

2022

# CRI WEBSITE USER GUIDE

*Transforming Big Data into Smart Data*

The Credit Research Initiative (CRI)  
National University of Singapore

*This version: May 04, 2022*

# CRI Website User Guide

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## OVERVIEW

This document provides advice on how to make the most of the CRI website. We also value your views and heartily welcome your suggestions of improvements to the website services.

In this document, we aim to make an explicit navigation of the CRI website as easy as possible!

This page majorly provides a quick overview of this document, and some functions available without registering an account. In the '**Registering/Signing in An Account**' section, we exhibit the step-by-step way to register a CRI website account; In the '**General Access**' section, we illustrate several functions available after registering an account; In the '**Global Access**' section, we provide guidance on how to apply for Global Access, and further illustrate the additional functions available after applying

for Global Access; In the '**FAQs**' section, we gather some frequently asked questions, and give answers to them.

*(Tip: If you have questions either about the website or the CRI, you may directly skip to the '**FAQs**' part and seek for help.)*

## Before Registering an Account.....

If you have not yet registered for an account, there are still a list of functions available for you to easily access.

You can:

- See charts and download data from *Smart data* (only *CVI*, *CriSIFI* available<sup>1</sup>);
- Read complete documentations about *Methodology* (e.g. technical reports<sup>2</sup>, white papers<sup>3</sup>, etc.).
- Browse CRI research-related *Insights* (e.g. weekly credit brief<sup>4</sup>, etc.)

### ***Why do you need a CRI user account?***

A CRI user account can help you access a wider range of daily-updated CRI data (e.g. PD, AS, etc.) and other services. The following sections will demonstrate how to create a CRI user account.

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<sup>1</sup> Detailed user guidance of CVI and CriSIFI is in the 'General Access' section.

<sup>2</sup> [https://www.nuscri.org/en/technical\\_document/](https://www.nuscri.org/en/technical_document/)

<sup>3</sup> [https://www.nuscri.org/en/white\\_paper/](https://www.nuscri.org/en/white_paper/)

<sup>4</sup> <https://www.nuscri.org/en/wcb/>

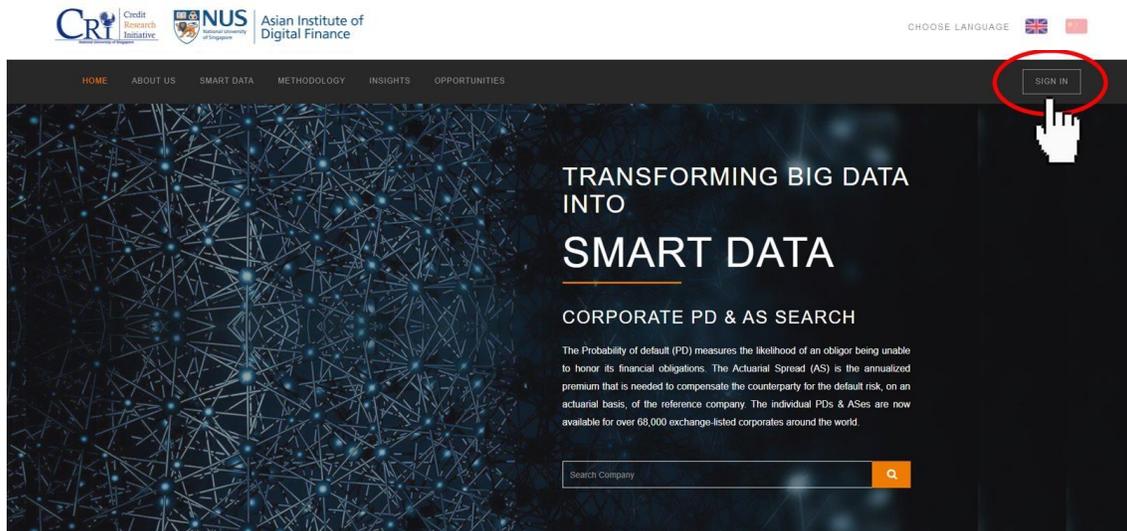


# Registering/Signing in

To access more functions and data on our website, we encourage our website user to register an account. In this section, we provide a detailed illustration about how to register and sign in an account on CRI website.

## Step 1

First, visit our official website (follow the link <http://nuscri.org/>). Click on the “SIGN IN” button on the upper right corner of the webpage shown below.



(You may choose either the English or the Chinese version of the CRI website by clicking on the flag icons on the upper right corner of the webpage.)

## Step 2

Then, you will be directed to the “Login/Register” page:

HOME ABOUT US SMART DATA METHODOLOGY INSIGHTS OPPORTUNITIES SIGN IN

LOGIN REGISTER

EMAIL ADDRESS  
Email address

PASSWORD  
Password

LOGIN

[Forgot Password?](#)

If you already have a CRI account, please use your registered email address and password to log in.

If you are new to the CRI website, please click on the tab “**Register**” (highlighted by the red circle), which will direct you to the registration page:

LOGIN REGISTER

The CRI PD and AS are currently available for over 68,000 exchange-listed companies in 128 economies. The CVI is available for 25 regions, economies and special portfolios. A registered account holder has access to the CRI data products for a representative set of 5,000 firms worldwide (CRI5000). He/she can also sign up to have the global data coverage by providing the requested information in his/her account later.

DESIGNATION\*  
Designation

INDUSTRY\*  
-----

PHONE  
Country Code Area Code Phone Number

FIRST NAME\*  
First Name

LAST NAME\*  
Last Name

COMPANY\*  
Company

EMAIL\*  
Email

PASSWORD\*  
Password

RE-ENTER PASSWORD\*  
Re-Enter Password

I hereby agree and consent that my personal data provided in this form may be collected, used and disclosed by NUS for the purpose of processing my registration and other administrative tasks, in accordance with the Personal Data Protection Act 2012 and all subsidiary legislation related thereto. In respect of disclosure, I understand that NUS may provide and/or transfer such data to third parties (which may be in or outside of Singapore) when necessary for such purpose.

Please visit the NUS Personal Data Protection Guidelines for further details on our data protection policy, including how you may access and correct your personal data or withdraw consent to the collection, use or disclosure of your personal data.

I agree to the Registration Terms of Use and Privacy

I agree to receive occasional CRI notifications, which only include major changes to the models, release of new products, etc.

I agree to receive periodic CRI publications, which include Weekly Credit Brief, SME report, etc.

REGISTER

Please fill up the registration form according to your real personal information. Note that you are required to **tick the first two terms** of the Terms and Conditions shown above. (The other two ToC's are optional and allow you to opt into receiving notifications from CRI about major changes, and periodic CRI publications).

Once you finish, click on **“REGISTER”** to create a new account with us.

### Step 3

Upon successful registration, an activation email will be sent to your registered email. Kindly **activate your account through the link** provided in the activation email (shown below), and you will be able to login to your CRI account and get your own data.

Dear [REDACTED]

Please use below link to activate your account.  
[http://nuscri.org/accounts/activation/?code=\[REDACTED\]](http://nuscri.org/accounts/activation/?code=[REDACTED])

Kind Regards,|

Administrator,  
Credit Research Initiative,  
Asian Institute of Digital Finance, NUS.

Please note: All emails for the NUS Credit Research Initiative will be sent from [weeklycreditbrief@nus.edu.sg](mailto:weeklycreditbrief@nus.edu.sg) and [nuscri@nus.edu.sg](mailto:nuscri@nus.edu.sg).  
If your incoming mail server marked this email as spam, please make sure to label this email address as trusted to ensure uninterrupted communication.

