

Distr.
GENERAL

WP.21
16 May 2011

ENGLISH ONLY

**UNITED NATIONS ECONOMIC COMMISSION
FOR EUROPE (UNECE)
CONFERENCE OF EUROPEAN STATISTICIANS**

**EUROPEAN COMMISSION
STATISTICAL OFFICE OF THE EUROPEAN
UNION (EUROSTAT)**

**ORGANISATION FOR ECONOMIC COOPERATION
AND DEVELOPMENT (OECD)
STATISTICS DIRECTORATE**

Meeting on the Management of Statistical Information Systems (MSIS 2011)
(Luxembourg, 23-25 May 2011)

Topic (iii): Innovation and related issues

Principal Global Indicators – Innovation in communication of official statistics

Supporting Paper

Prepared by Saurabh Gupta, International Monetary Fund (IMF)

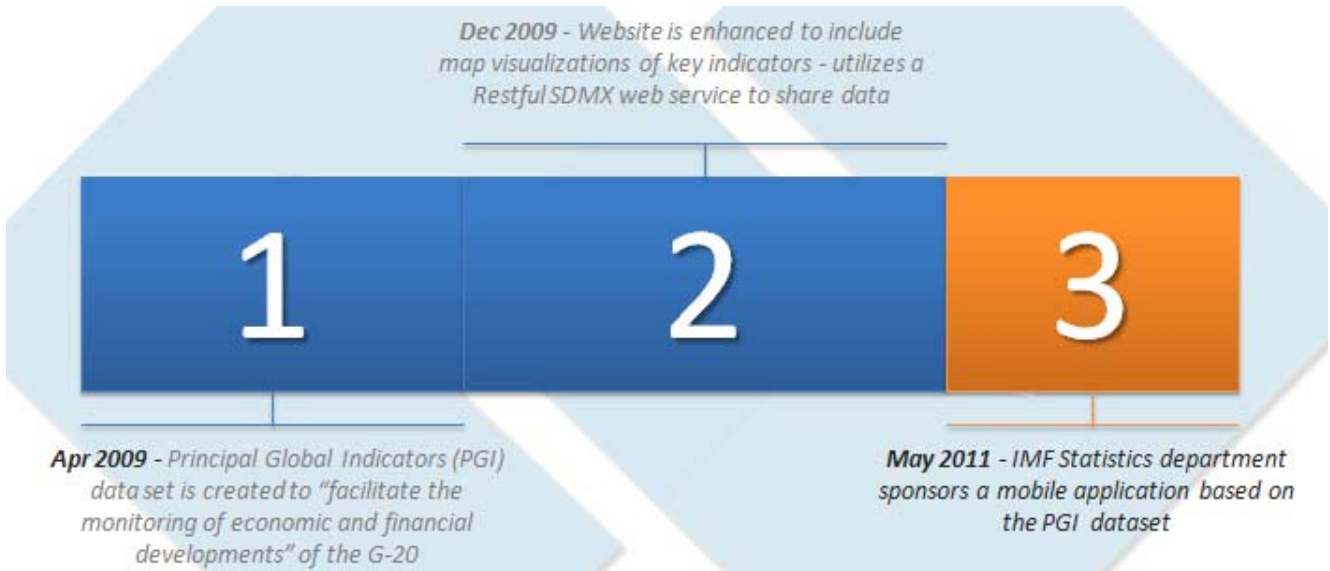
I. Introduction

1. The PGI dataset is one of the key outputs of the Inter-Agency Group on Economic and Financial Statistics (IAG), providing internationally comparable data for the Group of 20 economies (G-20) and the five members of the Financial Stability Board that are not part of the G-20 to facilitate the monitoring of economic and financial developments for these jurisdictions. PGI was launched in 2009 in response to the global financial crisis and is hosted by the IMF. PGI data are accessed by users across 150+ countries on a regular basis. To make PGI data more easily accessible, continuous new improvements are being added to make data more accessible and useful, including visualizations, SDMX based WebServices and access on mobile devices.

II. Background

2. The PGI dataset provides internationally comparable data for the Group of 20 economies (G-20) and the five members of the Financial Stability Board that are not part of the G-20 to facilitate the monitoring of economic and financial developments for these jurisdictions. Launched in 2009 in response to the global financial crisis, the PGI website is hosted by the IMF. PGI provides information on major economic indicators that are available at participating international agencies covering financial, fiscal, external, and real sector data. It is a joint undertaking of the Inter-Agency Group on Economic and Financial Statistics (IAG). The IAG comprises the [Bank for International Settlements](#) (BIS), the [European Central Bank](#) (ECB), [Eurostat](#), the [International Monetary Fund](#) (IMF, Chair), the [Organisation for Economic Co-operation and Development](#) (OECD), the [United Nations](#) (UN), and the [World Bank](#) (WB). It was established in 2008 to coordinate statistical issues and data gaps highlighted by the global crisis and to strengthen data collection.

