Defining households' wealth in business

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Introduction

The aim of this paper is to provide guidelines and suggestions for collecting micro (survey) data on households' wealth invested in business activities, in order to ensure comparability both across countries and with macro data coming from the National Accounts.

The reasons for embarking on the task are manifold. First, an aggregate corresponding to what we define as "households' wealth in business" is not identified in the System of National Accounts: hence it is not directly available and can hardly be derived from existing macro sources.

On the other hand, having a measure of households' entrepreneurial investments is important for understanding saving decisions and portfolio allocation. This is especially the case for wealthier households which, at same time, own a substantial share of total wealth and income and have a higher probability of holding entrepreneurial interests.

We propose a "core" definition of wealth in business as **the market value of businesses actively managed** by the households for the (actual or potential) production of goods and services to be sold or bartered on the market. We also explore other components that could be included in this concept, mimicking, albeit not fully overlapping, similar - and perhaps more familiar - aggregates in National Accounts on one side and related concepts in the most popular sample surveys on the other.

The main idea is that National Accounts are the natural benchmark for producing harmonised statistics based on surveys. If all the systems of National Accounts comprise a clear and comparable definition of wealth in business, the harmonisation would be straightforward. It would only require to make each survey consistent with the corresponding macro definitions. Unfortunately this is not the case.

Anyhow, the analysis of micro and macro definitions is worth exploring, at least for two reasons. First, National Accounts are precious to evaluate the accuracy of sample survey estimates, and this comparison requires consistency of definitions. Second, they can be used to get useful insights for defining wealth in business.

Following this approach, the paper is organised as follows. First of all, the conceptual framework provided in the National/financial accounts is set out for the countries under study (the US, Canada, Cyprus and Italy). In order to come out with an operational framework to collect and analyse information on households' wealth in business, we need a definition of what households and businesses are according to the different systems (basically SNA93, FFA and ESA95). We also need to clearly identify the kind of assets and liabilities to be considered and the method to be applied for their evaluation when deriving a measure of "net worth" for the firms we are interested in (that is, according to our core definition, those owned and actively managed by households).

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In performing this analysis, we focus on the most tricky classification issues that are pivotal to our concept of wealth in business. Using the ESA95 terminology, the entrepreneurial activities that are actively managed by households include, in addition to corporate firms, other forms like “sole proprietorships”, “partnerships without independent legal status” and unincorporated enterprises in general that are market producers. In the National Accounts schemes that we consider, unincorporated enterprises without a complete set of accounts and entirely owned by households are generally included in the household sector: thus, a key issue is to separate “households as consumers” from “households as producers”, so that it becomes meaningful to measure the wealth of the former in the latter.

For candidate assets (land, buildings, equipment, machinery, vehicles, inventory) to be included in the measure of wealth in business, conceptual and practical collection and evaluation issues are then discussed. In particular, the analysis focuses on the ways each survey records those assets and on the solutions adopted to measure their value. The consistency of the methods followed by each survey with the reference system of National Accounts is also analysed. A full harmonisation would also require evaluating the accuracy of sampling estimates by comparing them with the corresponding figures from National Accounts. However, this issue is beyond the aim of the paper.

After having sketched the general definitional issues, we specify in detail the concept we propose as “wealth in business” and two “enlarged” definitions as well, having the objective of ensuring as much comparability as possible across country specific surveys and with National Account systems.

Finally, the main findings and some open issues for discussion are recalled and put forward as possible items for a future research agenda.

1. The theoretical framework

In formulating a definition of “households’ wealth in business” to be used in national surveys, we pursue reconciliation with the concepts and definitions used in National Accounts. The reason for that lays both in the interest for comparisons with national accounts aggregates themselves and in a willingness to ensure high cross country comparability of survey results, given the fact that national surveys, in turn, usually assume the respective national accounts concepts as the reference framework.

In the present paragraph we consider the following systems of national accounts: SNA93 (USA), ESA95 (Italy/Europe), and CSNA97 (Canada); in the case of USA, nevertheless, our macro counterpart to the SCF is actually the Flow of Funds Accounts, which, as we will explain later on in the paper, differ from SNA under some aspects.[3] The aim is to analyse the definitions of institutional sectors and types of assets which are typical of each system, in order to identify a core common theoretical framework from which operational definitions and measurement options for Households’ wealth in business can be easily derived. Those will be set up in details later on, once the characteristics of national surveys have also been analysed and matched with the most relevant features of the theoretical framework. Some preliminary remarks are useful here.

First, it is important to bear in mind that a definition for households’ “wealth in business” is not provided in the National Accounts, but has to be derived from concepts that are “implicit” in the scheme.

[3] See Board of Governors of the Federal Reserve System (2000), Eurostat (1996), United Nations (1993).

Two aspects, above all, characterise the set of operational definitions of wealth in business and related aggregates that we are going to propose for adoption in sample surveys. Those are:

- the distinction between actively managed (by households) and non-actively managed businesses: by contrast, this feature is not explicitly recognised in the national account systems;
- the treatment of households' entrepreneurial activities that cannot be considered as separate economic agents from their owners: differently from national account frameworks (but quite in line with the US Flow of Funds), we suggest to highlight such activities in order to include them in the aggregate "wealth in business".

On the side of National Account framework, two issues are of particular importance to our purposes and we will focus on them somewhat at length while describing the features of the system. They are:

- how to fix the boundaries between the owner-households and the owned-businesses (that is: definition of the "households sector" on one side and of the "corporations and quasi-corporations sector" on the other);
- what assets might represent households' wealth in the form of business activities.

1.1. The definitions adopted in the Systems of National Accounts. Agents, sectors, and classification of assets

Economic agents - Underlying both the ESA95 and the SNA classification systems (the CSNA has largely incorporated the 1993 SNA guidelines[4]) is the concept of institutional unit, defined as an elementary economic decision-making centre that (i) is characterised by uniformity of behaviour and autonomy of decision in the exercise of its principal function and (ii) keeps a complete set of accounts or would be able, from an economic and legal viewpoint, to compile a complete set of accounts if required. A unit enjoys autonomy of decision when it is entitled to own goods or assets in its own right and thus to exchange the ownership thereof in transactions with other institutional units; is able to take economic decisions and engage in an economic activity for which it is directly responsible; and is able to take on obligations on its own behalf and to enter into contracts (see Eurostat, 1996). As for the second requisite, a unit is said to keep a complete set of accounts if it draws up an income statement and a balance sheet.

