HOUSING AND THE HICP – IT'S ALL ABOUT COMPROMISE

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1 Introduction

The regulation framework for the Harmonised Indices for Consumer Prices (HICPs) sets out the coverage of the HICPs as Household Final Monetary Consumption Expenditure (HFMCE). The definition of HFMCE was intended to provide a link with the European System of Accounts (ESA 1995). HFMCE is defined as that part of final consumption expenditure incurred in monetary transactions on consumption goods and services. This definition, as regulated, excludes nearly all owner occupiers' housing costs.

The exclusion of housing from the HICP has been seen as a limitation to its usefulness, a restriction that was initially intended to be a temporary situation. Much recent activity by Eurostat, Member States and other organisations, including the UK ONS, has focussed on development of robust and comparable measures of owner occupiers' housing costs, and their inclusion in an expanded HICP. Yet the inclusion of these measures, no matter what their final form, represents a change to the fundamental basis of the HICP.

This paper considers the measurement of owner occupiers' housing in the System of National Accounts, and different compromises to HFMCE that would be required to include owner occupiers' housing in the HICP. Annexes to this paper include a detailed description of owner occupiers housing costs in the 2008 SNA, as well as a side-by-side comparison of the SNA concept of household final consumption expenditure, and HFMCE that underpins the HICP.

2 Household Final Monetary Consumption Expenditure and owner occupiers' housing costs

Household Final Monetary Consumption Expenditure is defined by two companion pieces of European Regulation. First, in the regulation concerning the geographic and

population coverage of the HICP, HFMCE is defined as that part of final consumption expenditure which is incurred:

- by households irrespective of nationality or residence status, and
- in monetary transactions, and
- on the economic territory of the Member State, and
- on goods and services that are used for the direct satisfaction of individual needs or wants, and in one or both of the time periods being compared[1].

Second, in the regulation concerning the coverage of goods and services in the HICP[2], the definition of HFMCE is clarified[3] with respect to borderline cases.

One example of these borderline clarifications is small repairs and maintenance as typically carried out by tenants, which are to be included in the HFMCE. Another example is that directly charged financial services (that are part of final consumption expenditure) are also to be included in HFMCE.

One the other hand, the clarifying regulation indicates that the provision of dwelling services provided to owner occupiers' are to be excluded from HFMCE, as are the purchases of dwellings (and non produced assets such as land). Similarly, expenditure that an owner-occupier incurs on the decoration, maintenance and repair of the dwelling (not typically carried out by tenants) is also to be excluded from HFMCE.

3 Treatment of owner occupiers housing costs in the 2008 SNA

The System of National Accounts is concerned with the measurement of economic activity. The SNA treats owner occupier households as unincorporated enterprises that provide dwelling services to their own household – in effect, owner occupier households rent their (capital) dwelling from themselves. The provision of these services falls within the production boundary of the SNA. Owner occupiers' purchase of housing is the only such consumption service that receives this "flow of services" treatment within the SNA, with all other household sector durables essentially treated as consumption goods.[4]

Since the SNA is an integrated framework, the provision and consumption of these "dwelling services" must appear within appropriate accounts within the SNA. Imputed income provided to the household appears as operating surplus in the

[1] COUNCIL REGULATION (EC) No 1688/98 of 20 July 1998 amending Commission Regulation (EC) No 1749/96 concerning the geographic and population coverage of the harmonised index of consumer prices

[2] COUNCIL REGULATION (EC) No 1687/98 of 20 July 1998 amending Commission Regulation (EC) No 1749/96 concerning the coverage of goods and services of the harmonised index of consumer prices

[3] This full and clarified definition is provided as an appendix to this paper, along with a comparison of HFMCE with Household Final Consumption Expenditure from the 2008 System of National Accounts (2008 SNA).

[4] Strictly speaking, the UK national accounts do make a few other imputations of this kind: "Similar imputations are made for domestic garages but not those used for parking near workplaces. Rental values of owner-occupied dwellings abroad (e.g. holiday homes) are recorded as imports of services, and any net surplus as primary income received from the rest of the world (with analogous entries for dwellings in the UK owned by non-residents)." Page 44, *United Kingdom National Accounts concepts, sources and methods*

generation of income account, and in the balancing item for household sector for the allocation of primary income account. The reciprocal (imputed) expenditure for owner occupiers' appears in the use of income account.

Decorations and minor DIY maintenance appear in the SNA as consumption expenditure, and for both owner occupiers and tenants appear as final consumption expenditure.

This is not the case for more substantial repairs, which are not treated as consumption expenditure. Substantial repairs, such as re-plastering walls or repairing roofs, carried out by owners, are essentially intermediate inputs into the production of housing services. However, the production of such repairs by an owner-occupier is only a secondary activity of the owner in his capacity as a producer of housing services. The production accounts for the two activities may be consolidated so that, in practice, the purchases of materials for repairs become intermediate expenditures incurred in the production of housing services. Major renovations or extensions to dwellings are fixed capital formation and recorded separately.

Costs associated with acquisition of (and transfer of ownership of) dwellings are seen as gross fixed capital formation. Under the SNA, fees paid to lawyers, architects, surveyors, engineers and valuers, commissions paid to estate agents and auctioneers, and taxes payable by the unit acquiring the asset on the transfer of ownership of the asset are all considered gross fixed capital formation, and never as consumption expenditure.

4 Comparison of HFMCE and the 2008 SNA with respect to owner occupiers' housing costs

The 2008 SNA treats dwelling acquisition as a capital purchase, and assumes that householders receive a flow of dwelling services from this capital. Both payment and income for this flow of services are imputed transactions in the 2008 SNA.

HFMCE excludes both non-monetary expenditures, and capital acquisition; indeed, the purchase of dwellings and the imputed expenditure on housing services are explicitly excluded from HFMCE in the amending regulation.

