The Saving Rate of a Clean Household Sector

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The Saving Rate of a "Clean" Household Sector

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The opinions expressed in this paper are the sole responsibility of the authors and do not necessarily reflect those of Eurostat or countries.

Abstract

Data on saving are of a great importance during an economic crisis as they provide insights on the reaction of households and the interaction between income and consumption. Eurostat publishes the household gross saving rates of the European countries. Saving rates for countries outside Europe are in some cases available from different sources. These rates may be affected by at least three different factors impacting on the coverage of the household sector. (1) Often the household sector includes also the non-profit institutions serving households (NPISH) sector, as some countries do not produce separate accounts for the two sectors and they are often reported together. (2) Unincorporated enterprises are commonly included in the household sector, which may have an impact on the saving rate depending on the share and importance of small enterprises (and quasi-corporations) in the countries. (3) The share of house ownership in the household sector could differ depending on the country and it impacts the saving rate, considering the interests paid by the house owners for the loans. These factors might affect the saving rates of countries in different ways, impacting their comparability. The aim of this paper is to make a comparison of the saving rates among countries during the economic crises period, after suitable corrections and decomposition to address the points described above.

Contents

1. Introduction

This article presents an adjusted measure of the saving rate of the household sector by attempting to identify and quantify the factors that might affect the saving rates of countries in different ways in order to create a measure which is more comparable across regions.

The following issues are addressed:

- The role of NPISHs:

According to the ESA2010 Transmission Programme, the annual sector accounts data are collected for the actual households sector (S.14) as separated from non-profit institutions serving households - NPISH (S.15), but Eurostat is currently publishing the saving rate of S14_S15.

- The role of unincorporated enterprises:

According to ESA2010, the households sector (S.14) includes employers (S.141) and own-account workers (S.142), consisting of the group of households for which the incomes accruing to the owners of household unincorporated enterprises from their activity are the largest source of income. Here difficulties relate to the allocation of producer units between non-financial/financial corporations (S.11 and S.12) and households (S.14) sectors, possibly resulting in artificially inflated B3G figures.

- The role of interest:

A slight modification is made on interest in the calculation of gross disposable income and the saving rate. The treatment of interest in current national accounts methodology is on a net interest basis which will not capture the real gross interest observed by households. Furthermore, a first attempt to highlight the significant impact of gross interest paid by households on the saving rate is made.

2. Households and Non-Profit Institutions Serving Households (NPISHs)

According to the ESA2010, "the households sector (S.14) consists of individuals or groups of individuals as consumers and as entrepreneurs producing market goods and non-financial and financial services (market producers) provided that the production of goods and services is not by separate entities treated as quasi-corporations. It also includes individuals or groups of individuals as producers of goods and nonfinancial services for exclusively own final use." [ESA2010 2.118]

The households sector includes employers (S.141) and own-account workers (S.142); these "consist of the group of households for which the (mixed) incomes accruing to the owners of household unincorporated enterprises from their activity as producers of market goods and services with or without paid employees are the largest source of income for the household as a whole, even if it does not account for more than half of total household income." [ESA2010 2.122]

In National Accounts, "the NPISH sector (S.15) consists of non-profit institutions which are separate legal entities, which serve households and which are private non-market producers. Their principal resources are voluntary contributions in cash or in kind from households in their capacity as consumers, from payments made by general government and from property income. (…) NPISH sector includes: trade unions, professional or learned societies, consumers' associations, political parties, churches or religious societies (including those financed but not controlled by governments), and social, cultural, recreational and sports clubs; and charities, relief and aid organisations financed by voluntary transfers in cash or in kind from other institutional units." [ESA2010 2.129 – 2.130]

According to the ESA2010 Transmission Programme, annual sector accounts data are collected for the actual households sector (S.14) as separated from non-profit institutions serving households - NPISH (S.15). Data should be provided backwards till 2012. However, some countries have been granted derogations from the ESA2010 data transmission program and are providing S.14 data together with S.15.