Economic sectors - Homogeneous units are grouped into mutually exclusive institutional sectors (to be possibly divided into sub-sectors for more precise description of the economic behaviour of the units).

The following sectors are identified in all of the three systems of national accounts we consider: (1) non-financial corporations (and quasi-corporations), (2) financial corporations (and quasi-corporations), (3) general government, (4) households, (5) non-profit institutions serving households (NPISHs)[5], and (though not a properly a sector) (6) the rest of the world.

Unincorporated enterprises, owned by households or by Government units, that do not enjoy autonomy of decision and for which a complete set of accounts cannot be compiled, are not considered as separate institutional units but are treated as an integral part of the owner household. When the conditions of autonomy of decision and availability of the accounts are

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4 Kishori Lal (1998) provides a short review of the main differences remaining between the two systems.

5 Both in the CSNA and in the Italian financial accounts, households and NPISHs are aggregated into the households sector, despite they are separate in the ESA95 Manual and in the SNA, respectively.

satisfied, unincorporated enterprises are instead considered as quasi-corporation and classified in the sector “non-financial corporations” or “financial corporations”.

Quasi-corporations, which may well include unincorporated partnerships, are operated as if they were privately owned corporations. From a practical point of view, the existence of a complete set of accounts (including balance sheets) is a necessary condition for the unincorporated enterprise to be considered as a quasi-corporation, in that it makes it possible to separate the firm from its owner. Being a separate entity, a quasi-corporation’s balance sheets has to record own fixed assets (land, building, machinery and equipment, inventories) used in the production and financial assets and liabilities, as far as they are incurred in the name of the enterprise. It is assumed that the owner’s net equity in a quasi-corporation is equal to the difference between the value of assets and that of other liabilities of the firm, so that the net worth of the quasi-corporation is always identically zero in practice. Actually, the fixed and other assets used in unincorporated enterprises do not belong to the enterprises, but to their owners, which are personally liable, without limit, for any debts or obligation incurred in the course of production. The owner of a household unincorporated enterprise usually plays a double role: as the entrepreneur and as the worker; consequently, income arising from production represents a mixture of two different kinds of income. Households are unlimitedly liable for the debt of their businesses (partnerships whose partners enjoy limited liability are effective separate legal entities and thus must be treated as corporations). Buildings or capital equipment may be used partly for production (when households act as producer) and partly for consumption (when it acts as final consumer): as a consequence, it is extremely difficult to separate unincorporated businesses from their owners who are entitled to use such assets in any way.

The US Flow of Funds Accounts (FFA) present a somewhat different categorisation of sectors. In particular NPIs are combined with households (analogously to the Italian financial accounts); this is motivated by the fact that data for such organizations are not available separately, except over the years 1987-1996. Besides, ***the FFA place the unincorporated non-financial businesses in a separate sector***, that can be combined with either households or other non-financial businesses (in the Italian financial account, by contrast, sole proprietorships with up to five employees are included in the households sector). Unincorporated non-financial businesses are shown separately in the tables for the non-farm non-corporate and farm business sector. Nevertheless, a table for the so-called “personal” sector present the consolidation of the households sector with unincorporated business.

In the FFA, the *non-financial business* sector includes:

1. *non-farm non-financial corporate business*: mainly private domestic corporations (except corporate farms and financial institutions) and holding companies;

2. *non-farm non-corporate business*: partnerships and limited liabilities companies, sole proprietorships, and individuals receiving rental income. Some of the partnerships included are large companies. Firms in the sector generally rely for funding on loans from commercial banks or other credit providers. As they are ***unincorporated***, these firms are ***owned by the households and NPIs sector***: the firm income, therefore, is attributed to households as a component of personal income. For this sector the “proprietors’ net investment” is calculated as the difference sources and uses of funds; in other words, it reflects changes in the in the value of ownership of the sector by the households and NPIs sector;

3. *farm business*: is made up of corporate and non-corporate farms. Like the firms in the non-farm non-corporate business sector, ***non-corporate farms are owned by households***. The major assets of farms, real estate, does not appear on tables of either flows or amounts outstanding. In the FFA expenditures on farm residential structures are part of the fixed investment of households, and proprietors’ net investment in non-corporate farms is part of the net acquisition of financial assets by the sector.

In conclusion, households own all unincorporated firms, whether farm or non-farm (this corresponds to point 2 and the part of point 3).

Households. According to the SNA and the ESA95, the household sector consists of all resident households, including institutional households, such as members of religious orders, long-term patients in hospitals, prisoners and persons in retirement homes for long periods of time. Households are primarily consumer units, but can potentially engage in any kind of economic activity; they can supply labour (to enterprises) but may also operate their own producer units in the form of unincorporated enterprises.

Unincorporated enterprises owned by households, whether market producers or producing for own final use, are integral parts of the household itself, ***with the exception of*** those firms which are qualified as ***quasi-corporations***: in this latter case they must be qualified as a separate institutional unit and must be included in a different sector (the financial or non-financial corporations sector, according to their major activity).

In the SNA, households unincorporated enterprises can range from single persons (with virtually no own capital) to large manufacturing, construction or services enterprises with many employees.[6]

The CSNA is alike, for most of the significant areas, to the SNA; the sectors, though, follow a different aggregation: the financial and the non-financial corporations sectors are combined together to form the corporate sector (although in the capital and financial account and in the balance sheet account they are split). Besides, the persons and unincorporated businesses sector is an aggregation of the NPISHs and households sectors as defined in the SNA. In the CSNA there is no recognition of quasi-corporations owned by households, and ***all unincorporated enterprises owned by households are included in the persons and unincorporated businesses sector***.

The Households sector includes NPISHs also in the Italian Financial Accounts (BIFA). Besides, in the BIFA implementation of ESA95, as well as in the whole system of Italian National Accounts, there is a threshold on the number of employees to separate producer households from quasi-corporations. As a result, the BIFA Households sector includes employees, pensioners, recipients of property income and recipients of transfer incomes, but also informal partnerships, *de facto* partnerships, and sole proprietorships principally engaged in the production of market goods and non-financial services, with up to five employees (producer households). The threshold of five employees to separate producer households from quasi-corporations (which have to be included in the non-financial corporation sector) is not imposed by ESA95, being just an operative criterion used by ISTAT, in compliance with ESA95 general principles.

