What Should the Concept of Domestic Production Mean in Globalized Economies?

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Abstract – Traditional criticisms of GDP generally focus on its 'P' and 'G', the fact it is only a measure of gross output, without offering any insight into well-being and sustainability. Globalization adds in the 'D' problem, with the increasing difficulty of determining the location of major segments of production by multinational companies. When distinct factors contribute to production from several sites, there is effectively no analytical way of characterizing what each of these factors produces on its own in each of these sites, *a fortiori* for intangible factors that are located in a purely conventional way. An interpretation of GDP in terms of income avoids this problem; it invites us to distinguish between income associated with mobile or volatile factors and income attributed to factors that can be deemed purely domestic. It also clarifies the links with the issue of measuring well-being.

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Criticisms of GDP traditionally focus on what is meant by its 'G' and 'P'. The well-known problem with the 'G' is that a concept of "gross" domestic production disregards everything destroyed in the production process, including environmental assets: a measure of net production would be more appropriate to characterize how well or badly our economies are performing. Concerning the 'P', the problem is that "production" cannot be taken as the ultimate aim of socio-economic policies: instead of comparing GDP, performance comparisons between countries and time periods should be in terms of economic or general well-being rather than production. All these criticisms are well known. National accountants are accustomed to responding to them by asserting that, whatever its limits, production is a notion that is still worth measuring for its own sake. This favours a simple division of labour: national accountants measure production, without reference to the notion of well-being, leaving others to tackle the more ambitious attempt to quantify well-being and its sustainability.

This pragmatic position looks sensible, but leaves many problems unresolved. The possibility of completely separating measures of production from well-being considerations is particularly questionable. Measuring aggregate production requires aggregation of quantities for a huge variety of goods and services, and it is hard to see how this can be done without referring in some way to their utility content (Blanchet & Fleurbaey, this issue). National accountants realise this: their rationale for using prices as keys for aggregation (Lequiller & Blades, 2014), is the fact that prices are representative of the relative utility of the different goods, at the margin at least. This is not to say that GDP can be regarded as a direct measure of well-being or even a measure of economic well-being, nor that it should aim for that, as it will always lack too many things to enable it to fulfil that role. But it implies that the characterization of GDP has to endorse its connection with well-being (Schreyer, 2016); national accountants cannot disregard this connection.

The ongoing "mismeasurement debate" offers good illustrations of this difficulty of thinking about GDP without reference to the notion of well-being. This debate is about the ability of accounts to give a proper view of how the renewal of goods and services contributes to economic progress, in particular those provided by the digital economy (see e.g. Feldstein, 2017; Syverson, 2017; Blanchet *et al.*, 2018; Byrne *et al.*, 2018; Aghion *et al.*, 2019). This is typically about the marginal gains in utility generated by those goods. A particularly interesting aspect of this debate concerns free digital services for which no explicit price is observable, and whose utility must be measured in other ways. This reignites the very old issue of the conventional market or quasi-market boundary that accountants use for distinguishing between what they do or do not regard as production (Coyle, 2017; Bourgeois, this issue). Should we move this boundary to make room for some of these new free goods, as suggested recently for instance by Brynjolfsson *et al*. (2019) proposal of a "GDP-B". If we start broadening the scope of accounts, where should we stop?

Our conclusion will return to these matters, but in relation to another category of questions about how GDP can be interpreted, which will form the main focus of this paper. In addition to the debate about GDP's conceptual boundaries there is now the question of its geographical boundaries. It is the "D" of GDP that is the issue here. National accounts have been historically developed to monitor economic trends, country by country, with GDP aiming to measure what is produced domestically in each country. This notion of domestic production does not raise any problem when countries are autarkic or when international trade is limited to finished products. But this is no longer the case when trade also includes intermediate products, *a fortiori* when the factors of production are in different locations.

Until recently, these problems have been deemed sufficiently under control and without any major impact on the credibility of accounts: discussion of them has been limited to specialist circles (UNECE, 2015). They have come under much greater scrutiny since the reporting of Irish GDP figures for 2015, indicating a one-year increase of over 25% due to the relocation to Ireland of intangible assets and related income for one large multinational enterprise or a small number of such enterprises. This emblematic example is discussed at greater length by ESRG (2016), Stapel-Weber & Verrinder (2016) and by Holton *et al.* and Khder *et al.* (in this issue). Since 2015, Irish accounts have been submitted to particular scrutiny and they continue to display movements that are difficult to interpret in terms of the amount of production actually taking place on Irish territory.

