Communicating macroeconomic statistics (with users and with each other)

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Introduction and overview

- **An opportunity**
  Sanjiv Mahajan

- **Terminology and Branding**
  Sanjiv Mahajan

- **Presenting Macroeconomic Statistics**
  Eric Metreau

- **Comparability, Consistency and Community**
  James Tebrake

An opportunity

- **The way macroeconomic statistics** are communicated has a significant impact on their use by governments, researchers, students, businesses, media, citizens and other statistical producers.

- **The way we communicate macroeconomic statistics** should maximize their analytical usefulness, quality, scope, comparability, and policy application.

The update of the System of National Accounts and Balance of Payments Manual presents a unique opportunity to improve the way we communicate macroeconomic statistics to users.

Some motivation for this work:
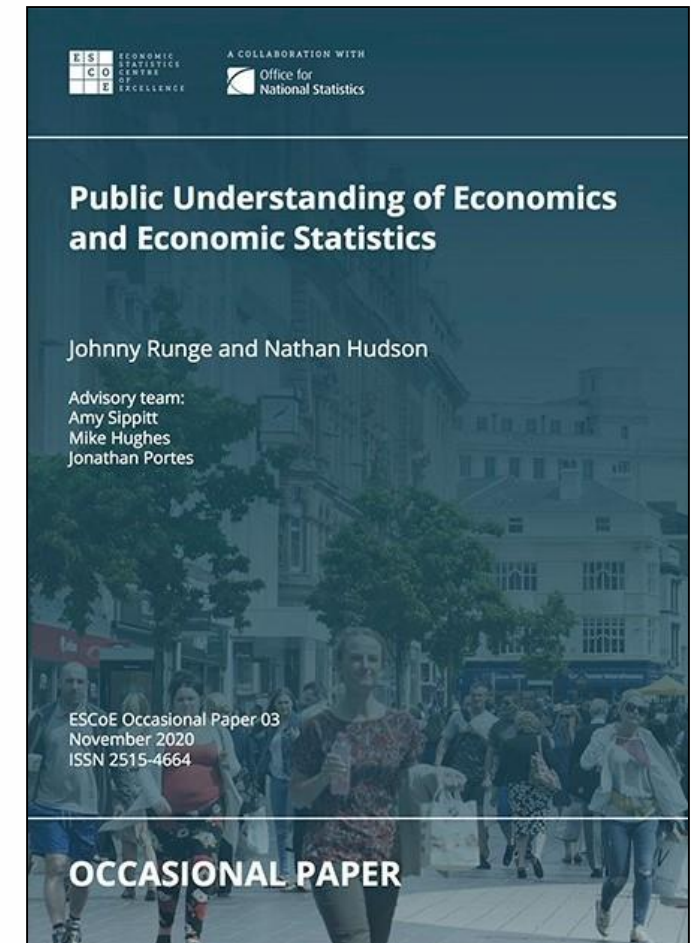# Does the general public understand, what are we talking about?

UK ESCoE / ONS Study

Undertaken to better understand:

- how people **think about economics**;
- how they **understand economic concepts and statistics**; and
- how they **judge and evaluate** main economic indicators and economic performance.

Methodology

- **12 focus groups (around 130 people)** in Birmingham, Manchester and London, in October 2019.
- **Online YouGov survey** with nationally representative sample **(around 1,665 people)**, February 2020.
- **20 questions** exploring knowledge and perceptions of economic indicators, including inflation, unemployment, interest rates, GDP, budget balance, and trade balance.
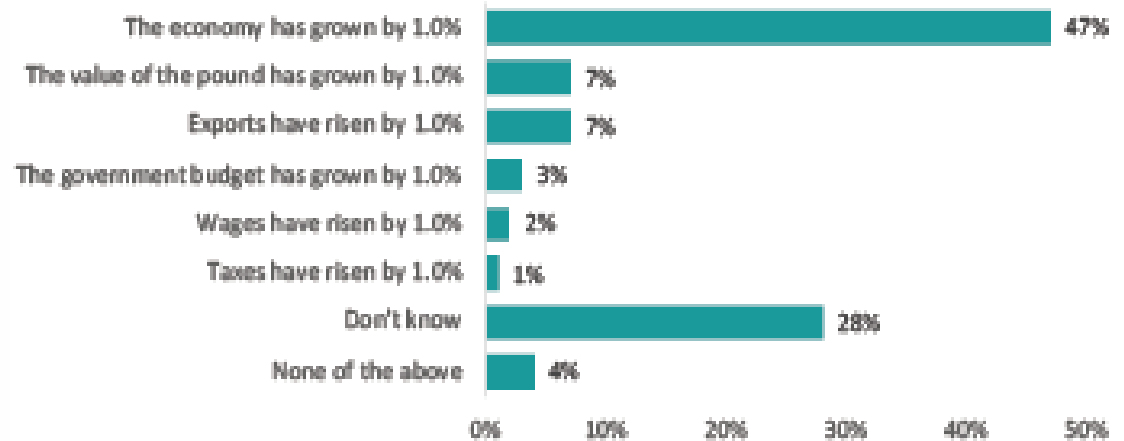

ECONOMIC STATISTICS CENTRE OF EXCELLENCE

A COLLABORATION WITH
Office for National Statistics

Public Understanding of Economics and Economic Statistics

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OCCASIONAL PAPER

Some motivation for this work:
Does the general public understand what we are talking about?

Key findings regarding public perceptions from UK ESCoE / ONS Study:

1. Public understanding of economic concepts can be described as **'thin' and 'superficial.**

2. People **struggle to interpret size of economic indicators**.

3. People **demonstrate limited knowledge** and **often misperceptions about how measures are collected and calculated**.

4. People seemed to **consider the government / politicians as main source of statistics** regardless that the source was presented as the ONS.

5. **Variations across key demographics.**

Which of the following statements, if any, do you think best explains what is meant when GDP has increased by 1.0%?

