Irving Fisher Committee on
Central Bank Statistics

BANK FOR INTERNATIONAL SETTLEMENTS

IFC workshop on *"Combining micro and macro statistical data for financial stability analysis. Experiences, opportunities and challenges"*

Warsaw, Poland, 14-15 December 2015

Malaysia's experience in managing credit registers: integrating micro databases for macro analysis[1]

Nur Fazila Mat Salleh, Central Bank of Malaysia

[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 or the central banks and other institutions represented at the meeting.

Malaysia's Experience in Managing the Credit Registers: Integrating Micro Databases for Macro Analysis

IFC Workshop
Combining micro and macro statistical data for financial stability analysis. Experience, opportunities and challenges

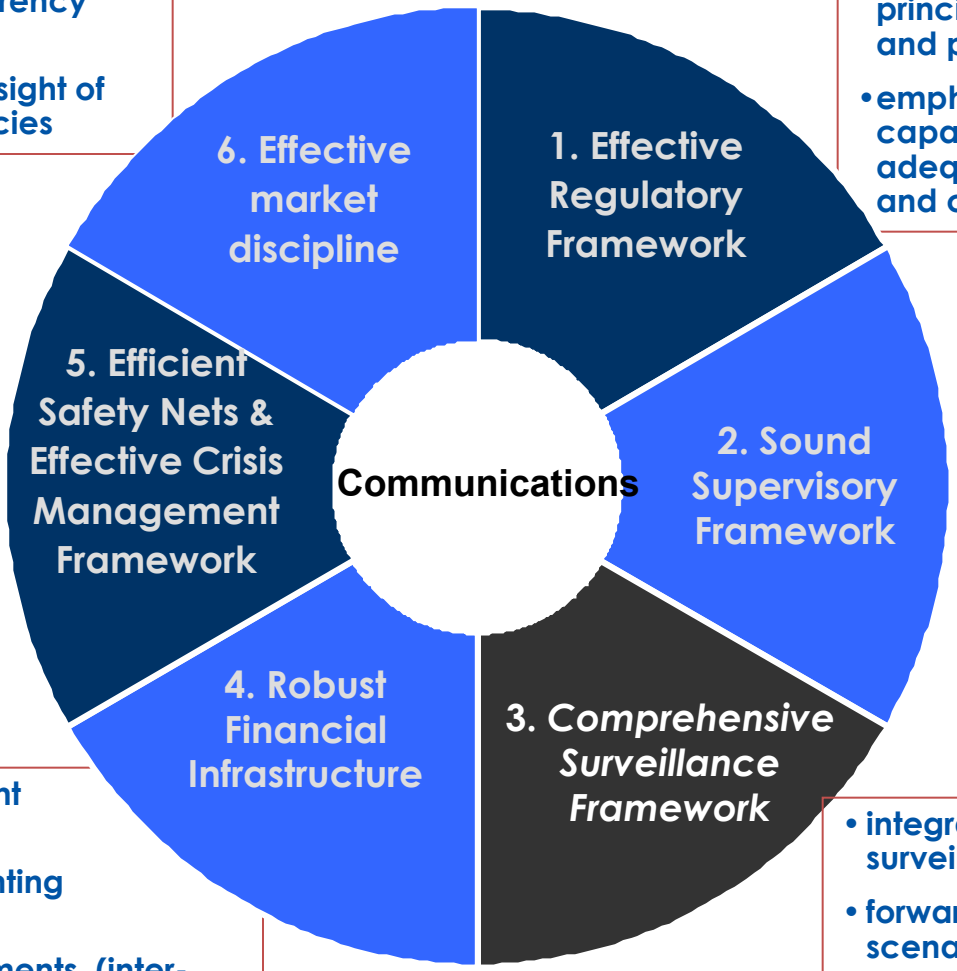
Warsaw, 14-15 December 2015

Nur Fazila Mat Salleh
Statistical Services Department

Presentation Outline

1. Financial Stability Framework
2. Credit Reporting in Malaysia
   - Enabling legislation
   - Private credit bureaus and public credit registry
3. Operations of Central Credit Reference Information System (CCRIS)
4. Relationship with Private Credit Bureau
5. Moving towards Integrated Statistical System (ISS)
6. Challenges