3. The evolution of the PGI data dissemination can be highlighted by 3 major milestones – 1) Apr 2009 – Launch of the PGI website (<http://PrincipalGlobalIndicators.org>), 2) December 2009 – Release of visualization tool - PGI DataMapper leveraging underlying SDMX based WebServices and enhancements to the PGI site, and 3) May 2011 – Release of SDMX WebServices based iPad/iPhone application to access PGI data and public release of the SDMX User Query Test Interface.



In the initial version, the data dissemination was limited to access to excel sheets with formatted data. A second version included by layered tables built leveraging the functionality of the IMF data warehouse. In the present version, multiple dissemination tools powered by underlying SDMX based WebServices are available from PGI.

II. Business Case

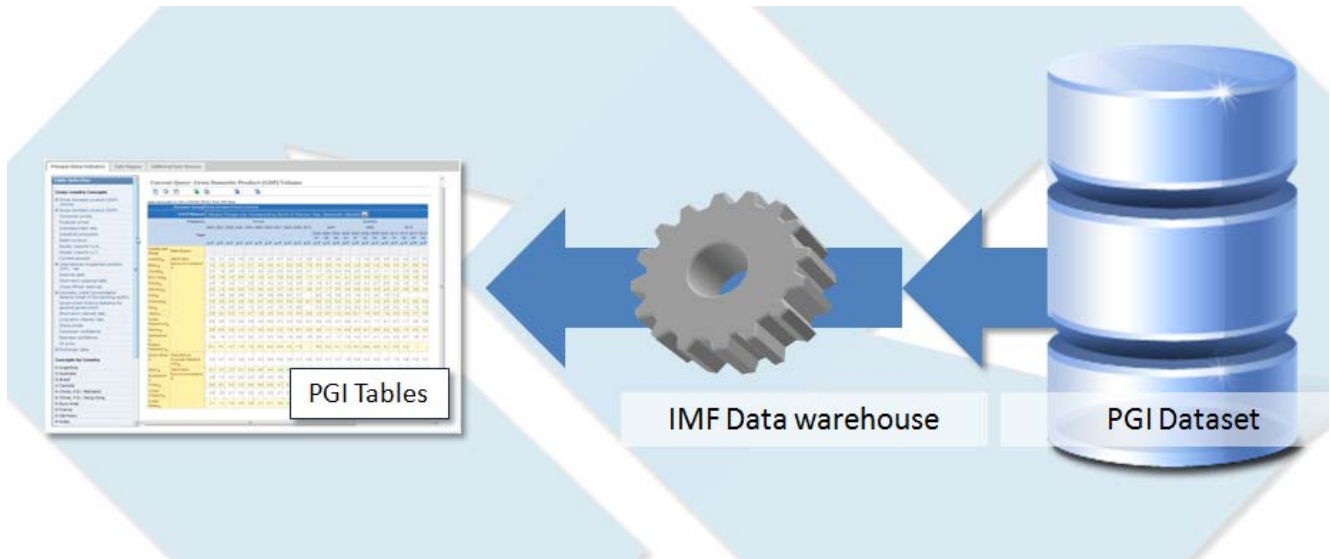
4. The PGI website is continuously evolving to improve all quality aspects of the data the site provide. The IAG participating agencies are collaborating to enhance the coverage, timeliness, and comparability of the data, which are collected from national sources by the IAG agencies. New dissemination tools are developed to meet the needs of a broader audience and improved data collection/exchange mechanisms are put in place to increase the timeliness of data collection. The key business goals for the PGI are

- Improving data availability and coverage
- Better timeliness and accuracy of the data
- Increase access to PGI data by promoting the adoption of SDMX