Table 1: Derogations

Derogations granted for S.14 / S.15 split in ESA2010 transmission program		
S.14 and S.15 to be provided as total S.14 + S.15 until expiration of the derogation	**5MSs**	First transmission in 2017
S.14 and S.15	**1MS**	Transmission at t+21months

3. Households and Quasi-Corporations

According to ESA2010 [2.122], the households sector (S.14) includes employers (S.141) and own-account workers (S.142), consisting of the group of households for which the incomes accruing to the owners of household unincorporated enterprises from their activity are the largest source of income.

ESA2010 also defines quasi-corporations as "entities which keep a complete set of accounts and have no legal status. They have an economic and financial behaviour that is different from that of their owners and similar to that of corporations. They are deemed to have autonomy of decision and are considered as distinct institutional units." [ESA2010 2.13(f)]

Most difficulties in identification of quasi-corporations relate to allocation of producer units between non-financial/financial corporations (S.11 and S.12) and households (S.14) sectors.

The inclusion of the quasi-corporations in the household sector in the national accounts and the country specific implementation rules have an influence on the scope and comparability of the household sector accounts within the National Accounts framework but also makes it difficult to compare with the micro data stemming from household surveys such as EU-SILC.

Two main types of unincorporated entities - which are not defined in ESA2010 (and in 2008SNA as well) - but are essential for the quasi-corporations analysis are sole proprietorship and unlimited liability partnership:

(SP) Sole Proprietorship - type of business entity that is owned by one individual (natural person) and in which there is no legal distinction between the owner and the business. The owner receives all profits (subject to taxation specific to the business) and has unlimited responsibility for all losses and debts.

(UP) Unlimited Liability Partnership - type of business entity in which two or more individuals manage the business collectively and who are personally liable for its debts.

Unlimited liability partnerships (UP) are not included in the survey data at all. Sole proprietorship (SP) are included, however the reliability of these data in the household survey is an issue to be considered.

International manuals specify only general principles underlying identification of quasi-corporations. From the theoretical point of view, it is not deemed useful to develop precise quantitative criteria for allocation of unincorporated units among relevant sectors. SNA2008 states that "experience has shown that countries have difficulty treating unincorporated enterprises owned by households as quasi-corporations. However, it is not useful to introduce additional criteria, such as size, into the definition of quasi-corporations owned by households. If an enterprise is not in fact operated like a corporation and does not have a complete set of accounts of its own, it cannot and should not be treated as a quasi-corporation however large it may be". [SNA2008 4.46]

In practice, however, thorough examination of unincorporated units for their compliance with general theoretical principles underlying delineation of quasi-corporations would require excessive resources taking into account that detailed information on these units' activities and management practices is not easily accessible. Thus, reliance on certain simplified benchmarks in order to take account for practical constraints seems inevitable for the purpose of practical delineation decisions.

Countries approaches to delineation and measurement of quasi-corporations in national accounts were investigated by TF-QSA by means of ad-hoc questionnaire in 2010. The results were then integrated by using information from the survey on the compilation of annual households' current accounts conducted by Eurostat/OECD Expert Group on Disparities in National Accounts in 2011 for EU countries not included in the 2010 TF-QSA survey. The collected information were further verified and amended in the framework of relevant discussions in TF-QSA in 2013-2014.

Overall the results show heterogeneity in both relevance of unincorporated units among EU Member States and criteria for their classification among relevant institutional sectors.

Table 2: Share of persons employed in SPs and UPs combined in total employment by enterprises

Country	Total unincorporated units (% of total employment)
A	59.2
B	41.9
C	38.5
D	34.9
E	24.3
F	23.8
G	21.8
H	21.6
I	18.8
J	18.8
K	17.1
L	16.7
M	13.2
N	12.3
O	10.2
P	7.6
Q	6.8
R	6.7
S	6.4

Source: TF-QSA surveys, YYYY

Part of the distributed income of corporations (D.42) are the withdrawals from the income of quasi-corporations (D.422), which is registered in the resources in the allocation of primary income account of the owner sectors (households in this case). These are "the amounts which entrepreneurs withdraw for their own use from the profits earned by the quasi-corporations which belong to them" [ESA2010 4.58]. This transaction is not mandatory in the ESA2010 Transmission Programme and therefore it is sent only by few countries. The amounts are often very small (if not null), and it is correctly added for the calculation of the disposable income of households.

