

IFC High Level Meeting on Data Governance, co-organised with the International Statistical Institute
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Updating BIS statistical processes to face the challenges of the data revolution¹

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¹ This presentation was prepared for the meeting. The views expressed are those of the author and do not necessarily reflect the views of the BIS, the IFC or the central banks and other institutions represented at the meeting.



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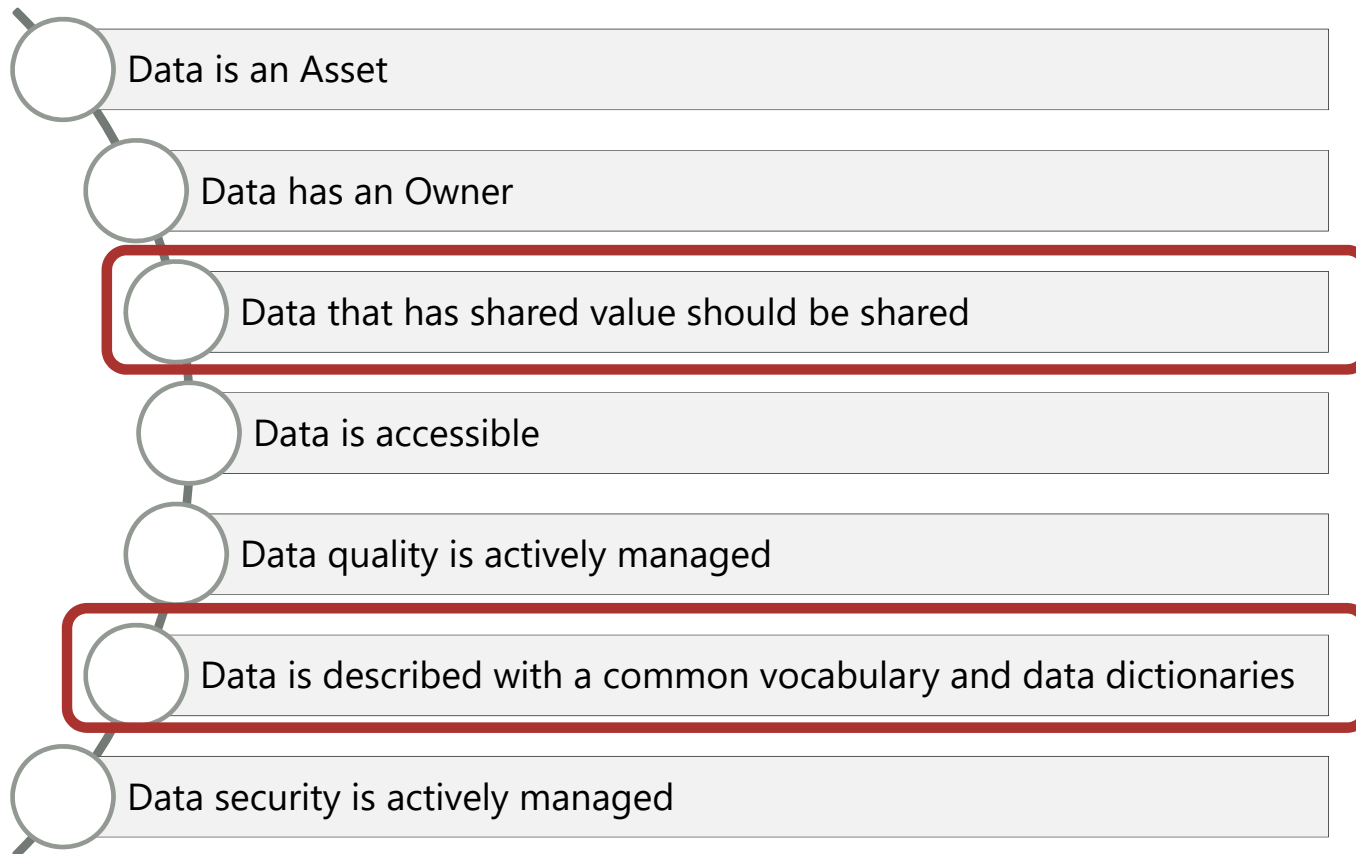
Agenda

