The treatment of non financial services in the recent System of National Accounts (SNA) and Balance Of Payments (BOP) updates, in view of the emerging new concept of services

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Abstract:

The two new manuals of the National Accounts (SNA 2009) and of the Balance of Payments (IMF 2009) are implementing many new features that protract innovations firstly introduced in 1993. Among those, the paper focuses on the treatment of non financial services.

The first section of the paper explains the main evolutions that the SNA sets off. Since several observers might keep in mind the old view on services (immateriality), a view that was no more endorsed by the 1993 revision, primarily the paper briefly reminds the basic changes that were brought in 1993.

In the second section, the paper focuses on the services versus goods issue and the related problems left aside, or brought in, by the revisions. The paper advocates that the contrast between goods and services, not only better holds, but becomes increasingly definite. It will be the occasion to show that the new perception borrows quite a lot from Hill’s perspective (1999a).

The third section of the paper is dedicated to a discussion contrasting the treatment of services in the SNA (SNA 2009) and in the BOP (IMF 2008). The aim of this comparison is to assess to what extent the two approaches have been rendered more compatible as it was intended.

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1. Introduction

The fairly recent publishing of the new manuals of the National Accounts (SNA 2009) and of the Balance of Payments (IMF 2009) have drawn to an end the revision processes, which were under way for many years (2003). Since 1993, when their former versions were released, the structure of many economies significantly evolved towards a new economy, essentially driven by the globalisation (Cave 2008). It was indeed a true necessity to renew the manner to understand economic data (Moulton 2004). Many innovative features have been initiated, regarding many topics. They are obviously not yet familiar and their consequences are not yet entirely explicit.

It would neither be appropriate, nor possible, to study all the new features. The paper then merely focuses on the adjustments related to the treatment of non financial services. The paper will hence leave aside many new features, as well as several disputed changes, the most prominent of them being the choice to include defence expenditures in Gross Formation of fixed Capital (investment) and the rebuttal to take into account non-marketable capital (Vanoli 2006; Magniez 2008).

The paper is structured in three sections:

The first section describes and explains the main evolutions related to the treatment of services that the SNA manual sets off. Since several observers might keep in mind the old view on services (immateriality), a view that was no more endorsed by the 1993 revision, the paper briefly reminds the basic changes that were brought in 1993 (Vanoli 1993).

In the second section, the paper focuses on the services versus goods issue and the related problems left aside, or brought in, by the revisions. The paper advocates that the contrast between goods and services, not only better holds, but becomes increasingly definite. It will be the occasion to show that the new perception borrows quite a lot from Hill’s perspective (1999a) and its illuminating description of intangible goods, originals and copies.

The third section of the paper is dedicated to a discussion contrasting the treatment of services in the SNA (SNA 2009) and in the BOP (IMF 2009). The aim of this comparison is to assess to what extent the two approaches have been rendered more compatible as it was intended. One way to proceed is to look at the changes introduced in both SNA and BOP (SNA 1993 - 2009; IMF 1993 – 2009) and to scrutinise if they follow the same direction and refer to the same concepts.
2. Changes that give rise to an emerging concept for services

2.1. The evolution was triggered off with the 1993 SNA revision

For quite a long time services were indistinctively characterised or lacked appropriate definition in statistical publications. For instance the 1968 SNA manual did neither contain any services entry in its index, nor was it interested in providing an inclusive definition of service. The manual was commonly using the sentence “goods and services” without any further consideration. The only details that described services were to be understood by contrast to goods: (SNA 1968, § 6.11) “commodities may be sold, go into stocks (…) or became part of the fixed capital formation” (…) “the production of services takes place at the time the services are rendered”.

Nevertheless economists had in mind several broad views of what services are, which essentially included the fact that they are immaterial or intangible, not storable and perishable since production and consumption seems quite simultaneous. Even if SNA 1993 began to depart from those characteristics, they are still widespread and rather common knowledge (see WIR 2004, Box n°1). Thus commonly every activity that appeared immaterial and non storable was deemed to be a services one. Correspondingly, the “perishable” criterion induced that services could not be durable, thus services could not become part of fixed capital formation.

Box n°1: Typical, but increasingly outdated, services definition

World Investment Report (UNCTAD 2004 p. 145)

“Services are usually perceived as intangible, invisible, perishable and requiring simultaneous production and consumption, while goods are tangible, visible and storable and do not require interaction between producers and consumers”.

For the first time in SNA’s short history, the 1993 SNA revision provided a specific definition of services. It represented an important step toward a better delineation and understanding of the services and their very characteristics (SNA 1993, Berthier 1999, Chauvin 2000). Nevertheless, at the same time it introduced many new important features that ironically tended to undermine the very boundaries between goods and services that it intended to clarify.

The 1993 definition of services (Box n°2) departed from familiar economic thoughts. It emphasised the fact that, because they are not separate entities over which ownership rights may be established (Box n°2), services cannot be traded separately from their production. This stance was intended to overcome the traditional view’s drawbacks, which did not explain the critical reason why a service was not storable
and also seemed to put too much weight on immateriality and immediacy of consumption criterions (Box n°1 UNCTAD 2004, see also Grünfeld, and Moxnes 2003).

**Box n°2: SNA1933 services definition**

SNA 1993 manual, line 6.8

“Services are not separate entities over which ownership rights can be established. They cannot be traded separately from their production. Services are heterogeneous outputs produced to order and typically consist of changes in the condition of the consuming units realised by the activities of the producers at the demand of the customers. By the time their production is completed they must have been provided to the consumers.”

Source: SNA 1993

The reference to immateriality or intangibility vanished in 1993 (Box n°2) for two main reasons.

On the one hand it was an oversimplification, because accurately speaking, services are not immaterial entities or invisible entities, some sort of good that cannot be seen or handled; they are changes, thus flows (Hill 1977, 1999a). As a matter of fact, services are real since they have material outcomes. On the other hand, immateriality was commonly supposed to be linked with the non storability feature. After all, storing an immaterial entity is indeed out of reach. However, the 1993 revision began to acknowledge for the occurrence of immaterial/intangible investments and assets (for instance in R&D, in mining exploration, software, in intellectual creation) (Vanoli 1992). To be sure, an investment or an asset, are some kind of a stock. Hence, keeping on with an immateriality attribute for services could lead to a false inconsistency due to a misinterpretation of their true essence, as well as by the way, a too crude understanding of non storability.

Let us note indeed that contrary to several hasty conventional views, the sentence: “By the time their production is completed they must have been provided to the consumers” included in the 1993 definition (Box n°2), does not imply that all services should be consumed at once (i.e. are perishable). Services effects may last long, thus several services are durable. For instance, the outcomes of vocational services as well as organisational services are expected to be enduring. Yet long-lasting effects do not require common sense storability, i.e. separate storability. That is to say that, while services are not stored per se, because a flow is not storable (Hill 1977), they may nevertheless accumulate in their recipient target, be it a good or a person. It is hence worth emphasising that, when services are here said not perishable, it is in the sense that their outcome can last, not in the sense that they could become separately stored assets.