Some references will be made here to this Irish case, but the approach will be both more general and more basic. It will consist of just

expressing the problem of output location in the context of basic production functions, and this will suffice to show there is indeed a major conceptual difficulty. The problem we face with globalization is not only a matter of international coordination in collecting business data, nor of just clarifying the national accountants' formal notions of economic or legal property, two matters on which the debate has tended to focus until now. The fundamental point is that, for standard realistic forms of production processes, there is no established way, in theory, of breaking down production according to the differing contributions from factors located in different places.

Yet this situation is less damaging for national accounts than it may seem, as there is still some economic significance for another production-related concept, which is not production *stricto sensu*, but the income derived from factors' contribution to production. This is indeed what GDP can and does try to measure, it is just out of convenience that we tend to view it incorrectly as a direct measure of production. We should therefore start afresh by interpreting GDP in terms of income so as to clarify what it has to say about what is happening in the economies participating in the globalization process. This would, at the same time, shed light on our opening question about its connection with the measurement of well-being, as it is easier to move from the notion of income to well-being than from the notion of production. In short, on this issue of globalization, either in addition to or before there is a need to develop new concepts, an important preliminary step may simply be to ensure we are more precise in our communication about what the existing concepts actually capture.

This paper will expand on this point in progressive steps. We shall first recall how the notion of domestic value-added already faces some frequently ignored difficulties in a world where only intermediate goods are traded across countries. We shall then show how the problem becomes clearly unsolvable when cross-border cooperation of the factors themselves is involved, *a fortiori* with intangible factors for which the place of operation cannot be determined. The conclusion will summarize how this can legitimize the shift of emphasis from a production-based interpretation of accounts to an income-based interpretation and how this could lead to a better expression of how accounts are linked with the measurement of economic well-being.

1. Defining Domestic Production: Already Some Difficulties with Standard Forms of International Trade

Throughout this paper, we will disregard the difficulty raised by the heterogeneity of finished products, which is a subject in itself (Blanchet & Fleurbaey, this issue). We will therefore consider production Q of a single representative finished product. Subscripts will be used to identify countries. When a country i autarkically produces Q_i with local amounts of capital K_i and labor L_i, without any outside contribution, our ability to develop a volume indicator of what is produced in country i is not in any doubt, this is what its GDP is expected to do.

Intuitively, the same should hold true when production Q_i also relies on intermediate consumption IC_j of goods and services imported from another country j. This was predominantly the case when the main concepts of national accounting were worked out. In this case, identifying what is produced in the two countries should also be a no-brainer. Flows of IC_j's are observable when they cross the border and these intermediate goods have clearly been produced in country j. All the statistician has to do in country i is measure the value-added generated by local factors K_i and L_i.

Yet already, even in this case, the notion of domestic real value-added for country i proves more contentious than might be expected. Its interpretation was debated in the 1960s and 1970s, as recalled by Vanoli (2002). What national accounts observe in country i is only value-added, expressed in monetary terms by subtracting the price paid for the intermediate products from the value of total output Q. This defines the amount of money that accrues to production factors K_i and L_i in compensation for their contributions to production. Conveying this in terms of "volume added" is less straightforward. The recommended method for estimating changes in real value-added is double deflation: nominal changes in real output and real imports of *IC*s are deflated using their own specific indices, and changes in real value-added are estimated by difference.

One well-known problem with this technique of double deflation is the risk of estimating negative levels of real value-added, when using base prices that are too distant, but this problem is practically avoided by moving to chained prices.

The more fundamental issue is to determine the meaning of what is calculated in that way, since there is nothing intuitive about the notion of "volume added" and it is *de facto* never used by accountants. As noted by Sims (1969) and Arrow (1974), it implicitly requires a separable form of production function.