- Facing the challenges of the data revolution
- Changing culture
 - Data Governance Principles
 - Data Stewards Mandate
- Changing technology
 - SDMX (Statistical Data and Metadata Exchange) Information Model
 - Future BIS processing architecture (MEDAL)
- Envisaging the BIS Data Portal

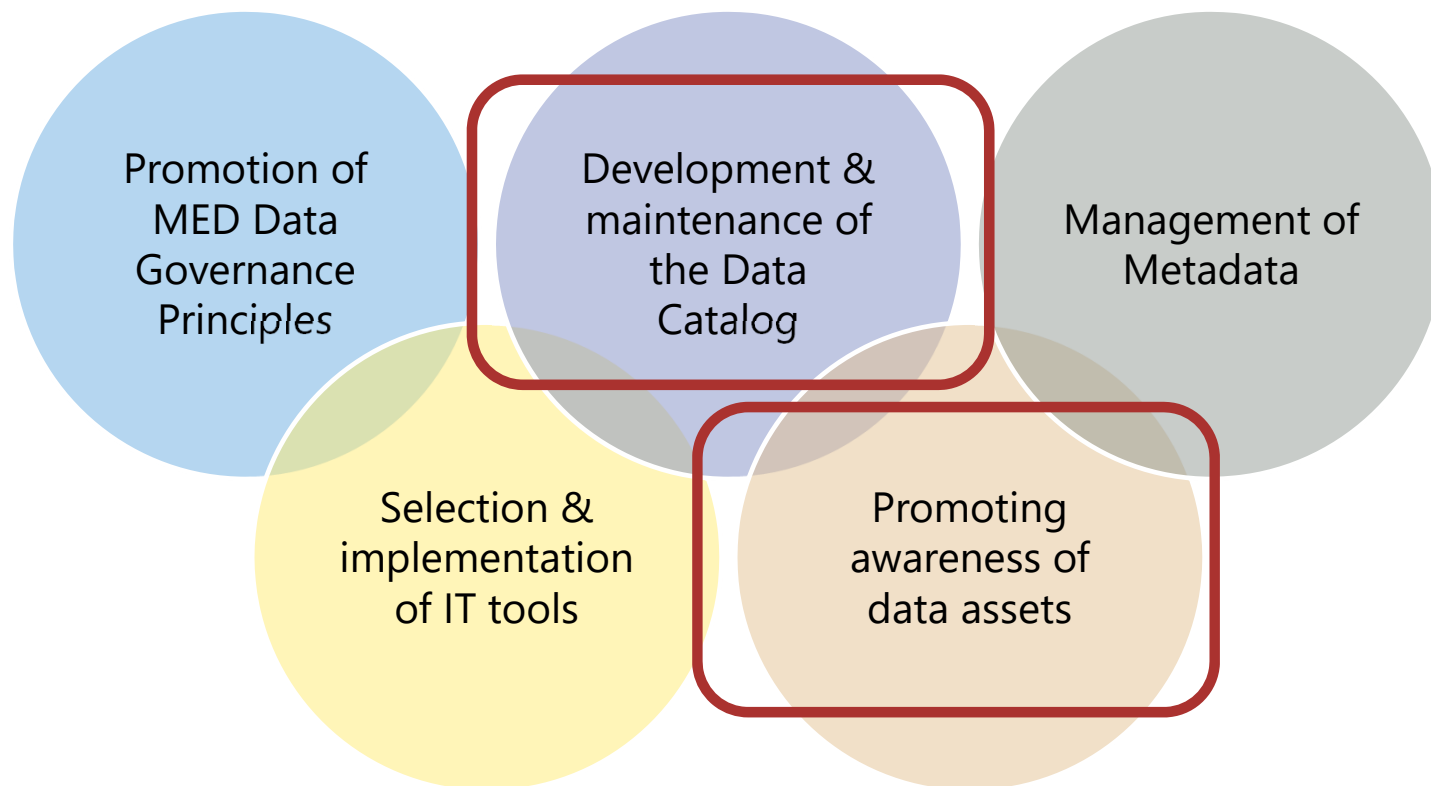
Facing the challenges of the data revolution