If you have completed the registration but do not receive any activation email, please email us at: [nuscri@nus.edu.sg](mailto:nuscri@nus.edu.sg) .

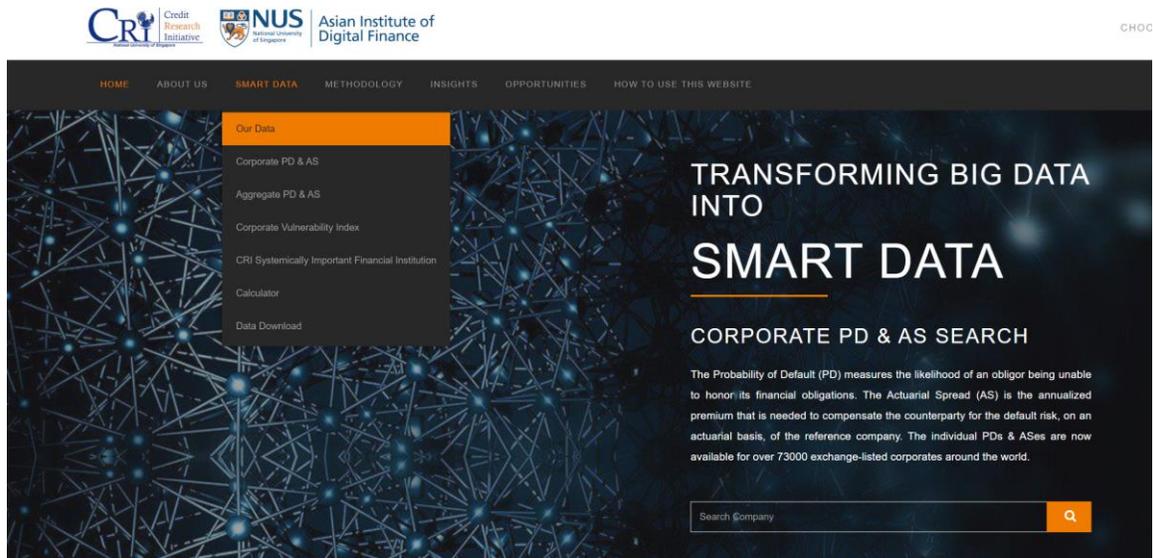
## General Access

After successful registration or login on the CRI website, you will have a **General Access** to our database. The General Access will entitle you the right to access our daily updated data **of 5,000 listed firms** (firms that have been selected are the most representative companies for each economy by market capitalization) out of over 80,000 listed firms across the globe that are covered in our database.

In this section, we will explicitly illustrate the data querying process under General Access.

## Query Our Data

After login to your account on the CRI website, click on “**SMART DATA**” for the dropdown menu and then choose ‘**Our Data**’

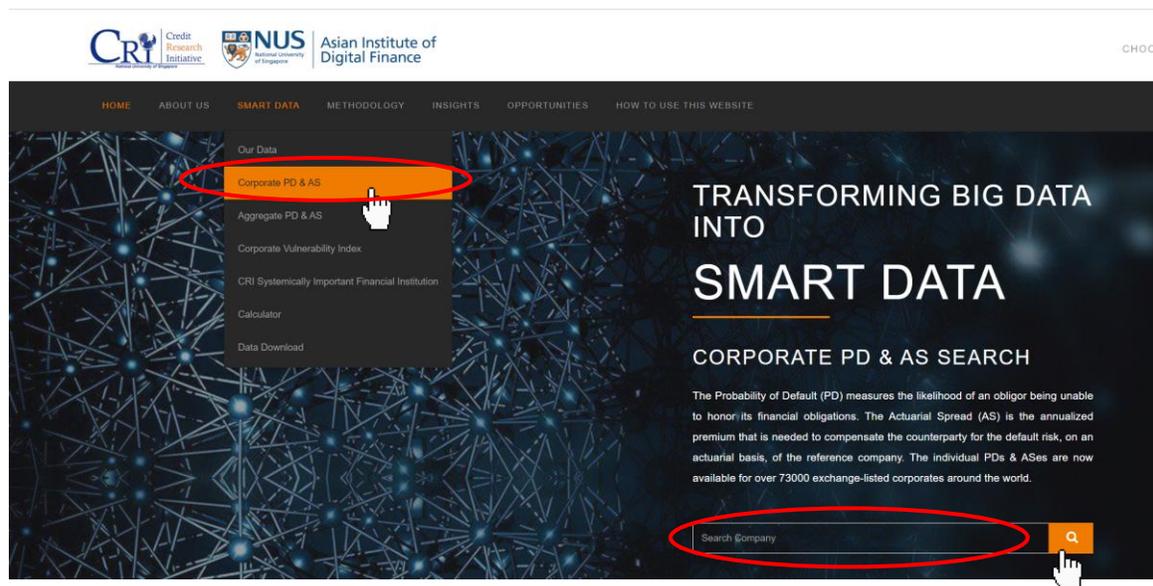


The screenshot displays the CRI website interface. At the top, the logos for CRI (Credit Research Initiative), NUS (National University of Singapore), and the Asian Institute of Digital Finance are visible, along with the acronym CHOC. The navigation menu includes HOME, ABOUT US, SMART DATA, METHODOLOGY, INSIGHTS, OPPORTUNITIES, and HOW TO USE THIS WEBSITE. The 'SMART DATA' menu is open, showing options: Our Data, Corporate PD & AS, Aggregate PD & AS, Corporate Vulnerability Index, CRI Systemically Important Financial Institution, Calculator, and Data Download. The main content area features a dark background with a network graph pattern. The text reads: 'TRANSFORMING BIG DATA INTO SMART DATA' and 'CORPORATE PD & AS SEARCH'. Below this, a paragraph explains that the Probability of Default (PD) measures the likelihood of an obligor being unable to honor its financial obligations, and the Actuarial Spread (AS) is the annualized premium needed to compensate the counterparty for the default risk. It notes that individual PDs & ASes are available for over 73000 exchange-listed corporates around the world. A search bar with the placeholder 'Search Company' and a magnifying glass icon is located at the bottom right of the section.

This provides an overview of various credit risk measurement products offered by NUS-CRI.

## Query Corporate PD & AS

After login to your account on the CRI website, click on “**SMART DATA**” for the dropdown menu and then choose “**Corporate PD & AS**” (shown as below). Or, you may type in the company name in the searching bar and query its PD & AS data directly.



Then, you will be directed to our *Corporate PD & AS* interactive interface.

By using this interactive searching system, you will be able to obtain company specific PD and AS term structure and historical time series data as well as visualized graphs.

### *What is CRI PD & AS?*

The **CRI PD (Probability of Default)** is the likelihood that an obligor is unable to honor its financial obligations. It is computed from the CRI’s forward intensity model with 16 common and firm- specific risk factors in general. It has prediction horizons, or “term structures”, ranging from 1 month to 60 months.

The **CRI AS (Actuarial Spread)** is the annualized premium that is needed to compensate the counterparty for the default risk, on an actuarial basis, of the reference company. It is equivalent to the physical CDS par spread, based on the reference obligors real-world probability of defaults. It has contract terms from 1 year to 5 years.

(Please refer to [technical report](#) or [white paper](#) for in-depth explanation)

There are two ways to query a company's PD & AS data:

**Method 1. Query directly from the search box**

Key in the company's name in the search box, and click on **"SHOW CHART"** button to view the graphs of the latest **term structure** and **historical time series** of this company's PD and AS (shown as below).

Please type in company names (up to 5). To compare with a group, please click

You can key in up to five different companies in this search box to show their respective data for comparison in one graph.