Whatsoever, a consequence of the immediacy of delivery concept was conventionally that the SNA did not allow the status of work in progress for services activities (software publishing, architects activities, consulting services...), because it would result in temporary stocks of services. However the 1993 update opened the way for
such an eventuality, hence outwardly loosening a widespread assumed limitation of services.

Finally three main familiar characteristics of services were more or less discarded in 1993: immateriality, perishability and, somehow, non storability. One could wonder if anything was left of services long-established characteristics. What the subsequent steps of economic thoughts have shown, is that it was the price to pay for a more solid understanding of what a service is.

To some extent, the 1993 definition adopts a juridical oriented standpoint that the 2008 update protracts. A service is the result of a productive activity that cannot be isolated from the producer or the consumer, therefore, over which no ownership rights may be applied. The essence of services specificities is preserved while grounded on a more solid and illuminating basis. Being flows it is not possible to apply ownership rights on services, because they may not be disconnected from their providers or recipients. A well known consequence is that trade in services is rather impracticable, at least in the ordinary mode (Hill 1999a). But as such, it is also impossible to steal services, that is to say, in the sense that goods may genuinely be stolen. For instance, stealing transport implies stealing the means of transportation (whatever it could be), or the means of payment (money or transportation ticket), or else being a stowaway. There is no way to actually steal the transport service itself; on the contrary goods may definitely be per se stolen.

The new clarified standpoint also allows for the fact that some transactions may either take the form of a service or of a good sale, depending on the historical, economic, technical or institutional circumstances. For instance, cars may be purchased or rented, thus sold as goods or as services (right to access for a definite period).

2.2. The 2008 SNA adds new features that enhance the understanding of services

The last to date SNA and BOP updates strengthens the aforementioned evolution and improves the analysis of services, but seems as well to hesitate when faced to the ultimate consequences of their own views.

2.2.1. Change effecting and margin services

Probably in an attempt to be more inclusive the SNA 2008 update describes two specific types of services (Box n°3): “change effecting services” and “margin services”, correspondingly introducing a new label for the last one.
Box n°3: Services, change-effecting and margin services, in SNA 2008

SNA 2009 manual § 6.17

“Services are the result of a production activity that changes the conditions of the consuming units, or facilitates the exchange of products or financial assets. These types of service may be described as change effecting services and margin services respectively. Change-effecting services are outputs produced to order and typically consist of changes in the conditions of the consuming units realized by the activities of producers at the demand of the consumers. Change-effecting services are not separate entities over which ownership rights can be established. They cannot be traded separately from their production. By the time their production is completed, they must have been provided to the consumers.”

SNA 2009 manual § 6.21

“Margin services result when one institutional unit facilitates the change of ownership of goods, knowledge-capturing products, some services or financial assets between two other institutional units. Margin services are provided by wholesalers and retailers and by many types of financial institutions. Margin services resemble change-effecting services in that they are not separate entities over which ownership rights can be established. They cannot be traded separately from their production. By the time their production is completed they must have been provided to the consumers.”

Source: SNA 2009

Change-effecting services encompass three items (SNA 2009 § 6.18) change in the condition of the consumer’s goods (repairing, cleaning…); change in the physical condition of persons (transports, health care…); change in the mental condition of persons (education, entertainment…). The labelling refers to the manner changes are delivered to recipients.

Margin services (SNA 2009 § 6.21) facilitate the change of ownership of goods, without significantly affecting their condition. Margin services are very much similar to trade since they are mainly provided by retailers and wholesalers, but they cover also financial institutions (SNA 2009 § 6.21). Their labelling comes from the valuation of their output by trade margin gained on goods purchased for resale (SNA 2009 § 6.146). However it is a disputable choice. Indeed, it is not obvious why the label “distributive” or “intermediation” services could not fit in, since it better matches with the economic function of these services. It is rather uncommon that specific activities should be designated by the way they value their production, rather than the economic function they perform (Collective 2007, Editor 2007). Mentioning financial institutions raises another concern. Except perhaps for foreign exchange, it is not obvious that their main function is to facilitate the change of ownership. Intermediary financial activities do not consist in a change of ownership. Finally, trade would have likely been a better labelling, with not specific reference to financial institutions.

2 Properly speaking, foreign exchange in financial services also concerns transformation rather than intermediation.
2.2.2. Capital services

Secondly the SNA 2008 has introduced the analytical concept of capital services. It designates the stream of implicit “services” rendered by a non-financial asset (see also Hill 1999b). However the terminology is not fully satisfactory since, as the SNA editor acknowledges (SNA 2009 § 20.5): “the services referred to are not the outputs of production in the way that transportation or education services, for example, are.” The manual specific section therefore uses the concept of services in a different way than others. Consequently, in the SNA the term “services” is employed in, at least, two separate meanings, a rather confusing stance. It should be emphasised that capital services are not to be included in the standard range of services, they do not relate to change-effecting services or margin services.

2.2.3. Intangible assets or intellectual property products

The revision has expanded the coverage of intangible fixed assets, thus lifting out the last bans on the possibility for services-producing activities to produce durable assets.

The revision renames intangible assets into intellectual property products to emphasise the fact that these assets are associated with intellectual property rights. The word "products" is employed to make clear that it does not include third party rights which, in the SNA, are non-produced assets. The category encompasses R&D products, which output, contrary to 1993 SNA (Hill 1997), is no more treated as intermediate consumption. At present, intellectual property becomes produced asset contrary to its peculiar 1993 SNA treatment, for instance patented entities were seen as non-produced asset (Moulton 2004). This new entry includes originals, which result of an intellectual creation process (see next section). The 1993 revision of the SNA had already recognised certain categories of originals as assets, namely: software, literary and musical compositions, entertainment originals or recordings and mineral exploration. To some extent copies of originals are also treated as assets, when they serve in production for more than one year. The fact that original and copies are being recognised as distinct products, is a welcome change (Aspden 2004).

These last changes do not purposely concern services producing activities but have consequences on the manner to analyse them. Since intellectual property rights can derive from customary services activity, several services outputs can also become assets (next section will consider the theoretical consequences of this choice). Still, it is always easier to evaluate the expenditures in R&D or intellectual property than the final asset, all the more because quite recurrently expenditures do not end in a marketable asset (Vanoli 2008).

Finally the 2008 SNA update confirms that ordinary labelled services-producing activities can produce assets, consequently that services may last long and are not inescapably perishable. Yet several discussions remain that will be addressed in next section: is the separation and characterisation of original and copies service proof, should we speak about services durable output or durable outcome?