Core Components of Financial Stability in Malaysia



- appropriate balance between principle-based regulations and prescriptive rules
- emphasis on governance, capacity to manage risks, adequate financial buffers, and consumer protection

- consolidated and risk-based supervision
- supported by home/host supervisory cooperation

- integrated macro and micro surveillance
- forward looking, supported by scenario analyses and stress testing

- stable and efficient payment system
- effective legal and accounting framework
- sound institutional arrangements (inter-agency cooperation, CCRIS, AKPK, CDRC)

- lender of last resort
- deposit and insurance protection
- priority ranking for deposits

- consumer education
- enhanced transparency and disclosure
- strengthened oversight of credit rating agencies

Organisational Structure based on Components of Financial Stability Framework

Micro-Surveillance

Financial Conglomerate Supervision

- *Conglomerate Banking Group*

Banking Supervision

- *Foreign Banks*
- *Stand alone Islamic Banks*
- *Stand alone Investment Banks*
- *Development Finance FIs*

Insurance & Takaful Supervision

- *Life, General*
- *Takaful*
- *Reinsurers*

Supervisory Practices Unit

- *Ensure consistency of supervisory practices*
- *Provide guidance and support on RBSF*

Macro-surveillance

Financial Surveillance

- *Macro-prudential analysis & policy*
  - *Financial/ non-financial sectors*
  - *Financial markets*
  - *Non BNM regulated entities*
- *Crisis management arrangements*

Regulation

Prudential Financial Policy

Consumer & Market Conduct

Payments System Policy

Risk Specialists : Credit, Market, Operational, Technology, Actuarial

- *Provide technical advice and support to line departments*
- *Conduct horizontal risk assessments and evaluation on risk practices*

Credit Information to Facilitate Financial Surveillance

1 Credit information in CCRIS

- Delinquencies
- Outstanding amount
- Facility type
- Loan applications, approvals & rejections
- Demographic information

2 Credit information from capital market

- Private debt securities (PDS) outstanding
- PDS holders

3 Credit information from external market

- External loans
- External PDS

To facilitate assessment of

Business sector

- Systemic impact of selected large borrowers' exposure to the banking system
- Migration of financing from commercial papers to banking system
- Exposures of banking system to property-related sector

Household sector

- Default trend analysis of selected loan portfolios (by purpose / by location / by age)
- Impaired loans analysis
- Analysis on borrowers with multiple housing loans

Credit Information Industry Supported by Enhanced Regulatory Framework

1. Enforcement of Central Bank of Malaysia Act 2009 and Financial Services Act 2013
   - The central bank is allowed to collect credit-related information from participating financial institutions (PFIs) and disclose such information to the PFIs and credit reporting agencies, provided that the data subject has provided consent
   - Duty of participating financial institutions to submit timely and accurate credit information to the central bank
   - Secrecy requirement to maintain confidentiality of information

2. Enactment of Credit Reporting Agencies Act and Personal Data Protection Act 2010
   - Legal framework as a platform to facilitate the sharing of credit information while still protecting borrowers' right to privacy

Central Bank of Malaysia Act 2009

… supporting the operation of public credit registry

Section 47 enables Bank Negara Malaysia:

1. To collect credit information (including information relating to rejection of any cheque by reason of insufficient fund in the account)

2. To disclose the credit information collected to:
   - Financial institution for the purpose of assessing credit-worthiness of its existing and potential customers or to assess the eligibility of the customer to maintain or open a current account;
   - Borrower for the purpose of verifying the accuracy of the credit information; and
   - Registered credit reporting agency for the purpose of providing credit reporting or credit assessment services.