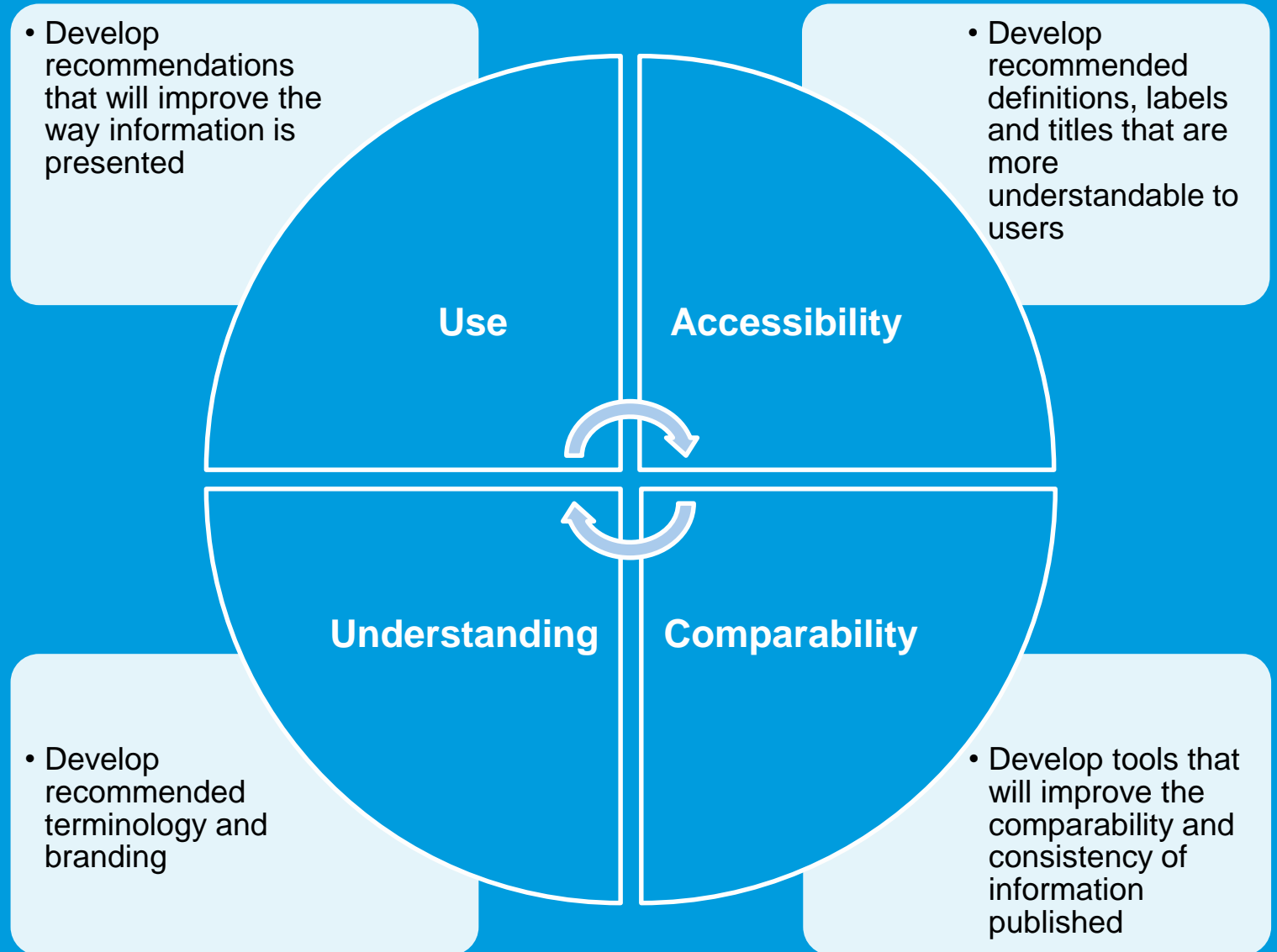| Statement	%
The economy has grown by 1.0%	47%
The value of the pound has grown by 1.0%	7%
Exports have risen by 1.0%	7%
The government budget has grown by 1.0%	3%
Wages have risen by 1.0%	2%
Taxes have risen by 1.0%	1%
Don't know	28%
None of the above	4%

What is the economy?

'When I think of economy, you just automatically think of money, lack of.'
Female participant, Manchester.

'I would think of money straight away.'
Female participant, Birmingham.

'In a nutshell, it's essentially how much money the country makes, whether that be through trading or just the employment.'
Male participant, Manchester.

Communication Task Team: Activities and Expected Outcomes

The SNA / BOPCOM Communication Task Team seeks to develop recommendations that will improve the use, understanding, accessibility and comparability of macroeconomic statistics.

- Develop recommendations that will improve the way information is presented

- Develop recommended definitions, labels and titles that are more understandable to users

Use

Accessibility

Understanding

Comparability

- Develop recommended terminology and branding

- Develop tools that will improve the comparability and consistency of information published

Terminology and Branding

Terminology

Objective: conduct a review of the current macroeconomic accounting terminology and develop recommendations that seek to improve the understanding of macroeconomic statistics by users.

✗ the goal does not include changing the concepts currently used.

✓ **the goal is to identify complementary alternative terms and descriptions** for more consistent and accurate use in the communication with non-experts (and experts), to better convey the meaning and interpretation of the definition and concept to users.
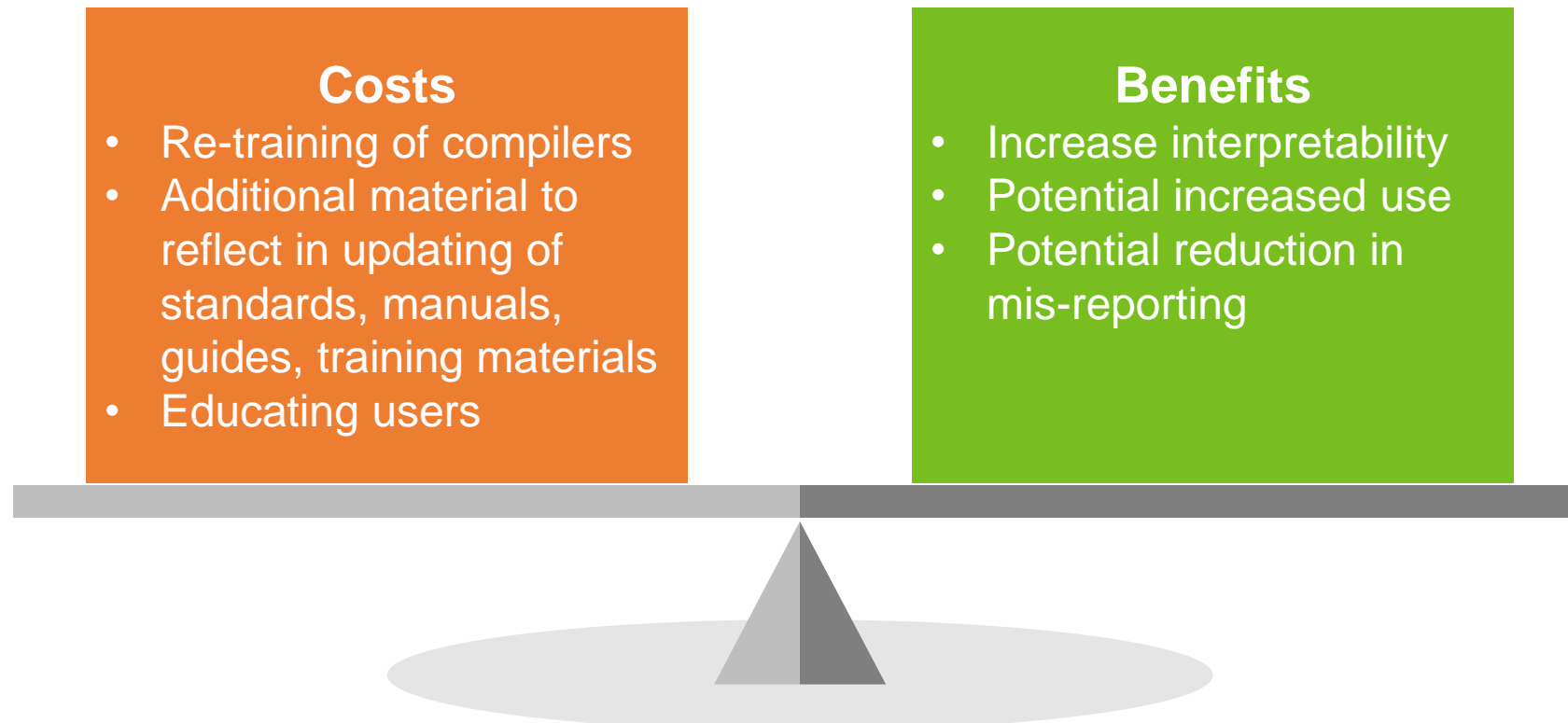
Terminology – Some important considerations

Weighing the costs and benefits of a change in terminology

➢ The cost of any change in terminology and presentation may be significant.