2.2.4. Knowledge-capturing products

The new information economy is significantly relying on digitalised dematerialisation and delivery by the means of New Information and Communication Technologies.
The new economy has at least two effects on the boundary between services and goods.

First, the digitalisation of information goods such as films, videos, books, music... tends to make them look like services, thus questioning the immaterial long-established services cornerstone feature. This apparently dissolving evolution had already been taken into consideration in the 1993 SNA. As seen above, the traditional cornerstone (Box n°1) was dropped to the benefit of more accurate ones. This move is strengthened with the 2008 SNA update, which goes forward since intangibility no more carries any specificity; let us for instance think about investments and assets in services.

Secondly, several common viewed services industries outputs may be digitalised, delivered separately from their producer, and thus stored. This evolution is probably, much more than the latter, raising questions on the goods and services divide. In an attempt to react, the 1993 revision had acknowledged for a category of products bearing both characteristics of goods and services (Box n°4). Hence several traditionally viewed services producing industries were deemed to produce goods-like products. The 2008 update goes ahead: in order to identify the dematerialised information products it creates a new product concept: Knowledge-Capturing Products (Box n°4). Whether the terms have been conveniently chosen may be discussed (Editor 2007), but obviously the foremost issue raised by this innovation addresses the critical substance of goods and services boundaries (Cave 2008).

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**Box n°4 Knowledge-capturing products**

**SNA 1993 manual, line 6.13**

“There is a group of industries, generally classified as service industries, that produce outputs that have many of the characteristics of goods, i.e., those concerned with the provision, storage, communication and dissemination of information, advice and entertainment in the broadest sense of those terms—the production of general or specialized information, news, consultancy reports, computer programs, movies, music, etc. The outputs of these industries, over which ownership rights may be established, are often stored on physical objects—paper, tapes, disks, etc.—that can be traded like ordinary goods. Whether characterized as goods or services, these products possess the essential common characteristic that they can be produced by one unit and supplied to another, thus making possible division of labour and the emergence of markets.”

**SNA 2009 manual**

6.13 – “(...) some service-producing industries may produce products that have many of the characteristics of goods. For convenience, the products of these industries are described in the SNA as **knowledge-capturing products**”.

6.22 – “(...) “The outputs of these industries, over which ownership rights may be established, are often stored on physical objects (whether on paper or on electronic media) that can be traded like ordinary goods. They have many of the characteristics of goods in that ownership rights over these products can be established and they can be used repeatedly. Whether characterized as goods or services, these products possess the essential common characteristic that they can be produced by one unit and supplied to another, thus making possible division of labour and the emergence of markets.”
From this paper point of view, the birth of knowledge-capturing products, as belonging both to goods and services products, is not a welcome move. This problem will be addressed in the subsequent section in conjunction with the goods vs. services debate.

2.2.5. Goods sent abroad for processing become foreign services transactions

While the SNA tends to weaken the boundaries between goods and services, it sets off a new treatment of Goods for Processing, which strengthens the emerging new concept of services.

Prior to 2008, goods sent abroad for processing where considered as exports of goods and, when coming back, as imports. According to the new treatment, when there is no ownership change, these transactions shift to services. They are granted a new name: foreign services transactions, a manner to acknowledge for manufacturing services. This move is both consistent with BOP methods and SNA’s services definition, but has faced several concerns (Vanoli 2008, Magniez 2008).

Sizeable flows of exchange of goods will eventually become shrunk services fees. Since the change has not been assessed, it could prove to be quite significant on the turnovers valuations (Brown 2004). It is also argued that it could bring about peculiarities that may impair the significance of input-output tables (Harrison and al. 2005). Another analogous motive stresses that a country, say for instance Tunisia, which buys crude oil and have it refined abroad would become in the SNA a gasoline producer, while only paying abroad for the refinery service (Vanoli 2008). Brown (2004) even argues that in the exporting country it could affect the industrial classification of the sub-contractors companies, because they could become categorised among the services producing activities, although they are definitely manufacturing ones (Harrison 2005). Apart from the issue of the significance of input-output tables, which request an adaptation of calculation methods, these matters of interrogation do not appear entirely persuasive.

In fact, the 2008 change is in line with its almost juridical services approach. While Tunisia is not a gasoline producer in the physical sense, after all it is actually the very gasoline seller or provider for final customers. The external refinery is providing change-effecting services to its Tunisian principal. If the refinery’s production was to become mainly sub-contracted, the plant would truly have to be regarded as a services-producing activity (see also Harrison and al. 2005 p. 14 or SNA 2009 § 6.85). Whether an activity is materially manufactured or not, or else rather customary producing goods, should not be an issue to categorise a given plant. For instance, repair services are definitely manufactured services (“industrial services”), similarly a product manufacturer can easily become a repairer of the same product.

2.2.6. Economic ownership

The 2008 SNA has introduced the new concept of economic ownership besides the one of legal property (SNA 2009 § 3.21; 3.26).

The economic ownership of an economic entity belongs to the economic unit that bears the risks connected with the use of the entity and obtains the corresponding income (Box n°5). When a product shifts hands, economic ownership belongs to the
economic unit that bears the risks in case of robbery, destruction... This new feature affects the treatment of assets, which should be recorded in the account of the economic owner, instead of the legal one. For instance: in the case of a lent plane, “the airline is (...) said to be the economic owner of the plane even though the bank remains the legal owner” (SNA 2009 § 2.47). Intellectual property assets are also affected (SNA 2009 § 10.100). Similar principles are applied to goods for processing (SNA 2009 § 2.48, Cf. above goods for processing). Finally the SNA recommends that the time of recording of acquisitions of goods and services should be when economic ownership changes hands, rather than the legal transfer (SNA 2009 § 3.169).

Box n°5: Economic ownership

3.21 – Two types of ownership can be distinguished, legal ownership and economic ownership. The legal owner of entities such as goods and services, natural resources, financial assets and liabilities is the institutional unit entitled in law and sustainable under the law to claim the benefits associated with the entities.

3.26 – The economic owner of entities such as goods and services, natural resources, financial assets and liabilities is the institutional unit entitled to claim the benefits associated with the use of the entity in question in the course of an economic activity by virtue of accepting the associated risks.

SNA 2009

Even if the SNA does not mention it, the new concept could be inspired by what civil laws name *usufruct*, when referring to the dividing up of ownership, between practical and nominal ownerships. Practical ownership entitles to use the property (*usus*) and to obtain the benefits from its use (*fructus*), although not being the owner of the bare property. In so doing, SNA’s views presume the availability of rather subtle data, since the legal as well as the economic owner may claim benefits and share risks (SNA 2009 § 3.27). As a matter of fact each owner (legal and economic) does possess one part of the overall value of the asset. In the plane example the appropriate part of the value should be taken into consideration in the bank, as well as in the airline accounts.

