

Changing user needs raise demand for useful indicators

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Abstract

User needs have been a focus for statisticians for many years. Since the financial crisis, a growing complexity and an aim for higher efficiency in all economic processes have evolved. Technical development and a higher capacity of data transformation also offer new possibilities for user of statistics. Therefore, user demand is changing over time – an important factor that has to be taken into account. New user groups have entered the scene as many areas now have a global arena. These groups are politicians, both nationally and locally, and global business leaders. Their needs of statistics are primarily timely indicators, long time series and less data revisions, as decisions have to be based on a solid ground. .

Keywords: (1-5 words), user needs, indicators.

1. Background

1.1. Technical development is changing user needs since the financial crisis

User needs have been a focus for statisticians for many years. Relations with users are good and statistical data have been adapted to national user needs over time. But since the financial crisis in 2008-2009 it stands clear that available statistical data was not giving any indication of the coming crisis. The present statistical data was not covering the growing complexity in the financial markets and the intertwined relations between real and financial economics.

In a more globalized environment a need for statistics with a higher degree of complexity is demanded. A higher efficiency in the production processes is also possible. Now, the technical development and a higher capacity of data transformation also offer new

possibilities to produce more detailed and complex data. While researchers demand data on a more detailed level many other users spend less time in analyzing data due to efficiency constraints. They will need prepared data analysis and story-telling, rather than lots of numbers. The change in user demand vary in-between user groups and this will set strains on producers of statistics in many different ways.

2. New user groups strengthens demands for data

The changing pattern differ for different users groups. Some user categories, such as researchers, demand larger datasets at a more detailed level, preferably as micro data. At the same time others user categories, such as journalists and business analysts demands more timely data and more “storytelling”, as they don’t have the time and resources to do their own analysis due to resource constraints.

New users groups have also entered the scene as many sectors now have a global arena. These groups are politicians, both nationally and locally, and global business leaders. Their needs of more information and new statistics are primarily such as timely indicators, long time series and more stable data, as their decisions have to be based on a solid ground.

There are several examples of demands for statistical indicators in new ways, especially in the form of scoreboards, (see table 1 and Annex 1). The Macroeconomic Imbalance Scoreboard (MIP) constructed by the EU commission and the Special Data Dissemination Standard (SDDS)-by the IMF show very clear how these users want to look at statistical data. The SDDS point at 18 specific statistical indicators and specify how these should be calculated. The MIP scoreboard handles the indicators chosen as time-series, which are expected to move within a set interval. Any movement outside this interval will trigger a “flash” on the scoreboard.

Table 1: The MIP Scoreboard, EU commission

<i>Indicators</i>	AT	BE	FI	FR	DE	NL	GR	IE	IT	PT	ES	DK	SE	GB
Current account balance (% GDP, 3y avg)	2.2	-0.4	-0.5	-1.8	6.5	8.8	-7.5	2.3	-2.3	-6.5	-3.1	5.9	6.2	-2.8
Public debt (% GDP)	74	100	54	90	81	71	157	117	127	124	86	45	38	89
Shares of world exports (5y change, %)	-21.2	-14.9	-30.8	-14.0	-13.1	-12.0	-26.7	-16.3	-23.8	-16.0	-14.6	-18.6	-18.8	-19.0
Financial sector liabilities (% y-o-y)	-0.9	-3.9	-0.2	-0.1	4.4	4.9	-3.4	-0.7	7.1	-3.6	3.3	5.0	4.4	-4.3
Unemployment rate (3y avg, %)	4.3	7.7	8.0	9.9	6.2	4.7	18.2	14.4	9.2	13.6	22.3	7.5	8.1	7.9
Unit labour cost index (3y change, %)	4.1	6.3	4.8	4.1	3.0	3.3	-8.1	-10.4	3.1	-5.3	-5.6	5.3	0.7	6.1
Net international investment position (% GDP)	0	48	18	-21	42	47	-109	-112	-26	-115	-91	38	-10	-9
Private debt (% GDP)	147	146	158	141	107	219	129	306	126	224	194	239	212	179
Private sector credit (% GDP, % y-o-y)	2.7	-1.5	9	3.5	1.5	0.2	-6.8	-1.6	-1	-5.4	-11	6.1	1.8	2.6
Real house prices (% y-o-y)	-7.8	-0.1	-0.4	-2.2	1.8	-8.7	-12.4	-11.7	-5.4	-8.6	-16.9	-5.1	-0.2	-0.9
Real effective exchange rate (3y change)	-4.7	-4.3	-8.3	-7.8	-8.9	-6	-4.5	-12	-6.2	-4	-5.2	-7.7	10.1	5.8
Number of signals	3	3	3	4	4	5	5	6	3	6	6	2	3	3