$$Q_i=F(K_i,L_i,IC_j)=G(H_1(K_i,L_i),IC_j) \quad (1)$$

with H_1 the quantity that is expected to be measured. There is nothing self-evident about such a specification. One case where it would have fully observable counterparts is when K_i and L_i separately produce "something" – i.e. another form of identifiable intermediate product – and where this thing would then be combined with the *IC*s to produce finished product *Q*. But the nature of this "thing" may be quite abstract: what is a "volume" of cars netted out of everything included in the manufacturing of these cars: the car body, engine, tyres, etc.? More formally, as explained by Arrow (1974), H_1 is an unobservable latent variable that can be replaced by any arbitrary transformation of it, compensated by a suitable adaptation of the form of function *G*. And this specification (1) implies a pattern of substitutability that is not always appropriate. For instance, if workers produce final output *Q* using machines of varying types, requiring a variable quantity of imported energy, the right specification is rather:

$$Q_i=F(K_i,L_i,IC_j)=G(L_i,H_2(K_i,IC_j)) \quad (2)$$

in which case it appears impossible to say exactly what will be measured by double deflation, for this specification does not entail any equivalent of the subcomponent H_1 in the first formulation.

This does not mean double deflation is completely irrelevant, but that we need a proper understanding of what it measures. The interpretation proposed by Sato (1976) consists of saying that double deflation applied to specifications (1) or (2) delivers an overall index of how changes in quantities of *K* and *L,* combined with technical progress and economies of scale, contribute to the total growth of real final output *Q*, i.e. everything that cannot be attributed to changes in IC_j. This solves the interpretation problem but only if we are interested in growth rates. What we thus construct is just an index, i.e. a measure of relative changes. To convert this to levels, national accountants apply these real changes to base year amounts that are purely nominal, offering no indication of how much of its own product each country generates in real amounts, compared to what is produced in other countries.

This lack of insight into production levels is, in fact, completely intuitive. What would be the meaning of a comparison between the volume of intermediate goods IC_j produced by country *j* and the pseudo-volume added by country *i*? The only thing of any meaning in terms of international comparisons is the money income generated by the activities carried out in each country, and how much of a given representative finished product these incomes can purchase in each of these countries. This is exactly what we do when we rank economies by size or when we compare their labour force productivity in terms of GDP adjusted for purchasing power parity.

In short, double deflation is a method that, at best, informs us about changes. Such a limitation might be acceptable if national accounts were only used to measure change, but this is not the case. From a "level" perspective, there is no way of comparing "real" levels of production for countries with different production specializations, as there cannot be any common unit for measuring them. If one country specializes in the production of airplanes, a second in the production of clothes and a third in oil mining, we are unable to compare their production of these three goods, nor are we interested in doing so; what we actually do is compare the standards of living that these countries are able to achieve thanks to their respective specializations. This is easier to characterize in terms of income rather than production.

2. The Case of Production Factors with Defined Locations, but Cooperating From Different Places

Even in the apparently simple case of well-identified products moving across borders, the definition of what is produced in each country is not that straightforward: we feel more comfortable if we focus on associated income flows and what this income can buy, rather than on the amount of physical production they represent.

These difficulties become still more evident when the production factors themselves are located in different places, and this is increasingly the situation we face in the context of digital economies with the increasing possibility of factors cooperating remotely.

To illustrate this, let's simplify the modelling still further and disregard, from now on, the role of intermediate products, i.e. a production function with only K and L, but now located respectively in countries i and j, hence $Q=F(K_i,L_j)$. One can think for instance of K_i representing the infrastructure of a data centre, with workers from country j using this data centre. Or, more generally, one can think of any setting where multiple production factors $K_1,\ldots,K_m$, $L_1,\ldots,L_n$ can cooperate from different places.

In such a case, how does one define what is produced in i and j respectively? In general, there is no answer to this question. The only situation where it would be possible to determine this is of little empirical relevance, concerning the case of an additively separable function of the form $F(K,L)=G(K)+H(L)$ where K and L would be able to produce the same category of output separately, without the help of the other factor. It goes without saying that this specification is of no practical interest; the general concept of a production function has been precisely developed to account for the fact that the production of Q generally combines K and L in more complex ways than mere addition. Once additivity is no longer applicable, the contributions of the different factors are so interwoven that it is impossible to say how much of Q has been produced by each of them.

In such a case, what we can answer is another question. Once again, the thing that is observable is the income that factors K and L derive from their contributions to production. Of course, this income is, in some way, representative of these contributions. In a competitive context, we know this income corresponds to the marginal productivity of these factors. On the added assumption of constant returns to scale, this allows total output to be broken down as $Q= F'_K K_i + F'_L L_j$ hence a breakdown of total output that reflects some properties of the production function, but only marginal properties, i.e. contributions of changes in factor quantities to the variation of production, exactly as with the Sato (1976) interpretation of double deflation, and only insofar as the functioning of markets can be deemed competitive. All this cannot be likened to measures of what K and L separately produce in the two countries.