One significant passage of the 2008 SNA induces the reader to believe that economic ownership could apply to services. Indeed, the paragraph § 3.26 (Box n°5) lists services among several entities over which economic ownership may be established. However, according to SNA services definition: “services are not separate entities over which ownership rights can be established”. The sentence does not make it plain as whether the restriction, as well refers or not to economic ownership. Nevertheless, because it is the only way to be consistent, the definition restrictive sentence must necessarily address both legal and economic ownerships. Finally a consistent consensus should be that economic ownership does not apply to services.

Still, the question why the SNA 2009 paragraph § 3.26 includes services remains. This odd circumstance could be a consequence of the indecisive delineation of knowledge-capturing products. Because of their alleged hybrid nature of goods and services, editors of the SNA might have been drawn to approve a somewhat shady
wording of § 3.26. It is thus an additional reason to definitely suggest classifying knowledge-capturing products in the goods category (see next section for the foremost reasons). The fourth section will stress that the BOP has a more clear-cut view on this matter.

The new economic ownership concept could apparently have counteracted with the change in the treatment of goods for processing, i.e. towards trade in services (Collective 2007). Let us remember that the process concerning goods sent abroad is no longer viewed as exports and imports of goods, because they remain legally owned by the sending economic unit. This rationale is based on the permanence of ownership. At first glance, one could develop the feeling that the goods sent abroad are becoming economically owned by the processing unit, since the latter must at least bear the risks of the handling. Hence goods sent for processing could anew fall back into exports and exports. Indeed, it is pretty straightforward to make out if legal ownership changes hands in a given transaction, but it is definitely not so easy when considering economic ownership. Nevertheless, the SNA convincingly argues, utilising the example of the refinery service, that in a corresponding situation there is no transfer of ownership: “(…) the establishment has no discretion about the level of production, the price to be charged for the good or the destination of the good, there is evidence that the establishment has not taken economic ownership of the goods being processed and the value of the output should be treated as the processing element only (SNA 2009 § 6.85)”. Hence, it may be concluded that, as far as subcontracting is at stake, there is no transfer of economic ownership.

The 2008 revision of the SNA brings in many new important features and contributes to better comprehend services. It will however be explained in the following section that at the same time the SNA resists to several consequences of its very new views.

3. A wavering future for services?

The present section focuses on the services versus goods issue and the related problems left aside, or brought in, by the revisions. Indeed, at the same time as the SNA 2008 offers an advanced definition of services, it appears reluctant to draw all its consequences and in turn tends to undermine goods and services boundaries. The manual keeps tracks of the discomfort of the editors. In addition this section will bestow the occasion to point out the legacy that the new perception owes to Hill’s (1999a) views.

3.1. Should services-producing labelled industries be allowed to customarily provide goods-like products?

– The SNA emphasises that manufacturing industries can provide services, whereas services producing activities can produce goods. “Industrial classifications, such as ISIC, identify a group of manufacturing industries. However, many of these industries
also produce services. (...) (SNA 2009 § 6.12). “Similarly, some service-producing industries may produce products that have many of the characteristics of goods (...) (SNA 2009 § 6.13)”. Although depicted as ordinary, these circumstances, combined with the innovative knowledge-capturing products, raise fairly embarrassing issues.

The aforementioned standpoint suggests that the division between manufacturing and services is above all necessary, and therefore presumably established, in the International Standard Industrial Classification (ISIC) or probably in the Central Products Classification (CPC), but is not important for SNA. It should nevertheless be noticed that this view reveals to be a mistaken one.

Surprisingly enough, contrary to SNA’s focus on the goods-services boundaries, the two aforementioned classifications do not pay interest to services or goods producing definitions.

Explanatory notes of the manufacturing section of ISIC rev. 4 merely states: “This section includes the physical or chemical transformation of materials, substances, or components into new products, although this cannot be used as the single universal criterion for defining manufacturing (...). (...) The boundaries of manufacturing and the other sectors of the classification system can be somewhat blurry. As a general rule, the activities in the manufacturing section involve the transformation of materials into new products. Their output is a new product. However, the definition of what constitutes a new product can be somewhat subjective.” (UN 2008 p. 85). The CPC does not suggest any global definition of services or goods. It classifies products regarding the physical characteristics of goods or on the nature of the services rendered, as well as on the principle of industrial origin. Indeed it attempts to group into one CPC subclass the products of a single industry (Gaugris 2007). It is also worth mentioning that ISIC includes in manufacturing industries repair and installation of machinery and equipment (item # 33), which activity definitely is not goods-producing according to the SNA 2008 rationale.

From ISIC explanatory notes one can nonetheless infer that manufacturing involves the transformation of material into new products, which elements of characterisation do indeed comprise a physical reference, but does not relate to the contingency of being able to establish ownership rights. In light of these observations one may suggest that at least SNA and ISIC do not follow identical approaches. ISIC seems to rely on the old view on services. It is thus rather unexpected that although overtly questioning the necessity to distinguish between goods and services (CF. next paragraph), the SNA may be seen as the only source that devotes noteworthy efforts to establish it.

– The fact that manufacturing units can provide services and vice-versa persists to bring about significant concerns, which the manual intends to overlook: “In the SNA, it is seldom if ever necessary to make a clear distinction between goods and services (...)” (SNA 2009 § 6.11). The Editor correspondingly derives from the aforementioned observations that a clear understanding of the boundary between goods and services may not be within reach, and above all, is probably not a relevant economic goal (See also Cave 2008): “The question of services produced by goods industries and vice-versa gives rise to a debate about the boundary between goods and services that is (in my opinion) neither resolvable not useful.” (Editor 2007 p. 2). In order to clarify where the problem lies and how the SNA tackles it, it is necessary to first of all remind several economic taxonomic principles.
On the one hand, as far as industrial classifications are at stake, economic units should chiefly produce the entity (whether goods or services) in which sector they are classified and only marginally the other kind. On the other hand, in accordance with the approach developed in the 2008 SNA, illustrated by the change of treatment of goods for processing, when the production of a manufacturing unit becomes mainly that of a total sub-contractor, i.e. with no ownership on the goods processed, its output happens to shift from goods to services.

The whole debate underlines the fact that it is important to keep in mind two separate approaches: that of the product and that of the industry.

On the one hand, the product approach focuses on the actual output, thus on the difference between a service and a good. This perspective is primarily implemented in the Balance of Payments. Given its principles, the BOP scrutinises the products that crosses the border, irrespective of their economic unit sector of origin. Consequently manufacturing activities may trade services and vice versa. The "not sector-matching" foreign traded share of production has no impact on the local categorisation as manufacturing or services-producing. As a matter of fact, it is a common situation. For instance in France, manufacturing industries contribute to 65.8 % of services exports (2003 data, special treatment of the Balance of payments, see Broussolle 2006).

On the other hand, the industry (or sector) approach is the one that fits with ISIC as well as, in its own way, with SNA. It focuses on services-producing industries versus goods-producing industries. In this respect manufacturing activities are intended to mainly produce goods and services activities, services.