Table 3: Member States practices with respect to determination of QC separate from Households

Description	Countries	Criteria range
No QC identified, all unincorporated enterprises are recorded in sector S.14	**8MSs**	-
Unincorporated units are allocated in line with legal form: all sole proprietorships are allocated into S.14, all partnerships to S.11/S.12	**10MSs**	Legal form only
Unincorporated units with simplified accounting allocated to S.14; unlimited partnerships with double entry bookkeeping obligation allocated to S.11/S.12	**1MS**	Legal form and double entry bookkeeping obligation
Number of employees is used as delineation criteria for both sole proprietors and unlimited partnerships	**2MSs** *(1MS combined with turnover)*	2 to 10 employees
Legal form and number of employees are used as delineation criteria for sole proprietors only; unlimited partnerships are fully allocated into S.11/S.12	**4MSs** *(combined with turnover)* *In 2MSs type of economic activity is also taken into account*	1 to 50 employees
Legal form and monetary threshold (turnover) is used as delineation criteria	**3MSs** *(1MS combined with number of employees)*	EUR 1.5 to 10 millions

Source: TF-QSA document – Eurostat C1/NAWG/841

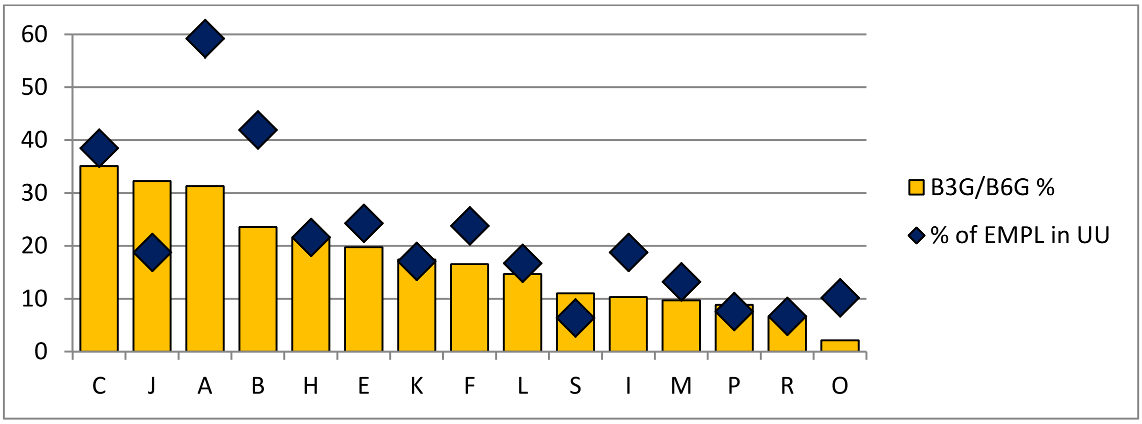
Relevance of Unincorporated Units for the calculation of household Gross Disposable Income

Given that on the basis of the information above in some cases it is practically impossible to allocate Unincorporated Units between S.11 and S.14 coherently within EU Member States, what are the practical effects of the inclusion of Unincorporated Units within S.14? The first step is to analyse the weight of this inclusion in the calculation of B6G. This can be done indirectly by comparing the results of 2011 TF-QSA survey and Sector Accounts data for the same year.

Following the definition of employers and own-account workers (S.141 and S.142) provided in ESA2010 manual – paragraph 2.122 – the "relevance" of mixed income in the calculation of B6G should be positively correlated with the share of persons employed in Unincorporated Units as a share of total employment.