A correlate of this result is the impossibility of offering any sound theoretical basis for any of the empirical *ad hoc* suggestions that can be or have been envisaged for calculating "how much is produced where". One could, for instance, consider K to produce a service that is exported from i to j and constitutes an intermediate consumption for workers operating in j. But we return to the problem we had of defining real value-added generated in j. The only measurable thing is, at best, the dynamic contribution of ICs and other factors to real growth, not levels of contribution.

One could also argue that, if GDP is essentially calculated in order to carry out employment policies, one could choose to locate all production where labour is located, this being a particular case of the "formulary apportionment" methodology which consists of splitting multinational enterprises' results according to conventional keys for determining apportionment, the key being, in this case, the wages paid by these MNEs in the different countries where they operate. But this is conventional. In our stylized example, can we argue that location i plays no role in production? And what if different kinds of labour are cooperating from different workplaces in different countries? Allocating this production according to these worker's relative wages raises the same problem of reflecting, at best, marginal contributions. This can result in biased messages that are clearly identified at infra-national level when one attempts to calculate regional GDP by taking the nationwide production of national companies with multiple sites and apportioning it according to the wage bills of their local units. This results in the finding that productivity is concentrated in regions where headquarters and top wages are concentrated, an observation that is not very helpful if the purpose is to identify productivity-enhancing policies (Bouba-Olga & Grossetti, 2015).

All this is not to say that reliance on this kind of methodology is not an answer, it just means it is only an answer to the question of the distribution of earnings, and not the distribution of production. For instance, a recent application of the method to an evaluation of "missing growth" caused by fiscal optimization in the US (Guvenen *et al.*, 2017) can be interpreted in this way. Such a study provides a proxy of the income impact of fiscal optimization and its implications for the tax base of the US economy, i.e. an "income-based" use of the approach, rather than information about missing production or productivity.

3. Intangible Factors

In cases similar to the Irish one, the problem is further complicated by the intangible nature

of the capital whose contribution needs to be evaluated. We can formulate the problem by shifting to a $Q=A_i.F(K_j,L_j)$ specification, where K_j and L_j now stand for physical capital and labour supposed to be located in the same place j where products (e.g. smartphones) are actually produced, and A_i the intangible capital embedded in the finished product, supposed to be "located" in country i, whether for ordinary reasons – such as having an R&D centre actually located in I – or purely for fiscal optimization purposes.

The way this A factor is treated in national accounts has paradoxical aspects that, once again, can be understood only if we shift the accent from a "production" to an "income-based" interpretation of accounts.

To show how, let's put location considerations aside for a moment. From the $A.F(K,L)$ perspective, the contribution of this intangible capital should be the same, irrespective of whether or not it is covered by an intellectual property right. But this is not the case. If A is privately owned, national accounts will deem related "production" to correspond to the income generated by this property right. The "production" generated by K and L will be reduced accordingly. On the other hand, if A is a free public resource, it will be considered as "unproductive", leading to higher levels of apparent production attributable to K and L. The problem is similar to the one we have with free natural resources, in that they are a production factor in the $F(\ldots)$ sense of the term but their contribution to production is ignored in the absence of any property right.

This can be illustrated through the production of a drug based on a formula temporarily protected by a patent. As long as the patent is active, it is deemed to produce something, thus lowering the income of other production factors (or increasing prices) and generating apparent production where the property right is located. Then, when the formula falls into the public domain, it will no longer be deemed productive, despite the fact that nothing at all has changed in the production process. The $Q=A.F(K,L)$ function remains the same; the only thing that has changed is the fact that A is not remunerated anymore for its contribution to Q. Such a convention only makes sense in terms of production if the formula becomes obsolete when the patent expires, with the associated Q also dropping to zero, which is obviously not the general rule. In other words, the problem with intellectual property rights is not just their facility to cross borders, but also the difficulty of reflecting their contribution to production on the sole basis of the money they generate.