The two approaches may sometimes look as if they were at odds. For instance a unit classified in Manufacture of refined petroleum products, which definitely belongs to the manufacturing sector (ISIC item # 192), can produce services as far as goods sent abroad for processing is concerned. In this respect SNA rightly points out that: “(...) the fact that the processing is classified as a service does not prevent the processor from being classified within manufacturing (...)” (SNA 2009 § 6.12). It is true indeed, but not wearing out the subject.

– To be sure the discomfort of SNA’s editors nonetheless expresses an underlying unsettled problem.

Let us emphasise that the even balanced parallel drawn in the SNA, between manufacturing industries producing services, and services activities producing goods (SNA 2009 § 6.12; 6.13), is a forced one. It conceals a major classification problem. Although the reasoning is suggested symmetrical: “(...) for example, some aircraft engine manufacturers may both fabricate aircraft engines and repair and service existing engines. (...)” (SNA 2009 § 6.12). (...) Similarly, some service-producing industries may produce products that have many of the characteristics of goods (SNA 2009 § 6.13)”, in fact it is not so.

As previously reminded, while manufacturing industries can episodically produce services, and correspondingly services producing industries intermittently produce goods, it should not be their chief activity. It is true that units belonging to manufacturing industries can incidentally provide services, however each time services be-
come their main output, they should be incorporated within the services-producing sectors. The aforementioned example of engine repair is an illuminating one. Engine or plane maintenance is definitely a services activity. For that very reason, when an economic unit performs repair as its foremost output; it belongs to repair services \(^3\) instead of aircraft manufacturers \(^4\). Indeed, aircraft engine manufacturers rather refurbish engines (engine conversion, overhaul or rebuild, in ISIC terms), than repair them.

Nevertheless the case of the so-called services-producing activities that fabricate goods-like products is by far dissimilar. In reality these so-called services-producing industries are quite routinely producing goods-like entities. For instance, computer software or film producing activities, typical common-viewed services activities, are not “incidentally” producing goods-like products. Producing entities over which ownership rights may be established, is actually their standard activity. In the 2008 SNA that group of industries is deemed to provide knowledge-capturing products, a manner to admit that they do not provide authentic services. This new type of product has most probably been coined because the advanced expert group didn’t reach a more definite agreement. It fulfils two correlated practical goals. First, it veils the fact that, according to the very 2008 SNA manual’s own characterisations, knowledge-capturing products are genuine goods. Second, it draws the view aside from the industrial classification concerns that the new 2008 approach triggers off. As the SNA manual puts it with a most likely unintended understatement: “(...) some service-producing industries may produce products that have many of the characteristics of goods. For convenience, [emphasis added] the products of these industries are described in the SNA as knowledge-capturing products” (SNA 2009 § 6.13) \(^5\).

– The emerging truth is that several industries, commonly viewed as services-producing activities are mainly providing goods (Hill 1999a), which observation appears to be fairly challenging. The reluctance to acknowledge this fact may be seen has a temporary elegant stalemate, but is hardly satisfactory and brings about adverse consequences.

It must be acknowledged that the aforesaid standoff was already implied by the 1993 revision; however it is pretty deceiving that the 2008 update did not overcome it. Disturbing as it may be, the only consistent and long-enduring standpoint, even if it concerns intangible goods, is to admit that several activities are wrongly regarded as services-producing. Consequently, the presentation and understanding of industrial classifications should be adapted. Namely, information producing sectors should be regarded as goods-producing.

Moreover the stalemate brings adverse effects. It drives to a misapprehension of the relevance of the new approach, and stimulates a sceptical attitude towards the very

\(^3\) In fact ISIC item # 3315: Repair of transport equipment, except motor vehicles. This class includes: repair and maintenance of aircraft (except factory conversion, factory overhaul, factory rebuilding).

\(^4\) Item # 3030 Manufacture of air and spacecraft and related machinery.

\(^5\) See also “The term knowledge-capturing products, is intended to capture products of service industries without arguing about whether they are goods or services” (Editor 2007 p. 2).
concept of services. The previously mentioned quotations show the discomfort of the editors. As long as the odd idea that services-producing activities can routinely produce goods-like products is maintained, the relevance of the partition between goods and services will be disputed. Hence, in a way because the 2008 SNA's revision is not fully confident with its own views, it contributes to weaken its very innovative approach.

Finally to go along with the acuteness of the enhanced services definition, industrial taxonomies should be adapted. In fact for a long time several activities were wrongly regarded as services producing.

3.2. Hill, services, intangible goods and originals

Contrary to what suggests SNA’s persistent reservations, gradually a more solid and relevant perception of what is a service and a service-producing activity is emerging. This innovative perception borrows quite a lot from Hill’s (1999a; Box n°6) suggestions. In the course to this innovative approach, large steps derive from the concept of original, which helped to differentiate services from intangible goods that were wrongly regarded as services. Hill (1997, 1999a &b, 2003) has to be thanked for its major contribution towards a clearer understanding of these complex concepts.

Box n°6: Hill’s contribution to the clearing up of services and originals (1999a)

p. 441-42

“Services involve relationships between producers and consumers. (…) In contrast to a good, as service is not an entity that can exist independently from its producer or consumer (…). Service (…) is some change in the condition of one economic unit produced by the activity of another unit. (…). Because it is not an entity, it is not possible to establish ownership rights over a service and hence to transfer ownership from one economic unit to another”.

P. 438 & 440

“Most goods are material objects. However, other kinds of entities exist which have all the economic characteristics of goods. These consist of intangible entities originally produced as outputs by persons, or enterprises, engaged in creative or innovative activities of literary, scientific, engineering or entertainment nature. Broadly speaking, the original intangibles consist of additions to knowledge and new information of all kinds and also new creations of an artistic or literary nature.” (…)

“An original is the archetypal immaterial good. It is a good because it is an entity over which ownership rights can be established and which is of economic value to its owner”. 
An original is the result of a creative process that produces an intangible entity. If used over a long period it is an intangible asset, whether characterised as fixed (SNA) or more accurately not (Hill 2003)\(^6\). Enduring originals may be viewed as some kind of new “technological assets”, such as a patent or an architect’s plan (Hill 2003). An original can be copied as many times as required, without altering it. The treatment of originals and copies was primarily set to deal with the case of software, but as Hill (2003) points out the concept should not be restrictively used.

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**Box n°7: originals in the 2008 SNA**

– 6.208 “The production of books, recordings, films, software, tapes, disks, etc. is a two-stage process of which the first stage is the production of the original and the second stage the production and use of copies of the original. The output of the first stage is the original itself over which legal or de facto ownership can be established by copyright, patent or secrecy. The value of the original depends on the actual or expected receipts from the sale or use of copies at the second stage, which have to cover the costs of the original as well as costs incurred at the second stage.”