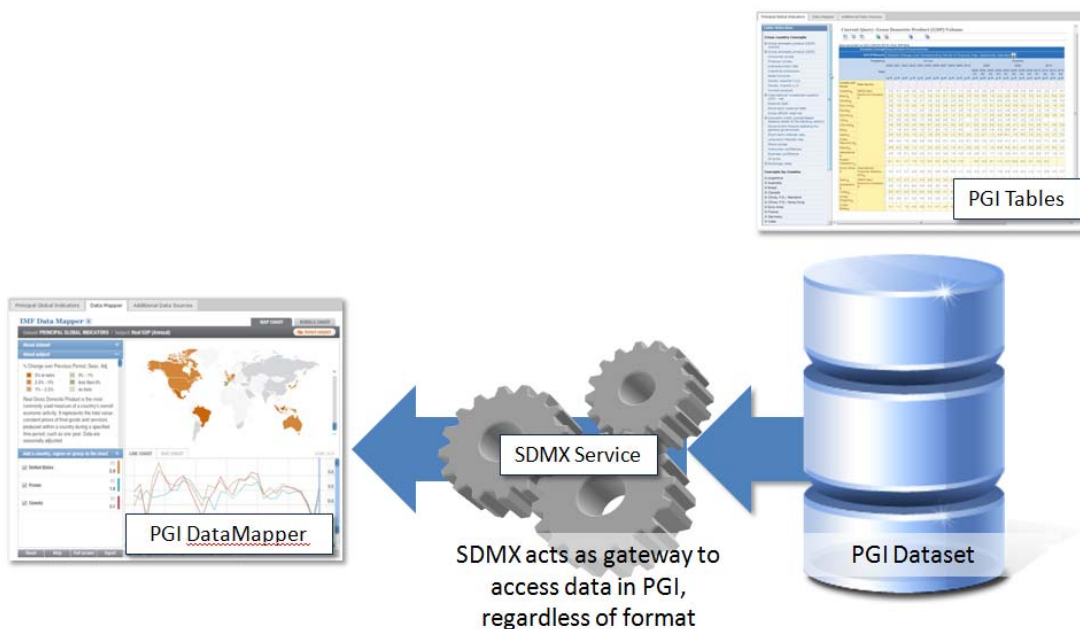
III. Approach

5. A team consisting of content and technology experts was setup to assess options and implement the database and build tools for PGI. The content team focused on identification different data sources, validate data and metadata for comparability, implement transformations to provide data in comparable units of measure, and plan the approach for data collection, while the technical team explored options for the technical solution.

6. **April 2009:** Initial design of the PGI leveraged the IMF Data warehouse for the generation of tables from the underlying dataset created for PGI.