**PD – Term Structure**

36 months  
Oversea-Chinese Banking Corp Ltd (OCBC): 142.84bps

2022-5-5 **Date of the latest update**

**AS – Term Structure**

2022-5-5 **Recovery Rate: 40%**

Recovery rate assumption used in AS calculation. Can be customized upon clicking

**PD – Historical Time Series**

Forecast Horizon: One year

**AS – Historical Time Series**

Contract Term: One Year      Recovery Rate: 40%

It implies that the default forecast time horizon for PD data is one year. Can be customized upon clicking

(See the orange rectangle above for more details.)

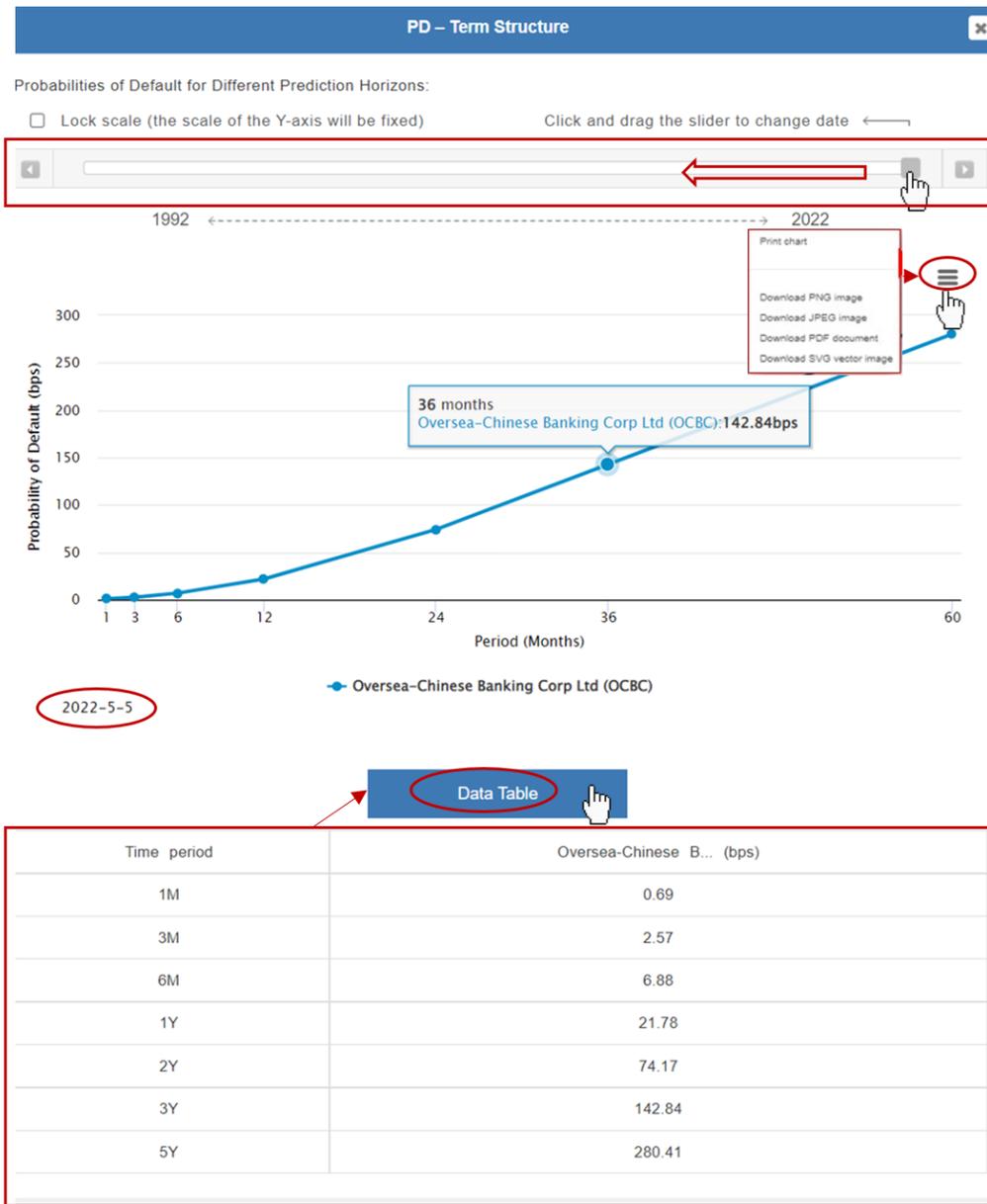


You can download the historical time series data of PD or AS by simply clicking on the respective “Data Download” buttons. (If you find problems in doing so, see “FAQs”)

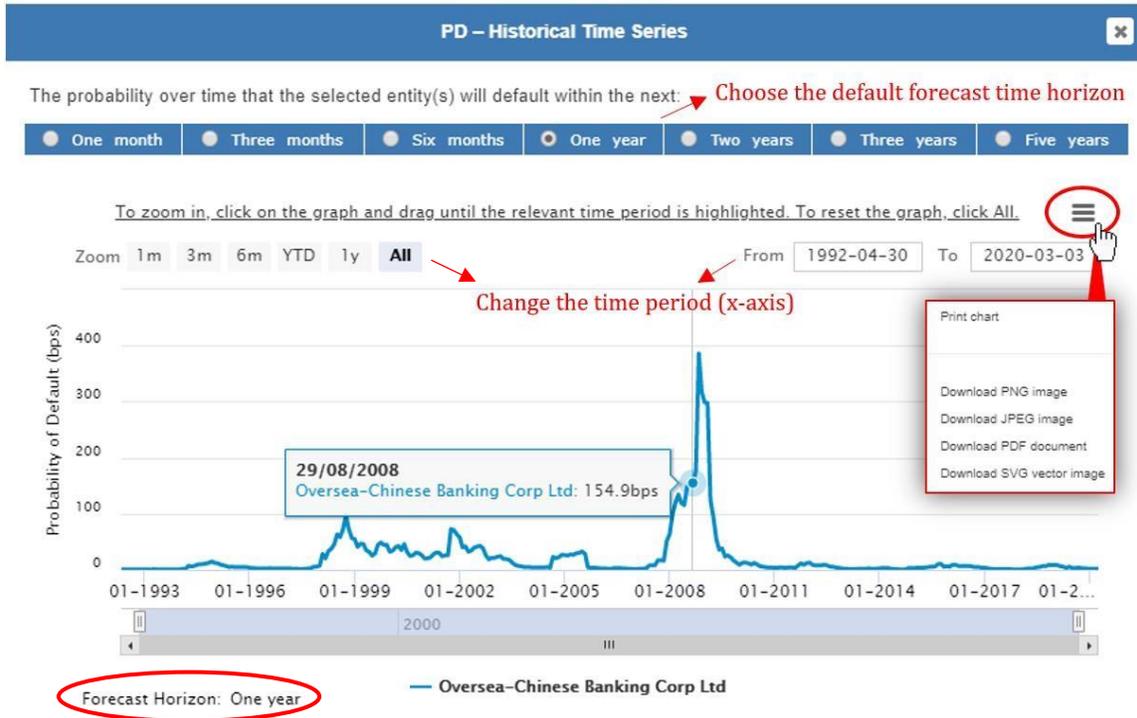
To see more details about each graph, simply click on the graph for the pop-up window:

## “PD - Term Structure”

(How to interpret PD's term structure? For the below example, it can be interpreted that the cumulative probability of default from 2022/05/05 (One can change the date of interest by sliding the scale shown below) to 36 months in the future, is 142.84bps, or 1.42%.)