➢ These costs need to be considered and balanced against the benefits when developing the recommendations.

Costs
- Re-training of compilers
- Additional material to reflect in updating of standards, manuals, guides, training materials
- Educating users

Benefits
- Increase interpretability
- Potential increased use
- Potential reduction in mis-reporting

Terminology - What is the G, D and P in GDP?

GDP was, by far, seen by focus group participants as the most inaccessible concept discussed during the groups. When asked to define GDP, many participants expressed they did not know what GDP was.

'I don't know, I've read about it a lot, but I obviously haven't digested what it means.'
Female participant, Birmingham.

'It means absolutely nothing to me.'
Male participant, Manchester.

UK ESCoE / ONS Study: Public Understanding of Economics and Economic Statistics

Current terminology	Are these alternatives more understandable?
Gross Domestic Product by production	GDP - Gross Domestic Production DP - Domestic Production EP - Economic Production of goods and services
Gross Domestic Product by expenditure	GDE - Gross Domestic Expenditure DE - Domestic Expenditure EE - Economic Expenditure on goods and services
Gross Domestic Product by income	GDI - Gross Domestic Income DI - Domestic Income EI - Economic Income in goods and services

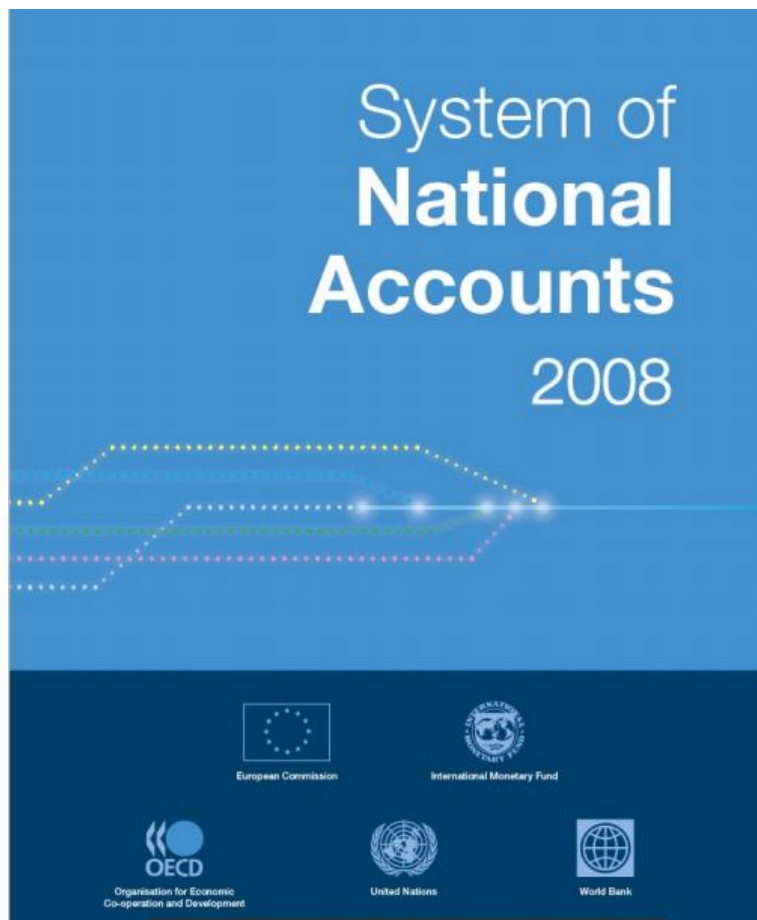# Terminology – Let us not gloss over the glossary

> Actual final consumption of households is measured by the value of all the individual consumption goods and services acquired by resident households. 9.116
>
> Actual final consumption measures the amount of consumption goods and services acquired 9.7

Term	Current definition	Can we do better?
Actual Final Consumption of Households	… is measured by the value of all individual consumption goods and services acquired by resident households.	… represents the value of the goods and services acquired by households to satisfy their needs. They may be purchased, own-produced or provided for free, for example, by government.

Branding the System

The way we "brand" the accounting standards can have an impact on user expectations.

System of **National Accounts** 2008

European Commission
International Monetary Fund
OECD — Organisation for Economic Co-operation and Development
United Nations
World Bank

What does the name – System of National Accounts (2008) convey to users?

- 2008 ➡ Dated? Does this only apply up to 2008. Is it no longer relevant?

- System ➡ Complete, Integrated

- Accounts ➡ Are these Economic Accounts? Social Accounts? Company Accounts?

Branding the statistical ecosystem?

- ## What are the differences between a:
  - ➤ Manual or
  - ➤ Handbook or
  - ➤ Standard or
  - ➤ System?

- ## How should we refer to the group of "manuals, handbooks, standards and systems"?
  - ➤ Macroeconomic Accounting Standards
  - ➤ International Statistical Standards
  - ➤ International Macroeconomic and Environmental Accounting Standards

Terminology Workplan

1. Develop a set of proposals of 'alternative terms" that countries can use to better communicate with the public.

2. Develop an improved glossary, aligned across macroeconomic statistical domains, with definitions that assist statisticians with communicating concepts to users.

3. Develop a Typology and Branding of macroeconomic accounts.

Concept / Term	Possible Alternative Term
Financial Intermediation Services Indirectly Measured	Deposit services Loan services
Imputed Rental Income	Rental Income – Homeowners
Gross Fixed Capital Formation	Investment in fixed assets to facilitate production
Actual Final Consumption of Households	Household consumption
Final consumption expenditure of households	Household expenditure

Questions?

Your contribution is key - what do YOU think?

- Do your friends understand what economic statistics mean?

- Should we make our terminology easier to follow for users?
  - Should we change GDP?
  - Do you have any alternatives?

- Are there specific terms you really want to make easier to understand?

- Have you got any other ideas to help this initiative?

Presenting Macroeconomic Accounts

Presentation

- The way the accounts are presented can have a significant impact on their use.

- The way vintages and revisions are defined and presented can impact user perception about quality.

- The way the accounts are released can generate confusion.

- Need to improve comparability.

Presenting the Accounts

Do the titles / labels we use to describe the "Accounts" reflect what they measure?

Account Labels	Some Issues	Some Alternatives – are these more understandable?
Current and Capital Accounts	This label does not convey what is being presented. These accounts present the sources of income and outlays such as expenditures and transfers.	Income, Expenditure and Saving Accounts
Allocation of primary income account	What is meant by allocation? primary income?	Earned Income Account
Secondary distribution of income account?	What is the difference between secondary income and primary income?	Disposable Income Account
Adjusted use of disposable income	What is adjusted? A key item is saving but there is no indication this is what is contained in the account.	Savings Account

Presenting the Accounts

✓ The SNA recommends that the sequence of accounts are presented in a right-side / left-side format with Resources on the right and Uses on the left.