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In the 2008 SNA, the production of originals and copies is described as a two stage process (Box n°7; see also Ahmad 2004), where the first step brings out the original and the second the copy. The output of “the first stage is the original itself over which legal or de facto ownership can be established by copyright, patent or secrecy” (§ 6.208) (see also 10.99 sq.). An original is hence definitely a good (Hill 1999a, box n°6). It is worth reminding that the original is not the first physical production of a CD, film… the original is the intellectual production that can be stored on some device (Hill 2003). Copies are undoubtedly goods as well, but as every goods they can be sold outright or made available under a license. When sold outright a copy is a good, (to be considered a [fixed] asset if used in production more than one year). A copy purchased with a license may also be regarded as a commodity ([fixed] asset) if according to SNA “the licensee assumes all the risks and rewards of ownership copies (SNA 2009, § 10.100)”, that is to say when at least the economic ownership has been transferred. The manual suggests that the only situation when a license does not fall within the asset/commodity case is when it does not involve a long-term contract. In these circumstances the transaction relates to a flow of services. This point of view has been challenged (Lynch, no date), but not persuasively to our opinion.

Let us summon up, several services producing industries can produce originals that are assets, over which ownership rights can be established, thus goods. The originals, as well as their copies, can be sold outright as goods (for instance database sale) or through subscription as services (for instance database access). When economic units, even commonly viewed as services-producing, are customarily produc-

\(^6\) « Originals are not fixed assets as they are understood in economic production theory. They do not provide flows of capital services as inputs into production. They are technology assets whose role is quite different from that of a fixed asset. They expand the set of production possibilities that are attainable with a given stock of (tangible) fixed assets», (Hill 2003 p. 12).
ing originals or assets as primary output, it should mean that they are wrongly categorised. For example, since most software are commonly sold outright or through long-term access contracts, they are not services (see also next section box n°9, BOP). Hence, software industry should no more be included in the services sector.

Many new features of the changes are inspired by Hill's (1999a) standpoint and finally almost adopt it. But the editors of the manuals remain somehow on the edge, which in turn brings about several contradictions. One of them pertains to the Knowledge-Capturing Products item. Another is the reluctance to draw all the consequences of the concept of original. If those two new ideas were fully applied to information products the range of services would shrink.

4. Services in the Balance of Payments (BOP) as referring to SNA’s approach

The last section of the paper is dedicated to a contrasting discussion of the treatment of services in the SNA (SNA 2009) and in the Balance of Payments BOP (IMF 2009). The aim of this comparison is to assess to what extent the two approaches have been rendered compatible as it was intended.

It is worth emphasising that, while it may be asserted that the distinction between goods and services is not of major consideration for the SNA, conversely it is an essential one for the BOP. Let us remember that the BOP follows a product approach (IMF 2009 § 10.61). It markedly depends on the distinction between goods and services, since current account is, among other items, traditionally split between goods and services transactions. Besides, the sub-detailed sorting of the transactions is actually linked to the Central Product Classification. Moreover, in the wake of the GATS agreement, the attention for trade in services has dramatically raised.

4.1. The services account incorporates valuable improvements

The n°8 appendix of the BOP manual describes all the changes that were introduced since the 5th version (IMF 1993, IMF 2009), pages 297 to 298 are devoted to the goods and services account. Significant improvements have been made since the previous Balance of Payment Manual (BPM5). The main rationalisation asserted for these changes is indeed to reconcile BOP methods and SNA principles.

– A first essential aspect is that the distinction between goods and services is to be made accordingly to the definition of the SNA. The BOP indeed refers to SNA 2009 chapter 6 definitions of goods and services, IMF 2009 § 10.6 and 10.7 remind that “Services are not generally separate items over which ownership rights can be established and cannot generally be separated from their production” (…). Nevertheless, in practice, the differentiation between goods and services may be affected by data source or availability.
Box n° 8: Goods and services in the Balance of payments 6th update (BPM6)

10.61 (...) The classification is mainly product-based, but is transactor-based for travel, construction, and government goods and services n.i.e. The classification is according to the type of service, rather than the unit that provide it (...).

Table 10.1 Overview of the goods and services account 6th update (BPM6)

<table>
<thead>
<tr>
<th>New feature or label</th>
<th>Still questionable item</th>
</tr>
</thead>
</table>
| – A second essential change concerns the recognising of “Manufacturing services”.

Beginning with the 6th update, the entry *maintenance and repair* will no longer be listed under goods; in addition it includes *maintenance of transport equipment*. It is a welcome change, since, as it was argued in the previous section, repair definitely provide services. Similarly manufacturing services on physical inputs owned by others (IMF 2009 § 10.62), which mainly refers to *goods for processing* in the SNA, is also moved from goods to services. These shifts are consistent with SNA’s views.

Incidentally it is worth observing that the change affecting the treatment of *goods for processing* is getting it closer to that of repair. Let us first underline, unless the fact that repair involves second-hand goods, that their economic functions are quite similar. In the BOP the traditional difference between repair and goods for processing was the way transactions were valued: for repair the fee paid or received, for goods for processing export – import prices. By now in the two situations the valuation will use a fee (Harrison and al. 2005 p. 54). The repair and packaging services are deemed to be only performing no significant changes. But, in fact Harrison and al (2005 p. 4) stress that the practical difference between repair and packing on the one hand, and goods for processing on the other hand, is that they are classified using different codes.
– The treatment of intellectual property is fully revised to be more in line with the new view on services. As a result the entry *Royalties and license fees* is replaced by a new item: *Charges for the use of intellectual property* (Box n°8). The change deserves specific explanations, but because it is not completely satisfactory, they will be given in next sub-section.

– Economic ownership is referred to in the BOP (IMF 2009 § 5.3), it affects the moment in time of recording of goods and assets transactions. Opportunely as it may be inferred from the text, services are not concerned by economic ownership. However owing to the reluctance to classify knowledge-capturing products under goods, an avoidable haziness remains.

– Lastly it is worth noticing that there are no allusions to the new concept of capital services (SNA 2008, Hill 1999b) in the BOP.

4.2. Several unexpected problems remain

Unfortunately, despite the later improvements, the list (Box n°8), as well as the inner structure of the current account is not fully consistent with the new definition of services. It is nonetheless fair to admit that many flaws are induced by the shyness of SNA’s views on several matters (see above sections).

– The BOP manual indeed acknowledges that several entries listed under services in current account are not product-oriented (Box n°8).

Construction, Travel and Government are said by the BOP manual to be transaction oriented (IMF 2009 § 10.61). However, to the external observer Construction and Government rather seem to be industry oriented. Anyway, the critical fact is that those three entries mix trade in goods and in services. The question therefore aroused is why ranking them under services rather than under goods? There should be a firm suspicion that services are their major source of trade. Although it could probably be true for government, it is indecisive for travel and most certainly erroneous for Construction.