Non-profit institutions serving households. According to the SNA and the ESA95, the non-profit institutions serving households sector (NPISHs) consists of all residents NPIs which produce non-market goods and services, except those controlled and mainly financed by government units (which are to be classified in the general government sector), providing those goods and services to households free or at not economically significant prices (in the ESA95 Manual this means that less than 50 per cent of production costs are covered by sales). The definition of NPISHs in the CSNA is very similar to the one in the 1993 SNA, however the NPISHs sector is not separated from the household sector in the CSNA's capital account, financial account, and balance sheet account. In the Italian Financial Accounts as well, no separate information is provided for households and NPISHs.

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[6] In the SNA it is explicitly recognised that "countries have difficulty distinguishing quasi-corporations held by households". Nevertheless, it is also said that any other additional criteria, such as ***size***, is not useful in practice; for example, it does not help if the enterprise is not in fact operated like a corporation and does not have a complete sets of accounts of its own, however large it may be.

Classification of assets - In the SNA, as well as in the ESA95 and in the US flow of funds accounts, the stock of the assets and liabilities recorded in the balance sheet is to be valued at the market prices prevailing on the date to which the balance sheet relates. The economic assets are classified in the same way in the SNA and in the ESA95 Manual. They are divided in two groups: non-financial assets and financial assets. Non-financial assets are further split into produced assets, ie, assets that have come into existence as outputs from production processes, and non-produced assets, ie, assets that come into existence other than through production processes.

Produced assets consist of fixed assets, inventories, valuables. Non-produced assets consist of tangible non-produced assets, such as land and subsoil assets, and intangible non-produced assets, such as patented entities and purchased goodwill. Financial assets are classified in: monetary gold and special drawing rights; currency and deposits; securities other than shares; loans; shares and other equities; insurance technical reserves; other accounts.

The financial instrument “shares and other equities” is necessarily of key importance to the measure of households’ wealth in business. According to both SNA and ESA95, it includes proprietors’ net equity in quasi-corporations, as well shares and equities in corporations[7]. No distinction is drawn between assets merely held as a form of financial investment (an analogy can be set with “portfolio investment” in balance of payments statistics) and assets representing the value of those firms for which the owner is actively involved in management (similar to “direct investment” in balance of payments). As it will be explained later, such a distinction is instead relevant to our definition of “wealth in business”.

In the SNA, incorporated enterprises may have their own net worth in addition to the owners’ equity in the corporations; for quasi-corporations, all net worth is assumed to be held by the owners. Proprietors make net additions to the equity of quasi-corporate enterprises for purpose of capital investment and this category is not separately identified under “shares and other equity”.

Shares and other equity are liabilities of corporations, and even though it is wholly owned by its shareholders collectively, a corporation is seen to have a net worth, in addition to the value of the shareholders’ equity. Valuing assets and liabilities in the corporation’s balance sheet at current market price it is possible to calculate net worth in the same way as for all the other institutional units, that is subtracting liabilities (included equities) from the value of its total assets. In the case of quasi-corporations, net worth is zero, because the value of the owners’ equity is assumed to be equal to its assets less its liabilities; or, to put it in another way, equity in quasi-corporations must be valued as equal to the value of the quasi-corporations’ assets less the value and of their liabilities.

As it was previously recalled, businesses other than corporations or quasi-corporations are not considered as institutional units separated from their owners (in our case, the household) and therefore there can be no corresponding “net equity” to register as a financial asset in the balance sheet of their owners. In order to include the value of such kind of firms among the components of households’ wealth, one has to evaluate each entry in the hypothetical balance sheet of the firm. Thus, the non-financial assets of the firms must be added to the owners’ non-financial assets, while their financial assets and liabilities must be added to the owners’ financial assets and liabilities. Both assets and liabilities are valued at the price at which they would be traded at the time the accounts are compiled. In the US flow of funds accounts, given the definition of a non-corporate sector different from the household sector, in the household and NPIs sector balance sheet table there is a line for explicitly recording

[7] As to the practical application of ESA95 accounting rules in the Italian financial accounts, it has to be noticed that the latter do not contain an estimate of the value of non-financial quasi-corporations’ equity.

“equity in non-corporate business”, which is equal to the net worth of non-corporate business and owners’ equity in farm business and unincorporated security brokers and dealers. The corresponding flow is defined as the sum of (i) proprietors’ net investment in non-farm non-corporate and (ii) in farm business, where:

(i) = capital expenditures (fixed residential and non-residential investment and change in inventories) + net acquisition of financial assets – capital consumption – credit market instruments – trade payables – taxes payable – miscellaneous liabilities;

(ii) = capital expenditures (defined as before) + net acquisition of financial assets – gross saving – credit market instruments – trade payables.

Correspondingly, a specific issue is reported among financial liabilities of non-corporate firms (both farm and non-farm), that is, proprietors’ net investment, defined as above.

To summarise, FFA is not completely consistent with SNA: in the FFA, in fact, the households as producers form a separate institutional sector. Their equity may be hold by household and NPIs. In a sense, they are treated as if they were corporations or quasi-corporations. As a consequence only the net equity is to be included in households’ balance sheet, and there is no need to separate financial from non-financial assets.

1.2. Interaction between sector boundaries and the notion of “wealth in business”

The classification criteria used for the institutional sectors interact with the accounting scheme for assets and liabilities, and, as a consequence, affect the concept and the empirical measurement of wealth in business in the various frameworks.

For example, having as a reference the sector classification rules adopted in the Italian National Accounts, let us consider a productive system made up of only one small non-financial firm with up to five employees, entirely owned by one household, with the following balance sheet: Total assets = 100; Non-financial assets = 90; Financial assets = 10; Total liabilities = 100; Equity = 60; Other financial liabilities = 40.

To keep things simple we assume that: (1) assets and liabilities are valued at the market prices; (2) total assets equal total liabilities[8]; financial assets and other financial liabilities are towards the financial institutions sector. If the legal form of the firm is sole proprietorship - so that the firm, having up to five employees, belongs to the household sector - the balance sheets of households and non-financial corporations will be the following:

Instruments	**Households**		**Non-financial corporations**	
	Assets	**Liabilities**	**Assets**	**Liabilities**
Non-financial assets (AN)	90		0	
Financial assets (AF)	10	40	0	0

[8] In the national accounts, total assets can differ from total liabilities; the difference is equal to the net worth of the sector. While corporations are seen to have a net worth in addition to the value of the shares and other equity issued, in the case of quasi-corporations net worth is zero, because the value of the owners’ equity is assumed to be equal to its assets less its liabilities.