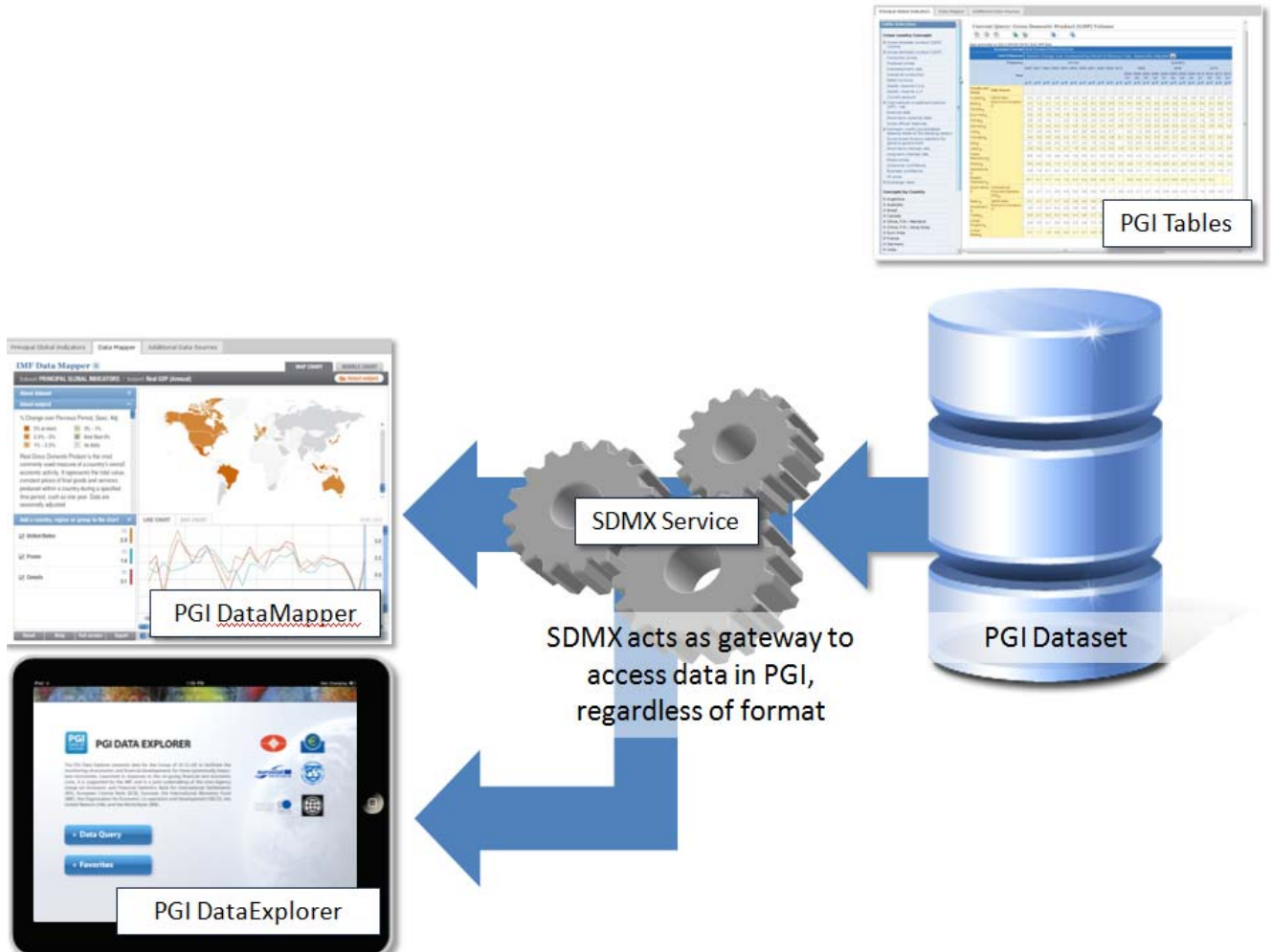


7. **December 2009:** To improve the usability and meet the needs of more users, new features were incorporated. The number of tables providing data using comparable units of measures (percent of GDP, growth rates, index numbers) are increase to over 40, data tables are dynamically generated from the underlying dataset, users can leverage the functionality of the data warehouse to creat their own tables and display longer time series based on the countries and concepts they select. New approaches to data dissemination were explored and PGI DataMapper – a maps visualization tool – was included in the website along with other functional changes to the site. To make the enhancements easy and quick WebServices were explored and implemented. These WebServices use the SDMX data model and infrastructure to enable more flexibility in future and minimise the impact of changes in the underlying data structure or content.



8. **May 2011:** To further enhance the accessibility of PGI data, in March 2011, the Statistics Department of the IMF agreed to sponsor the development of an application for mobile devices. The application was planned for release at the SDMX Global Conference held on May 2-4, 2011 in Washington DC, which was co-hosted by the IMF and the World Bank. The use of the existing SDMX-based WebServices came up to be the best option to deliver a fully functional mobile devices application in a

duration of 7-8 weeks. **PGI DataExplorer**—the application for mobile devices—offers an intuitive query interface to users who directly want to access data and metadata. It has been designed to work in online as well as offline modes to meet the needs of travelling users or users with limited internet access. The application also visualizes data in different chart types and animates data on a map over time. Data coverage was expanded from G-20 to G-20+5 FSB (Financial Stability Board) countries during this period.



[PGI DataExplorer](#) was released on May , 2011 at the SDMX Global Conference and is available for users at the Apple AppStore. For users who would like to consume data directly into their applications [PGI WebServices](#) was made accessible for public use.



Dot Stat Datawarehouse Exit Gate

SDMX Web Service - User Query Test Interface

Home

- ▼ Home
 - ▼ Dataflow List Query
 - ▷ Get Dataflow List
 - ▼ Data Query
 - ▷ Data Structure Definition (DSD)
 - ▷ Generic Data
 - ▷ Compact Data
 - ▼ MetaData Query
 - ▷ Metadata Structure Definition (MSD)
 - ▼ Generic Metadata
 - ▷ Dataset
 - ▷ Dimension
 - ▷ Dimension Member
 - ▷ Coordinates
 - ▼ Metadata Query 2.1
 - ▷ Generic Metadata
 - ▼ Structure Set Query (Mapping)
 - ▷ IMF to ISO 3166-1-alpha-2
 - ▷ IMF to ISO 3166-1-alpha-3
 - ▷ IMF to ISO 3166-1-numeric-3
 - ▷ Help

SDMX Web Service with Metadata Extens

[Go to the SDMX web service itself](#)

IV. Benefits

9. The SDMX WebServices based implementations offer many business and technology benefits, like 1) Faster time to market – ability to deliver solution quicker to respond to user needs, 2) Focus shift from technology to business needs – adding more content, changing content becomes a business decision and not dependent on technical tools, and 3) Lowers cost of development and support – Significant effort reduction in maintaining multiple data repositories for different tools, changes to underlying data structure don't affect the tools.

V. Next steps with PGI and SDMX

10. Going forward efforts are planned in the following areas:
- Improving the data coverage and timeliness of PGI data
 - Increase the access to PGI data by promoting the adoption of SDMX for the dissemination of official statistics
 - Data collection using SDMX and new DSDs (Data Structure Definitions).