Table 6.1: The production account - uses

Transactions and balancing items	Non-financial corporations	Financial corporations	General government	Households	NPISHs	Total economy	Rest of the world	Goods and services	Total
Output								3 604	3 604
Market output								3 077	3 077
Output for own final use								147	147
Non-market output								380	380
Intermediate consumption	1 477	52	222	115	17	1 883			1 883
Taxes on products								141	141
Subsidies on products (-)								- 8	- 8
Value added, gross / Gross domestic product	1 331	94	126	155	15	1 854			1 854
Consumption of fixed capital	157	12	27	23	3	222			222
Value added, net / Net domestic product	1 174	82	99	132	12	1 632			1 632

Table 6.1 (cont): The production account - resources

Transactions and balancing items	Non-financial corporations	Financial corporations	General government	Households	NPISHs	Total economy	Rest of the world	Goods and services	Total
Output	2 808	146	348	270	32	3 604			3 604
Market output	2 808	146	0	123	0	3 077			3 077
Output for own final use	0	0	0	147	0	147			147
Non-market output			348		32	380			380
Intermediate consumption								1 883	1 883
Taxes on products							141		141
Subsidies on products (-)							- 8		- 8

✓ Is this the most intuitive way to present the data – is this the same way business and other economic data are presented?
✓ The proposal is to retain the existing presentation but can we improve it?

Presenting the Accounts

Table 6.1 (cont):The production account - resources

									Resources
Transactions and balancing items	Non-financial corporations	Financial corporations	General government	Households	NPISHs	Total economy	Rest of the world	Goods and services	Total
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Table 6.1:The production account - uses

Uses

Transactions and balancing items	Non-financial corporations	Financial corporations	General government	Households	NPISHs	Total economy	Rest of the world	Goods and services	Total
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Value added, net / Net domestic product	1 174	82	99	132	12	1 632			1 632

✓ Would it be better to present the data in a top-down format consistent with business accounting?

✓ Should the terms resources and uses be dropped and simply replaced with Output and Intermediate consumption?

✓ How easy is it to understand what is meant by goods and services in this presentation and the role of the rest of the world?

Vintages – Preliminary, Flash, Advance...

> ✓ **In an effort to provide users with timely macroeconomic data, statisticians often use incomplete information to produce and release "headline" estimates.**
>
> ✓ **When more complete information is available more detailed information is produced and released – often leading to revisions**

eurostat ▣ | newsrelease
euroindicators

168/2020 - 13 November 2020

GDP and employment flash estimates for the third quarter of 2020
GDP up by 12.6% and employment up by 0.9% in the euro area
In the EU, GDP up by 11.6% and employment up by 0.9%

BEA: Terminology for the Quarterly Estimates

Prepared in:	(1)	(2)	(3)	(4)
First month	Advance	15-day	Preliminary	Preliminary
Second month	Preliminary	45-day	1st revision	Final
Third month	Final	75-day	2nd revision	

✓ Eurostat designates its first release as "Flash" and the Bureau of Economic Analysis (US) designates its first release as "Advance".
✓ The terms Flash and Advance convey different meanings to users.

Vintages – Preliminary, Flash, Advance...

✓ **Would simply enumerating these releases be a more understandable and comparable approach since these releases are differentiated by granularity and accuracy?**

✓ **Would terms like "Headline", "Partial", "Full" be more appropriate?**

✓ **Would the use of dates be more understandable: 15 day, 30 day, 60 day release.**

Current Terms	Some observations	More understandable?
Flash / Advance	The term "advance" could be interpreted as "privileged" or "matured"	"First (of 3) release" "Headline" "15 day release"
Preliminary	How different is preliminary from advance or flash?	"Second (of 3) release" "Partial" "30 day release"
Final	These are only final for the first vintage – these estimates will continue to be revised thereafter, so final is rarely final.	"Third (of 3) release" "Full" "60 day release"

Revisions…

- ✓ **In an effort to provide users with timely macroeconomic data, statisticians often use incomplete information to produce the first vintage of estimates.**

- ✓ **These estimates are revised when more complete information is available – this results in the publication of "vintages" of data and revisions (or updates).**

- ✓ **A comparison of press releases, revision policies and series published by national statistical agencies across countries show that a wide range of language and methods are used to communicate the statistical data and processes to users.**

Revisions / Updates are due to the incorporation of new / updated:

- ✓ Concepts
- ✓ Methods
- ✓ Data sources
- ✓ Error correction

Each of these have very different impact on the way users interpret the data.

Revisions can be large and need to be explained

Over many years, National Statistical Offices have developed a number of different terms to refer to revisions.

A common approach and more precise terminology would assist users in understanding and interpreting the revisions.

One possible approach would be to develop the taxonomy around the sources of revisions such as new concepts, new methods, and new data sources.

Examples of terms used:

- **Benchmark Updates**
- **Benchmark Revisions**
- **Rebasing**
- **Comprehensive Updates**
- **Historical Revisions**
- **Routine Revisions**

Recent GDP revisions from benchmarking exercises
(selected countries)

Percentage change from previous benchmark

| | Total (56 countries) | Emerging and Developing Asia (6 countries) | Latin America and the Caribbean (26 countries) | Sub-Saharan Africa (24 countries) |

■ max negative revision ■ max positive revision ■ average revision
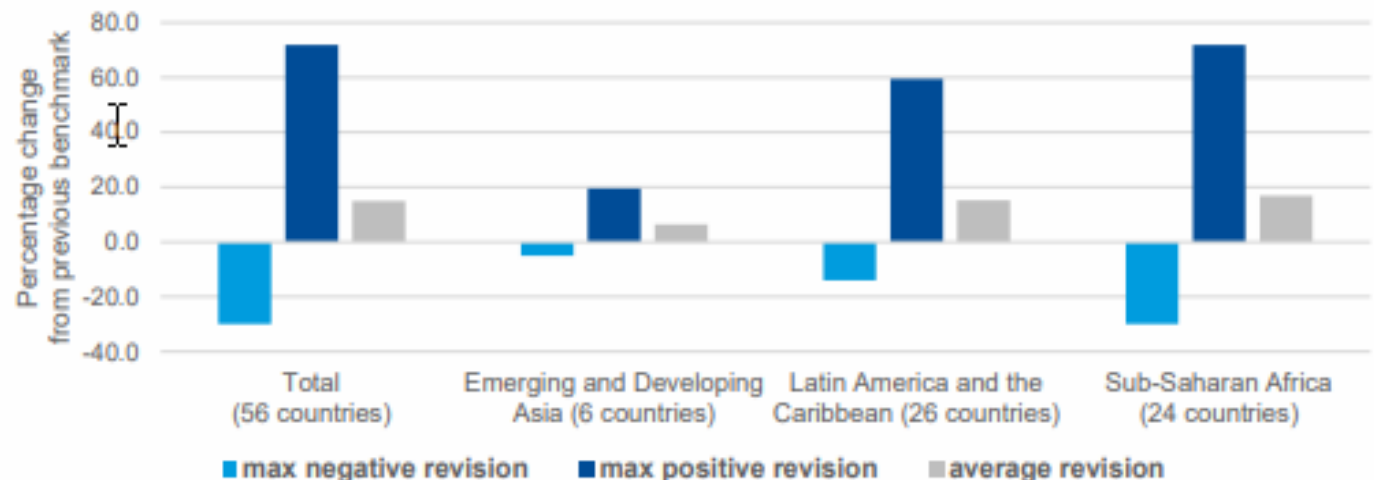
Source: IMF staff (preliminary data from survey on country practices)

Presentation Workplan

1. Proposed updated labels / titles and formats for macroeconomic accounts and tables.

2. Propose a typology for macroeconomic accounting standards.

3. Develop a taxonomy for revisions and vintages of data.

Type of Update	Possible Definition
Comprehensive Update	Incorporates **new** concepts, methods and source data.
Annual revision	Incorporates **updated** data sources on an annual basis.
In year update	Incorporates **updated** data sources on a sub-annual basis.
Correction	Corrects calculation error.