## “PD - Historical Time Series”



## “AS - Term Structure”

(How to interpret AS’s term structure? For the below example, it can be interpreted that the annualized premium to compensate the default risk from 2022/05/05 to 36 months in the future, is 30.33bps, or 0.3033%.)



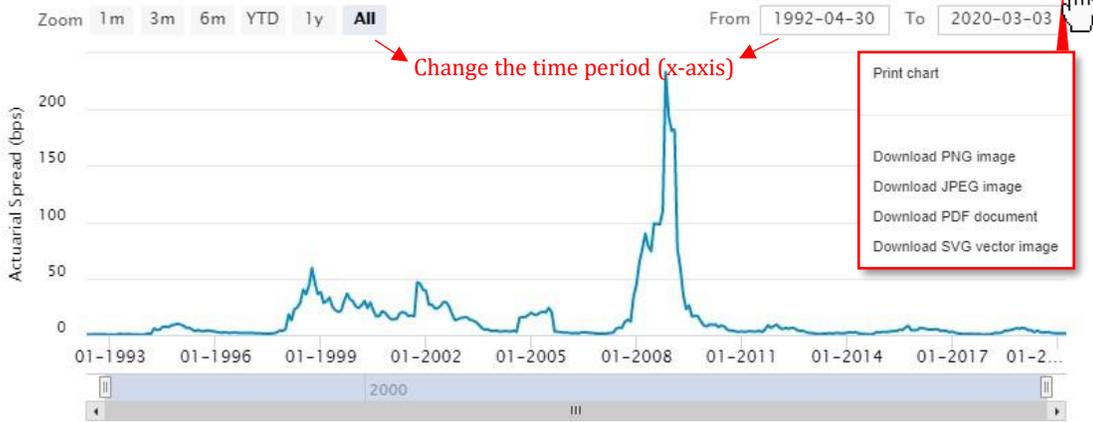
## “AS - Historical Time Series”

**AS – Historical Time Series**

The historical time series of the Actuarial Spread for the selected entity(s) based on a contract term of:

One Year
  Two Years
  Three Years
  Four Years
  Five Years

To zoom in, click on the graph and drag until the relevant time period is highlighted. To reset the graph, click All.



Contract Term: One Year

Oversea-Chinese Banking Corp Ltd (RR: 40%)

Set Individual Recovery Rates (RR)

Company	Recovery Rate
Oversea-Chinese Banking Corp Ltd (bps)	40 %

## Method 2. Add desired companies using the gear menu



Click on the gear menu, and then you will see a pop-up window for “**ADVANCED SEARCH**” (shown as below).

On this pop-up window, you can either typing in the name of the company (or companies, **up to 5**), or using the encapsulated buttons “**Add Company**” or “**Add Group**” to manually add company or groups for searching.

Using the “**Add Company**” button (see the graph below), you can filter the companies by conditions of your interest, and add the companies to the searching box.

Two versions of industry classifications are available for users – NUS-CRI 2020 and NUS-CRI 2007. These industry classifications are based on Bloomberg Industry Classification Standard (BICS) 2007 and BICS 2020 respectively. Users can opt for their preferred version.

Users can also specify the Market Cap range (Million USD) and search for companies that fall within the region/economy/sector.

ADVANCED SEARCH

Type in a company name (You can compare up to 5 companies and groups.)

SHOW CHART

Add Company

Add Group

Select a company to compare by clicking on Add from the table below

Region: Asia Pacific (Developed) | Economy: Singapore | Industry Classification Version\*: NUS-CRI 2007 | Sector: Banks

Market Cap (Million USD): 10000 | 50000

SHOW COMPANIES

Company	Economy	Sector	Market Cap (Million USD)	Action
DBS Group Holdings Ltd	Singapore	Banks (NUS-CRI 2007)	45647.95	Add
Oversea-Chinese Banking Corp Ltd (OCBC)	Singapore	Banks (NUS-CRI 2007)	29252.63	Add
United Overseas Bank Ltd (UOB)	Singapore	Banks (NUS-CRI 2007)	26262.49	Add

After selecting the company of your interest, click on **“SHOW CHART”** for the graph.

Using the **“Add Group”** button (see the graph below) allows you to compare the performance of individual companies to the whole region, economy or sector.

ADVANCED SEARCH

Type in a company name (You can compare up to 5 companies and groups.)

SHOW CHART

Add Company

Add Group

Add a group to compare

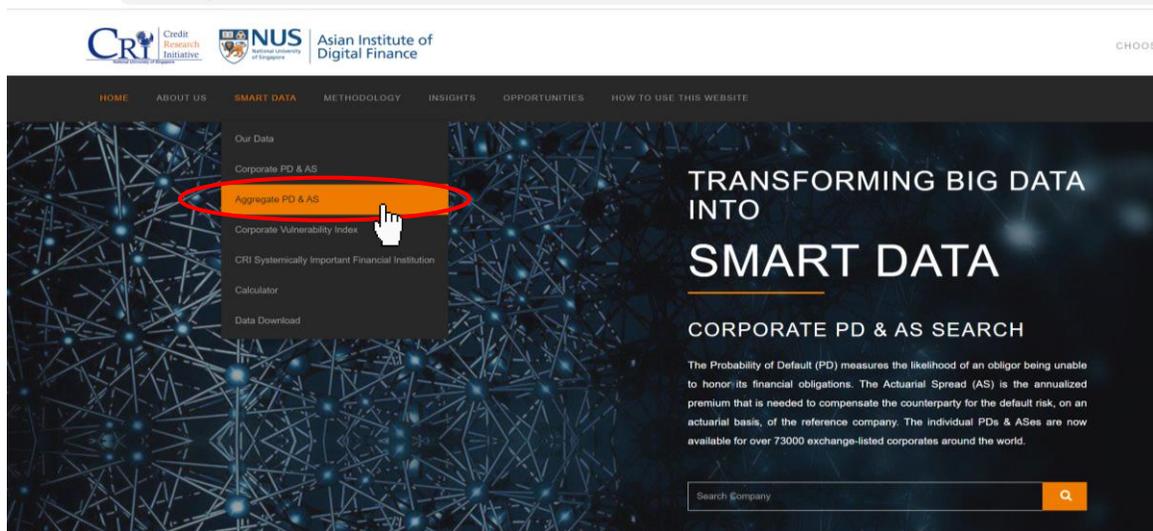
Region: All regions | Economy: All economies | Industry Classification Version\*: NUS-CRI 2020 | Sector: All sectors

*\*NUS-CRI 2020 & NUS-CRI 2007 industry classification are based on the Bloomberg Industry Classification System (BICS) 2020/2007 respectively. Bloomberg Industry Classification System (BICS) is a market-based, industry classification that organizes companies with similar activities and operation under market-determined industries. 2020/2007 is the year version of BICS.*

ADD

## Query *Aggregate PD & AS*

After login to your account on the CRI website, click on “**SMART DATA**” and choose “**Aggregate PD & AS**” (shown as below).



Then, you will be directed to our *Aggregate PD & AS* interactive interface.

On this webpage, you will be able to obtain region-, economy-, or section-level PD and AS term structure and historical time series data as well as visualized graphs.

### *What is Aggregate PD & AS?*

The Aggregate PD & AS are the **median** of the PD & AS of a region, economy or sector.

(Please refer to [technical report](#) or [white paper](#) for in-depth explanation)

There are two ways to query aggregate forecast data, similar to how you query corporate forecast data:

**Method 1. Query directly from the search box**

Key in the region, economy or sector of your interest in the search box, and click on **“SHOW CHART”** to view the graphs of the latest term structure and historical time series of aggregate PD and AS (shown as below).