Here again, the consequence is that it is more appropriate to talk about incomes generated by contributions to production rather than of production itself. When it is possible for the factor A to move across countries, the issue is not about knowing what is produced in this factor's host country, but what income accrues to this country as a result of being the factor's official location. As long as A is protected by a patent, we will observe an income for A that will accompany any moves it makes across borders. It will then drop to zero once the patent expires. This is a story about how incomes are generated by A, it cannot be a story about what A is actually producing, given there is no principle for quantifying A, and still less a story about where such a productive activity takes place. Being intangible, A's production location is nowhere. For intangible factors whose location is unavoidably conventional, we just observe incomes and where they end up.

Such an income-oriented approach is not only more consistent with what is theoretically measurable, it also offers a simple and understandable justification for the fact that some segments of GDP may behave in a much more volatile way than others. Volatility of the magnitude observed in Ireland is hard to accept in a measure of production. The same volatility is much easier to accept once it is clear we are measuring income, for which it is easy to conceive a high rate of transferability between places, irrespective of how production is actually organised, geographically. This kind of volatility is not necessarily pure noise that has to be neutralized; it can and must be measured for its own sake. The recent changes in Irish GDP are troubling for anyone interested in production, but they did more for the debate on fiscal optimization than if Irish accountants had immediately found a way of hiding or smoothing over the revelations made by their business data sources.

Of course, this does not mean we can feel satisfied with such volatile series as our only source of information on how small, open economies are evolving. What we need is a combination of (a) series that render this volatile behaviour, and (b) series that would more adequately reflect the domestic fundamentals of each country. This means splitting the issue of income measurement into separate sub-questions, depending on

users' detailed needs. One of these uses is to know the income accruing to Irish households or "stable" Irish production units. One can expect this indicator to move relatively slowly. GNI is a first basic step in this direction. The difference between GDP and this GNI is not that we have a production concept on one side and an income concept on the other. Both are income concepts but with different scopes, the second being more appropriate for capturing truly domestic income. Yet the 2015 Irish shock has also shown that moving from GDP to GNI is not enough, on its own, to purge volatility in its entirety, as a proportion of the profits made by multinational enterprises is not necessarily redistributed to foreign owners of the capital stock of those MNEs. The additional correction proposed by Irish accountants has been to subtract from GNI an evaluation of intangible asset depreciation, but other possibilities might be considered.

The distinction between (a) and (b)-type series may then be useful for one other major use of GDP or GNI data, namely the evaluation of fiscal bases for assessing the sustainability of budgetary policies, since volatile and more fundamental components of income have, by nature, different rates of reaction to their level of taxation.

4. At What Level Does Production Remain Measurable and with What Object?

So, what role might still be attributed to the concept of production?

First, a preliminary clarification. One objection to the above line of argument is that it apparently contradicts the well-established accounting principle of equivalence between the income and production approaches to GDP: distinguishing between the two concepts is meaningless if they are equivalent by construction. But this objection overstates the scope of this principle of equivalence. This equivalence is only an equivalence between different ways of constructing the same aggregate, and it only holds because it is not a substantive notion of "production" that national accounts capture, but simply incomes derived from participation in the production process. Moreover, this equivalence only holds in nominal terms. In real terms, we have seen that production is a non-measurable object as far as levels are concerned. At best, it is its growth rate that is measurable, but through the application of deflators that are not the same as those applicable to the income approach: output price indices in one case, *vs.* consumer price indices in the other, thus eliminating symmetry between the two approaches.

If we thus accept that these production and income perspectives are not strictly superimposable, what is the role of the production side? A limited notion of domestic production remains manageable for fully domestic activities, including services in particular and public services especially. These public services are indeed easier to think of in terms of production than in terms of income, for, in that case, it is levies on income that permit public production, as opposed to public production generating market income.

But for production with a high level of international integration, we need to accept the idea that only transnational production functions make sense. A comparison of the relative productive performances of two multinational companies producing the same kind of finished product can only be done by examining their global production functions. Looking at the domestic traces of this production does not help, except to inform us of the extent to which different countries draw monetary benefits from the presence of segments of these multinational companies on their territory. This is not a negation of "national" accounting, but a clarification of what still makes sense at national or domestic levels. Income does. Some parts of production can also continue to do so. But not all production: some can be measured and analysed only at global level. As stated in OECD (2018), "nominal GDP maintains its interpretation as the income generated in a particular territory through the use of the factors of production, including intellectual property" but "from a production-perspective, the productivity of MNEs can only be properly measured at the level of the MNE, i.e. across national borders".