Questions?

It is a great opportunity and timing to provide suggestions!

- Should we try to change the labels of the accounts in the sequence of accounts? Suggestions?

- Should we consider to change the right-side / left-side presentation of the accounts? Suggestions?

- Should we try to find better terms to name the different vintages of the accounts? Suggestions?

- Should we seek a common approach and more precise terminology to assist users in understanding and interpreting the revisions? Suggestions?

Comparability, Consistency and Community

Comparability:
What does it mean to be aligned with the SNA, BPM, GFS....

Share of countries that have indicated alignment with the 2008 SNA standard
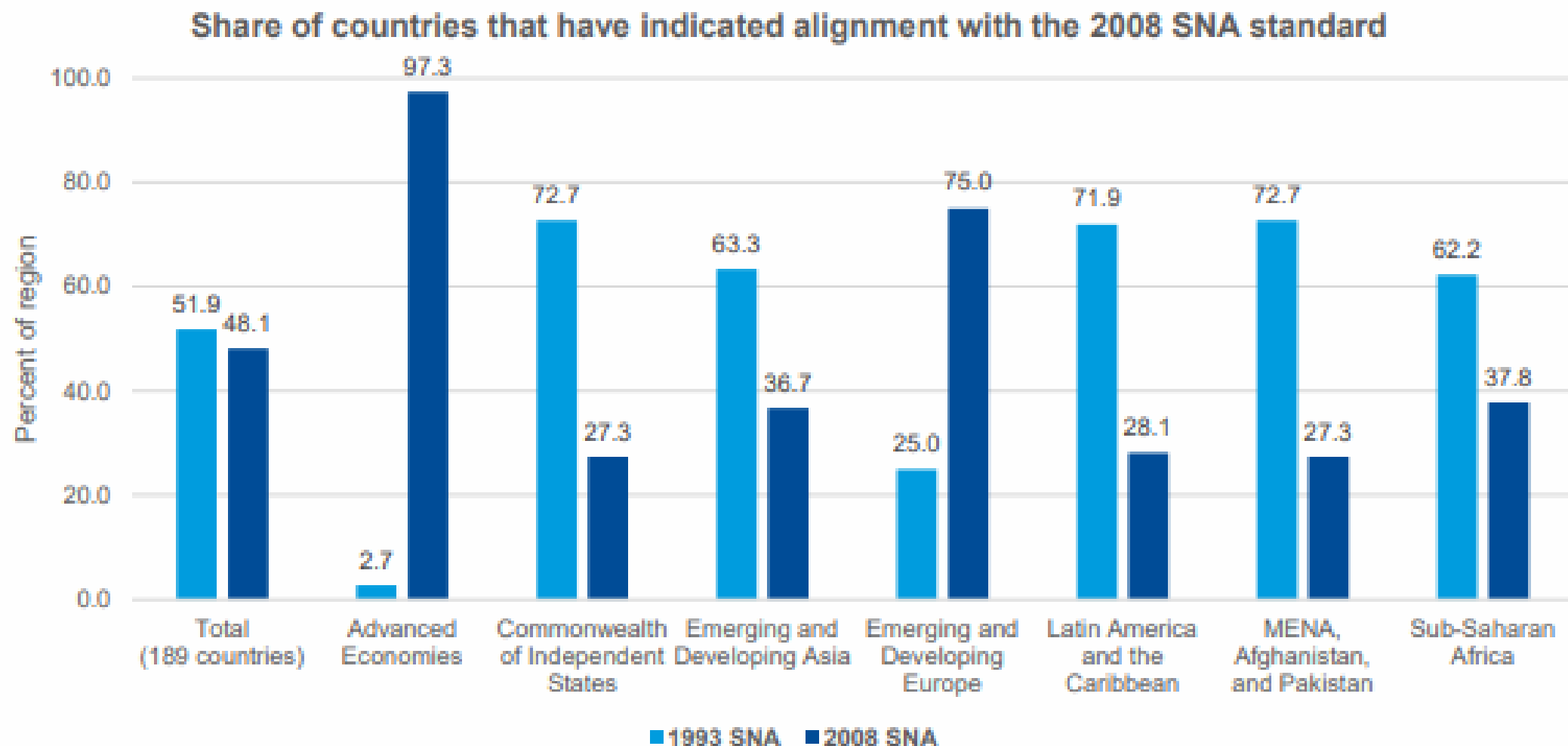
Source: IMF staff

Comparability:
What does it mean to be aligned with the SNA, BPM, GFS....

- **Alignment with international standards provides important signals to users:**
  - ➢ informs the quality of each country's data and **cross-country comparisons**
  - ➢ informs that subsequent **major revisions are expected** when an economy remains distant from the international standards

- **Currently, outside the European Union alignment with international standards is a binary, self-proposed definition** (i.e., each country declares if it is compliant or non-compliant).
  - ➢ need to develop an internationally adopted and accepted framework to measure alignment to the international standards
  - ➢ objective is to develop an aggregated measure that can be used by countries for self assessment

Comparability:
What does it mean to be aligned with the SNA, BPM, GFS....

Objective: create clear measures on the degree of implementation and alignment with the international standards (e.g., charts, tables, quantitative indicators), considering the evolution of macroeconomic accounts since the last round of updates.

✓ the priority recommendations differ **according to national conditions**

✗ the **implementation of the latest version** of the standards is not by itself a measure of accuracy

This work will:

➢ **build on the tools adopted by the UNSC, BOPCOM, and GFSAC** for monitoring the implementation of statistical standards

➢ **examples:** *2008 SNA* implementation milestones, required data set, and compliance questionnaire, as well as other available frameworks such as the IMF data dissemination frameworks (GDDS/SDDS) and the Data Quality Assessment Framework (DQAF)

Comparability:
What does it mean to be aligned with the SNA, BPM, GFS....

Dashboard

- Grid developed around the **key components** of a given macroeconomic accounting framework (e.g., concepts and definitions, accounting rules)
  - ➢ to be used by statistical agencies and international organizations

- Each category is broken down into **sub-categories** that encompass the main features of the system

- Countries conduct **self-assessment** using the dashboard
  - ➢ indicate level of alignment (fully, partially, not aligned, or not applicable) with each sub-category.