Please type in a region, economy, or sector (up to 5). To select a special group, e.g. the financial sector in North America, please click ⚙️

× United States of America

× United States of America/Energy (NUS-CRI 2007) × Singapore

× Asia Pacific (Developed) × Asia Pacific (Emerging)

⚙️ SHOW CHART

You can key in up to five different regions, economies or sectors in this search box to show their respective data for comparison in one graph

PD & AS Graph    Number of companies    Distribution of defaults

See the graph of historical number of companies in each item

PD – Term Structure

United States of America  
United States of America/Energy (NUS-CRI 2007)  
Singapore  
Asia Pacific (Developed)  
Asia Pacific (Emerging)

See the histogram of predicted number of default distribution for 12 months horizon in each item

AS – Term Structure

60-months contract

United States of America: 17.32bps

United States of America/Energy (NUS-CRI 2007): 29.58bps

Singapore: 13.37bps

Asia Pacific (Developed): 7.39bps

Asia Pacific (Emerging): 33.97bps

United States of America/Energy (NUS-CRI 2007)  
Singapore  
Asia Pacific (Developed)  
Asia Pacific (Emerging)

2022-5-5    Date of latest update

PD – Historical Time Series

United States of America  
United States of America/Energy (NUS-CRI 2007)  
Singapore  
Asia Pacific (Developed)  
Asia Pacific (Emerging)

Forecast Horizon: One year

Data Download for PD

2022-5-5    Recovery Rate: 40%

AS – Historical Time Series

United States of America  
United States of America/Energy (NUS-CRI 2007)  
Singapore  
Asia Pacific (Developed)  
Asia Pacific (Emerging)

Contract Term: One Year    Recovery Rate: 70%

Data Download for AS

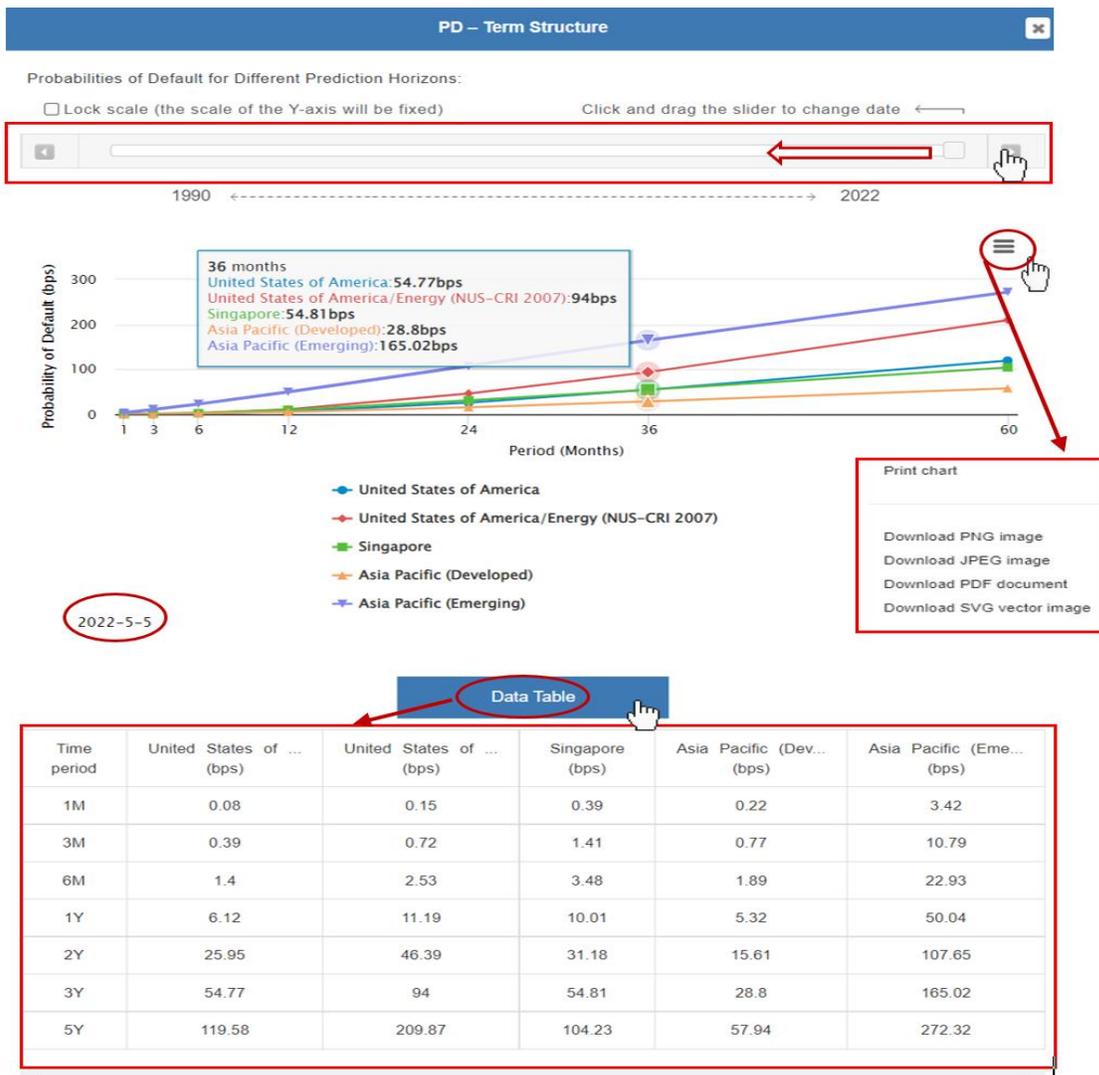
It implies that the default forecast time horizon for PD data is one year. Can be customised upon clicking.

(See the orange rectangle above for more details.)

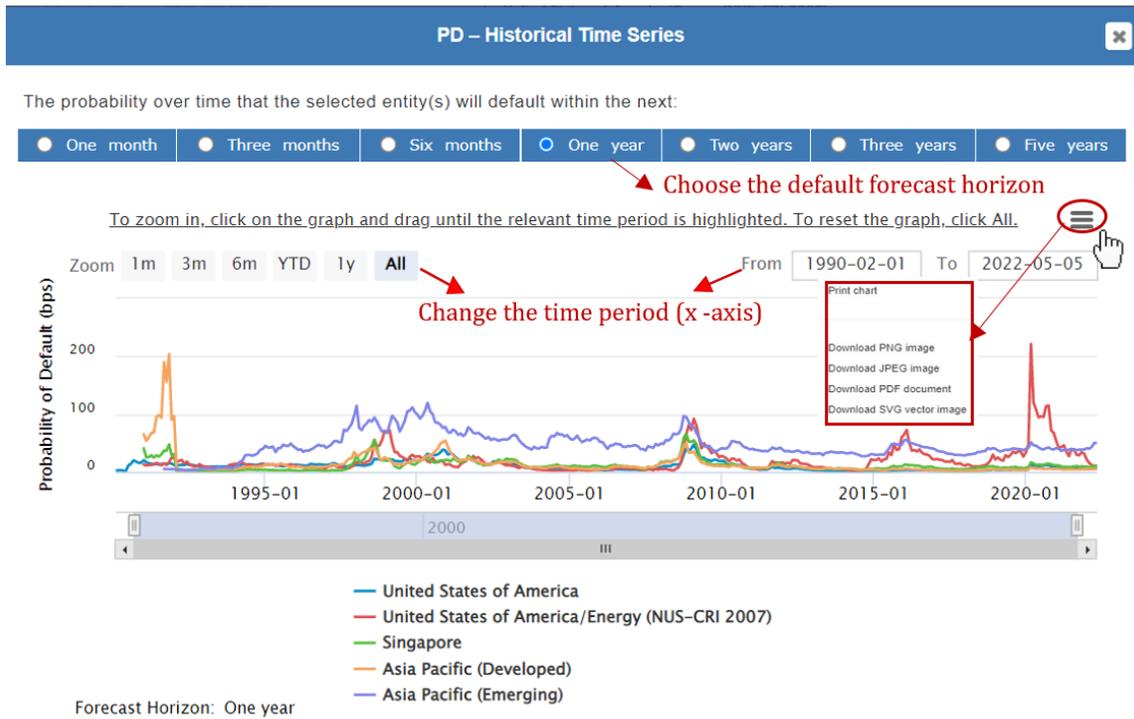
You can download the historical time series data of aggregate PD or AS by simply clicking on the buttons. (If you find problems in doing so, see “FAQs”)