3. This section also protects the Central Bank against any legal action.

Credit Reporting Agencies Act 2010[1/]

… mainly to protect the rights of consumers

Coverage	Credit information relating to both natural persons and other entities, such as corporations, partnerships, cooperatives and other organisations
Regulation of Credit Reporting Agencies (CRAs)	• A registrar is appointed by the Minister of Finance to regulate CRAs • CRAs are required to be registered to undertake credit reporting business • The registrar also responsible for resolving complaints and disputes between credit customers and CRAs
Preserving privacy	• CRAs required to notify customers that information are being collected • CRAs are also required to obtain the consent of the consumers on disclosures of information to third parties
Consumer rights	• Access own information held by the CRAs • Shall not be charged for correcting any information that is inaccurate, incomplete or misleading
Accuracy and security of information	• CRAs are required to take reasonable steps to ensure that information held are accurate, complete, not misleading and up-to-date • CRAs also obligated to put in place the necessary safeguards (e.g. systems, procedures and processes) to ensure the security and safety of information
Enforcement information	Penalties ranging between RM50,000 to RM1 million or a six months to three years imprisonment or both, depending on the severity of the offence

[1/] The Act was officially enforced on 15 Jan 2014.

Credit Reporting in Malaysia

… presence of both private and public credit bureaus

Public Credit Registry

- Non-profit and owned by Bank Negara Malaysia
- Participation of licensed banking institutions is mandated by law
- Collects information on credit facilities and dishonoured cheques
- Provides basic credit reports to members on reciprocal basis as well as to the public
- Governed by Central Bank of Malaysia Act 2009

Governance of Credit Registry's Operations by Bank Negara Malaysia

Financial Surveillance Department	Statistical Services Department	LINK[1/] and Regional Office
• Policy formulation • Business Development	• Data reporting & quality management • System administration • Training & education	• Manage general inquiries and public complaints in relation to the credit registry

[1/] Refers to centralised point of contact to facilitate a rapid and effective response for members of the public in matters related to the financial sector

Credit Reporting in Malaysia

… presence of both private and public credit bureaus

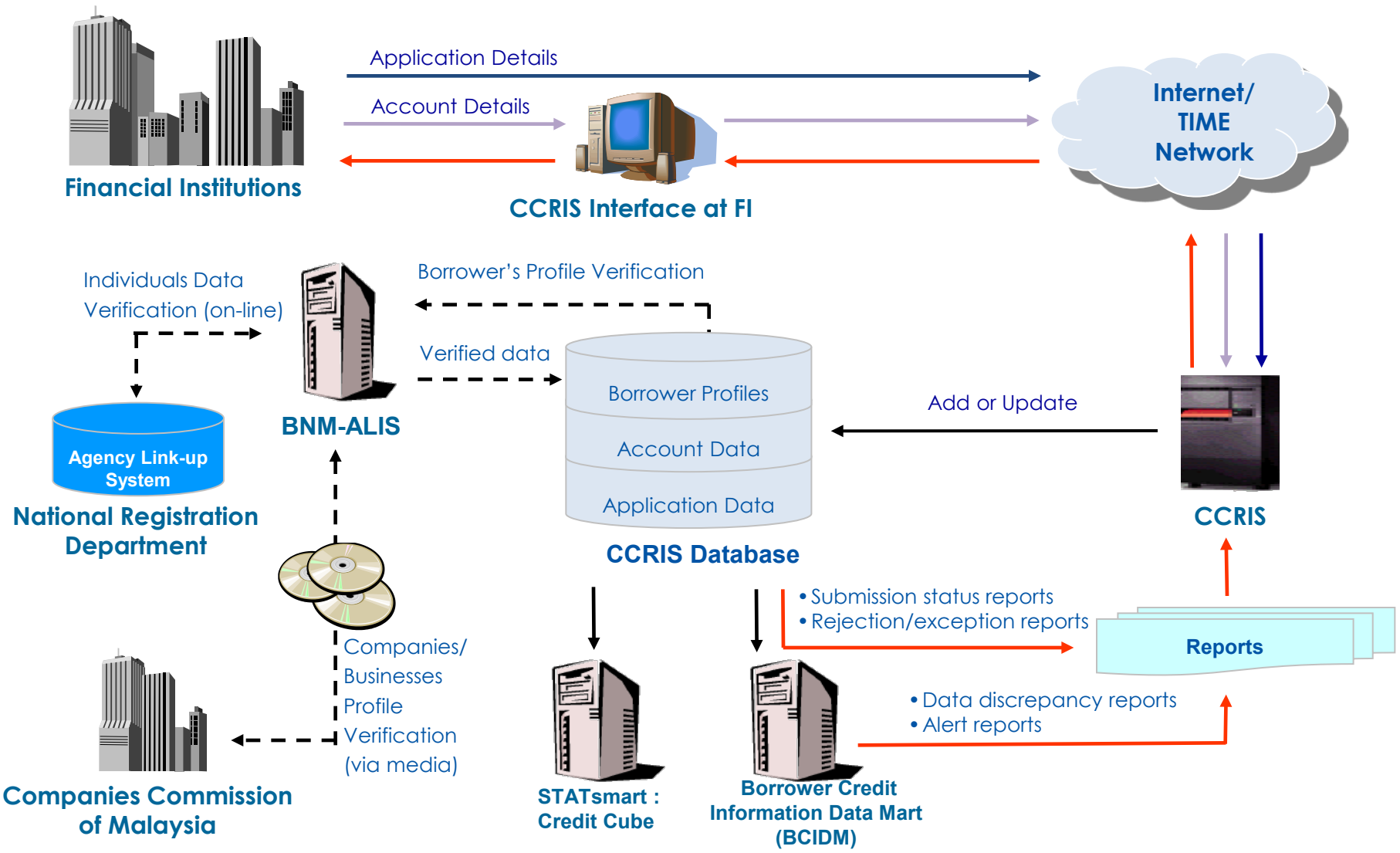
Private Credit Bureaus (PCB)