Using the current definition of HFMCE, owner occupiers' housing costs cannot be included in the HICP. Yet the inclusion of housing in the HICP is clearly a desirable goal, and has been a stated aim of the UK ONS, Eurostat and other member states.

5 The owner occupiers' housing costs pilot study

The UK ONS, along with other Members States of the European Union, has participated in a series of pilot studies developing price indices for owner occupiers' housing costs. The preferred approach to measurement within the pilot study has been the "net acquisitions" approach: specifically, the cost of 'new to the household sector' dwellings (excluding the cost of the land), plus the cost of major repairs, transfer costs, stamp duties and dwellings insurance. This effectively treats the

acquisition of a dwelling together with land as part consumption (the dwelling) and part capital (the land).

6 Comparison of the net acquisitions approach with the SNA

The conceptual basis for the net acquisitions approach to owner occupied housing begins with the assumption that a house purchase is the purchase of good that is part consumable, part asset. Whereas the System of National Accounts considers an owner occupiers' household to be an investment, the net acquisitions approach reflects that owner occupied housing has a dual nature:

1. Economists regard all housing as fixed capital and hence would exclude purchases of dwellings from household consumption. While this is unambiguously the case for housing purchased for rental, the case is less clear-cut when it comes to housing for owner-occupation. Although households recognize the likelihood of making capital gains when they purchase housing and invariably regard their dwelling as an asset, they also commonly cite the primary motivation for the purchase of a dwelling as being to gain access to a service (i.e. shelter and security of tenure). From the households' perspective, therefore, the costs borne by owner-occupiers in respect of their principal dwelling represent a mix of investment and consumption expenditure, and the total exclusion of these costs from an acquisitions-based CPI (such as they HICP) can lead to a loss of confidence in the CPI by the population at large.
2. The problem confronting compilers of CPIs (including HICPs) is how to separate the two elements so as to include only the consumption element in the CPI. Although there is no single agreed technique, one approach is to regard the cost of the land as representing the investment element and the cost of the structure as representing the consumption element. The rationale for this is that while the structure may deteriorate over time and hence be ''consumed'', the land remains at constant quality for all time (except under extremely unusual circumstances). As the land (or location element) accounts for most of the variation in observable prices for otherwise identical dwellings sold at the same point in time, the exclusion of land values may also be seen as an attempt to exclude asset price inflation from the CPI. (Measures of asset price inflation are, of course, useful in their own right).[5]

Therefore the net acquisitions approach considers the structure of the dwelling itself, distinct from the land, to be a consumable, and treated no differently from any other consumer good. Land is still considered to be a non-produced asset and out of scope of the HICP.

7 Consequences – what should happen when we consider a house as a consumption good?

The re-classification of the dwelling structure as a consumable has further implications for the scope of the net acquisitions price index. Several types of expenditure are associated with the acquisition and use of dwellings. Under the SNA,

[5] International Labour Organization, (2004), *Consumer Price Index Manual: Theory and Practice*, 10.43-10.44

stamp duty and transfer costs would be treated as part of gross fixed capital formation (GFCF), being inextricably linked with the acquisition of capital; but when the dwelling structure is considered to be a durable consumption good these costs should be instead treated as the costs associated with the acquisition of a consumption good, and therefore within scope of the CPI. Major refurbishment, additions or alterations are likewise considered to be GFCF under the SNA, but when the original good is considered a consumption good, these too are also seen as consumption goods and services.

Likewise, to continue to consume the dwelling services provided by owner occupied dwellings (at constant quality), households are periodically required to maintain these dwellings. Many households also choose to insure their dwellings against damage and fire etc. to maintain shelter security. Whereas the SNA treats these costs are being associated with maintaining a capital asset, when a dwelling structure is considered to be a durable consumption good, these expenditures should also be considered to be consumption expenditure, and again in scope of the HICP.

The SNA concept of Household Final Consumption Expenditure, and the derivative Household Final Monetary Consumption Expenditure which underpins the HICP, both exclude transfers between households. With respect to house purchases, when dwelling structures are considered to be a consumer good, the scope of the HICP would be restricted to net dwelling purchases from outside the household sector. This would include new buildings, rebuilding on land previously used for owner occupied housing, and transfers from both the private and state rental markets. Offsetting this would be any demolition of buildings owned by the household sector, and where previously owner occupied housing transfers to the rental market.

The “net sector” restriction eliminating transfers does not extend to costs associated with acquisition or maintenance of dwellings: the transfer of a dwelling between different households still incurs costs which are paid external to the household sector, and these are within scope of the index. Likewise additions and alterations to, and repair and maintenance of dwelling structures are included regardless of whether the dwelling is new to the sector or acquired as a transfer from another household, and are in scope of the net acquisitions index.

More formally, assuming the principal purpose of the HICP is as a macro economic measure of inflation, the appropriateness of a net acquisitions approach can be viewed from several aspects:

1. The macro economic measurement of inflation must be concerned with the measurement of prices of consumer goods and services derived from monetary transactions;
2. The macro economic measurement of inflation must be concerned with actually incurred monetary transactions, recorded in full at the point when the financial liability is incurred;
3. The macro economic measurement of inflation must, by its very nature, be consistent with other macro economic measures, in particular the System of National Accounts (SNA);
4. Owner occupiers’ housing costs are sufficiently unique that the rigid adherence to the treatment of owner occupiers’ housing as being solely capital expenditure should not be a constraint, and that the best measure of the change in price of the

consumption part of owner occupiers' housing should be applied. The ILO CPI Manual (2004) formally acknowledges this sort of compromise. The adherence to the acquisitions principle is recommended by the 17th International Conference of Labour Statisticians:

> In determining the scope of the index, the time of recording and valuation of consumption, it is important to consider whether the purposes for which the index is used are best satisfied by defining consumption in terms of "acquisition", "use", or "payment". ***The "acquisition" approach is often used when the primary purpose of the index is to serve as a macroeconomic indicator.*** The "payment" approach is often used when the primary purpose of the index is for the adjustment of compensation or income. Where the aim of the index is to measure changes in the cost of living, the "use" approach may be most suitable. The decision regarding the approach to follow for a particular group of products should in principle be based on the purpose of the index, as well as on the costs and the acceptability of the decision to the users who should be informed of the approach followed for different products. Because of the practical difficulties in uniformly defining consumption and estimating the flow of services provided by other durable goods in terms of "use", it may be necessary to adopt a mixed approach, e.g. "use" for owner-occupied housing and "acquisition" or "payments" basis for other consumer durables.[6]

8 Compromise – the approach undertaken in the pilot study

In the EU pilot study, the acquisition of a dwelling has been treated as a consumption good, and monetary costs inextricably linked to the acquisition and maintenance of this good are likewise considered as consumption expenditure. The necessity of treating the dwelling, and the dwelling alone, as consumption expenditure in turn introduces other compromises. The cost of major repairs, transfer costs, stamp duties and dwellings insurance are also considered as part of consumption expenditure as part of the pilot study. Yet only *part* of these expenditures are associated with the dwelling structure itself; some are associated with the land, and should more properly remain as part of GFCF and not be included in a consumers' price index.

In practice, it is likely that separating out the "dwelling only" components of these expenditures will be difficult if not impossible. Consequently, the resulting coverage of an expanded HICP will be an approximation of ideal or target scope[7]. The UK ONS suggests that these details be expressly considered in any framework outlining the scope and coverage of an expanded HICP, and that these compromises be described explicitly.

[6] 17th International Conference of Labour Statisticians (2003), Resolution II, Resolution concerning consumer price indices, paragraph 15.

[7] Note that this compromise should not be considered a deficiency of the net acquisitions approach; indeed, other equally demanding compromises would be required even if an expanded HICP had chosen to adopt a user cost approach such as rental equivalence.

Annex A– Details of the treatment of owner occupiers' in the 2008 System of National Accounts

Introduction

1. This Annex describes the treatment of owner occupiers' housing costs in the 2008 System of National Accounts (2008 SNA). This includes the treatment of owner occupiers as producing units, their place with respect to the production boundary, the view that owner occupied houses provide a flow of services which are consumed by their owners, and the treatment of repairs, maintenance, transfer fees and other costs that might be associated with owning and occupying a private dwelling for the purposes of shelter.

The production account

2. Production is an activity, carried out under the responsibility, control and management of an institutional unit, which uses inputs of labour, capital, and goods and services to produce outputs of goods and services[8].
3. The production boundary of the SNA (defining what is and what isn't included in the measurement of production), includes the following activities
   a. The production of all goods or services that are supplied to units other than their producers, or intended to be so supplied, including the production of goods or services used up in the process of producing such goods or services;
   b. The own-account production of all goods that are retained by their producers for their own final consumption or gross capital formation;
   c. The own-account production of knowledge-capturing products that are retained by their producers for their own final consumption or gross capital formation but excluding (by convention) such products produced by households for their own use;
   d. The own-account production of housing services by owner occupiers; and
   e. The production of domestic and personal services by employing paid domestic staff.[9]
4. Yet the production boundary also excludes most services produced by households. In particular, the following activities undertaken by households and consumed by members of the same household are explicitly excluded from the production account in the SNA:
   a. The cleaning, decoration and maintenance of the dwelling occupied by the household, including small repairs of a kind usually carried out by tenants as well as owners;
   b. The cleaning, servicing and repair of household durables or other goods, including vehicles used for household purposes;
   c. The preparation and serving of meals;
   d. The care, training and instruction of children;
   e. The care of sick, infirm or old people;
   f. The transportation of members of the household or their goods[10].
5. The SNA gives reasons for not imputing values for unpaid domestic personal services produced and consumed within the same household, noting the simultaneous production and consumption of such services within households is a self contained economic activity, with limited repercussions on the rest of the

[8] 2008 SNA 6.2
[9] 2008 SNA 6.27
[10] 2008 SNA 6.28

economy. Further, as most services are not produced for market, there are typically no suitable market prices that could be used to impute such values. With the exception of the imputed rent of owner occupied dwellings, the decision to produce services for own consumption is not influenced by and does not influence economic policy because the imputed values are not equivalent to monetary flows. Changes in the levels of household services produced do not affect the tax yield of the economy or the level of the exchange rate, to give two examples. [11]

Services of owner occupied dwellings

6. Services of owner occupied dwellings receive special treatment within the SNA production account. The production of housing services for their own final consumption by owner occupiers has always been included within the production boundary in national accounts, although it constitutes an exception to the general exclusion of own-account service production. The ratio of owner occupied to rented dwellings can vary significantly between countries, between regions of a country and even over short periods of time within a single country or region, so that both international and inter-temporal comparisons of the production and consumption of housing services could be distorted if no imputation were made for the value of own-account housing services. The imputed value of the income generated by such production is taxed in some countries.[12]

"Do-it-yourself" decoration, maintenance and small repairs

7. "Do-it-yourself" repairs and maintenance to consumer durables and dwellings carried out by members of the household constitute the own-account production of services and are excluded from the production boundary of the SNA. The materials purchased are treated as final consumption expenditure.[13]
8. In the case of dwellings, "do-it-yourself" activities cover decoration, maintenance and small repairs, including repairs to fittings, of types that are commonly carried out by tenants as well as by owners. On the other hand, more substantial repairs, such as re-plastering walls or repairing roofs, carried out by owners, are essentially intermediate inputs into the production of housing services. However, the production of such repairs by an owner-occupier is only a secondary activity of the owner in his capacity as a producer of housing services. The production accounts for the two activities may be consolidated so that, in practice, the purchases of materials for repairs become intermediate expenditures incurred in the production of housing services. Major renovations or extensions to dwellings are fixed capital formation and recorded separately[14].