To see more details about each graph, simply click on the graph for the pop-up window:

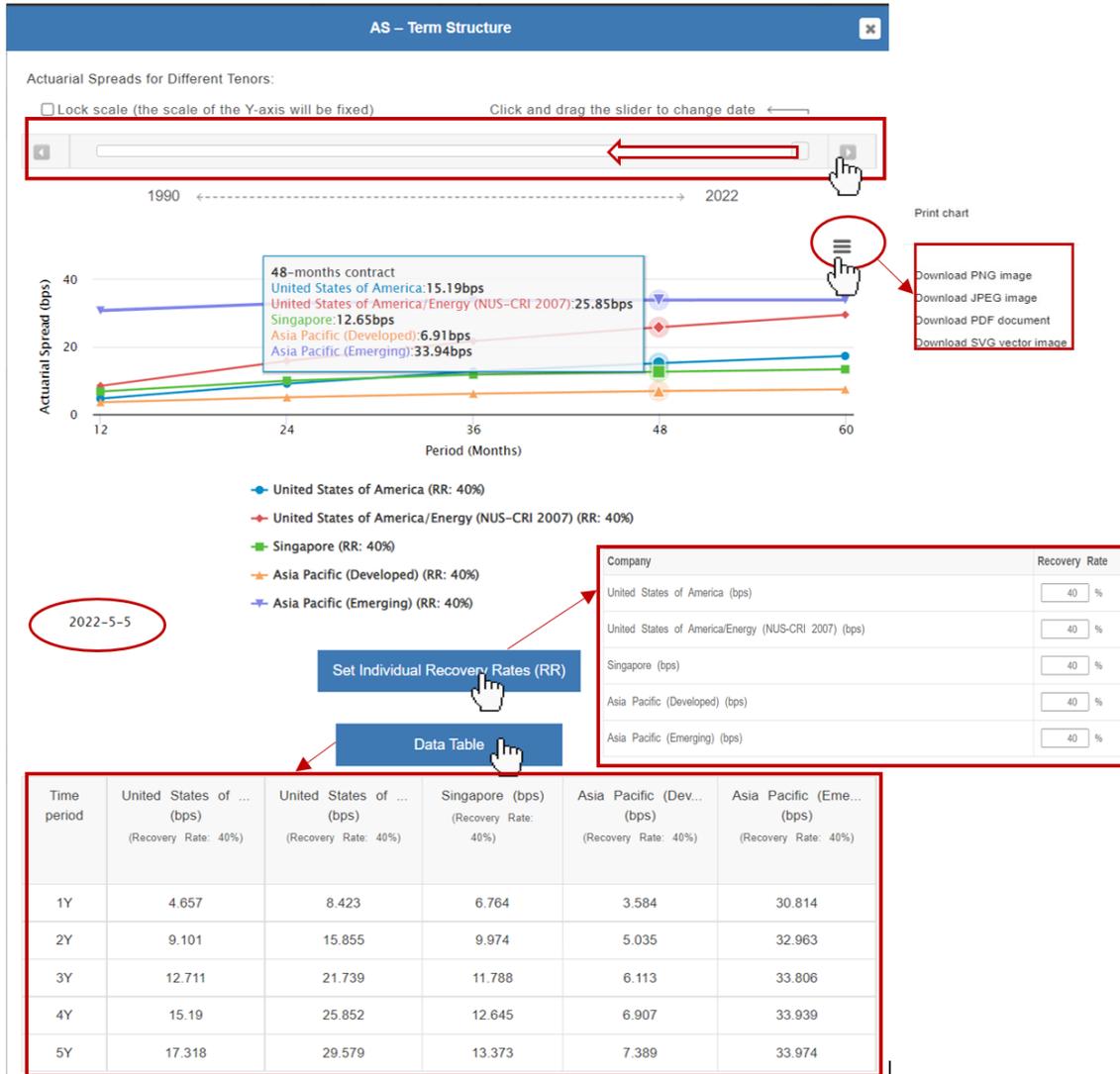
### “PD - Term Structure”



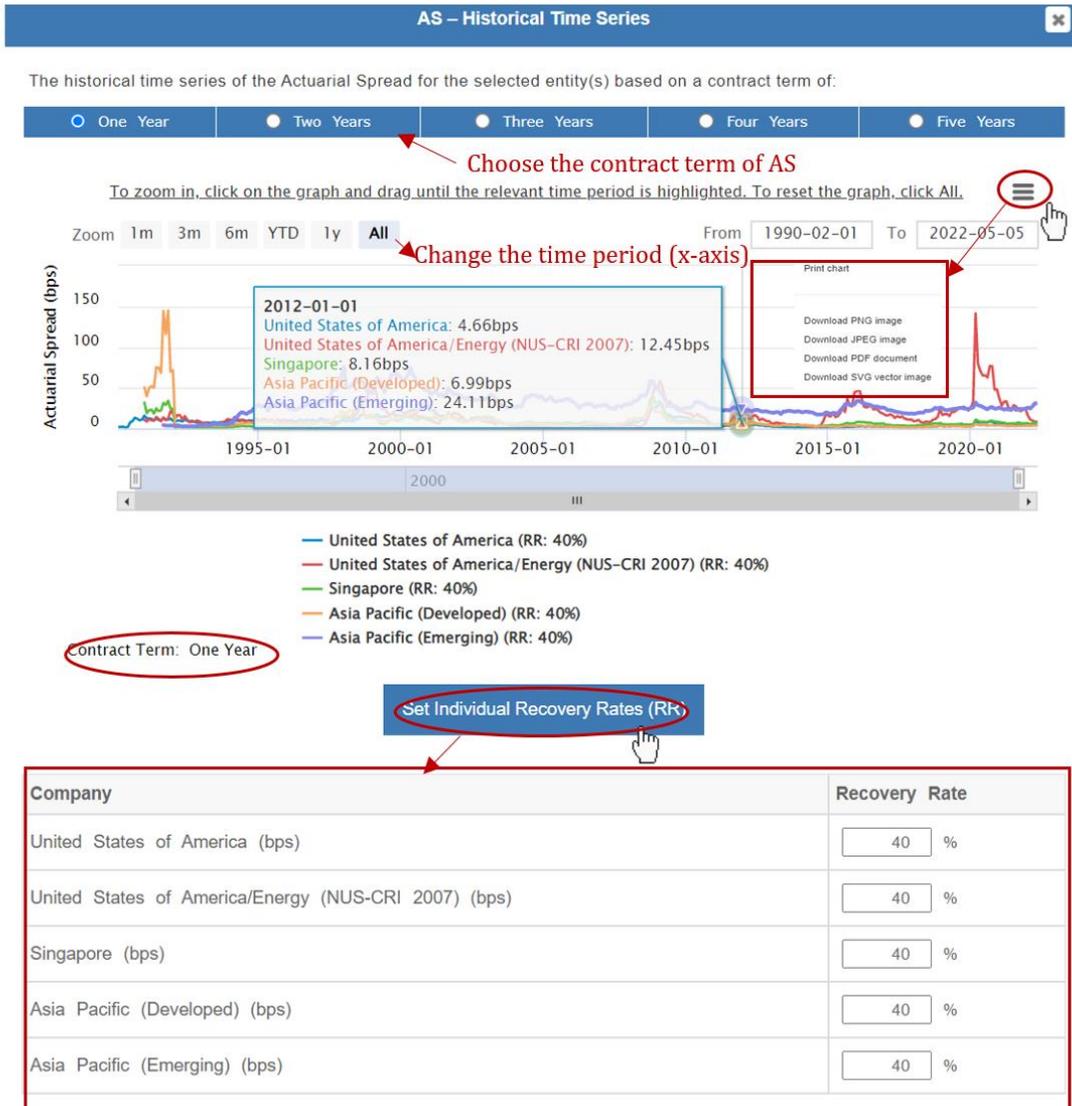
## “PD - Historical Time Series”