- Privately-owned and profit-oriented
- Mainly rely on public information as main source
- No access to borrowing information of banks unless consented by borrowers
- 7 bureaus currently operating
- Governed by Credit Reporting Agencies Act 2010
- Regulated by Registrar Office of Credit Reporting Agencies under Ministry of Finance

PCBs	Services Offered
PCB 1	▪ One stop centre for financial institutions and other credit grantors to retrieve credit information and ratings for credit evaluation purposes ▪ Platform for SMEs to build their track record and credit standings to facilitate faster processing of their credit applications
PCB 2	▪ Collates factual information on legal proceedings against individuals and businesses as well as other information from public sources and captured into an electronic media for easy, fast and accurate retrieval
PCB 3	▪ Registration of vehicle/equipment ownership claims to protect and safeguard the interest of all members ▪ Prevent double financing of vehicles/equipment ▪ Provide leading information for credit evaluation and monitoring
PCB 4, 5, 6 and 7	▪ Provide business report which includes detailed information on companies, litigation check, credit information, financial information and analysis, clientele, business operations, industry analysis and credit risk rating

Overview of Central Credit Reference Information System (CCRIS)

… a real-time online credit information system operated by BNM



Credit Application / Account Information Flow

… detailed information on borrowers and credit transactions

FI makes decision based on CCRIS credit report and other info

Application Update

- Status of Application (Approved/Rejected/ Cancelled)
- Approval Date
- Amount Approved
- Reason for Rejection

Reporting to CCRIS:

Stage 1: Credit application received
Stage 2: Credit decision made, where:

- Rejected, Cancelled, Withdrawn by Customer before FI Decision – FI updates status and process ends here.
- Approved – FI continues to submit data 1- 6.

