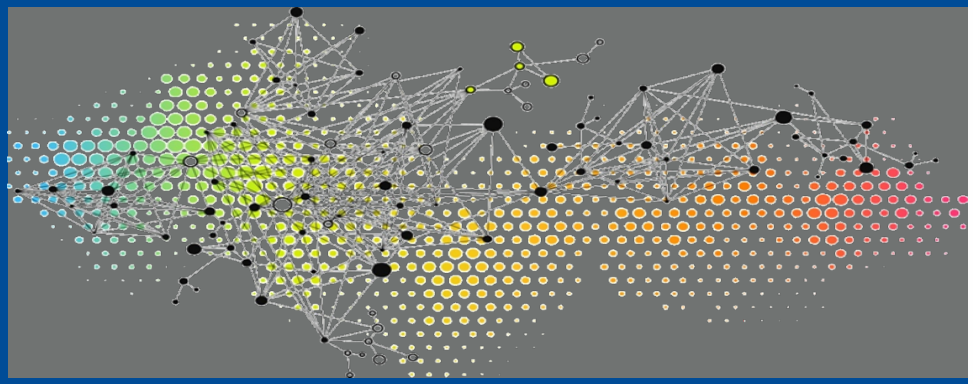

STATISTICS

Treatment of Free Digital Assets and Services

14TH Meeting of the Advisory Expert Group on National Accounts

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Agenda Item 5.3(b)

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Views expressed are those of the author and should not be attributed to the IMF, its Management, or its Executive Directors

Introduction

Free products supplied by market producers have been a key part of the debate over possible mismeasurement of the digital economy

- Some claim that the proliferation of free products in the digital economy means that price is no longer the sole satisfactory measure of value of outputs of market producers
- Others regard the free products as an issue for measurement of price and volume but as already measured indirectly in GDP value

The main issue is whether to adopt the bundling approach or the barter approach for free services of digital platforms

The AEG is requested to:

- Comment on the possible approaches to free services offered by digital platforms and suggest the most appropriate treatment in national accounts considering both the core and satellite accounts

The Bundling Approach to Free Platforms

Free and subsidized outputs are common because they help sell other things at a mark-up

- The bundle of cross-subsidized and marked-up outputs generates enough revenue to keep the suppliers' net operating surplus positive

Platforms are suppliers of services that help two (or more) parties to interact

- They usually have a subsidized side, which is often free, and a funder side

Mark-ups paid by the funder side cover the cost of the free side – the platform's net operating surplus remains positive

- The platform's funders recover this expense as part of the sales enabled by the platform's services (e.g., profits on the advertised products fund the ads)
- The users of the free platform services pay for them indirectly
- Free services are offered as a lure – not as part of an agreed exchange of items of value

The Barter Approach to Free Platforms

The platform users and the platform both get something of value

- The platform gets opportunities to observe users' activities and characteristics and create data assets and to monetize users' attention by showing them ads

The free services are bartered for a license to collect observations on the users

To record the barter transaction, payments for a license to observe the users and expenditures by the users on the free services must be imputed