On the contrary, if the legal form of the firm is a type of limited liability company - so that the firm is included in the non-financial corporation sector - the balance sheets of households and non-financial corporations will be:

Instruments	**Households**		**Non-financial corporations**	
	Assets	**Liabilities**	**Assets**	**Liabilities**
Non-financial assets (AN)	0		90	
Financial assets (AF)	60	0	10	100
of which: shares and other equity	*60*	*0*		*60*

In both these situations the net worth of households is equal to 60. The composition, however, is very different: in the first example households hold non-financial assets and have assets and liabilities towards sectors other than non-financial corporations; in the second example households do not hold non-financial assets, while their financial assets are equal to the value of the firm's equity.

This example shows that the composition of household wealth depends on the operative criteria used for the statistical breakdown between producer households and quasi-corporations: in the case of Italy, an increase in the threshold (currently 5 employees) beyond which sole proprietorships, informal partnerships and de facto partnerships are classified as quasi-corporations would increase the share of households' non-financial assets; on the contrary a reduction in the threshold would increase the share of financial assets. Especially in international comparisons, it is useful to take these implications into account, looking at the differences in terms of the distribution of firms by legal form and size.

In summary, the analysis has shown that, National Accounts do not only comprise a definition of housing wealth, but they also differ on other important issues. First, while in SNA93 and ESA95 producer households are included in the household sector, FFA uses a different solution comprising a separate sector (unincorporated businesses) whose net equity is owned by the households (and NPISHs). A decision is therefore to be made about which approach to adopt (FFA or SNA93 and ESA95) when defining wealth in business. This decision mainly reflects on the nature of this household's type of wealth. In the first approach, the company is always considered as a separate entity respect to the household, and is supposed to have a market value. As a consequence, its value is included among the household's financial wealth. In the opposite case there is no separation and all the assets and liabilities are considered to belong to the household' s total wealth. As a consequence, non-financial (financial) assets used to run the business are added to other non-financial (financial) assets owned by the household.

Another difference among different systems of National Accounts is the boundary between producer household and quasi-corporations. In SNA93, FFA and CSNA the legal status is one of the more important keys to separate producer households from quasi-corporations. In the ESA95 working definition (both in Italy and in Cyprus) the number of employees is also a part of this decision. As will be discussed in section 4, these differences matter only for comparisons of sampling estimates with the corresponding National Accounts data (the same holds for the problem of NPISHs).

2. Survey measures of wealth in business

The aim of the following section is to evaluate how the approaches used in practice in the surveys match National Accounts definitions. In fact, as already mentioned, those definitions provide the natural benchmark for producing harmonised statistics on wealth in business. The analysis is based on the Italian Survey on Household Income and Wealth (SHIW), the US Survey on Consumer Finances (SCF), the Canadian Survey of Financial Security (SFS), and the Cyprus Survey of Consumer Finances (CySCF).

SHIW - In Italy the main source of information on household wealth at the micro level is the Survey of Household Income and Wealth, conducted by the Bank of Italy.

In the SHIW, household's wealth in business consists of the value of actively managed businesses. In a different section, the value of investments as a form of saving is also recorded. Household's savings in privately held businesses are surveyed in section C of the questionnaire, together with other forms of saving. For any of these assets, the household has to report the market value at the end of the previous year.

The evaluation of actively managed businesses is particularly delicate, since in Italy the fraction of self-employed labour force is among the highest in OECD countries. The SHIW adopts two methods. Members of the professions, sole proprietors, free-lance workers, and members of family businesses are asked how much their firm could be worth should they sell it. This value must include any equipment used, stocks and goodwill and must exclude the value of buildings and land. Active shareholders and partners in incorporated firms are asked to indicate the market value, at the end of the previous year, of their own share in the firm. These values are those underlying the published figures. All collected values refer to the previous year.

The rationale for excluding buildings and land will be discussed later on. Now we focus on the other components of wealth in business. In the SHIW this value is made up of three components:

1. **the value of firms owned by members of the professions, sole proprietors and free-lances**, collected using the following question: "How much do you think your firm is worth if you want to sell it, including any equipment used, stocks and goodwill and excluding the value of buildings and land?";
2. **the value of family businesses**, collected using the same question;
3. **the value of shares and equity of partnerships and limited liabilities companies**, when the household member is an active shareholder/partner. In this case the value is collected using the following question: "What was the market value of the firm (your share only) at the end of the year?"

In cases (1) and (2), the value of the firm is based only on non-financial assets, tangible (machinery and equipment, inventories) and intangible (goodwill), excluding buildings and land. In the case of item (3), the value of the firm is indirectly computed, resorting to the value of a financial asset (market value of shares or equity issued by the firm).

In principle, this distinction is coherent with the representation of economic activity in the national account framework: the system of accounts is based on the concept of institutional unit and on the grouping of institutional units in sectors of activity. As already mentioned, according to this principle, a firm that is not identifiable as an institutional unit separated from her owner - in the specific case, a household - cannot be included in the balance sheet of its owner as a financial asset (shares or equity). Instead, firm's non-financial assets would be added to the owner's non-financial assets, as in cases (1) and (2) according to SHIW classification. Following the same criterion, firm's financial assets and liabilities would be added to the owner's financial assets and liabilities.

On the contrary, a firm identifiable as an institutional unit separated from its owner will be classified within the sector of corporations. Transactions between institutional units belonging to different sectors will be registered in sector accounts; shares and equity issued by the firm will be registered as financial liabilities of corporations and financial assets of households (as in case 3 in the SHIW definition of wealth in business).

Notwithstanding the same underlying theoretical scheme, SHIW and ESA95 definitions are not completely overlapping. As explained in the previous paragraphs, according to ESA95 in its Italian operative implementation, the institutional sector of corporations and quasi-corporations includes not only general partnerships and limited partnerships but also informal partnerships, *de facto* partnerships, and sole proprietorships, provided they have more than five employees. Units with more than five employees are assumed to be a single autonomous n elementary economic decision-making.

Another peculiarity of SHIW definition of wealth in business is related to the inclusion of the value of shares and equity of active shareholder/partner. The value of the remaining shares and equity (whose owner is not an active shareholder/partner) is excluded from wealth in business and included in the value of financial assets; in this respect the SHIW classification resembles the difference between foreign direct investment and foreign portfolio investment in the balance of payments. As it was already recalled, this classification is not used in the national and financial accounts scheme .