Legend for top section of table: Imbalance signal No signal

Legend for bottom section of table: In-depth review No review

These scoreboards show statistical indicators in a sense that is easy to compare and follow over time. The MIP has a “**flash**”-scoreboard that indicates if any of the chosen indicators falls outside the “normal” historical interval. This will give an early warning to policy makers that something is “out of normal”. The SDDS+ indicators are gathered on ONE national web-page and offer a user-friendly way to find the most important data, as well as meta-data information, for each country from the IMF point of view.

These examples show that policy makers want the most important statistical information to be easy accessible and connected to long time-series and metadata information. If possible the information would also “signal” if anything is to worry about.

By “**story-telling**” it is possible to give all users the same interpretation of the latest information. As statistical indicators are published a short analytical text will help users to set the data into a context more quickly than if only the pure numbers are presented. Many users are asking for this as a help, especially journalists and market analysts.

For researchers, the **metadata information** is of the highest importance, as well as possibilities to find data on a micro level, whenever possible. A good cooperation with researchers can also be of use for data producers as this can include a quality check of the data-sets. Of course, this must be done within the boundaries of data confidentiality.

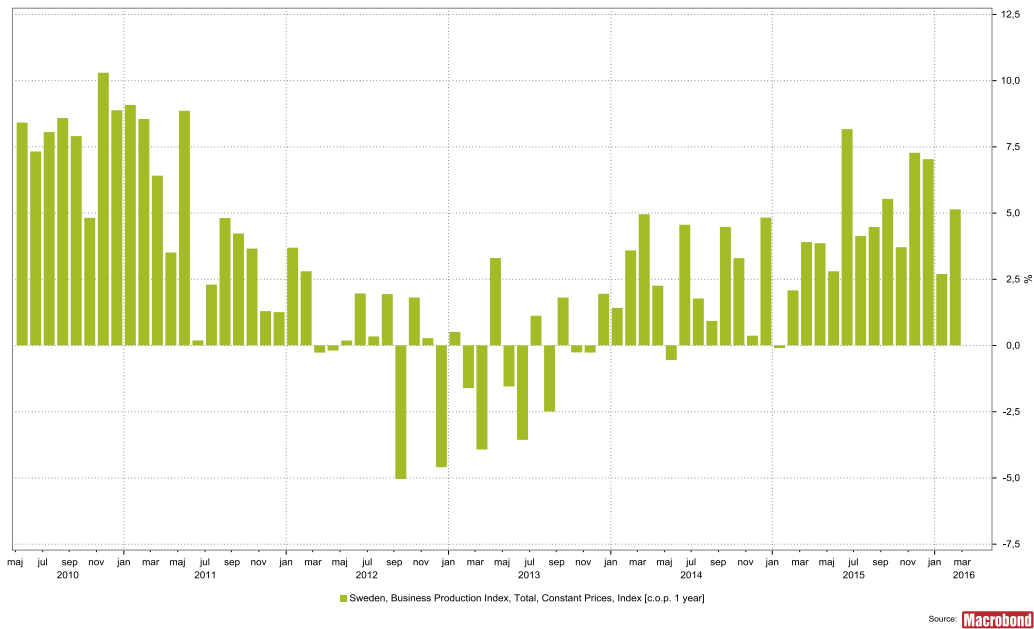
3. Timely indicators and monthly leading indices.

Apart from comparable and consistent indicators users also demand timely indicators. As national accounts are by definition late, flash indicators for GDP are demanded. A new flash indicator for EU is published from April 2016 by Eurostat around 30 days after the end of the reference quarter. This will be an improvement for users, even though this indicator will be revised considerably as the preliminary figures are presented.

There are also other ways to improve presentation of the underlying primary data for GDP. In Sweden the monthly business production indicator (PIN) has gained a lot of interest as it is a mirror of the value added in the quarterly GDP from production side. The indicator is based on monthly data from the indices for industrial production, construction and service production. The construction of this index has been set to forecast the quarterly GDP.