# “AS - Term Structure”

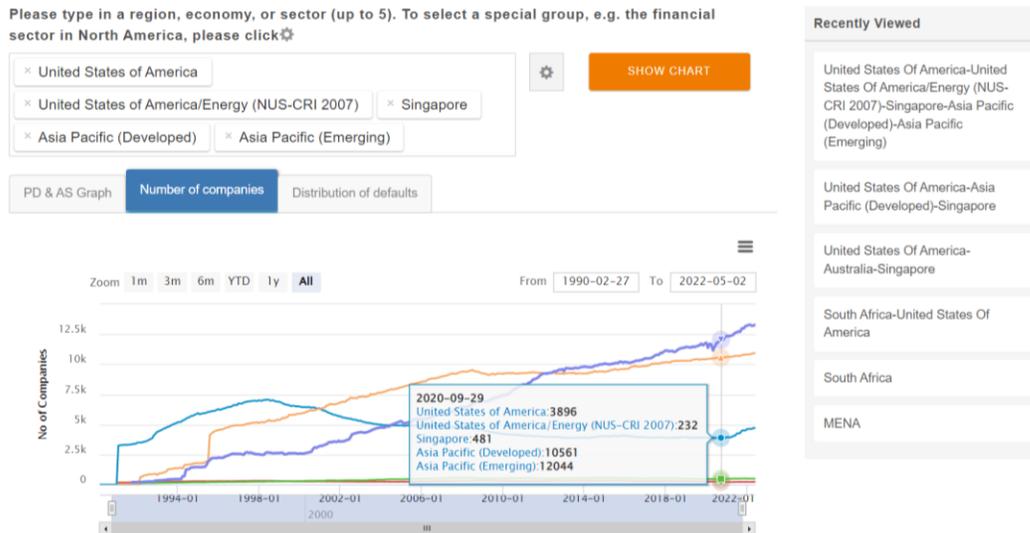


## “AS - Historical Time Series”



## “Number of companies”

This graph provides information on historical number of companies in each selected group.



## “Distribution of Defaults”

This graph provides information on the predicted number of default distribution for N horizon in each user-selected portfolio with default correlations explicitly factored in. Please refer to [white paper](#) for more detailed explanation.

Please type in a region, economy, or sector (up to 5). To select a special group, e.g. the financial sector in North America, please click



SHOW CHART

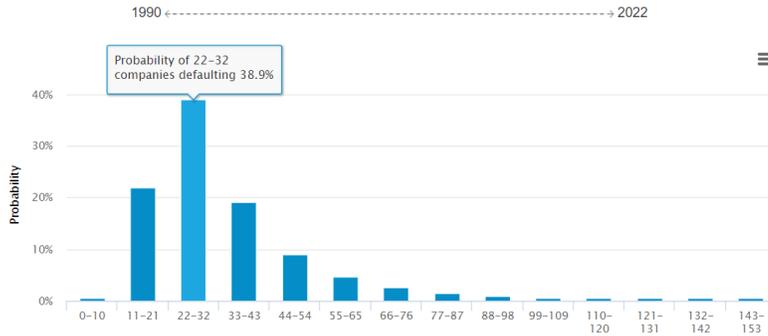
Historical default-number distributions with default correlations (DC) will be back-filled gradually. Currently, default-number distributions with DC are available for: 2022-03-31 - 2022-04-29 while the rest are computed under the assumption of zero default correlations. Default-number distributions are at month-ends whereas the current ones are for the latest Friday.

The probability that exactly N companies from the selected group will default for the selected date and forecast horizon out of:

- 4355** [Companies In United States Of America](#)
- 228** [Companies In United States Of America/Energy \(NUS-CRI 2007\)](#)
- 539** [Companies In Singapore](#)   **11020** [Companies In Asia Pacific \(Developed\)](#)
- 13342** [Companies In Asia Pacific \(Emerging\)](#)

One month  
  Three months  
  Six months  
  One year  
  Two years  
  Three years  
  Five years

Lock scale (the scale of the Y-axis will be fixed)  
 Click and drag the slider to change date ←



2022-04-29  
 Forecast Horizon: One year  
 No of Companies: 4355

United States of America

Data Table

Recently Viewed
United States Of America-Asia Pacific (Developed)-Singapore
United States Of America-Australia-Singapore
South Africa-United States Of America
South Africa
MENA
Singapore/Basic Materials (NUS-CRI 2007)

The graph can be interpreted as follows: Out of 4355 listed companies in United States of America as on 2022-04-29, the probability that between 22 and 32 listed companies default over next 12 months is at 38.9%.

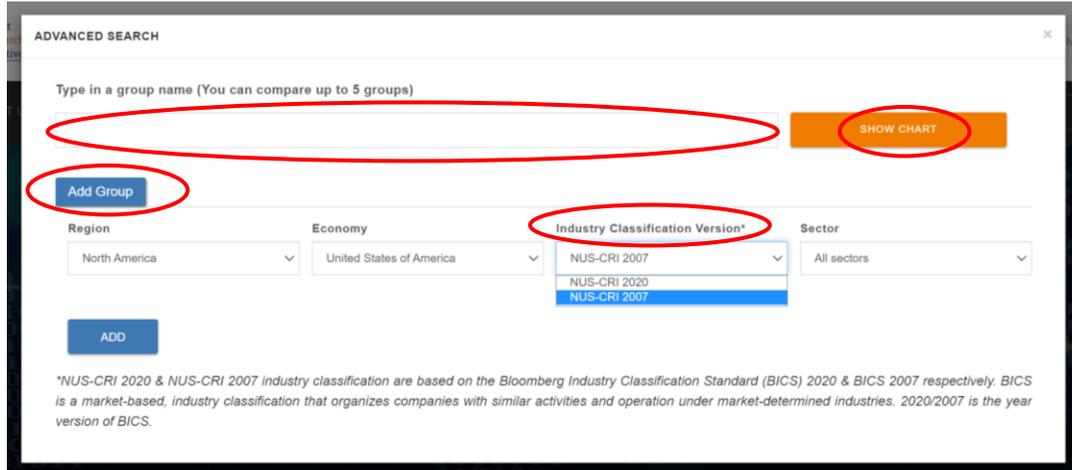
## Method 2. Add desired economies using the gear menu

Please type in a region, economy, or section (up to 5). To select a special group, e.g. the financial sector in North America, please click ⚙️



The screenshot shows a search interface with a text input field on the left, a gear icon in the middle, and an orange 'SHOW CHART' button on the right. A red circle highlights the gear icon, and a hand cursor is pointing at it.