Credit Application

- FI Name
- Name of Applicant
- ID Number
- Date of Birth/Registration
- Nationality
- Application Ref. No.
- Amount Applied
- Application Date

Financial Institution (FI)

Customer submits loan application to FI

Borrower's Details (1)

- Name of Borrower
- ID Number
- Date of Birth/Registration
- Marital Status
- Nationality/Country of Operation
- Resident/Non-Resident
- Corporate Status
- Industrial Sector
- Address
- Telephone Number
- Employment Details

Loan Information (2)

- Account Number
- Approved Limit
- Approval Date
- Facility Type
- Purpose of Loan
- Financing Concept
- Repayment Term
- Interest/Rebate Rate
- Type of Pricing
- Maturity Date

Account Position (3)

- Outstanding Balance
- Months in Arrears
- Installments in Arrears
- Amount Undrawn
- Account Status
- Loan Sold to Secondary Market under SBBA
- Amount Disbursed
- Amount Repaid

Account Collateral (4)

- Collateral Reference Number
- Collateral Type
- Collateral Value
- Collateral Details

Legal Action (5)

- Latest Legal Status
- Date of Latest Legal Status

Provision (6)

- Impaired Loan Tagging
- Month in Arrears
- Principal Outstanding
- Interest/Income Outstanding
- Other Charges
- Individual Impairment Provision
- Impaired Loan Written-back/Written-off

Credit Reports from CCRIS

…provides positive and negative information on borrowers

CCRIS collates data collected & returns credit reports to financial institutions on demand, real-time

Types of credit reports:

1. Summary Credit Report – aggregate overall credit exposure of the customer including financial guarantees, if any
2. Detailed Credit Report – details on each loan account (e.g. credit limit, outstanding amount, conduct of accounts, legal action)
3. Customer Supplementary Report – historical employment, addresses, telephone numbers
4. Motor Vehicle Report – info on the source of financing of specific vehicles

Dissemination and Communications

… various channels and diverse users

1. Reports

- Standard reports
- Filterable by common dimensions
- View data at granular level based on access rights

2. Analytical tools

- Users granted access to Business intelligence tools such as SAS and Business Objects to facilitate generation of data by different dimensions
- Able to view to transactional details

3. Publications

- Statistics collected are published in:
  - BNM's periodic reports such as the Annual Report
  - Reports of international agencies such as IMF and World Bank

Data Quality Management Framework

…ensure creditability of information for credit reference

Borrowers profile – data from financial institutions are verified against the official sources:

- Individuals – National Registration Department
- Businesses and Companies – Companies Commission of Malaysia

Data validation – during loading and processing, only data which pass validation will be loaded into the database. Rejected records are returned to the financial institutions for rectification and resubmission.

Data verification – a data quality assurance framework to check possible data inaccuracies in data provided by the financial institutions e.g. cross-checking with other financial data and trend analysis.

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Relationship with Private Credit Bureau

…as a source of credit information

1. Access to credit registry's information given based on careful consideration and is on case-to-case basis.

2. For approved applications, private credit bureaus are required to demonstrate sufficient measures are in place to ensure that the information will be:
   a) properly and accurately recorded, maintained, collated, synthesised and/or processed;
   b) protected against loss and/or damage; and
   c) protected against unauthorised access, use, modification or disclosure.

3. After all conditions are met, the private credit bureau will sign an agreement with Bank Negara Malaysia which, among others, detailed the responsibilities of the private credit bureau and enabling Bank Negara Malaysia to revoke access in the event of any breach of any terms in the agreement.

4. Currently, three private credit bureaus have access to credit information from Bank Negara Malaysia's credit registry.

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Moving Towards Integrated Solution… Integrated Statistical System (ISS)

Objective

Effective and efficient data management to meet the Bank's business needs and desired outcomes

Deliverables

1. Enterprise data governance (EDG) policies and processes to instill discipline in data management Bank-wide
2. An integrated statistical system with agile IT infrastructure for end-to-end data management from data submission, storage to dissemination

Benefits

1. More efficient data management Bank-wide
2. Easy and fast access to timely, credible and relevant data
3. Reduced reporting burden by eliminating data duplication
4. Ease of IT maintenance and support