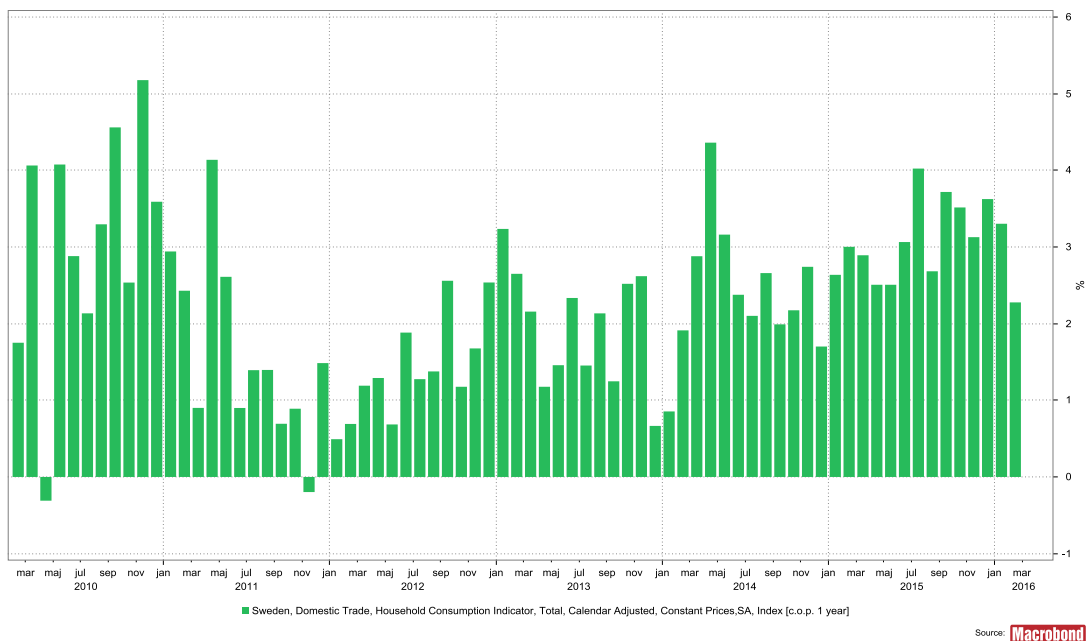
Usually the PIN gives a good indication of the development of the production side GDP, although it is not a complete indicator. This index is more exact than an industrial sentiment barometer but as it is a monthly estimate it will not have the full amount of data to represent the full quarter.

Figure 1: Sweden Business production indicator (PIN), monthly data 2010-2016



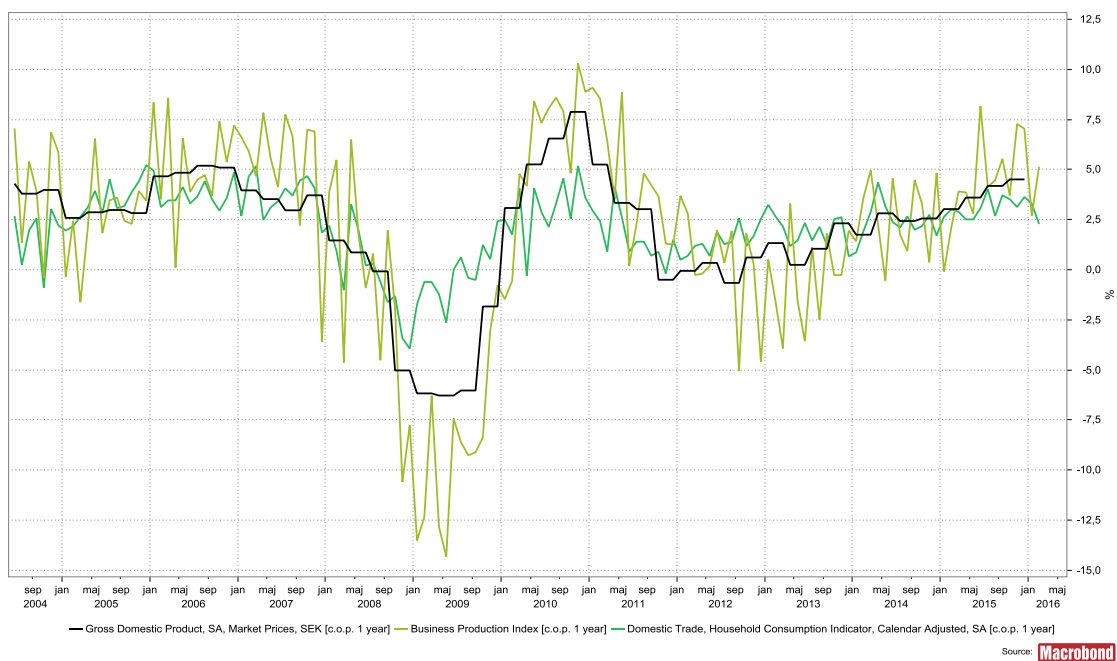
The Swedish Household indicator (HUKO) is experimental statistics that has been developed in cooperation with the Central bank of Sweden. The Central Bank has stressed a need for this kind of indicator as a tool for their forecasts. The construction of this index has been modeled after the household consumption in GDP and this index gives a good estimation of the monthly household consumption. As the household consumption is a major part of GDP, HUKO can also be seen as an important monthly estimate in GDP from the user side.