5. Production, Income and Economic Well-Being

To summarize, globalization clearly provides some obvious reasons for revisiting the importance we place on the concept of production in our reporting of national accounts. Production and income are the two main keywords available to characterize what is measured by accounts, with the first of these still evidently strongly pre-eminent, since it is the one that qualifies their headline indicator, GDP. It will

always be necessary to have some measures of production, but we have to address some of the difficulties with the concept that are too frequently skirted.

The first set of difficulties is independent of the geographical organization of production. These difficulties were mentioned in the introduction: the issue of the conceptual boundaries of production. How do you define the boundary between what is said to be produced and what is not? We know the conventional nature of the definition that national accounts have adopted for this boundary. The emergence of new categories of free goods has reignited tensions that have always existed around this boundary. Even within this boundary, there is then the matter of how do you calculate the total volume produced? Can it be defined free from any reference to the amount of well-being or utility that this production is supposed to generate? GDP is unquestionably not well-being, nor even a measure of economic well-being: even this more modest objective would need to account for a wide set of things that cannot be summed up in a simple aggregate, such as the way resources are distributed across the population, the economic risks to which people are exposed, the way their assets do or do not protect them against these risks, etc. But, at the same time, contributions to well-being are the only reference metric one can have in mind for aggregating everything included in GDP. This is what makes GDP a welfare-related concept.

There is then this additional difficulty of defining "domestic" production, with an important difference in nature. As far as well-being or related notions are concerned, even if we are using concepts that are not easily observable, there is no theoretical impossibility of detailing them at local level. Well-being relates to people and, to some extent, we know where these people are or where they spend most of their time: hence it makes sense to refer to a concept of "domestic" well-being, which could take the form of an aggregate of individual utility levels $U_{i,l}$ of the individuals l=1 to N_i living in country i, if these utilities were observable. Doing the same with production is possible only when everything is locally produced, which is less and less often the case. Once production results from the interaction of factors located in different places, it is no longer possible to conceptually isolate what is produced in each of them.

Faced with this theoretical impossibility, a pragmatic position might be to agree to fall back on conceptual rigour: all that matters should be the production of indicators that meet users' needs, and some of these users still expect measures of domestic production. If such is the position, one possibility would be to rely on variants of the formulary apportionment method that we briefly outlined above. Problems of interpretation will remain however, and emphasizing them is not excessive rigour; they reflect a very basic and intuitive fact of life. The question of splitting total production by factors of production does not make any more sense than the question of knowing how much of a cake is produced by the ingredients, the oven, the recipe and the pastry chef's time and know-how respectively. What we can say, at best, is how much these different inputs have been paid (or not) for these contributions, i.e. their different incomes, which is not a measurement of how much of the cake each of them has individually produced.

One response to this could, in turn, be that speaking of "production" is just a convention, to be accepted as such, with the realisation that this word is just shorthand for "incomes accruing from contributions to production". But the question remains of whether or not to maintain the use of a vocabulary that globalization renders utterly problematic *vis-à-vis* the general public: the Irish shock of 2015 has severely affected the credibility of GDP as a production concept; it would not have had the same consequences if GDP had been presented as an income concept.

Globalization is thus a strong element in favour of increasing the emphasis on the "income" compared to the "production"-based interpretation of accounts. How far would such a reorientation help alleviate the other questions raised about national accounts?

The first clear advantage is that it makes it much more natural to limit accounts to elements with monetary counterparts. There is nothing natural about this monetary trade boundary for what is presented as a concept of production, because we have things on both sides of this boundary that can all be said to be "produced". Conversely, this monetary boundary goes without saying once it is made clear that the primary purpose is to measure incomes. And this makes it much easier to explain in what sense and to what extent GDP is linked to a measurement of well-being: everyone knows money cannot buy happiness, but everybody is also aware that it contributes to well-being.

It is on such a basis that the issue of other non-monetary dimensions of well-being can be explored, with the provision of new free services being a special case in this regard, in the spirit of the recommendations of the Stiglitz Report eleven years ago (Stiglitz *et al*., 2009). The assessment of real incomes, i.e. what money can buy, is a starting point. Broadening the scope to other dimensions of well-being can be the task of specialist satellite accounts, extending the central core of these accounts. □

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