Statistical Information and Interlinkages

External Sector Flows and Stock

1. Non-resident Counter Party Profile
2. Investment Information
3. External Assets and Liabilities Position

Financial Assets and Liabilities

1. Securities
2. Loans
3. Deposits
4. Assets / Liabilities

Macroeconomics

1. Real
2. External
3. Financial
4. Fiscal

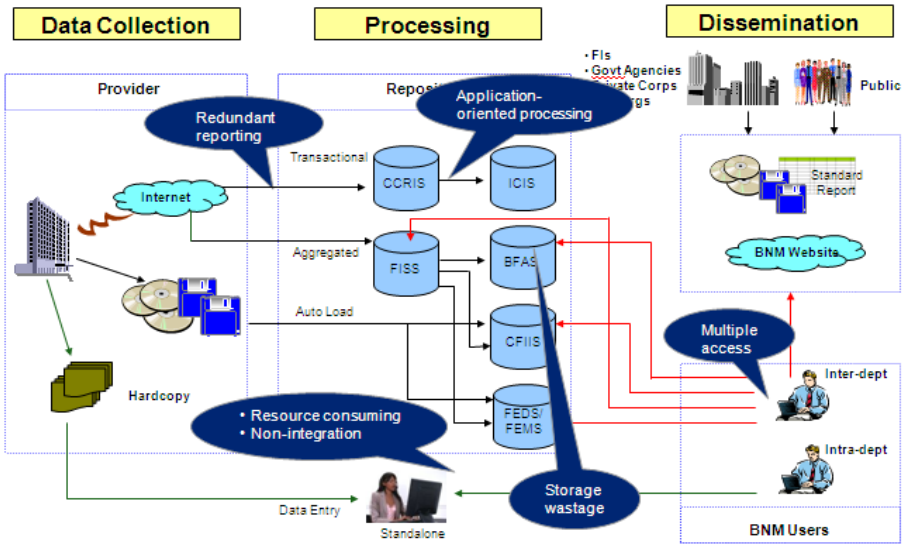
Credit Information