The use of consumption goods

9. The use of goods within the household for the direct satisfaction of human needs or wants is not treated as production. This applies not only to materials or equipment purchased for use in leisure or recreational activities but also to foodstuffs purchased for the preparation of meals. The preparation of a meal is a service activity and is treated as such in the SNA and ISIC Rev.4. It therefore falls

[11] 2008 SNA 6.29, which also goes on to indicate that the production of *goods* by households is a different matter, since surplus production can enter the marketplace, and for which there are readily available market prices.
[12] 2008 SNA 6.34
[13] 2008 SNA 6.36
[14] 2008 SNA 6.37

outside the production boundary when the meal is prepared for own consumption within the household. The use of a durable good, such as a vehicle, by persons or households for their own personal benefit or satisfaction is intrinsically a consumption activity and should not be treated as if it were an extension, or continuation, of production.[15]

Measurement of output, and treatment of households as unincorporated enterprises.

10. When considering the measurement of output, the SNA considers services provided by owner occupied dwellings to be special instances of production of output for own final use. Output for own final use consists of products retained by the producer for his own use as final consumption or capital formation[16]. Households that own the dwellings they occupy are formally treated as owners of unincorporated enterprises that produce housing services consumed by those same households. When well-organized markets for rented housing exist, the output of own-account housing services can be valued using the prices of the same kinds of services sold on the market in line with the general valuation rules adopted for goods or services produced on own account. In other words, the output of the housing services produced by owner occupiers is valued at the estimated rental that a tenant would pay for the same accommodation, taking into account factors such as location, neighbourhood amenities, etc. as well as the size and quality of the dwelling itself. The same figure is recorded under household final consumption expenditures. In many instances, no well organized markets exist and other means of estimating the value of housing services must be developed.[17]

Maintenance and repairs: intermediate consumption versus gross fixed capital formation

11. Intermediate consumption measures the value of goods and services that are transformed or entirely used up in the course of production during the accounting period. It does not cover the costs of using fixed assets owned by the enterprise nor expenditures on the acquisition of fixed assets.[18]
12. The distinction between maintenance and repairs and gross fixed capital formation is not clear-cut. The ordinary, regular maintenance and repair of a fixed asset used in production constitute intermediate consumption. Ordinary maintenance and repair, including the replacement of defective parts, are typical ancillary activities (even of unincorporated enterprises such as owner-occupiers) but such services may also be provided by a separate establishment within the same enterprise or purchased from other enterprises[19].
13. The practical problem is to distinguish ordinary maintenance and repairs from major renovations, reconstructions or enlargements that go considerably beyond what is required simply to keep the fixed assets in good working order. Major renovations, constructions, or enlargements of existing fixed assets may enhance their efficiency or capacity or prolong their expected working lives. They must be treated as gross fixed capital formation as they add to the stock of fixed assets in existence.[20]

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[15] 2008 SNA 6.38
[16] 2008 SNA 6.114
[17] 2008 SNA 6.117
[18] 2008 SNA 6.224
[19] 2008 SNA 6.226
[20] 2008 SNA 6.227

14. Ordinary maintenance and repairs are distinguished by two features:
    a. They are activities that owners or users of fixed assets are obliged to undertake periodically in order to be able to utilize such assets over their expected service lives. They are current costs that cannot be avoided if the fixed assets are to continue to be used. The owner or user cannot afford to neglect maintenance and repairs as the expected service life may be drastically shortened otherwise;
    b. Maintenance and repairs do not change the fixed asset or its performance, but simply maintain it in good working order or restore it to its previous condition in the event of a breakdown. Defective parts are replaced by new parts of the same kind without changing the basic nature of the fixed asset.[21]
15. On the other hand, major renovations or enlargements to fixed assets are distinguished by the following features:
    a. The decision to renovate, reconstruct or enlarge a fixed asset is a deliberate investment decision that may be undertaken at any time and is not dictated by the condition of the asset. Major renovations of ships, buildings or other structures are frequently undertaken well before the end of their normal service lives;
    b. Major renovations or enlargements increase the performance or capacity of existing fixed assets or significantly extend their previously expected service lives. Enlarging or extending an existing building or structure obviously constitutes a major change in this sense, but a complete refitting or restructuring of the interior of a building, or ship, also qualifies.[22]

The distribution of income accounts

16. Following the approach taken under the production account, owner occupiers are considered to be unincorporated enterprises. These enterprises undertake production (of dwelling services). This production yields income, which in turn must be considered in the income accounts: the generation of income account and the allocation of primary income account.
17. Primary incomes are incomes that accrue to institutional units as a consequence of their involvement in processes of production or ownership of assets that may be needed for purposes of production[23].
18. The generation of income account shows the sectors, sub-sectors or industries in which the primary incomes originate, as distinct from the sectors or sub-sectors destined to receive such incomes. For example, the only compensation of employees recorded in the generation of income account for the household sector consists of the compensation of employees' payable by unincorporated enterprises owned by households. This item is very different from the compensation of employee's receivable by the household sector, the allocation of primary income account.[24]

The generation of income account, operating surplus and mixed income

19. Key to the generation of income account is a balancing item that measures the surplus or deficit accruing from production before taking account of any interest, rent or similar charges payable on financial assets or natural resources borrowed

[21] 2008 SNA 6.228
[22] 2008 SNA 6.229
[23] 2008 SNA 7.2
[24] 2008 SNA 7.3

or rented by the enterprise, or any interest, rent or similar receipts receivable on financial assets or natural resources owned by the enterprise[25].