Until the Balance 6th revised presentation, construction was named construction services. One must remember that construction is definitely not a service product or activity. Consequently, the entry construction services in the services section sounded quite awkward. Construction –related– services could have been a more suitable label; designating accompanying services provided alongside a construction project abroad –chiefly architectural expertise, consultancy services– or providing construction workers abroad. Let us however notice that in a true product-based classification, these exchanges would not be classified under construction, but under architectural services…. i.e. under the entry “other business services”. Providing construction workers, a variety of labour service, would likely be called posting workers. Classifying these services under construction –related– services means agreeing to mix up industry and product based classifications.
The entry raised nevertheless another more crucial issue. Although the balance 5\textsuperscript{th} revised manual (IMF 2004) formally acknowledged the necessity for the item to be service-oriented, the value computed included the goods and materials imported\textsuperscript{7}, and as well by now with the 6\textsuperscript{th} update, the goods and materials bought locally for the construction. Consequently, the item does designate actual construction performed abroad\textsuperscript{8}, and not related services. Consistently the 6\textsuperscript{th} update has removed the word “services” from the item heading, which becomes solely “Construction”.

This last change arouses however a new and yet more discomforting question: since the BOP revision overtly acknowledges that the construction item does not primarily relate to trade in services, why does it remain within the services cluster? After all, the 5\textsuperscript{th} and 6\textsuperscript{th} revisions have altogether witnessed several changes from goods to services or from income to services, or else splits of former entries (see below). Why not move or split construction too?

– Merchanting

Given the improvements mentioned, it is yet unexpected that merchanting remains classified under goods. Although merchanting has been individualised and its borderline better delineated, some noticeable enhancements, the revision could have gone further on.

Merchanting designates “the purchase of goods by a resident (of the compiling economy) from a nonresident combined with the subsequent resale of the same goods to another nonresident without the goods being present in the compiling economy. (…) (IMF 2009 § 10.41). According to SNA’s views, it is a typical margin services: “margin services result when one institutional unit facilitates the change of ownership of goods” (SNA 2009 § 6.17 sq.). Thus it should not be listed under goods transactions. Furthermore, when merchanting involves some transformations of the regarded goods, the corresponding transactions should be included under manufacturing services rather than general merchandise\textsuperscript{9}.

The sagacious observer cannot help thinking that the treatment of merchanting is affected by the idea that, because it concerns the handling of goods, it has to be classified under goods transactions. A confirming evidence comes from the fact that “services merchanting” are classified under the proper services classification (IMF 2009 § 10.160). As demonstrated in the previous sections, not only the “material vs. immaterial” rationale is at odds with the new services approach, but it has even been discarded in the BOP for the treatment of goods for processing.

Finally in spite of everything, several aspects of BOP’s approach still remain biased by the ancient material vs. immaterial (visible vs. invisible) distinction. Additional clues will be offered below.

\textsuperscript{7} “Goods imported by the enterprise for use in the projects are included in the value of these services” (IMF 1993 p. 66; see also IMF 2009 § 10.99).

\textsuperscript{8} I.e. “work performed on construction projects and installation by employees of an enterprise in location outside the economic territory of the enterprise” (IMF 1993 p. 39; IMF 2009 § 10.101).

\textsuperscript{9} “If the physical form of the goods is changed during the period the goods are owned, as a result of manufacturing services performed by other entities, then the goods transactions are recorded under general merchandise rather than merchanting” (IMF 2009 § 10.42).
– Knowledge-capturing products

Knowledge capturing products have been inserted in BOP commentaries (IMF 2009 §10.8), but are not included in its taxonomy. The item does not reach the status of a specific traded product; it is merely a manner to describe particular transactions pertaining to charges for the use of intellectual property. However, oddly enough, while knowledge-capturing products are recognised to be traded separately from their production like goods, the corresponding transactions mainly remain classified within the services cluster (see next topic). A clarification will thus certainly be needed in the future.

– Intellectual property and originals

The treatment of license rights, intellectual property, original and copies deserve a detailed comment.

BOP is in line with SNA new features as regarding intellectual property as well as originals and copies, since it refers to the same definitions and principles (Box n°9). Nevertheless, like the SNA, the BOP is reluctant to fully combine these new principles with those pertaining to the services definition.

The 1993 BOP update introduced a major clarification between income and services entries. Royalties and license fees, previously classified in the income cluster, were moved to that of services. This shift, as underlines the IMF (1993 p.67), was implemented in accordance with the SNA. Indeed, even if these monetary flows are connected to property rights, they frequently relate to rental or distribution operations, thus to services supply. The move of license fees to services was thus a welcome improvement. But unfortunately the entry still mixed dissimilar items as regarded to the distinction between goods and services. The BOP 6th version introduces a second move: a split in the treatment of intellectual property charges, depending on whether they refer to temporary use or outright sales (IMF 2009 § 10.137 and sq.). The new entry, called Charges for the use of intellectual property, covers only fees pertaining to temporary use of intellectual property (a proper service transaction). Nevertheless, the remaining part of the previous license fees entry, which pertains to outright sales, is unduly distributed over the corresponding services entry (i.e. Research and development services, or Computer services, or else Audiovisual services, Box n°9 [Table 10.4]). To be consistent with the approach that legitimated the split, these outright sales, which refer to a transfer of ownership, should have rather been recorded under goods in the balance, for instance in an information goods (or knowledge-capturing goods) entry. Incidentally, it is worth emphasising that this very last move is not consistent with a product classification, but follows an activity rationale. Once again the BOP mixes a product and an industry cataloguing.

10 “(…) in accordance with the SNA treatment of such items as payments for production of services for intermediate consumption or receipts from sales of output used as intermediate inputs.”
10.138 The production of books, recordings, films, software, disks, and so forth is a two-stage process of which the first stage is the production of the original and the second stage the production and use of copies of the original. The output of the first stage is the original itself over which legal or de facto ownership can be established by copyright, patent, or secrecy. The owner of the asset may use it directly to produce copies that give the purchaser a license to use. Alternatively, the owner may issue a license to other producers to reproduce and distribute the content. The payments made by the licensee to the owner may be described in various ways, such as fees, commissions, or royalties. The treatment of flows relating to intellectual property is summarized in Table 10.4. In contrast to temporary rights to use, outright sales of patents, copyrights, and industrial processes and designs are included under research and development services (discussed in paragraph 10.147). Similarly, temporary rights for computer software and audiovisual originals are treated differently from outright sales (as shown in Table 10.4).

