are equal to those applicable in the active age scheme.

	Active age minimum income protection *(Arbeitlosengeld II* - unemployment benefit II*)*	Minimum income protection elderly *(Grundsicherung im Alter und bei Erwerbsminderung* - Basic security in old age and reduced earning capacity)
	• Assets for the prompt acquisition or for the receipt of an adequate property for handicapped or dependent persons, • Things and rights whose exploitation is obviously uneconomical or would mean a particular hardship for the person concerned. The allowances are: • A basic allowance of 750€ per adult. • increase of €150 * age *However, this allowance is at minimum 3100 € per adult. The maximum amount the allowance can reach is €9,750 for those born between 1948 and 1958; €9,900 for those born between 1958 and 1963; and €10,050 are granted for those born after 1964.* • *€3.100 per child* If the wealth of the household is greater than the permitted allowances, then the household loses its entitlement to this benefit. If the immediate realization of assets is not possible or the consumption or recovery would be particularly difficult, services may be provided as a loan. The loan can be made dependent on whether the right to a refund is guaranteed (e.g. with a mortgage) or otherwise.	
Movable property	Actual income from capital is included in the income subtracted from the benefit. In addition, capital is important to determine eligibility to the benefit (see immovable property). One-off income (e.g. tax refunds, severance payments, inheritances); (taken into account the month it is gained, afterwards treated as capital)	See immovable property.
exempted income sources	basic pensions under the Federal Utility Act benefit for blind people care allowance for full time care of foster children special benefits such as emergency aid.	excluding unemployment benefits II, additional child benefit, housing benefits and disability benefits for war victims, the basic pension under the Federal Care Act, benefits with compensation character as well as child care benefits for mothers born before 1921.

Source: (Kuypers et al., 2017); (Gallego Granados and Harnisch, 2017)