20. The balancing item is described as operating surplus except for unincorporated enterprises owned by households in which the owner(s) or members of the same household may contribute unpaid labour inputs of a similar kind to those that could be provided by paid employees. In the latter case, the balancing item is described as mixed income because it implicitly contains an element of remuneration for work done by the owner, or other members of the household, that cannot be separately identified from the return to the owner as entrepreneur. In many cases, though, the element of remuneration may dominate the value of mixed income. In practice, all unincorporated enterprises owned by households that are not quasi-corporations are deemed to have mixed income as their balancing item, except owner-occupiers in their capacity as producers of housing services for own final consumption, households leasing dwellings and households employing paid domestic staff. For owner-occupiers and those leasing dwellings, all value added is operating surplus. For domestic staff all value added is compensation of employees (unless any taxes or subsidies on production are payable or receivable on the output).[26]

The allocation of primary income account

21. Whereas the generation of income account focuses on resident institutional units or sectors in their capacity as producers whose activities generate primary incomes, the allocation of primary income account focuses on resident institutional units or sectors in their capacity as recipients of primary incomes.[27]
22. The balance of primary incomes is defined as the total value of the primary incomes receivable by an institutional unit or sector less the total of the primary incomes payable[28]. The composition of the balance of primary incomes varies from sector to sector; focussing on the household sector alone, the balance of primary incomes of the household sector consists of compensation of employees and mixed incomes accruing to households, plus property income receivable less property income payable. It also includes the operating surplus from housing services produced for own consumption by owner-occupiers.[29]
23. *In summary*: owner occupiers generate income in their capacity as producers of housing services for own final consumption, and this income is recorded in the generation of income account as operating surplus. In the allocation of primary income account, this operating surplus appears in the balance of primary incomes for the household sector.

The use of income accounts

24. The purpose of the use of income accounts is to show how households, government units and non-profit institutions serving households (NPISHs) allocate their disposable income between final consumption and saving. The use of disposable income account focuses on disposable income and the expenditure on consumption goods and services that can be met out of that income. In the second account, the use of adjusted disposable income account, attention is

[25] 2008 SNA 7.8
[26] 2008 SNA 7.9
[27] 2008 SNA 7.15
[28] 2008 SNA 7.18
[29] 2008 SNA 7.19

focused on the consumption goods and services acquired and used by institutional units, especially households, whether acquired by expenditure or by social transfers in kind.[30]

25. In the SNA a consumption good or service is defined as a good or service that is used (without further transformation in production as defined in the SNA) by households, NPISHs or government units for the direct satisfaction of individual needs (or wants) or for the collective needs of members of the community.[31]
26. An individual consumption good or service is one that is acquired by a household and used to satisfy the needs or wants of members of that household.[32]
27. A collective consumption service is a service provided simultaneously to all members of the community or to all members of a particular section of the community, such as all households living in a particular region.[33]
28. In the use of disposable income account, the main resource is disposable income, which is the balancing item carried forward from the secondary distribution of income account. The main use is final consumption expenditure. Final consumption expenditure is the amount of expenditure on consumption goods and services. In the use of adjusted disposable income account, the main resource is adjusted disposable income which is the balancing item carried forward from the redistribution of income in kind account. The main use is actual final consumption. Actual final consumption measures the amount of consumption goods and services acquired.[34].
29. Household final consumption expenditure is of key importance to the measurement of consumer inflation, and consists of expenditure incurred by resident households on consumption goods or services. As well as purchases of consumer goods and services, final consumption expenditure includes the estimated value of barter transactions, goods and services received in kind, and goods and services produced and consumed by the same household.[35]
30. Final consumption expenditure excludes expenditure on fixed assets in the form of dwellings or on valuables. Dwellings are capital goods used by their owners to produce housing services. Expenditure on dwellings by households, therefore, constitutes gross fixed capital formation. When dwellings are rented by their owners (to other households), rentals are recorded as output of housing services by owners and final consumption expenditure by tenants. When dwellings are occupied by their owners, the imputed value of the housing services enters into both the output and final consumption expenditure of the owners. Valuables are expensive durable goods that do not deteriorate over time, are not used up in consumption or production, and are acquired primarily as stores of value. They consist mainly of works of art, precious stones and metals and jewellery fashioned out of such stones and metals. Valuables are held in the expectation that their prices, relative to those of other goods and services, will tend to increase over time, or at least not decline. Although the owners of valuables may derive satisfaction from possessing them, they are not used up in the way that consumption goods, including consumer durables, are used up over time.[36]

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[30] 2008 SNA 9.1
[31] 2008 SNA 9.2
[32] 2008 SNA 9.3
[33] 2008 SNA 9.4
[34] 2008 SNA 9.7
[35] 2008 SNA 9.56
[36] 2008 SNA 9.57

Dwelling insurance

31. Within the SNA insurance services purchased by households are recorded as final consumption expenditure, *except* for the insurance services purchased by unincorporated enterprises owned by households, which are treated as intermediate consumption[37].