1. Application Details
2. Loan Details
3. Account Position
4. Provision
5. Account Collateral
6. Legal Action

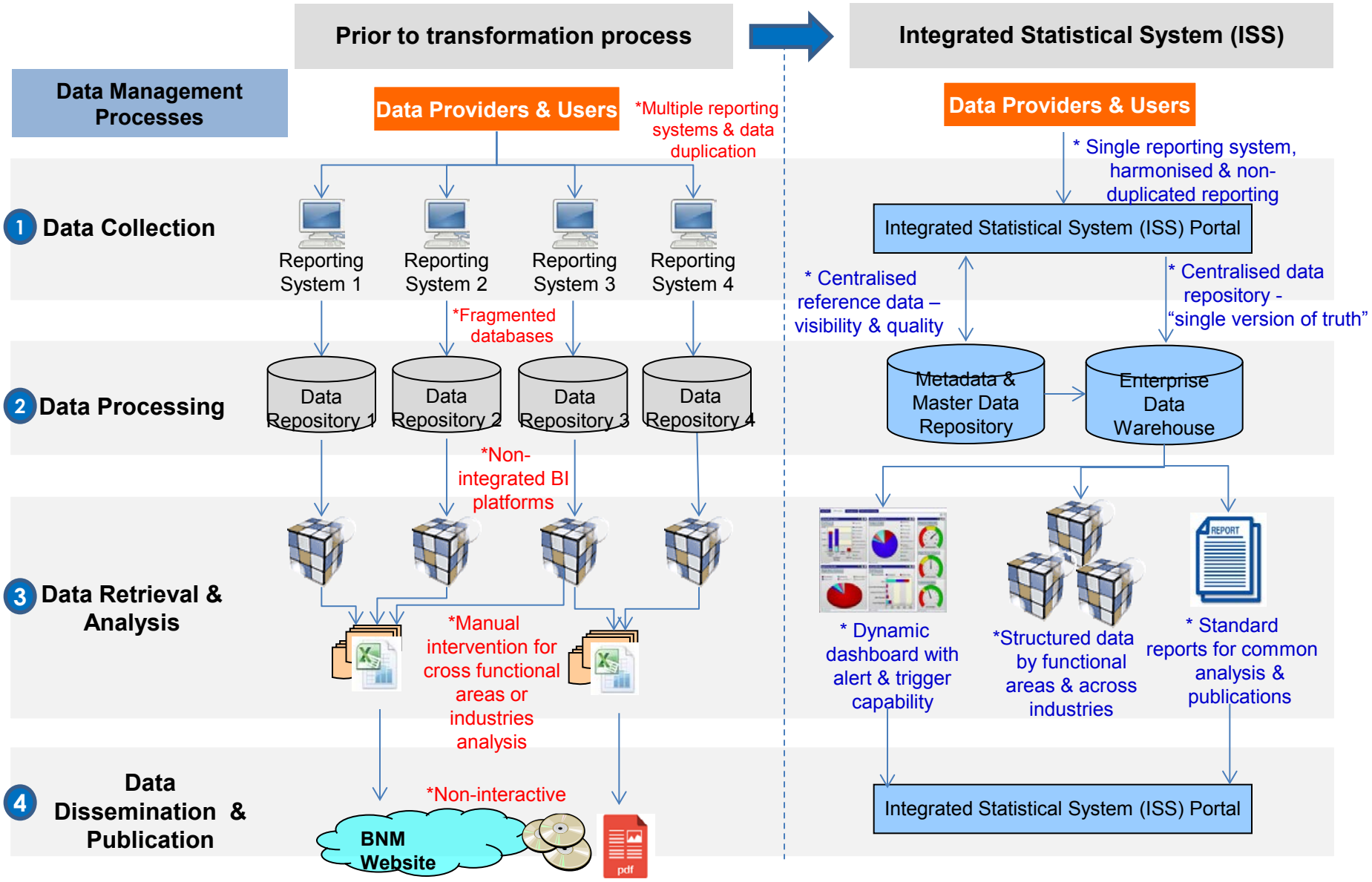
Entity Profiles

1. Name
2. ID/Registration No.
3. Nationality/Country of Operation
4. Resident/Non-Resident
5. Corporate Status
6. Industrial Sector

Current Process



Moving towards integrated solution… Integrated Statistical System (ISS)