Table 10.4. Treatment of Intellectual Property

<table>
<thead>
<tr>
<th>Outcomes of research and development</th>
<th>License to use excluding reproduction and distribution</th>
<th>License to reproduce and/or distribute</th>
<th>Franchises and trademarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer services, Audiovisual and related services:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) Customized types</td>
<td>relevant service item</td>
<td>relevant service item</td>
<td>charges for the use of intellectual property n.i.e.</td>
</tr>
<tr>
<td>(b) Noncustomized—downloaded or otherwise electronically delivered</td>
<td>relevant service item</td>
<td>relevant service item</td>
<td>charges for the use of intellectual property n.i.e.</td>
</tr>
<tr>
<td>(c) Noncustomized—provided on physical media with periodic license fee</td>
<td>relevant service item</td>
<td>relevant service item</td>
<td>charges for the use of intellectual property n.i.e.</td>
</tr>
<tr>
<td>(d) Noncustomized—provided on physical media with right to perpetual use</td>
<td>relevant service item</td>
<td>relevant service item</td>
<td>charges for the use of intellectual property n.i.e.</td>
</tr>
</tbody>
</table>

1 Covers the case where a specific product is supplied with the right to use the intellectual property embodied in it, but not to copy it for further distribution. The transactions should be classified under the appropriate goods and services items.
2 Covers the case where authority to reproduce and/or distribute the intellectual property is delegated by its owner.
3 Covers the case where there is a charge of economic ownership of the whole of the intellectual property right in question. The seller no longer has any rights or obligations associated with the intellectual property. This case also includes second or subsequent outright sales of intellectual property rights.
4 The relevant service item is either computer services (see paragraph 10.143), or audiovisual and related services (see paragraphs 10.162–10.166), depending on the nature of the content provided.

10.17 c) **Noncustomized** packaged software (systems and applications), and video and audio recordings, on physical media, such as disks and other devices, with a license for perpetual use are included in general merchandise. (…) [Emphasis added].

10.164 Mass-produced recordings and manuscripts that are purchased or sold outright or for perpetual use are included under audiovisual and related services if downloaded (i.e., delivered electronically). However, those on CD-ROM, disk, paper, and so forth, are included in general merchandise. (…) [Emphasis added]

10.166 Purchases and sales of original manuscripts, sound recordings, films, and so forth are included in audiovisual and related services.
Moreover the BOP manual argues (IMF 2009 p. 298) that audiovisual and computer services have been delineated, with a clear borderline from goods and services. Nevertheless, despite significant enhancements, it is not entirely true as far as the new definition of services is at stake.

In fact, audiovisual and related services, as well as computer services entries, include non-services flows. The first item computes “fees related to the production of motion pictures (on film or video tape), radio and television programs (…), and musical recordings” (IMF 1993 p.67-68; IMF 2009 § 10.162, Box n°9). According to the services definition advocated in SNA 2008 and in BOP 2009, the production of these information products on which property rights may obviously be applied, does not belong to services. Only their distribution or rental pertains to services.

In addition, the fact that information goods transactions are classified in the BOP under goods or under services, depending on whether they are materially (CD, book, software…) or immaterially provided (downloaded), or also (for software) mass produced or customised, (IMF 2009 § 10.164 & 10.140 sq., Box n°9), appears inconsistent and misleading. All these transactions should be regarded as goods transactions as far as they pertain to outright sales or purchases. Similarly, the purchase of an original, be it immaterial (Box n°9), should not be regarded as a service transaction. These two last examples illustrate the before mentioned observation that BOP methods are still residually viewing services as immaterial goods.

To summon up, while the BOP changes are more and more matching it with SNA principles, some aspects remain inconsistent with these changes and will need adaptation in the future. In its own way the BOP shares with the SNA, some difficulties to fully implement the services standpoint it advocates for.

5. Conclusion

The SNA 2008 revision brought in many new features that directly or indirectly shed a brighter light on services analysis. Firstly it corroborates and deepens the new approach of services, which since 1993 refers to the impossibility to establish ownership rights on services. The ancient immateriality feature is no more decisive to describe services.

The SNA introduces new interesting details and concepts such as describing change-effecting services, or the new treatment of goods for processing, or else the notion of economic ownership. The coverage of intangible assets is also expanded and, in an indirect way, SNA underlines the capacity of services to provide durable outcome. SNA also develops the concept of originals and copies, which is a major step toward a better understanding of information goods. Nevertheless the SNA lags behind its own innovative approach when it creates the peculiar category of knowledge-capturing products, which products possess both characteristics of goods and services. It is indeed a conciliation attempt between old and new views on services, but the result is confusing. Sooner or later it will be necessary to acknowledge that knowledge-capturing products are genuine goods. Consequently the economic units
that mainly produce them should belong to manufacturing sectors, probably in an informa-
tion goods cluster.

The new standpoint owes much to Hill's suggestions and works (1999a, 2003). It car-
ries some drastic upshots and some have not yet been embraced.

Even if services are better understood on a theoretical point of view, services tax-
onomies tend to stay behind the way (Cave 2008). The main consequence of this state of fact is that services classification remains too loose. Services tend to be mixed up with non services and it is rather blurring for economic analysis. The new features that are studied in the paper are increasingly shaping a new manner to un-
derstand services. This new approach is much sharper than the old one. If its fea-
tures were all to be implemented, the list of services would be rather disrupted, alto-
gether as products (BOP) or as services producing industries (SNA, ISIC). Most likely
the range of services as products would shrink, for instance immaterial goods would be withdrawn from the list. However, the generalisation of the new approach may have contrasting effects on the extent of services producing industries. On the one hand, it could result in a decline of the number of information services. On the other hand, it could bring about a rise in services activity. Indeed with the expanding use of the notion of economic ownership, following for instance the treatment of goods for processing, the range of manufacturing services could be extended. The new view of services resulting from SNA changes thus calls for a close revision of the present industrial classification.

Furthermore, regarding to economic policy, concepts driven from the SNA are of ma-
jor consideration. Truly endorsed, the new definition of services could lead to an im-
proved understanding of the economy. It is of major importance that the services
economy be adequately measured. Similarly, services-producing industries do not
obey to the same production limitations as services-producing face, let us think for instance of foreign trade as Hill emphasised it (1999a).

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APPENDIX

BALANCE OF PAYMENTS V.6 (CURRENT ACCOUNT, EXCERPTS)

I. CURRENT ACCOUNT

I. A GOODS AND SERVICES

I.A.a Goods

General merchandise on a BOP basis
Net exports of goods under merchanting
Non monetary gold

I.A.b Services

Manufacturing services on physical inputs owned by others
Goods for processing
Maintenance and repair services n.i.e
Transport
See; air; other
Postal and courier services
Travel
Business; personal
Construction
Abroad; in the reporting economy

Insurance and pension services
Financial services
Charges for the use of intellectual property n.i.e
Telecommunications, computer and information services
Other business services
R&D; professional, management & consulting; technical
Personal, cultural and recreational services
Audiovisual & related; other
Government goods and services

I.B PRIMARY INCOME

I.B.1 Compensation of employees
I.B.2 Investment income
I.B.3 Other primary income

(...)

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