Services of owner occupied dwellings

32. Persons who own the dwellings in which they live are treated as owning unincorporated enterprises that produce housing services that are consumed by the household to which the owner belongs. The housing services produced are deemed to be equal in value to the rentals that would be paid on the market for accommodation of the same size, quality and type. Care must be taken in respect of any taxes paid on housing. Taxes such as value added tax are rarely paid on housing services, but if they are payable, they should be excluded from the value of owner-occupied housing if the owner-occupier is exempt from payment. The imputed values of the housing services are recorded as final consumption expenditures of the owners.[38]

Decoration, minor repairs and maintenance

33. "Do-it-yourself" activities of decoration and undertaking minor repairs, often of a routine nature, of a kind that would normally be seen as the responsibility of a tenant are treated as falling outside the production boundary. Purchases of materials used for such decoration or repairs should therefore be treated as final consumption expenditure, as should fees and service charges paid to builders, carpenters, plumbers, etc. Maintenance that is the responsibility of *tenants* is also treated as *final consumption expenditure*.[39]
34. Expenditures that owners, including owner-occupiers, incur on the decoration, minor repairs and maintenance of the dwelling that would normally be seen as the *responsibility of a landlord* should not be treated as household final consumption expenditure but as *intermediate expenditure* incurred in the production of housing services. These expenditures may consist either of payments for services provided by professional builders or decorators or purchases of materials for "do-it-yourself" repairs and decoration. In the latter case, no cost of the labour involved in the activity is included. The only value added for the imputed rent of owner-occupied housing is operating surplus.[40]

Major improvements

35. Expenditures on major improvements (that is, reconstructions, renovations or enlargements) to dwellings are not classed in the same way as decoration, minor repairs and maintenance. They are excluded from household consumption expenditure and are treated as gross fixed capital formation on the part of the owners of those dwellings, including owner-occupiers.[41]

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[37] 2008 SNA 9.64; insurance is also treated in detail in Chapter 17: Cross-cutting and other special issues
[38] 2008 SNA 9.65
[39] 2008 SNA 9.66
[40] 2008 SNA 9.67
[41] 2008 SNA 9.68

The repair and maintenance of durables

36. Expenditures on all repair and maintenance of consumer durables, including vehicles, are treated in the same way as minor repairs to dwellings of the type carried out by tenants. Repairs and maintenance constitute final consumption expenditure whether they are carried out by specialist producers or by members of the household as "do-it-yourself" activities. In the latter case, only the values of the materials purchased should be included in household consumption expenditure.[42]

The capital account

37. The purpose of the capital account, is to record the values of the non-financial assets that are acquired, or disposed of, by resident institutional units by engaging in transactions and to show the change in net worth due to saving and capital transfers.[43]
38. In the capital account, an asset is defined is a store of value representing a benefit or series of benefits accruing to the economic owner by holding or using the entity over a period of time. It is a means of carrying forward value from one accounting period to another.[44]
39. Gross fixed capital formation is measured by the total value of a producer's acquisitions, less disposals, of fixed assets during the accounting period plus certain specified expenditure on services that adds to the value of non-produced assets.[45]

The asset boundary

40. All goods and services supplied to the economy by means of production, imports or the disposal of produced assets must be used for exports, consumption (intermediate or final) or as part of capital formation. The boundary line between those products that are retained in the economy and are used for consumption and those products that are used for capital formation is known as the asset boundary. The asset boundary for fixed assets consists of goods and services that are used in production for more than one year.[46]
41. An important clarification is required concerning the asset boundary: consumer durables are not treated as fixed assets. The services these durables produce are household services outside the production boundary of the SNA. If, for example, a washing machine were to be treated as a fixed asset, the production boundary would have to be extended to include all laundry services, whether undertaken by machine or by hand. As it stands, the production boundary restricts laundry services to those services provided to other units but includes services provided by both machine and by hand. However, owner-occupied dwellings are not treated as consumer durables but are included within the asset boundary. The owner-occupiers are treated as owners of unincorporated enterprises producing housing services for their own consumption.[47]

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[42] 2008 SNA 9.69
[43] 2008 SNA 10.2
[44] 2008 SNA 10.8
[45] 2008 SNA 10.32
[46] 2008 SNA 10.33
[47] 2008 SNA 10.34

Costs incurred on acquisition and disposal of assets

42. Purchasing a fixed asset is often a complicated procedure that may involve using lawyers to establish legal title to the asset, engineers to certify that it is in satisfactory working order and so on. There may also be taxes to be paid occasioned by the change of ownership of the item.[48]
43. The benefits to be derived from the use of the asset in production have to cover these costs as well as the initial price of the asset.

Costs incurred on acquisition of an asset are treated as an integral part of the value of that unit's gross fixed capital formation.

44. The value at which the asset enters the balance sheet of its new owner therefore includes these costs. This applies to both new and existing assets.[49]
45. All the costs associated with acquiring and disposing of assets may be described as costs of ownership transfer. The costs of ownership transfer consist of the following kinds of items:
    a. All professional charges or commissions incurred by both units acquiring or disposing of an asset such as fees paid to lawyers, architects, surveyors, engineers and valuers, and commissions paid to estate agents and auctioneers;
    b. Any trade and transport costs separately invoiced to the purchaser;
    c. All taxes payable by the unit acquiring the asset on the transfer of ownership of the asset;
    d. Any tax payable on the disposal of an asset;
    e. Any delivery and installation or dis-installation costs not included in the price of the asset being acquired or disposed of; and
    f. Any terminal costs incurred at the end of an asset's life such as those required to render the structure safe or to restore the environment in which it is situated[50].
46. All these costs of ownership transfer are treated as gross fixed capital formation. They are attributed to the purchaser or seller of the asset according to which unit bears the responsibility of meeting the costs. The costs are written off via consumption of fixed capital over the period the new owner expects to hold the asset.[51]

Transactions in fixed assets – dwellings

47. Gross fixed capital formation in a particular category of fixed asset consists of the value of producers' acquisitions of new and existing products of this type less the value of their disposals of fixed assets of the same type. Gross fixed capital formation is not recorded until the ownership of the fixed assets is transferred to the unit that intends to use them in production unless it is being constructed to order under a contract agreed in advance. Thus, new assets that have not yet been sold form part of additions to inventories of finished goods held by the producers of the assets. Similarly, an imported product is not recorded as gross fixed capital formation until it is acquired by the unit that intends to use it.[52]

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[48] 2008 SNA 10.49
[49] 2008 SNA 10.50
[50] 2008 SNA 10.51
[51] 2008 SNA 10.52
[52] 2008 SNA 10.64