- The data revolution offers opportunities for the BIS, Central Banks, IO's and NSI's
 - Access to new data sources
 - 3 V's of Big Data; Volume, Variety, Velocity
 - Internet of things (IOT)
 - Advances in Artificial Intelligence
- How should we adapt to exploit the opportunities presented?
 - Culture
 - Technology


Data Governance Principles



Data Stewards Mandate



Data Catalog



18 Results for

Credit

- Credit to the non-financial sector**
- Credit-to-GDP gaps
- Debt service ratios (DSR)
- Joint External Debt Statistics
- Credit risk
- CCR
- CVA
- Institution-to-institution credit exposure data (I-I Credit data: Template A)
- Institution-to-institution credit exposure data (I-I Credit data: Template B)
- Institution-to-institution credit exposure data (I-I Credit data: Template C)
- Institution-to-institution credit exposure data (I-I Credit data: Template D)
- OTC derivatives outstanding - semiannual data

Credit to the non-financial sector

The quarterly credit to the non-financial sector statistics capture borrowing activity of the private non-financial sector (on average, more than 45 years) and the government sector (on average 20 years) for 44 economies. The private non-financial sector is split between non-financial corporations and households. Total credit is made up on financing from all sources while bank credit includes credit extended by domestic banks. The so-called "core debt" instruments are covered and includes: currency and deposits (which are mostly zero in the case of credit to the private non-financial sector), loans and debt securities.

Classification		Publisher	
public	restricted	confidential	BIS
Business Unit		Identifier	Credit
Data Frequency		Granularity	Country
Temporal Coverage		Spatial / Geographical Coverage	
Release Date		Access	
Location		Usage	
MEDCS Function		Format / Media Type	
Data Asset Status		Data steward	
Subject matter expert		Data owner	
SDMX DSD		Theme	
Keywords		References	

Dashboards

GDP | 13 November 2019

GDP growth (yoy % change) Region: G20 2019 Last 2 years Country: US 01.01.2010 01.10.2019

Major markets: US 2019 C
Labour Markets | 14 November 2019

EA 2019 C
Unemployment rates Region: G20 Last 2 years US January 2015 December 2019 Last update: 14 November 2019

Major markets: US 2019 Oct
Bank of America-Merrill Lynch bond indices | 14 November 2019

EA 2019 Sep
Equity indices | 14 November 2019

Metric: Option-adjusted

Currency: (Multiple values)

Classification: Corporate

Rating: (Multiple values)

Maturity: 1+ Year

Frequency: Month

List of in

Index: COA0, COA1, COA2, COA3, COA4, ER00, ER10, ER20, ER30, ER40, HQA1, HQA2, HE10, HE20

Region	Country	ID	Last close	1-day	1-week	YTD
US	S&P500		3,094	0.07	0.56	26.40
EA	EUROSTOXX50		3,699	-0.34	0.29	25.21
CN	SHSZ300		3,899	-0.10	-2.13	31.54
JP	TOPIX		1,700	-0.55	0.35	13.80
GB	FTSE100		7,351	-0.19	-0.61	9.84
EMEA	SMI		10,299	-0.14	-0.18	21.65
	DAX		13,230	-0.40	0.38	27.01
	CAC		5,907	-0.21	0.69	28.10
	FTSEMIB		23,578	-0.86	0.88	29.42
	WIG		58,816	-0.55	-0.60	2.84
	RTSI		1,437	-0.79	-2.28	32.30
	BIST30		129,591	0.70	3.80	18.36
	JSE		56,338	-0.11	-2.28	9.04
Asia-Pacific	S&P/ASX200		6,698	-0.81	0.57	18.90
	HSI		26,571	-1.82	-4.03	6.01
	JCI		6,142	-0.62	-1.21	-1.26
	NIFTY		11,840	-1.05	-1.05	10.95
	KOSPI		2,122	-0.86	-1.01	6.46
	FBMKLCI		1,597	-0.78	-0.38	-4.69
	STI		3,239	-0.87	-0.72	7.51
	SET		1,615	-0.68	-0.54	3.53
Americas	MERVAL		32,340	-3.26	-8.90	4.11
	IBOVESPA		106,060	-0.65	-2.12	15.83
	S&P/TSX		16,957	0.29	1.27	19.32
	MEXBOL		43,098	0.00	-1.64	2.51