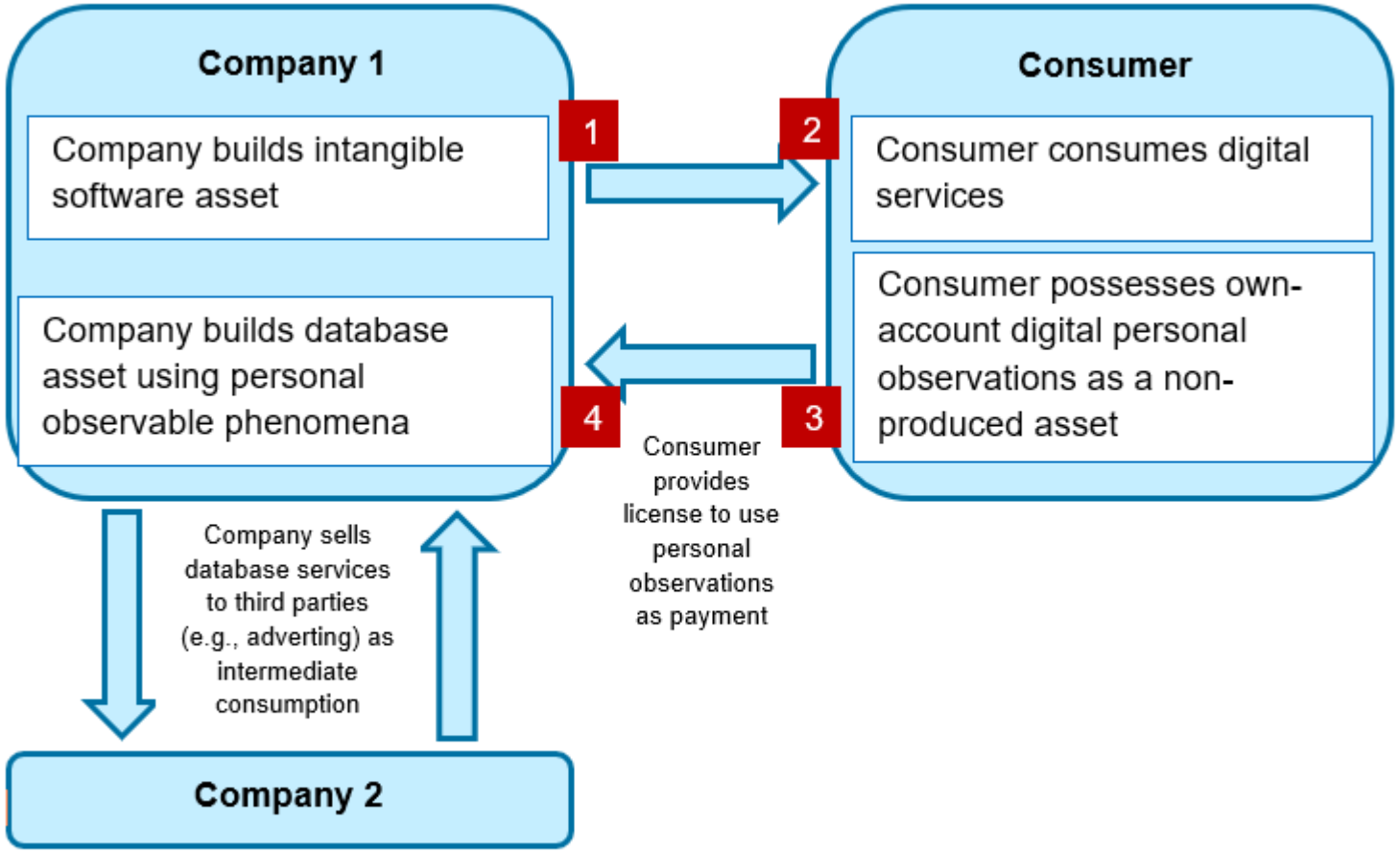
Because payments for the license to observe the users are a rent, the imputed expenditures on the free services increase the platform's value added by the same amount as its output

The imputed expenditures on free services add to GDP under the barter approach

Investment in data assets adds to GDP under both approaches

Barter of license to observe and record the user's activities in exchange for access to "free" content

Figure 1: Barter of Personal Observable Phenomena for "Free" Services



Source: Adapted from Heys (2020).

Imputed payment for the license to collect data on the user represents a rent

Entire imputed value of the free digital services consumed by the platform user flows into the platform's value-added

Own-account investment in a long-lived database also adds to the platform's output

SNA 2008 already counts selling the database services to third parties as output

Free Products and Price and Volume Growth

GDP level focuses on productive activities that generate income (or, in some cases, free up income)

Changes in consumer surplus are relevant for measures of price and volume growth of household final consumption

Making an item free, or adding a new free item to the bundle, reduces the quality-adjusted price of the bundle

Compiling a quality-adjusted deflator for household final consumption expenditures that accounts for changes in the availability of free products may require assumptions and techniques that would be more suitable for a supplementary indicator than for official measures of GDP price and volume growth (e.g. Brynjolfsson et al., 2019 and 2020)