48. The SNA recommends showing acquisitions of certain categories of assets separately from disposals of those assets when this provides analytically useful data.[53]
49. Dwellings are buildings, or designated parts of buildings, that are used entirely or primarily as residences, including any associated structures, such as garages, and all permanent fixtures customarily installed in residences. Houseboats, barges, mobile homes and caravans used as principal residences of households are also included, as are public monuments identified primarily as dwellings.[54]
50. Examples include products included in CPC 2 class 5311, residential buildings and part of CPC 2.group 387. The former class includes single and multiple dwelling buildings as well as residential buildings for communities, retirement homes, hostels, orphans etc. The latter class includes prefabricated buildings, including those intended for housing or for buildings associated with housing such as garages.[55]
51. The costs of clearing and preparing the site for construction are part of the costs of new dwellings (and other buildings and structures) and are therefore included in the value of the buildings.[56]
52. Incomplete dwellings are included to the extent that the ultimate user is deemed to have taken ownership, either because the construction is on own-account or as evidenced by the existence of a contract of sale or purchase.[57]
53. Dwellings acquired for military personnel are included because they are used for the production of housing services, in the same way as dwellings acquired by civilian units[58].

Summary

54. The System of National Accounts is concerned with the measurement of economic activity. The SNA treats owner occupier households as unincorporated enterprises that provide dwelling services to their own household – in effect, owner occupier households rent their (capital) dwelling from themselves. The provision of these services falls within the production boundary of the SNA.
55. Owner occupiers' purchase of housing is the only such consumption service that receives this "flow of services" treatment within the SNA, with all other household sector durables essentially treated as consumption goods.
56. Since the SNA is an integrated framework, the provision and consumption of these "dwelling services" must appear within appropriate accounts within the SNA. Imputed income provided to the household appears as operating surplus in the generation of income account, and in the balancing item for household sector for the allocation of primary income account. The reciprocal (imputed) expenditure for owner occupiers' appears in the use of income account.
57. Decorations and minor DIY maintenance appears in the SNA as consumption expenditure, and for both owner occupiers and tenants appear as final consumption expenditure.
58. This is not the case for more substantial repairs, which are *not* treated as consumption expenditure. Substantial repairs, such as re-plastering walls or

[53] 2008 SNA 10.65
[54] 2008 SNA 10.68
[55] 2008 SNA 10.69 – the CPC is the Central Product Classification
[56] 2008 SNA 10.70
[57] 2008 SNA 10.71
[58] 2008 SNA 10.72

repairing roofs, carried out by owners, are essentially intermediate inputs into the production of housing services. However, the production of such repairs by an owner-occupier is only a secondary activity of the owner in his capacity as a producer of housing services. The production accounts for the two activities may be consolidated so that, in practice, the purchases of materials for repairs become intermediate expenditures incurred in the production of housing services. Major renovations or extensions to dwellings are fixed capital formation and recorded separately.

59. Costs associated with acquisition of (and transfer of ownership of) dwellings are seen as gross fixed capital formation. Under the SNA, fees paid to lawyers, architects, surveyors, engineers and valuers, commissions paid to estate agents and auctioneers, and taxes payable by the unit acquiring the asset on the transfer of ownership of the asset are all considered gross fixed capital formation, and never as consumption expenditure.

Annex B– Comparison of Household Final Consumption Expenditure (HFCE) with Household Final Monetary Consumption Expenditure (HFMCE)

Introduction

60. This Annex compares Household Final Consumption Expenditure (HFCE) from the Use of Income Account in the System of National Accounts, with Household Final Monetary Consumption Expenditure (HFMCE) which defines the coverage of the European HICP and UK CPI. In comparing these two consumption expenditure measures with respect to the CPI, it is necessary to define exactly what goods and services are covered, by whom, and where such expenditure takes place.
61. These differences are summarised in Table 1 at the end of this document.

Definitions and their sources

62. Household Final Consumption Expenditure is defined within the System of National Accounts as "expenditure incurred by resident households on consumption goods or services."[59].
63. Household Final Monetary Consumption Expenditure is defined by two companion pieces of European Regulation. First, in the regulation concerning the geographic and population coverage of the HICP, HFMCE is defined as that part of final consumption expenditure which is incurred:
    - by households irrespective of nationality or residence status, and
    - in monetary transactions, and
    - on the economic territory of the Member State, and
    - on goods and services that are used for the direct satisfaction of individual needs or wants, and in one or both of the time periods being compared.[60]
64. Second, in the regulation concerning the coverage of goods and services in the HICP[61], the definition of HFMCE is clarified with respect to borderline cases

    Borderline Inclusions
    - small repairs and maintenance as typically carried out by tenant;
    - consumer durables that perform their function over several periods;
    - directly charged financial services (that are part of final consumption expenditure);
    - the implicit service charge for non-life insurance;
    - all expenditure financed out of non-life insurance claims;
    - payments for those licenses and permits which provide a service; and

[59] 2008 SNA 9.56
[60] COUNCIL REGULATION (EC) No 1688/98 of 20 July 1998 amending Commission Regulation (EC) No 1749/96 concerning the geographic and population coverage of the harmonised index of consumer prices
[61] COUNCIL REGULATION (EC) No 1687/98 of 20 July 1998 amending Commission Regulation (EC) No 1749/96 concerning the coverage of goods and services of the harmonised index of consumer prices

- the purchase of output at non-economically significant prices (such as entrance fees to a museum)

Borderline Exclusions

- income in kind;
- social transfers in kind received by households;
- rebates by public authorities (implying that full price of goods and services are measured in HFMCE);
- (explicitly) the provision dwelling services provided to owner occupiers'[62];
- the purchase of dwellings (and non produced assets such as land);
- expenditure that an owner-occupier incurs on the decoration, maintenance and repair of the dwelling not typically carried out by tenants;
- expenditure on valuables;
- membership or subscriptions to clubs and non-profit institutions, unless the club, union, society or association can be considered as a market producer selling its services at an economically significant price (which are then included in HFMCE);
- donations to charity (in cash or in kind);
- payments of property income, including interest;
- payments for those licenses and permits which do *not* provide a service;
- compulsory or voluntary social contributions, such as employers' actual social contributions to social security funds;
- life insurance and pension funding services;
- net non-life insurance premiums;
- transfers between households (including non compulsory gratuities such as tips);
- fines and penalties; and
- lotteries and gambling.