Price Index (100 = 1 January 2007) EA US

Volatility Index

Dividend Yield

Distributions of quarterly averages

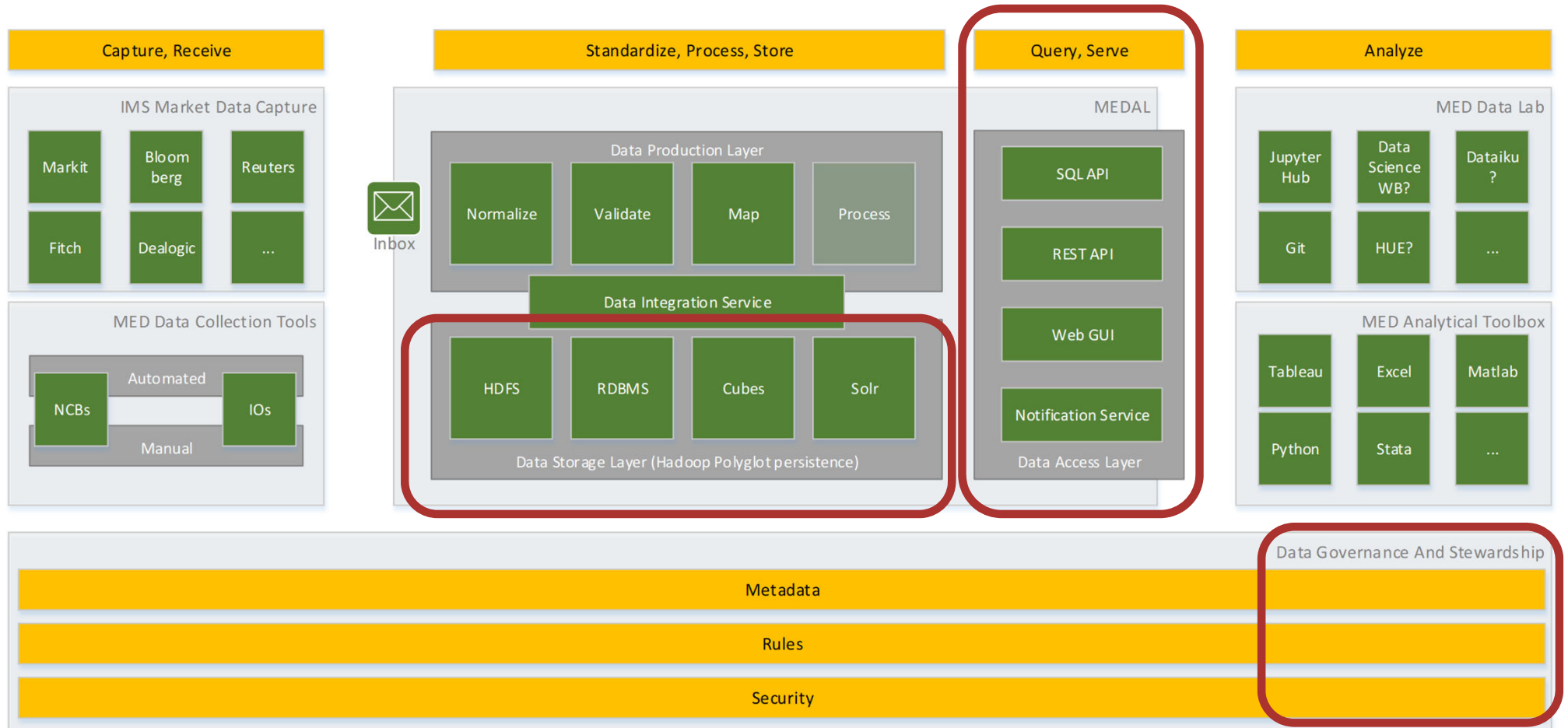
Index	Country: EA	Index: EUROSTOXX50
Market Cap		
P/E		
CAPE		
Dividend Yield	Date: 2011 Q1	P/E: 11.77
Volatility: Historical 30d		
Implied 30d		
Index		