The data shows the following:

Figure 1: the relevance of unincorporated units



Source: TF-QSA surveys & Eurostat NA, YYYY.

The correlation between the two series is +0.77.

Is the value of B3G for S.14 influenced by the "broad" delimitation of S.14 in ESA2010 in EU Member States where a high share of workers are employed in Unincorporated Units?

Mixed evidence emerges on this point: the effects of the broad delimitation of S.14 on the relevance of B3G within B6G components may depend also on the specific characteristics of unincorporated units within each country – number of employees, for example. Detailed information is needed to properly answer the question above beyond the use of indirect inference.

4. The effects of Interest of Property Income on the Saving Rate

All balancing items of the accounts are calculated on the basis of the reconciled transactions. One transaction which sparks debate is the treatment of interest (D.41). Property income (D.4) is the sum of investment income and rent where net interest (D.41) is a form of property income (D.4) that is receivable by the owners of a certain kind of financial asset, namely deposits (AF.2), debt securities (AF.3), loans (AF.4) and other accounts receivable (AF.8), for putting them at the disposal of another institutional unit (ESA2010 4.42). These financial assets are all claims of creditors over debtors. Within the national accounts, the payment or receipt of interest is divided into the service part and into the national accounts concept of interest. The actual payments or receipts to and from financial institutions (S.12), called bank interest, need to be separated so that the national accounts concept of interest (D.41) and the service charge may be recorded separately.

The transaction which would correctly refer to the interest paid by households on loans for an example is D.41g Pay. FISIM (financial intermediation services indirectly measured) adjustments are made to return bank interest by the estimated values of charges payable back to households. In D.41 Pay, the amounts of national accounts interest paid by households to financial institutions is less than bank interest by imputed charges made by financial corporations acting as intermediaries, i.e. interest charges on loans net of FISM. Households however pay gross bank interest, and these charges are real and should be included.

The same applies to interest receivable by depositors, which is higher than bank interest by the amount of the service charge payable (D.41 Rec). In a specific country, where the households' net interest is significantly positive unlike all other regions (financial institutions place debt securities to household customers via retail bank deposits), the service charges payable should perhaps be excluded.

The values of these service charges are recorded as sales of services in the production accounts of financial institutions and as uses in the accounts of households. Total interest before FISM allocation (D.41g) is a component of the households' final consumption expenditure (P.3). The sources and methods used for the calculation of P.31 of S.14_S.15 are documented in the QNA inventories, available from the Eurostat website for most full-reporting ASA countries. In the national accounts measure of households' gross disposable income, D.41 (interest net of FISM) therefore should not constitute a problem since the treatment in national accounts is on a net interest basis (interest paid and interest received by households from the financial institutions is netted) and FISIM is recorded in the accounts as P.1 P.2 and P.3 of the household sector, however the effective interest incurred by the household is not captured in this measure of gross disposable income.

Interest payments on mortgages, for an example, are tangible observations by households and the decision to take a loan to finance the purchase of a house is based on the disposable income available before interest payments. A more appropriate measure in this case would exclude interest paid by households depending on the country and include only interest received. The calculation of a household saving ratio on such a gross disposable income measured to include only D.41g Rec (actual interest received by households from financial institutions) already includes households' expenditure on interest payments. Gross saving (B8G) is the difference between gross disposable income (B6G) and their final consumption expenditure (P.3) which in national accounts methodology includes gross interest, therefore the component of households' P.3 which includes FISIM should be excluded when calculating such a saving ratio.

Furthermore, the national accounts measure of gross disposable income (B6G) is calculated on the basis of the reconciled transactions which may not be real observations by households. For example, net interest (D.41) applies to financial assets such as financial leases which represents a method of financing the purchase of any asset where the lessor acquires the asset and the lessee contracts to pay rentals, the lessor is treated as making a loan to the lessee, this loan being repaid over the period of the lease. This may represent the value that households enjoy but derive from their employment or self-employment in quasi-corporations, an amount they would otherwise have to pay in interest to reach the same use of assets and/or services. This is an example of the concepts present when measuring interest (D.41) in another institutional sector but which are observed by the household sector. Therefore the national accounts measure of household's disposable income can differ from the real experience of households. It would be necessary to consider a calculation to remove (add) such components resulting in a measure closer to the one observed by households.