Figure 2: Sweden Household Indicator (HUKO), monthly data 2001-2016



In figure 3 shows how the monthly indicators, PIN and HUKO, vary around the quarterly GDP. In a normal business cycle they are a good estimate of future GDP.

Graf 3; Quarterly GDP, PIN and HUKO, monthly data 2004-2016



4. Future demands

User's needs of timely data of good quality have only started. The demand for new indicators has risen and available statistics are being adapted to show a better fit with macro variables. But there are also many users and researcher that spend a lot of time constructing indicators and models based on available data, that can be tools for forecasting and "evidence-based decision making". Several users, such as Federal Reserve and IMF, are already producing GDP-now-casting, which are regression models for GDP based on available monthly data. This shows the importance of meeting the growing demands for new and timely statistics.

5. Conclusions

Users need timely data of good quality. Since the financial crisis these demands has risen and will continue to grow. Statistical data should also be easy accessible and presented. "Story-telling" will give the same interpretation to all users, which is a help to users without resources for analysis. Meta-data information is a mandatory part of the statistics and should be easy to access and use. Time-series are of high importance to users as most forecasting models need long time series to make correct calculations.

Primary statistics must be possible to link to macro indicators, as it will be used to improve existent forecast models. Therefore simple indicators based on primary statistics and modeled as GDP could benefit users in many ways.

6. References

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Annex 1: The SDDS+ indicators, IMF

	Methodology
Real Sector	
GDP: nominal, real, and associated prices or price indices	<p>(SNA 1993) - <i>System of National Accounts 1993</i> (New York: a publication of the Commission of the European Communities, International Monetary Fund, Organization for Economic Cooperation and Development, United Nations, and the World Bank, 1993). The text can be found on the following UN website: http://unstats.un.org/unsd/sna1993/introduction.asp</p> <p>or</p> <p>(SNA 2008) - <i>System of National Accounts 2008</i> (New York: a publication of the Commission of the European Communities, International Monetary Fund, Organization for Economic Cooperation and Development, United Nations, and the World Bank, 2009). The text can be found on the following UN website: http://unstats.un.org/unsd/nationalaccount/sna2008.asp</p> <p>or</p> <p>(SNA 1968) - <i>A System of National Accounts, Studies in Methods, Series F, No. 2, Rev. 3</i> (United Nations publication, Sales No. E. 69.XVII.3), 1968.</p> <p>or</p> <p>(QNA Manual 2001) - <i>Quarterly National Accounts Manual: Concepts, Data Sources, and Compilation</i> (Washington, D.C.: IMF, 2001). The text can be found on the IMF's website: http://www.imf.org/external/pubs/ft/qna/2000/textbook/index.htm.</p> <p>or</p> <p>(ESA 95) - <i>European System of Accounts 1995</i> (Luxembourg: Eurostat, 1996).</p>
Production index/indices	<p><i>International Recommendations for the Index of Industrial Production 2009</i> (New York, January 2009: United Nations Statistics Division) Global country consultation concluded on February 6, 2009. The draft text can be found at http://unstats.un.org/unsd/industry/iip_review.asp</p>
Labor Market	<p><i>Current International Recommendations on Labor Statistics</i>, as updated (Geneva: International Labor Organization (ILO), 1985).</p>
Price Indices	<p>(CPI Manual 2004) - <i>Consumer Price Index Manual: Theory and Practice 2004</i> (ILO, IMF, OECD, Eurostat, United Nations, and the World Bank), available on the following webpage: http://www.ilo.org/public/english/bureau/stat/guides/cpi/index.htm.</p> <p>or</p> <p>(CPI Manual 1989) - <i>Consumer Price Indices</i> (Geneva, ILO: Ralph Turvey et. al, 1989).</p> <p>(PPI Manual 2004) - <i>Producer Price Index Manual: Theory and Practice 2004</i> (ILO, IMF, OECD, UNECE, and World Bank), available on the following webpage: http://www.imf.org/external/np/sta/teppi/index.htm.</p>
Fiscal Sector	
General government	<p>(GFSM 2001) - <i>Government Finance Statistics Manual 2001</i> (Washington, D.C: IMF, 2001).</p>