Dashboard

Concepts Definitions	Accounting Rules	Data Sources/ Coverage	Methods	Presentation Detail
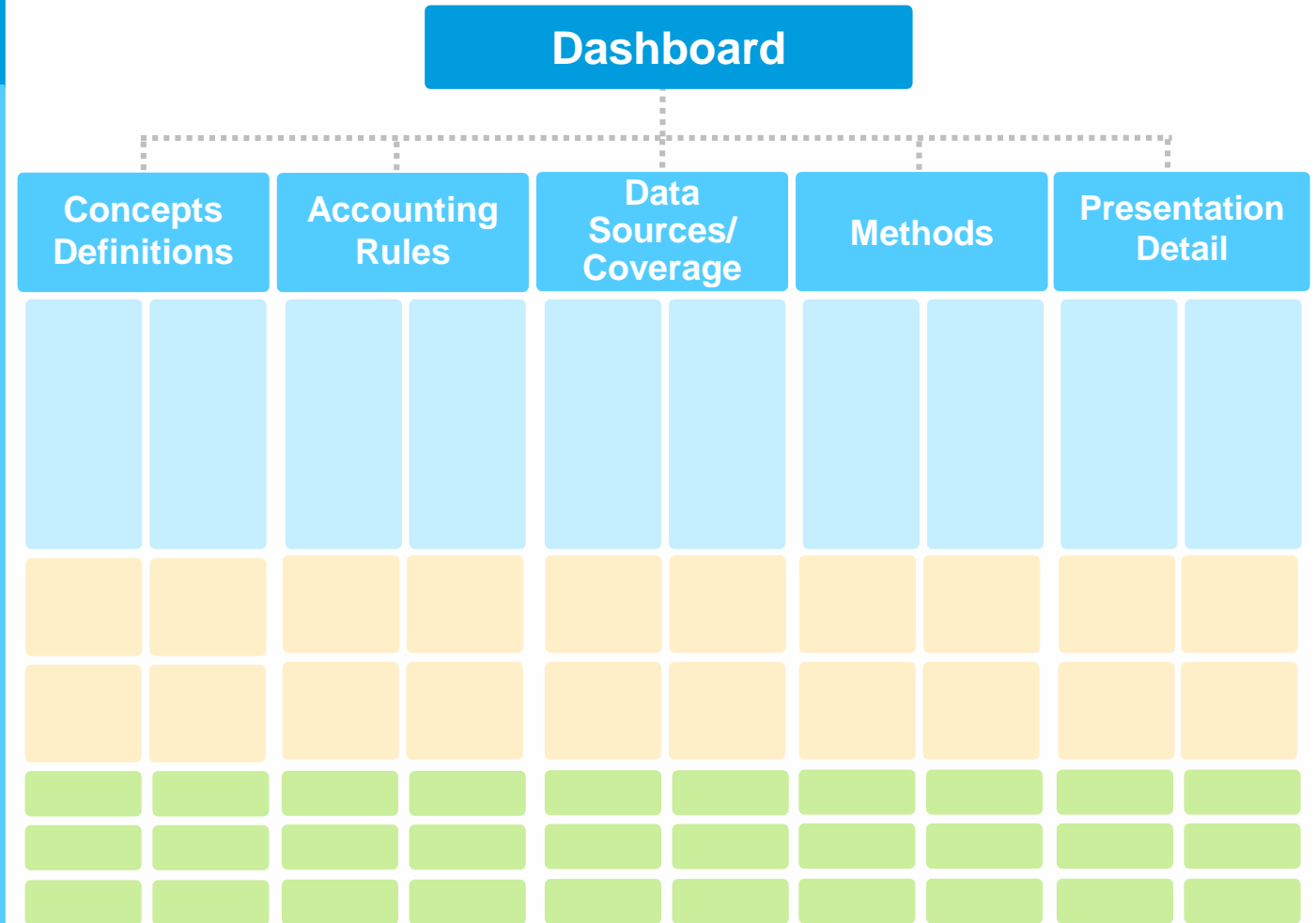
Comparability:
What does it mean to be aligned with the SNA, BPM, GFS....

Aggregate Measure - Uses

- **Cross country- comparisons**
  - ➤ having a standard alignment framework allows for more accurate cross-country comparisons

- **Potential future revisions**
  - ➤ the alignment framework can be used to communicate with users about the impact of the proposed changes to the SNA or the impact of other benchmark revisions

Cross-country comparisons

Criteria	Country A	Country B
Production		
Market Output	●	●
Non-Market Output	●	●
Output for Own Final Use	●	●
Imputed Services		●
.....		
Assets		
Machinery and Equipment	●	●
Cultivated Biological Assets	●	
...		

Potential future revisions

Criteria	Own Account Child Care Services	Data (Digitized Observations)	.....
Production			
Market Output		●	
Non-Market Output			
Output for Own Final Use		●	
Imputed Services	●		
.....			

Community: Supporting comparability, consistency by sharing knowledge, best practices and resources.

- **Enhance "discovery"** by compilers to the international macroeconomic accounting community, to international accounting/statistical manuals, guides, handbooks, classifications, training material, processing tools and research initiatives.

- Facilitate access to digital statistical standards and provide a platform to **collaboratively maintain and update** these manuals.

- Facilitate **co-development and co-investment opportunities** among individuals and organizations.

- Promote **collaboration between different statistical domains** (e.g., National Accounts, Balance of Payments, Government Finance Statistics, Monetary and Financial Statistics, Environmental-Economic Accounting, Price Statistics, Business and Trade Statistics, and International Classifications).

Build Community

Macroeconomic Statistics Compilers Hub: Proposed Features

Collaborative Compilers Hub

Research Corner
Approved international agencies, national statistical offices, and other agencies will be able to upload abstracts and links to published research, working papers, conference papers or other documents related to macroeconomic measurement.

Digital Manuals
The foundation of the Hub will be a digital version of the standards to be developed with support of a dedicated team.

"Discovery"
The Hub will be a space that enhances discovery of the rich set of statistical standard intellectual property and the members of the community of practice.

Contact Forum
The Hub will include a contact area where national accounts compilers can make available their contact information, along with their expertise, and identify current areas of research and interest.

Digital Library
The Hub will include links to all supporting classifications, related manuals, handbooks, and guides.
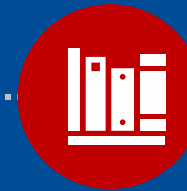
Macroeconomic Statistics Compilers Hub: Proposed Features

Discussion Forum

The Hub will include a discussion forum where compilers, researchers, and other stakeholders across the world can interact and discuss accounting related questions and exchange ideas.

Tools Section

Approved international agencies, researchers, and national agencies will be able to post links to tools such as worksheets, algorithms or other procedures useful and appropriate for compilers.

Collaborative Compilers Hub

Co-development and co-investment

The Hub will be a space of collaboration, where compilers and researchers from different agencies and regions can work together to develop solutions for common problems.

Training

The Hub will contain a training section with links to training opportunities including links to the growing list of online training.

Committees' Information

The Hub will include information about the Committees' activities and their research agendas.