SDMX (Statistical Data and Metadata Exchange) Information Model

- Global standard for statistical data and metadata exchange ([ISO/IS 17369](#))
- Facilitates data exchange between central banks and international organisations
- Provides an information model with which to model data, key elements being:
 - Data Flow
 - Data Structure Definition (DSD)
 - Code Lists
 - Constraints
 - Validation and Transformation Language (VTL)
- The BIS has many years of experience working with SDMX



Future BIS Statistical Processing Architecture (MEDAL)

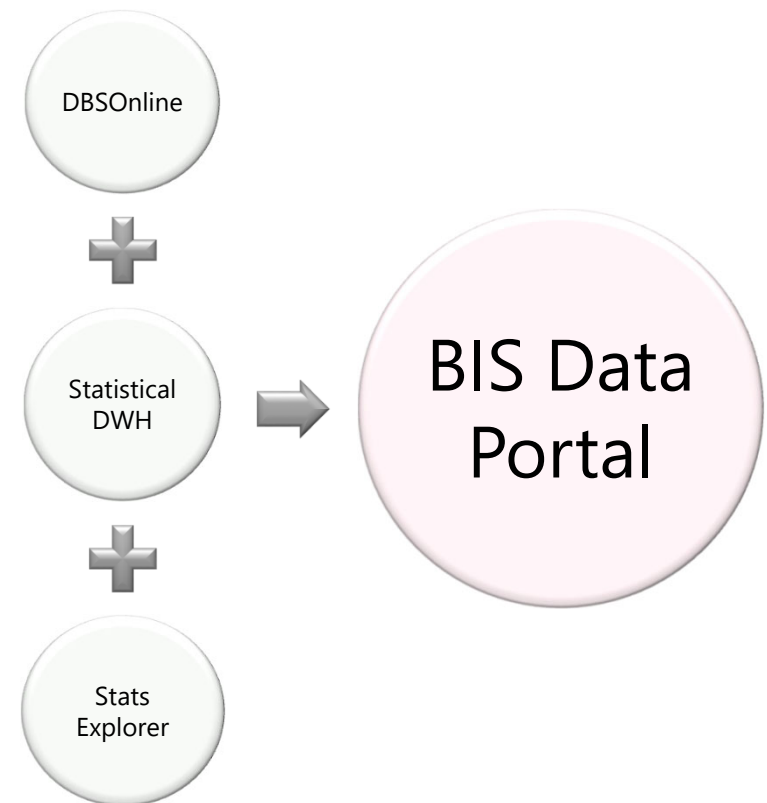


Existing Statistical Dissemination Toolset

- 3 discrete offerings;
 - DBSOnline (Extranet and Internal audience / MED-IT)
 - Stats Explorer (Public / Web Communications)
 - Statistical DWH (Public / Web Communications)
- Lack of consistency in the user experience / design
- They don't share a common architecture

Envisaging the BIS Data Portal (BIS 2025)

- The BIS Data Portal will be a single location for the dissemination of statistical outputs
- Serving the general public, extranet and internal customer needs
- Clean modern interface for BIS statistical output
- Leverage the power of the MEDAL platform
- Unified interface for the querying, downloading and sharing of data
- Enhanced search performance
- Personalisation of content;
 - Tagging content of interest
 - Saving of queries
 - Notification of new releases





Thank you