operations (or public sector operations, PSO, as relevant)	The text can be found on the IMF's website: http://www.imf.org/external/pubs/ft/gfs/manual/index.htm .
Central government operations	(GFSM 1986) - <i>Government Finance Statistics Manual 1986</i> (Washington, D.C: IMF, 1986).
Central government debt	<i>Public Sector Debt Statistics: Guide for Compilers and Users, 2011</i> : http://www.tffs.org/PSDStoc.htm .
Financial sector	
Depository corporations survey	(MFSM 2000) - <i>Monetary and Financial Statistics Manual, 2000</i> (Washington, D.C: IMF, 2000). The text can be found on the IMF's website: http://www.imf.org/external/pubs/ft/mfs/manual/index.htm .
Central bank survey (CBS)	or <i>(MFS Compilation Guide) - Monetary and Financial Statistics: Compilation Guide</i> (Washington, D.C: IMF, 2008). The text can be found on the IMF's website: http://www.imf.org/external/pubs/ft/cgmfs/eng/index.htm .
Interest rates	See SDDS Guide, p.38 http://dsbb.imf.org/images/pdfs/sdds_legal_text_english.PDF
Stock market	" <i>Handbook on Securities Statistics – Prepublication draft of part 1: Debt: Debt Securities issues</i> (Prepared by the Bank for International Settlements, the European Central Bank, and the International Monetary Fund). http://www.imf.org/external/np/sta/wgsd/pdf/051309.pdf
External sector	
Balance of payments	(BPM6) - <i>Balance of Payments and International Investment Position Manual</i> , sixth edition (Washington, D.C: IMF, 2008). http://www.imf.org/external/pubs/ft/bop/2007/pdf/BPM6.pdf (BPM5) - <i>Balance of Payments Manual</i> , fifth edition (Washington, D.C: IMF, 1993). The text can be found on the IMF's website: http://www.imf.org/external/pubs/ft/bopman/bopman.pdf . (BPM4) - <i>Balance of Payments Manual</i> , fourth edition (Washington, D.C: IMF, 1977).
Official reserve assets (including the template on international reserves and foreign currency liquidity)	(<i>Reserves Template Guidelines</i>) - <i>International Reserves and Foreign Currency Liquidity: Guidelines for a Data Template</i> (Washington, D.C: IMF, 2012). The text can be found on the IMF's website: http://www.imf.org/external/np/sta/ir/IRProcessWeb/dataguide.htm
Merchandise trade	(<i>Trade Statistics Manual 2002</i>) - <i>Manual on Statistics of International Trade in Services, 2002</i> is available on the OECD website: http://www.oecd.org/dataoecd/32/45/2404428.pdf . It is also available on the following website of the United Nations: http://unstats.un.org/unsd/tradeserv/manual.asp .
International investment position	(IIP 2002) - <i>International Investment Position – (2002)</i> . The text can be found at the website: http://www.imf.org/external/np/sta/iip/iip.htm .
External debt	(<i>External Debt Guide 2003</i>) - <i>External Debt Statistics: Guide for Compilers and Users (also called Debt Guide)</i> (Washington, D.C: IMF, 2003). The text can be found on the IMF's website: http://www.imf.org/external/pubs/ft/eds/Eng/Guide/index.htm .
Exchange rate	See SDDS Guide, p.42 http://dsbb.imf.org/images/pdfs/sdds_legal_text_english.PDF
Population	<i>Principles and Recommendations for Population and Housing Census</i> (New York: United Nations, 1996).