Macroeconomic Statistics Compilers Hub: Wireframe

- **The Hub is intended to assist compilers by enabling discovery, communication and collaboration.**

- **Two main personas:**

  - **Visitor (can view content)**

 - **Member (can view and create content)**
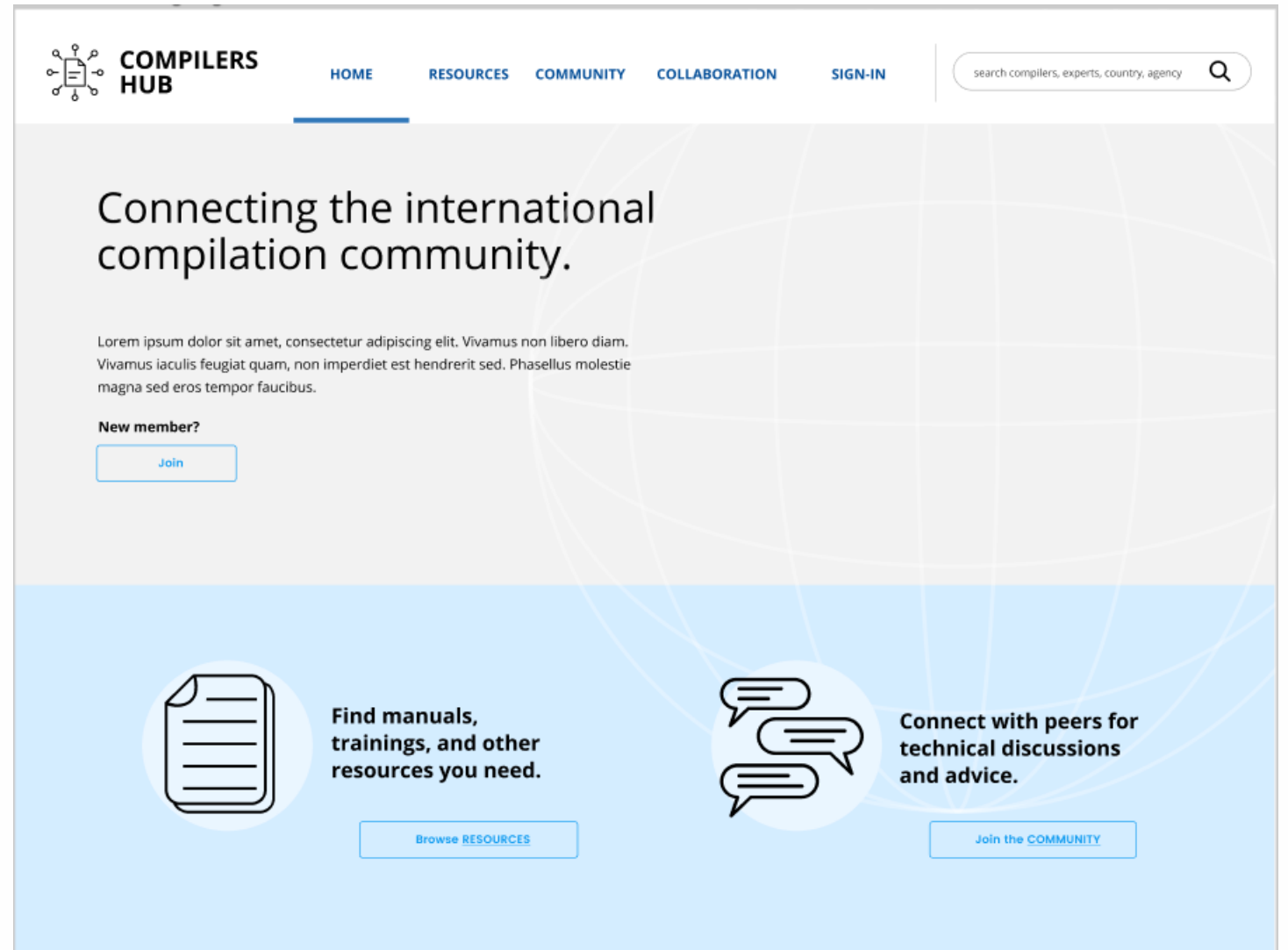
Macroeconomic Statistics Compilers Hub: Wireframe

- **Organizations and individuals will be encouraged to share access to resources such as manuals, training, research.**

- **The platform will enable discovery by structuring the information and facilitating search and discovery.**

- **The Hub will not store manuals and material but will rather catalogue, classify and provide access to material where it is currently located..**
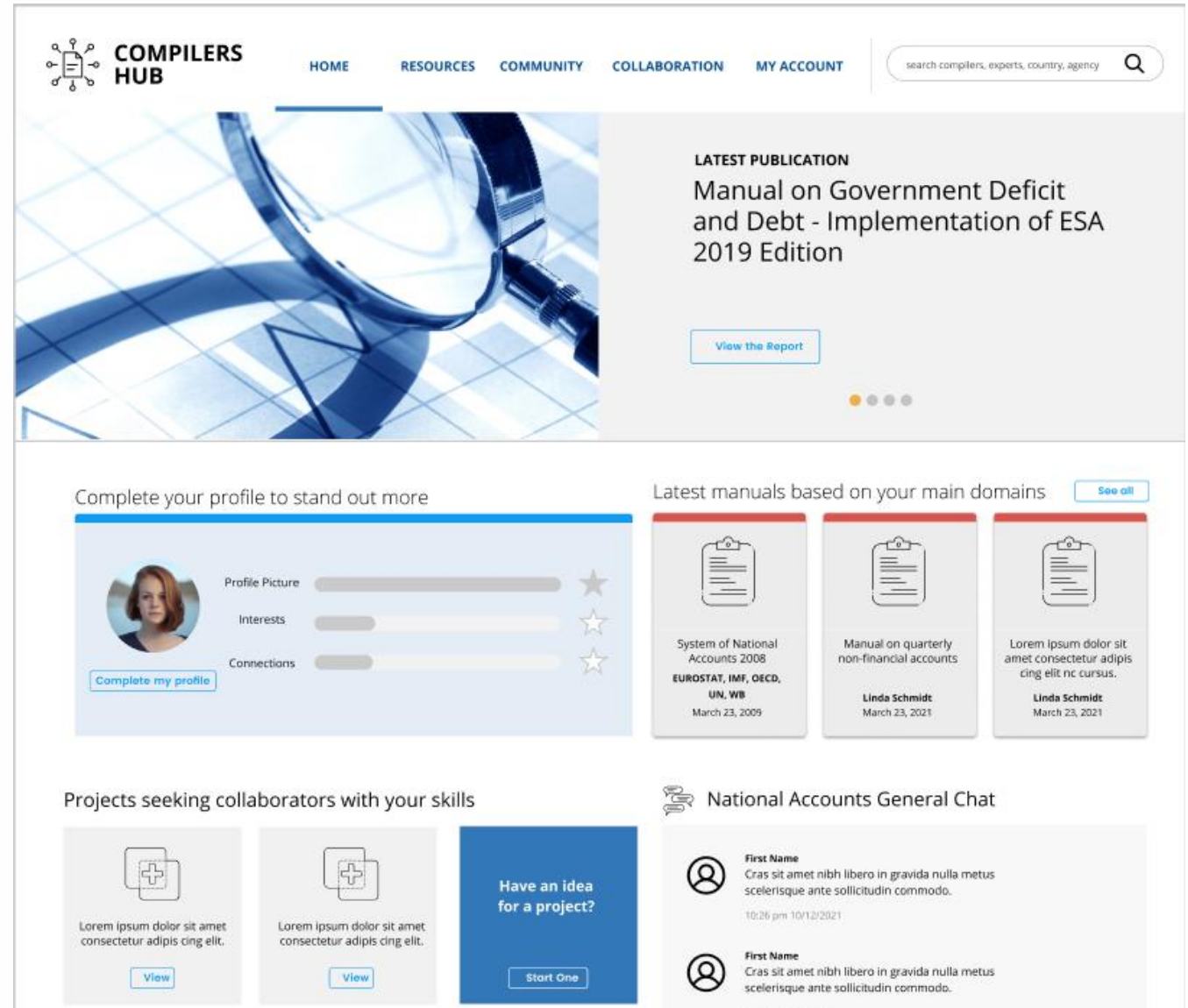
Macroeconomic Statistics Compilers Hub: Wireframe