Information on buildings and land is collected in a different section of the questionnaire. Households can possess premises (eg shops, offices, etc.) and land for different purposes; for example, an office can be used for free-lance, professional, sole proprietorship or family business activity or it can be rented. If the information on the value of buildings and land used for business activity was collected in the same section of the questionnaire where the value of the firm is surveyed (ie, collected from the side of the user), the amount of rented buildings and land should be subtracted from the wealth in business of the tenant household and added to the wealth of the owner. Alternatively, the value of buildings and land can be collected in a proper section of the questionnaire, looking at the owner rather than to the user; this is the solution adopted in the SHIW. In the SHIW buildings and land are subjectively evaluated by respondents. For instance, all interviewees are asked the following question: "How much could the property be sold for? In other words, what do you think it is worth "unoccupied"?".

Debt and credit related to the activity of members of the professions, sole proprietors, free-lances and family businesses are collected in the same section of the questionnaire where the value of the firm is surveyed. Debts for the purchase of property, durable goods or consumer goods for household use are excluded. Interviewees are asked the following question: "What was the amount of: medium and long-term debt for buildings or land for use in your activity; medium and long-term debt for business-related investment; short term debt with banks and financial companies; trade credit (suppliers); trade credit (customers)?". Data on severance pay set aside for employees are not collected.

All in all, in order to allow for full reconciliation between survey definitions and national accounts definitions, SHIW data on wealth in business should be re-classified taking into account the legal form and the size of the owned firm. In addition, the coverage of the firm's balance sheet items should be completed: the most relevant missing item being accumulated reserves for severance pay.

SCF - The *Survey of Consumer Finances* is a triennial interview survey of U.S. families sponsored by the Board of Governors of the Federal Reserve System with the cooperation of the U.S. Department of the Treasury.

SCF collects information about actively and non-actively managed businesses separately. Respondents are asked to provide the value of the asset or the amount of the debt at a time as close as possible to the date of the interview.

As to households' accumulated investments in business activities, SCF distinguishes among the following categories: limited partnerships, other partnerships, subchapter S corporations, other types of corporations, sole proprietorships, all other non-actively managed businesses. Any of these forms of saving are collected through the following question: "*What could you sell your family's share for?*".

In the US, like in Italy, privately held businesses are an important asset for the household sector. In 2001, 10.7 per cent of households had an active management role in a privately held business. In terms of assets, the actively managed interests account for 89 per cent of total privately owned business interests and for about 26 per cent of total assets.

Unlike the SHIW, SCF uses only one approach to collect the value of actively managed businesses. This consists in asking directly for the market value of the net equity: "...*What percentage of the business do you own?… What is the net worth of your share of this business? What could you sell it for*?". Time reference is the date of the interview.

The total value of net equity in privately held businesses is made up of the following components: 1) the value of farming/ranching business; 2) the value of other businesses in which the family has an active management role.

For households living in a ranch or in a farm, SCF asks (in the section on principal residence) whether a member of the family operates a farming or ranching business on their property. In the same section SCF also contains a question about the value of real estate: "*Could you tell me the current value of the entire part of the land and building you own? I mean, what would it bring if it were sold today? Do not include any farm animals, implements or crops.*" Also a question about loan is included: "*What is the amount still owed on the land contract?*". The remaining value of farm/ranch business is then asked in a following section about actively managed businesses and refers to assets and liabilities not already recorded: implements, livestock, crops, operating loans other then mortgages, etc.

This section also includes questions about the other actively managed businesses, ordered beginning with the business with highest market value (up to four different businesses are considered, with the last one grouping all the less important businesses). By the way, although some families have more than one business that they actively manage, the median number is 1, and the total value of all primary actively managed businesses accounts for 81 per cent of the value of all actively managed businesses.

The net equity for these businesses is computed as: 1) market value of family's share if business were sold today; 2) plus value of family members' personal assets used as collateral for business; 3) plus loans from household to business; 4) minus loans from business to household.

For each business SCF collects, among the other information, the book value, the legal status (partnership, sole proprietorship, subchapter S, limited partnership, limited liability company, foreign business type, other), and the number of employees. Such information enable to select the households defined as producers by the national account definitions. This fact notwithstanding, only for farming and ranching businesses it is possible to separate financial from non-financial assets. For other businesses SCF does not use the "balance sheet approach" used by SHIW, only information about net equities being available.

The value of non-residential properties is clearly separated from the value of residential ones. Information is provided for each of the top three properties as well as for the remaining assets combined. It should be noted that, unlike in SHIW, the value of assets used by the household to run a business are not collected in this section, but are included in the net equity of the business.

SFS - The *Survey of Financial Security* provides a comprehensive picture of the net worth of Canadians.

In SFS the total household's wealth in business consists of the value in actively and non-actively managed businesses. Respondents are asked to provide the value of the asset or the amount of the debt at the date of the interview.

Investments in businesses as a form of saving are distinguished in investments in publicly traded stocks and other shares in privately-held companies. Both assets are valued through a question asking the amount household could get if it sold the item today (date of the interview).

As to actively managed companies, the share of households holding net equity in businesses was 19 per cent in 1999, accounting for about 12 per cent of total assets (Statistics Canada, 2001).

The approach used to collect the value of net equity in businesses is very similar to the one applied in SCF. A unique question is used: "*What is your equity in the business, that is, the net amount you (your family) would receive if this business were sold today? Deduct any outstanding debts that must be paid.*" The question applies for all different businesses held by households. Only for farms it is available the value of farmhouse (and yard). Like in SCF, questions are ordered beginning with the business with the highest market value.

After collecting the information about net equity, SFS also gathers information about the book value of the assets of the entire business (cost price less depreciation). Those include financial assets, accounts receivable, inventories, land, buildings, machinery, equipment, customer lists, intangible assets, etc. In SFS, only legal status is available for any business (unincorporated or corporate business, sole proprietorship or partnership).

Finally, SFS collects information about properties other than principal residence and assets used for running a business. The respondent is asked to report the family members' share of property and the current market value (both in Canada and outside). He (or she) may report the total value of the property or the value of each asset separately (a maximum of three assets are considered). As a consequence it is not clear whether it is possible to separate residential from non-residential properties.