Differences between HFMCE and HFCE

Differences in populations covered

65. The HFCE includes expenditure by resident households, regardless of where that consumption occurs. This compares with HFMCE which includes expenditure on the UK economic territory, regardless of whether the expenditure is undertaken by UK resident households, or non-UK resident households, including business visitors and tourists. Thus

- Expenditure by inbound visitors to the UK are included in HFMCE but excluded from HFCE (their expenditure is included in the use of income account as exports); and

[62] The exclusion of owner occupiers' housing costs from the initial implementation of HICP in 1996 was intended to be an interim arrangement, with a decision on the method to follow shortly. As of late 2009, this issue is not yet uniformly resolved within the European statistical community.

- Outbound visitors from the UK are excluded from HFMCE but included in HFCE (as imports direct to households)

66. In practice, this has negligible impact on expenditure estimates for most products, but is discernible for products such as accommodation services, and air and sea passenger transport services.

Treatment of non-monetary transactions

67. The HFCE includes some implicit consumption expenditures where a service is provided by no explicit financial liability is incurred. Examples include financial intermediation services indirectly measured (FISIM), and the imputed rents that owner occupiers pay for the shelter services provided by the dwellings they own. This compares with HFMCE which explicitly excludes non-monetary transactions. A second type of example is goods and services received as income in kind, which are included in HFCE but excluded from HFMCE because of their non-monetary nature. Thus, the key differences are that:
    - FISIM and imputed rents are included in HFCE; but
    - FISIM and imputed rents are excluded from HFMCE.

Practical issues with implementation of HFMCE

68. The application of the definition of household final monetary consumption expenditure results in further differences from HFCE;

    Non-life Insurance: under HFMCE expenditure on insurance[63] is measured by the "implicit service charge"[64]. As this expenditure has a component "premiums less claims" (amongst other factors), annual expenditure for the household sector as a whole can vary substantially in the event of natural disasters or major accidents. For this reason of volatility, EU implementing regulations require non-life insurance expenditure measures to be an average over three years.

    Life insurance and private pension funds: life insurance is seen as a form of saving under the 2008 SNA and so excluded from HFCE and therefore HFMCE. However, the service charges associated with managing life insurance are included under HFCE. These charges are excluded from HFMCE for practical (price) measurement issues.

    Lotteries and gambling: The amounts paid for lottery tickets or placed in bets consist of two elements: the payment of a service charge to the unit organizing the lottery or gambling and a residual current transfer that is paid out to the winners. The service charge may be quite substantial and may have to cover taxes on the production of gambling services. The transfers are regarded in the SNA as taking place directly between those participating in the lottery or gambling, that is,

[63] Insurance expenditure here refers to non-life insurance. Life insurance is seen as a form of saving and therefore not part of HFCE, nor HFMCE. Service charges for life insurance (although not the premiums) are in scope of HFCE but excluded from HFMCE for measurement reasons.

[64] The "service charge" for non-life insurance is essentially premiums paid less claims returned, plus taxes paid, but also includes a component resulting from investment returns on paid premiums, and so is currently the sole exception to the "non-monetary transactions excluded" principle underpinning HFMCE. Whereas non-life insurance expenditures adequately reflect the net basis of the "service charge", pricing the service charge is practically impossible, and so non-life insurance is implemented in the HICP (and UK CPI) on a net weight – gross price basis.

between households[65]. Therefore the service charge for lotteries and gambling is included under HFCE. These charges are excluded from HFMCE for practical (price) measurement issues.

Narcotics and prostitution: illegal drugs and prostitution are included in the definition of HFCE in both the 2008 SNA and 1995 ESA. These expenditures are excluded from HFMCE for practical (price) measurement issues, and are currently excluded from the UK national accounts for similar reasons.

Differences in timing

69. Under both the HICP (and UK CPI) and 1995 ESA, volumes are generally valued at purchaser prices, following the acquisition principle. However, expenditure on services in 1996 ESA 95 is recorded when the delivery of the service is completed, whilst service prices are recorded in the HICP in the month for which consumption at the observed prices can commence. This in general is a minor difference, and only extends to those services that are delivered over a long period of time.

[65] 2008 SNA 8.136

Table 1 – Comparing the scope of HFMCE with HFCE, practical treatment of borderline cases

	HICP		*National Accounts*				
	HFMCE		Final Demand				
	Included	*Excluded*	HFCE	GFCF	Exports	Intermediate consumption	*Excluded*
Dwelling services provided to owner occupiers' (imputed rents)		X	X				
Acquisition of dwelling		X		X			
Alterations and additions		X		X			
Minor repairs & maintenance	X		X				
Major repairs and maintenance		X				X	
Dwelling insurance		X				X	
Transfer costs accruing to the buyer (housing)		X		X			
Lotteries and gambling (service charge)		X	X				
Prostitution & Narcotics		X					X
Non-life insurance implicit service charge	X*		X				
Life insurance implicit service charge		X	X				
FISIM		X	X				
Income in kind		X	X				
Expenditure by residents abroad		X	X				
Expenditure by non-residents in the UK	X				X		

* Expenditure in HICP is a 3 year average