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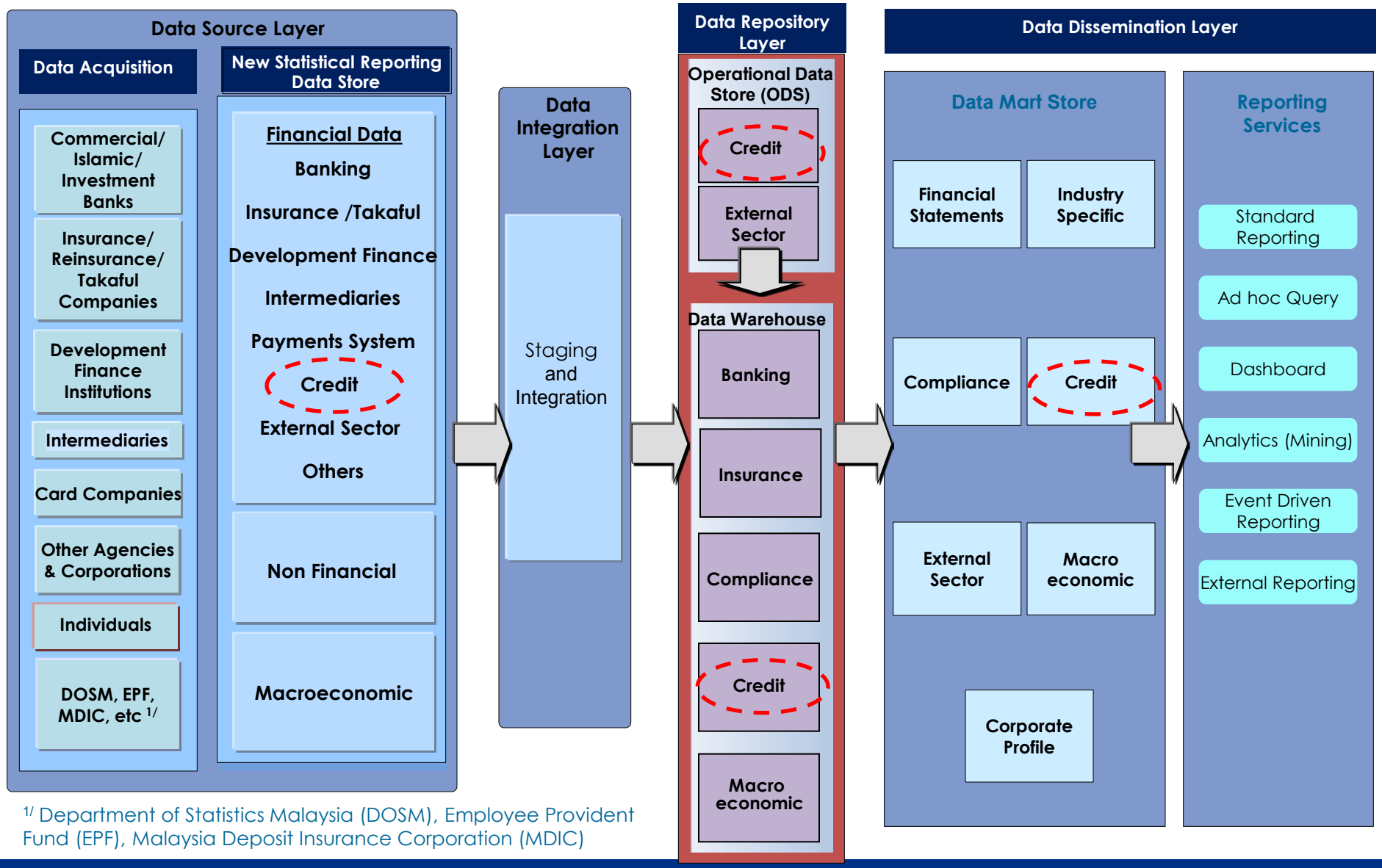

1/ Department of Statistics Malaysia (DOSM), Employee Provident Fund (EPF), Malaysia Deposit Insurance Corporation (MDIC)

ISS Implementation Phases

Phase 1 (2011-2014)	Phase 2 (2015-2017)	Phase 3 (2016-2018)
1. Standard Platform for Data Submission to BNM by All Reporting Entities		
❑ **Statistics on:** ▪ Banking Institutions ▪ Payment System Operators ▪ Devt Financial Institutions	❑ **Statistics on:** ▪ External sector statistics ▪ Macro-economic data (from government agencies) ▪ Basel (capital adequacy)	❑ **Statistics on:** ▪ Insurance Companies, Takaful Operators and Intermediaries ▪ Credit ▪ Non Financial data
2. End-to-end IT infrastructure for all components of ISS 3. Centralised data repository and migration of historical banking, payments and development finance data 4. Statistical information portal for banking, payments and development finance data 5. Enhancements and interfaces from/to legacy statistical systems	2. Migration of external sector, macroeconomic and Basel data 3. Statistical information portal for external sector, macroeconomic and Basel data 4. Interfaces from/to legacy statistical systems	2. Migration of historical insurance, takaful, intermediaries and credit data 3. Statistical information portal for insurance, takaful, intermediaries, and credit data 4. Develop business continuity plan and set up recovery environment 5. Decommission of legacy statistical systems

Challenges

1. **Infrastructure readiness**
   - Institutions may be at varying stages of infrastructure development
   - Large initial outlay
2. **Buy-in of relevant stakeholders**
   - Some agencies may be reluctant to share "sensitive" information
   - Legal framework may be necessary to facilitate sharing of information
3. **Technical resources**
   - Ensuring data quality
   - Data mining, interpretation and analytics

Useful Websites

Central Bank of Malaysia
http://www.bnm.gov.my

Credit Registry
http://creditbureau.bnm.gov.my

Consumer Education Program
http://www.bankinginfo.com.my/

Thank you