CySCF - The University of Cyprus and the Central Bank of Cyprus started in March 1997 a special research project titled *"Portfolios of Cyprus Households"* which is designed to fulfil the scope of a standard Survey of Consumer Finances, namely to collect detailed and comprehensive information on assets, liabilities, income, and other financial characteristics from a representative sample of a population. The project has evolved to a triennial survey known as the Cyprus Survey of Consumer Finances. The CySCF provides detailed information about both actively and non-actively managed businesses. For the actively managed businesses, the respondent provides for each company owed by the household, information about the type of activities of the company, the number of employees, the year of foundation/acquisition, the way it was acquired, and the percentage of the company owed by the household. Furthermore, details about the amount of any collateralized or guaranteed loan and the amount of any loan owed to the company by the respondent are provided. Finally: 1) the net worth of the business; 2) the original investment; 3) the gross receipts or sales; 4) and the total net income are furnished. It should be noted that the information is provided for each of the top three businesses as well as for all the remaining businesses combined.

The inactively managed companies in CySCF are categorised in 11 legal categories, namely Private and Public Company Limited by Share, Private and Public Company Limited by Guarantee and Share, Company Limited (no share), Non-Profit Company, Foreign Company, Partnership (General) and Partnership (Limited), Commercial Company and Off-Shore Company. All other types of companies are grouped together under the umbrella "Other Types". According to the questionnaire, the respondent is required to provide the number of companies owed by the household for each legal category. For all companies combined the following three values are reported by legal status: 1) the market value of the household's share if the company is sold now; 2) the original investment; 3) and the total net income.

Furthermore, the value of the non-residential properties owed by the household is provided for: (1) each of the 3 largest properties; (2) all summer houses combined; (3) all properties in the occupied part of Cyprus by type of property (land, residential land, house, other types); (4) and all other properties.

Note that summer houses have been included in the above list since they are occasionally leased for business purposes and therefore they are not exclusively used for residential purposes.[9]

Note also that for the properties in the occupied areas only an estimation of the value of the property is offered by the respondent. Furthermore, it should be pointed out that these properties are not exploitable (neither for residential nor for non-residential purposes).

3. Households' wealth in business: reconciling macro and micro definitions

In order to produce harmonised statistics, the measurement of wealth in business in sample surveys should be based on National Accounts definitions. However, this approach requires to deal with two main problems. First, as already mentioned, National Accounts do not provide a general definition of household's wealth in business. Second, working definitions may differ across countries.

An ideal solution would require statistics to meet the following conditions at the same time: (1) to allow consistent comparisons across countries (2) to be consistent within each country with National Accounts working definitions.

In this section we describe a tentative solution for the harmonisation process.

We suggest to define the "**total households' accumulated investment in shares and equity**" as the current market value of the assets which are used (or might be used) as an input for a production activity destined to the market. These assets may be directly used by the households or may be provided to others (the entrepreneurs). The proposed category may be thought as an extension of the SNA concept of *shares and other equity*; it is composed of three main types of assets (table 1):

1. *The current market value of non-actively managed businesses.* These are financial assets (except mutual fund shares) which represent property rights on corporations or quasi-corporations. These financial assets generally entitle the holders to a share in the profits of the corporations or quasi-corporations and to a share in their net assets in the event of liquidation.
2. *Wealth in business*, that is the current market value of actively managed businesses. This category is the total value of the net equity in businesses held by the household as producers.
3. *The current value of other household business interests* in non-residential properties such as buildings and land.

With respect to the SNA aggregate "shares and other equity", two additional components are included: item 3 and part of item 2. The last one considers among the actively managed businesses also those production activities that cannot be classified as separated institutional units from the owner-households. On the contrary, the SNA and the ESA95 place

[9] This is a peculiarity of the CySCF. Note that in the definition of wealth in business we use in this paper, summer houses are not included among non residential properties.

those activities among the producer households; the consequence is that the corresponding value of the firm cannot be identified as such in the national accounts scheme, but it is sectioned into the various real and financial assets (and liabilities) to be attributed to the households' balance sheet as components of their net wealth. We will turn to that issue later.

In addition to the items listed above, there are three further aggregates, collected by SCF and CySCF, that could be considered for inclusion among households' business interests:

4. The value of family members' personal assets used as collateral for business. The rationale is that, although the business loan is reported on business balance sheet, the household has "at risk" some of its personal assets if the business defaults on its loan.

5. The value of loans from household to business. For example, many business owners will take out a home equity or personal loan to finance the start-up of their business. From the point of view of the business, it makes no difference if a loan is granted by a bank or by the household owing the firm: in both cases, the loan must be recorded in the firm's balance sheet among it financial liabilities, not affecting its net worth (and thus also households' wealth in it). From the household viewpoint, instead, granting a loan to the business increases the household's interest in the business (think of the household's losses in case of bankruptcy).

6. The value of loans from business to household. This would be what households have "taken out" of the business. So, they reduce their "business interests" by this amount.

We suggest not to include the components (4), (5) and (6) among household investments in shares and equity. Those components foreshadow an enlarged definition of households' interest in business that tries to get across how much "net" money has the household invested in the business and could extract from the business. Such an approach is not followed in the National Accounts (either ESA95 or SNA93 or FFA) that stick more to balance sheet concepts. Wealth in business should be a measure of the net equity of the business, that is basically what a prospective buyer would pay for the business.

The reconciliation between micro and macro definitions could be obtained at different levels of detail, summarised in table 1. Each country may decide the preferred level for collecting information depending on its constraints and peculiarities. Whatever the level of detail, the collected information should however be consistent for all countries.

The first level of detail requires surveys to collect answers to ***a unique question about the current market value of total household's share and equity***. The question should clearly indicate the assets and liabilities to be reported and the valuation criteria to be applied. In particular, the value declared by the respondent should include the accumulated investments in shares and other equities as a form of financial saving, the investments in companies in which the household plays a managerial role and the non-residential properties.