5. Results

Table 3 shows the saving rates of most of the European countries for 2014. The saving rates have been calculated using the following formula:

$$\frac{B6G + D8NET - P31}{B6G + D8NET},$$

where B6G is gross disposable income, D8NET is the net adjustment for the change in pension entitlements (Rec minus Pay) and P.31 is individual consumption expenditure.

In the first column the formula is applied to the households and NPISHs sectors together, as currently calculated by Eurostat and many statistical offices (mainly due to lack of data of the split between the two sectors); in the second column the same formula is applied to the household sector; in the third column gross disposable income has been calculated using D.41G instead of D.41; in the last column only D.41G Rec is considered for the calculation of gross disposable income, by adding D.41G Pay which includes households' expenditure on FISIM, therefore this component has been deducted from P.31.

While the final column makes an adjustment to gross disposable income by excluding interest paid by households, it must be noted this is done only for comparative reasons and that the derived saving rate is not representative of the actual saving rate which this paper is attempting to derive. The purpose is to attempt to show a preliminary impact and weight of gross interest paid by households on the saving rate, which is considerably bigger for certain countries compared to others. It order to quantify the impact of interest paid by house owners for loans on the saving rate, it would be necessary to decompose interest in the financial assets it applies to and consider only loans (AF.4) taken by households to finance house purchases.

Table 4: Saving rate "adjusted"

Country	Households + NPISHs	Households	Households (using D.41G)	Households (using D.41G Rec only)
European Union	10.27%	NA	NA	NA
Euro area	12.52%	NA	NA	NA
Belgium	12.56%	13.21%	11.02%	11.96%
Bulgaria	NA	NA	NA	NA
Czech Republic	11.77%	11.89%	10.00%	10.28%
Denmark	4.40%	4.05%	NA	NA
Germany	16.85%	NA	NA	NA
Estonia	8.22%	8.22%	6.41%	6.96%
Ireland	5.00%	NA	NA	NA
Greece	NA	NA	NA	NA
Spain	9.63%	9.66%	8.19%	9.90%
France	14.05%	14.40%	12.84%	13.57%
Croatia	11.84%	11.98%	NA	NA
Italy	10.46%	10.64%	9.16%	9.75%
Cyprus	-10.84%	-9.70%	NA	NA
Latvia	-0.78%	-1.83%	-3.44%	-3.03%
Lithuania	0.13%	0.16%	-0.76%	-0.08%
Luxembourg	NA	NA	NA	NA
Hungary	10.21%	10.44%	7.87%	8.78%
Malta	NA	NA	NA	NA
Netherlands	13.08%	13.59%	7.29%	8.60%
Austria	13.31%	NA	NA	NA
Poland	1.94%	2.82%	NA	NA
Portugal	5.74%	NA	NA	NA
Slovenia	14.09%	14.29%	13.11%	14.08%
Romania	NA	NA	NA	NA
Slovakia	9.26%	9.56%	7.13%	7.19%
Finland	7.20%	7.71%	6.38%	6.91%
Sweden	17.65%	17.71%	15.39%	16.66%
United Kingdom	6.80%	NA	NA	NA
Norway	14.27%	14.52%	10.54%	13.22%

Source: Eurostat NA, 2014

6. Conclusion

A marked difference is observed in each adjustment of the saving rate of the "clean" household sector.

NPISHs and interest issues can be addressed within ESA2010 and possibly implemented within the current national account framework. The issue of unincorporated enterprises mainly refers to countries' legislation; a proper assessment of the impact of the inclusion of unincorporated enterprises in the S.14 sector is the next step to "clean" the household sector – and its saving rate - in a more decisive way.