- **The platform will be used to engage in both public and private online discussions.**

- **Compilers will be able to seek out and connect with each other.**

- **This should facilitate the development of support networks improving quality and comparability of statistics.**
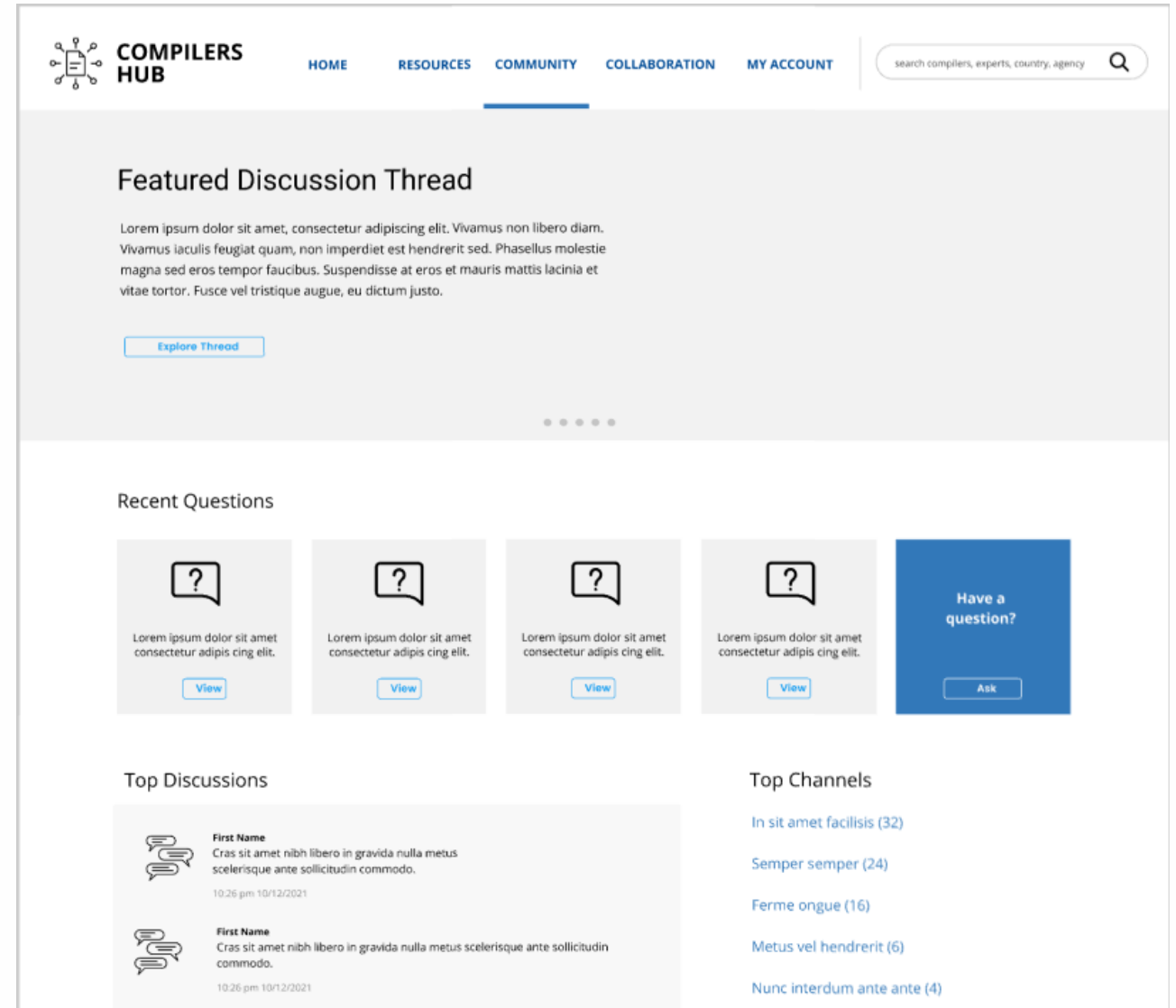
Macroeconomic Statistics Compilers Hub: Wireframe

- **Members will be able to launch projects on the platform and solicit team members to participate.**

- **All development will be considered open source with the end-product a resource for all.**

Comparability and Quality Workplan

1. Develop a macroeconomic statistics compilers hub that will facilitate discovery, communication and co-development.

2. Establish a framework that countries can use to "quantify" the degree of their alignment with international standards.

Dimensions of Alignment	Possible Definition
Concepts	Production Boundary Asset Boundary
Accounting Rules	Time of recording Netting, Aggregation, Consolidation Valuation
Methods	Chain Linking

Questions?

Today is a wonderful opportunity to provide high-level suggestions!

- Would a common framework to assess "alignment" to SNA concepts, methods and accounting rules be useful?

- Would a self-assessment questionnaire be useful?

- How should this information be presented? As a "score", a "grade", a "dashboard"?

- What features would you like to see in a compiler's hub?

- How can we "roll-out" the compiler's hub to ensure the widest engagement possible?

If you would like to contribute further ideas, please contact us:

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James Tebrake   JTebrake@imf.org

Annex

Some additional slides

Terminology - What is so Real about GDP?

MEASURE - Measure
- ☑ C - Current prices
- ☑ V - Constant prices, national base year
- ☑ VP - Constant prices, previous year prices
- ☑ VOB - Constant prices, OECD base year
- ☑ CXC - Current prices, current exchange rates
- ☑ VXCOB - Current prices, constant exchange rates, OECD base year
- ☑ VXVOB - Constant prices, constant exchange rates, OECD base year
- ☑ XVP - Previous year prices and previous year exchange rates
- ☑ CPC - Current prices, current PPPs
- ☑ VPCOB - Current prices, constant PPPs, OECD base year
- ☑ VPVOB - Constant prices, constant PPPs, OECD base year

Even the most seasoned economist would find it difficult to determine which series to use for a particular stream of analysis.

Current approach	Are these alternative more understandable?
Gross Domestic Product – current prices Nominal Gross Domestic Product	Domestic Expenditure valued at today's prices Expenditure on goods and services in today's prices
Gross Domestic Product – constant prices Real Gross Domestic Product Gross Domestic Product – Volumes Gross Domestic Product in previous years' prices	Domestic Expenditure valued at 2015 prices Expenditure on goods and services in prices paid in 2015