Table 1

Measuring wealth in business: different approaches for data collection

<table>
<tr><th>Level 1
Lowest level of detail</th><th>Level 2
Intermediate level of detail</th><th>Level 3
Suggested level of detail</th></tr>
<tr><td rowspan="6">(1) Total households' accumulated investment in shares and other equity</td><td>(1.1) The current market value of non-actively managed businesses.</td><td>(1.1) The current market value of non-actively managed businesses.</td></tr>
<tr><td rowspan="3">(1.2) The current market value of actively managed businesses
(wealth in business)</td><td>(1.2.1) The current market value of net equity of corporate businesses</td></tr>
<tr><td>(1.2.2) The current market value of net equity of unincorporated businesses outside the household sector.</td></tr>
<tr><td>(1.2.3) The current market value of unincorporated businesses included in the household sector.
For this category, non-financial assets (A1) should be separated from financial assets (A2) and liabilities (L1).</td></tr>
<tr><td rowspan="2">(1.3) The current market value of other household real estate, net of debts incurred for their purchase</td><td>(1.3.1) The current market value of non-residential properties (properties, land,...) leased out to others, net of debts incurred for their acquisition.</td></tr>
<tr><td>(1.3.2) The current market value of other non-residential properties (properties, land,...) owned by the household and not included in the previous items 1.2.1, 1.2.2 1.2.3 and 1.3.1, net of debts incurred for their acquisition.</td></tr>
<tr><td colspan="3">Items for broader concepts</td></tr>
<tr><td>(2) The value of other household business interests</td><td>(2.1) The value of assets used as collateral
(2.2) The value of loans from households to business
(2.3) The value of loans from business to households</td><td></td></tr>
</table>

As to valuation criteria, for quoted shares the value should be based on quotation prices. For unquoted shares and other equities the total value should correspond to the current market value of the financial assets and the non-financial assets of the owned business activity, net of its financial liabilities (the ownership percentage must then be applied). The main components are listed in Table 2.

This valuation approach is consistent with ESA95 criteria. As a matter of fact, in National Accounts the net equity for quasi-corporations is defined as the sum of non-financial and financial assets net of liabilities. Our proposal differs from national accounts criteria only because such a valuation method is extended to firms that the SNA or the ESA95 would classify in the households sector (producer households). In line with the prescriptions of national accounts, instead, for corporations the value of net equity is computed using the current market value of share quotations, which may differ from the current value of its components.

Coming to the market value of non-residential properties owned by the household, this should include both the value of properties leased to other households for non-residential purposes and the value of all the other properties not used for residential purposes.

It is worth noting that non-residential fixed assets are considered as a component of the "core" aggregate representing household wealth in business (item 1.2 in table 1) only if they are both owned by the household and directly used by the same household in combination with other input factors to run an activity. On the contrary, if such assets, albeit used for production purposes, are not owned by the household, or they are owned by the household but rented to others for business purposes, they are non-included within the "wealth in business" boundary but are considered as real estate investments (item 1.3 in table 1).

Table 2

The balance sheet

Non-financial assets (A1)	**Financial liabilities (L1)**
Produced assets	Loans from financial institutions
Fixed assets	Trade debts
Inventories	Severance pay
Non-produced assets	Other liabilities
Land	
Financial assets (A2)	**Net equity (L2= A1 + A2 – L1)**
Currency and deposits	
Securities other than shares	
Shares and other equity	
Insurance technical reserves	
Trade credits	
Other accounts receivable	

From a theoretical point of view, households' wealth in business should also include part of the value of the principal residence when it is also used for commercial or business purposes. Such a problem may arise, for instance, for households living in farms or ranches and operating a farm/ranch business on their property. A similar situation may apply to sole proprietorship or members of art and profession who use part of their home to run their business. In order to solve such problems surveys should collect from entrepreneurs information on whether they use principal residence for their business. If so, the respondent should be asked to report what part of the property is used for non-residential purposes (for instance, it could be assessed in terms of the surface).

The second level of detail in data collection requires to separate "portfolio like" investments in shares and other equities (1.1) from investments in actively managed companies (1.2). In order to produce harmonised statistics, a common definition of actively managed businesses is needed. A solution could be to base such a definition on the following conditions:

- household's ownership of a significant equity of the company. The most appropriate threshold in each county could possibly be selected after an ad hoc investigation to be developed before the survey.
- Household's members playing a key influence on the planning of long term objectives, strategies, investments and financial and economic expansion of the business.

Of course, sole proprietorships and partnerships without independent legal status cannot be included among non-actively managed companies. For those types of firms, the household is not a separated entity from the business and therefore it necessarily plays an active role.

Once the border between actively managed and non-actively managed business is clearly specified, the second level of detail requires that surveys only collect the current market value of net equity for the two groups separately.

From an economic perspective, this second level of detail enables us to isolate and to study the value of businesses in which households have an entrepreneurial activity, that is the concept of *wealth in business*.

It is worth noting that neither the first level of detail nor the second one allow a within countries comparability with National Accounts definitions. They only allow consistent comparisons among different countries.

The ideal level of detail would then be for surveys to collect separate information on the following components:

1. **The value of actively managed corporations**, that is the net equity in companies which are separate legal entities from the household (1.2.1);
2. **The value of net equity in actively managed unincorporated businesses that are not classified in households sector** (1.2.2). As it was recalled in the previous paragraphs, even if the firm does not have a legal status, under certain conditions it can be considered as a separate economic unit from the household and therefore is not included among the producer households. The border between household as producers and quasi corporations and corporations may differ from country to country. Each survey should collect the information consistent to the working definitions used in its country. It is worth noting that for these businesses, in order to ensure consistency with national accounts it is not necessary to collect separate information about financial and non-financial assets.
3. **The value of unincorporated businesses to be included in the household sector** according to each country working rules (1.2.3). For these businesses, if the intent is to allow for comparison with the different components of households' wealth in national accounts, surveys should separate non-financial assets (A1) from financial assets (A2) and financial liabilities (L1).

4. **The value of properties other than the principal residence** not used for residential purposes, net of loans incurred for the acquisition of those properties **(1.3)**. In order to ensure consistency with national accounts, surveys should collect separate information on the value of those properties and on the debts incurred by households for buying them. In fact, despite the issue we consider in our definition of wealth in business (the value net of debts), in the national accounts distinct information on those loans is not available, and the comparison with survey data must be limited to the values of non-residential properties gross of the loans incurred for their purchase.

The separation between unincorporated businesses to be included in the household sector **(households as producers)** from the others **(corporations and quasi corporations)** is obviously the key issue for this level of detail. This classification may differ among National Account definitions depending on the way they are put into practice. In Italy for instance, the key classification variable (in addition to legal status) is the number of employees. On the contrary, applying the SNA rules, only the distinction between corporate and unincorporated businesses would matter[10]: all corporate companies are considered as separate economic units from the household, while unincorporated businesses are not. In FFA a further different approach is used. Unincorporated businesses are classified as producer households but are included in a separate institutional sector (non-corporate business equity). The net equity of this sector is held by households and non-profit institutions.

Compared to the others, this latter approach seem to be preferable for its linearity and its application easiness.

The proposed level of dissection enables us to get, for each country, an information comparable with the corresponding National Accounts series.

To obtain a consistent estimate of ESA95 item *shares and other equity*, it is sufficient to sum up the components 1.1, 1.2.1 and 1.2.2 from SHIW (item 1.2.3, in fact, is simply not defined in this case). On the contrary, the components included in 1.2.3 must be added to the corresponding household's personal financial and non-financial assets.

For SCF, in order to get a comparable estimate with the FFA item *equity in unincorporated businesses* it is sufficient to add components 1.2.2 and 1.3.1: as already mentioned, in FFA only the legal status matters, and all the unincorporated businesses are included in a separate institutional sector from households.

Finally, since in National Accounts assets are valued at the end of the year, surveys should also collect information referring to the same point in time.

At present, SHIW is the survey that is closest to the third level of detail. "Portfolio like" investments are separated from investments in actively managed businesses. Moreover, for the latter a balance sheet approach is used to collect the current value of household's business interests. For any property other than the principal residence, information about the destination and the current market value is collected. However, there is no complete consistency with ESA95 definitions. As already mentioned, an important component of the firm's balance sheet is missing (severance pay), while for family businesses it is not possible

[10] According to SNA definition: "producer units within the household sector are all unincorporated enterprises, even though this terminology is admittedly cumbersome when applied to some of the smaller, or highly specialised, producer units. Nevertheless, the term unincorporated enterprise emphasise the fact that the producer unit is not incorporated as a separate legal entity from the household itself (4.140). The fixed and other assets used in unincorporated enterprises do not belong to the enterprises but to their owners. The enterprises as such cannot engage in transactions with other economic units. They cannot enter into contractual relationships with other units nor incur liabilities on their own behalf. Their owners are personally liable, without limit, for any debts or obligations incurred in the course of production (4.141)".

to separate firms to be included in the household sector from corporations and quasi corporations.

As to SCF, the main discrepancy with level 3 definitions lays in the fact that, only the value of one to four rental properties is collected (component 1.3.1). The value of component 1.3.2 is included in the total value of other properties. For actively managed businesses to be included in household sector (component 1.2.3), the survey does not separate non-financial from financial assets and liabilities. However, at country level this is not a problem, since it does not prevent the comparability with FFA.

Like SCF, the Canadian SFS only collects information on the net equity of the business. This is the main difficulty to overcome to get comparable estimates with CSNA. For household as producers, (component 1.2.3) the survey should collect separate information on financial assets and liabilities and non-financial assets.

The same comments apply to CySCF. The survey uses a collection approach similar to SCF, while it should mimic ESA95 definitions, since that is the reference manual for the compilation of national accounts by European countries . As a consequence, in order to get to level 3 the survey should separate non-financial assets from financial assets and liabilities (component 1.2.3) for the actively managed businesses included in the household sector.

4. Main findings and issues for discussion

The SNA and the ESA95 do not provide us with a definition of wealth in business, but households' assets and liabilities are defined and estimated by national accounts.

Improving the link between survey data and national/financial accounts has a twofold aim: (1) it improves comparability between micro and macro data, and comparisons between the two sources can be very useful to assess and improve the quality of both; (2) linking survey definitions to national accounts definitions is a natural way of creating a link between sample surveys of different countries and hence of obtaining harmonised survey results.

The set of definitions we propose appears to be suited for those purposes. Moreover, it seems to be easy to implement, since it requires only moderate adaptations to the current framework of the considered surveys.

Nevertheless, some key features of the scheme might be somewhat controversial; others require further refinements in order to become operational. In what follows, we recall some of those features, to open the floor for discussion and invite further research.

On the side of sector boundaries, a crucial issue concerns the split between households and quasi-corporations. As it was shown, the various systems of national/financial accounts are characterised by remarkable differences in sector classification. Our suggestion is for each survey to remain closer to the respective reference national account framework. This solution, of course, while allowing for comparison between survey and national accounts data at country level, does not ensure cross country comparability. Consequently, high transparency of the adopted definitions is required, in order to make users aware of the peculiarities of national survey data and able to avoid misleading conclusions from their research. Although the implicit trade-off between costs and benefits of cross country harmonisation appear reasonable to us, it may well be unsatisfactory to others.

A second issue concerns the delimitation of actively managed businesses. Consensus on the desirability of the proposed concept and on the practical way to implement it is not enough to ensure straightforward international comparability of results. As a matter of fact, our tentative definition rests on two pillars that still have a generic formulation at this stage and need to find commonly accepted specifications and thresholds: the household's capability to exert a key influence on strategic decisions of the firm; household's share in the equity of the firm.

A further set of open issues regards the asset boundary and valuation criteria, two aspects that, in some cases, are logically linked.

The more general issue under that heading relates to the concept of wealth in business: we propose to keep all non-residential buildings separated from the "core" aggregate that is intended to represent only the market value of actively managed businesses. This is an innovative solution even with respect to the FFA, where part of the non-residential properties, namely those leased to other household, are included in unincorporated (and hence actively managed) businesses.

Another point concerns the way of expressing an important component of wealth in business, that is the value of firms that are not identifiable as institutional units separated from their owners and therefore - contrary to what happens for corporations and quasi-corporations - cannot be registered in the balance sheets of the owners as financial assets. In our view, the value of those firms can be represented in two alternative ways, depending on the analytical purposes. If the main interest is, for example, to evaluate the total amount of wealth in business in order to make cross country comparisons, the value of firms classified as producer households can simply be represented by a single value, mimicking the net equity of quasi-corporations. On the other hand, if one is interested, for instance, in comparing the composition of wealth according to survey data with that resulting from national accounts, where "wealth in business" as such is not defined, the various items in the firm's (producer household's) balance sheet should be evaluated separately. Instead, the value of unincorporated firms that are identifiable as institutional units separated from their owners should in any case be included in the balance sheets of the owners as financial assets (shares and equity) and should be set equal to firm's assets less liabilities. It is important to remark that the eclecticism of our proposed approach is extraneous to both national accounts and the frameworks of existing surveys.

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