Click on the gear menu, and then you will see a pop-up window for “**ADVANCED SEARCH**” (shown as below).



The screenshot shows the 'ADVANCED SEARCH' pop-up window. It has a title bar with 'ADVANCED SEARCH' and a close button. Below the title bar is a text input field with the placeholder text 'Type in a group name (You can compare up to 5 groups)'. To the right of the input field is an orange 'SHOW CHART' button. Below the input field is a blue 'Add Group' button. Below the 'Add Group' button are four dropdown menus: 'Region' (North America), 'Economy' (United States of America), 'Industry Classification Version\*' (NUS-CRI 2007), and 'Sector' (All sectors). Below the dropdown menus is a blue 'ADD' button. At the bottom of the window is a small text disclaimer: '\*NUS-CRI 2020 & NUS-CRI 2007 industry classification are based on the Bloomberg Industry Classification Standard (BICS) 2020 & BICS 2007 respectively. BICS is a market-based, industry classification that organizes companies with similar activities and operation under market-determined industries. 2020/2007 is the year version of BICS.'

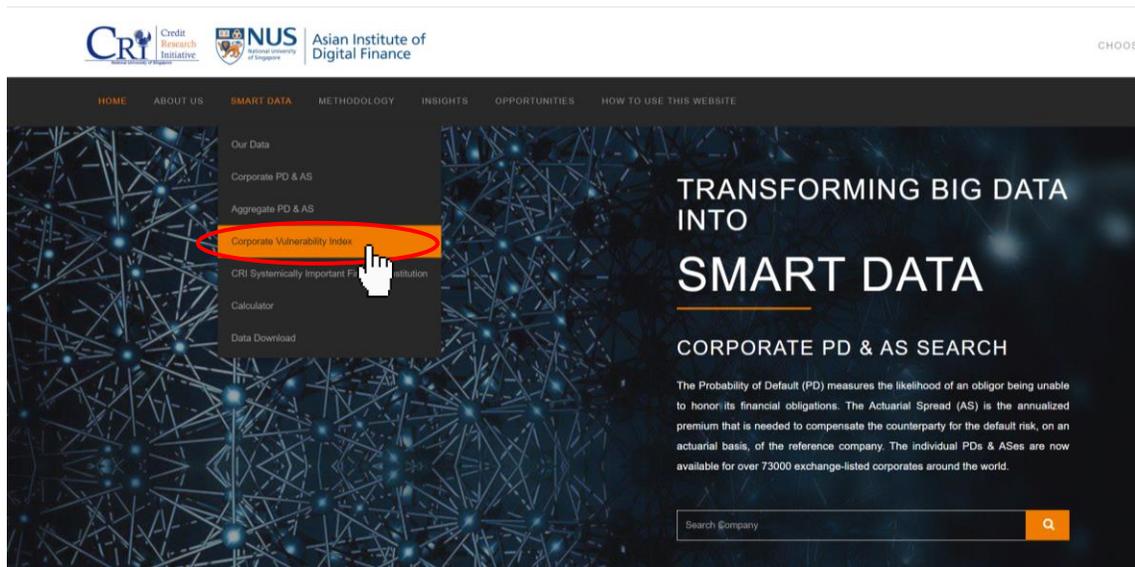
On this pop-up window, you can either keying in the name of group (or groups, **up to 5**), or using the encapsulated buttons “**Add Group**” to manually add groups for searching.

Two versions of industry classifications are available for users – NUS-CRI 2020 and NUS-CRI 2007. These industry classifications are based on Bloomberg Industry Classification Standard (BICS) 2007 and BICS 2020 respectively. Users can opt for their preferred version.

After selecting the Region/Economy/Industry Classification Version/Sector of your interest, click on “**SHOW CHART**” for the graph.

## Query Corporate Vulnerability Index (CVI)

After login to your account on the CRI website, click on “**SMART DATA**” and choose “**Corporate Vulnerability Index**” (shown as below).



Then, you will be directed to our *Corporate Vulnerability Index* interactive interface.

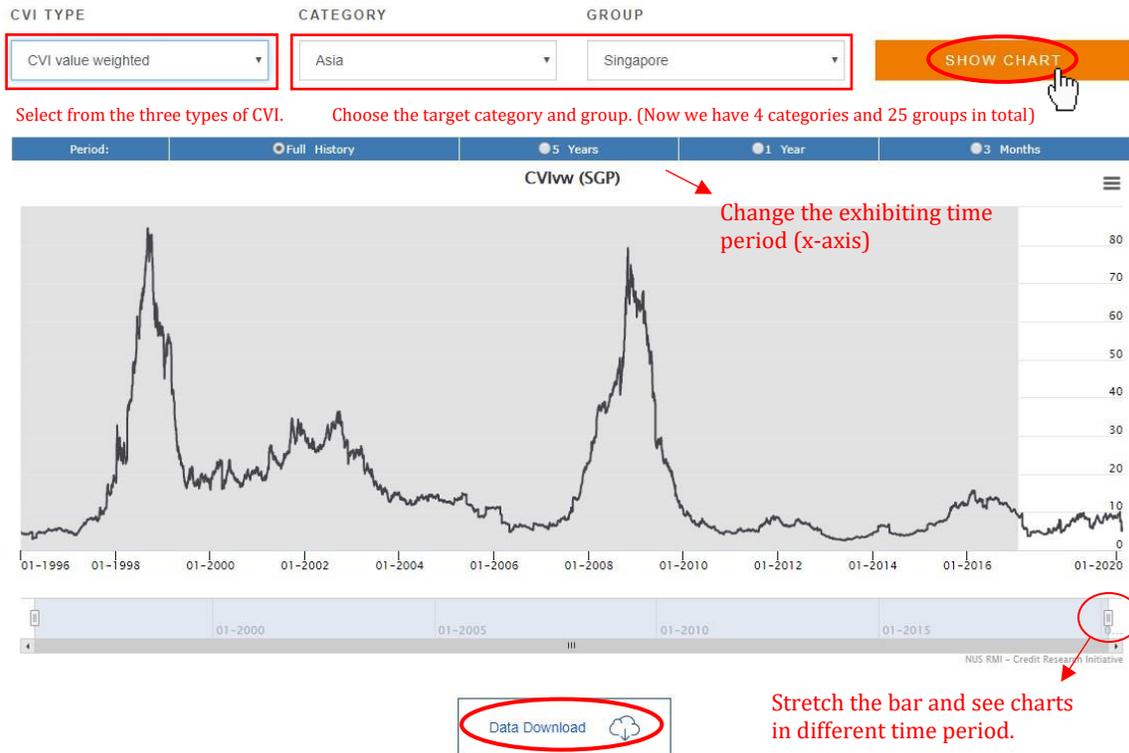
### What is CVI?

The CVI (**Corporate Vulnerability Index**) measures the creditworthiness of a selected region, economy or portfolio of interest. It has three sets of indices to gauge the riskiness of a group from different perspectives: **equally-weighted CVI**, **value-weighted CVI**, and **tail CVI**.

The equally-weighted CVI is the average value of the individual PDs in a group. This aggregate measure focuses on the number of firms at risk in a group. The value-weighted CVI sums up the individual PDs with their market capitalizations as weights. This measure takes into account the size of each firm. The tail CVI is the top 5th percentile of the individual PDs in a group. It can also be interpreted as the conditional median of the 10th percentile tail. It focuses on the riskiness of the most vulnerable firms in a group.

(Please refer to [technical report](#) or [white paper](#) for in-depth explanation)

On this webpage, you can obtain historical CVI data and graphs of your interest (shown as below).

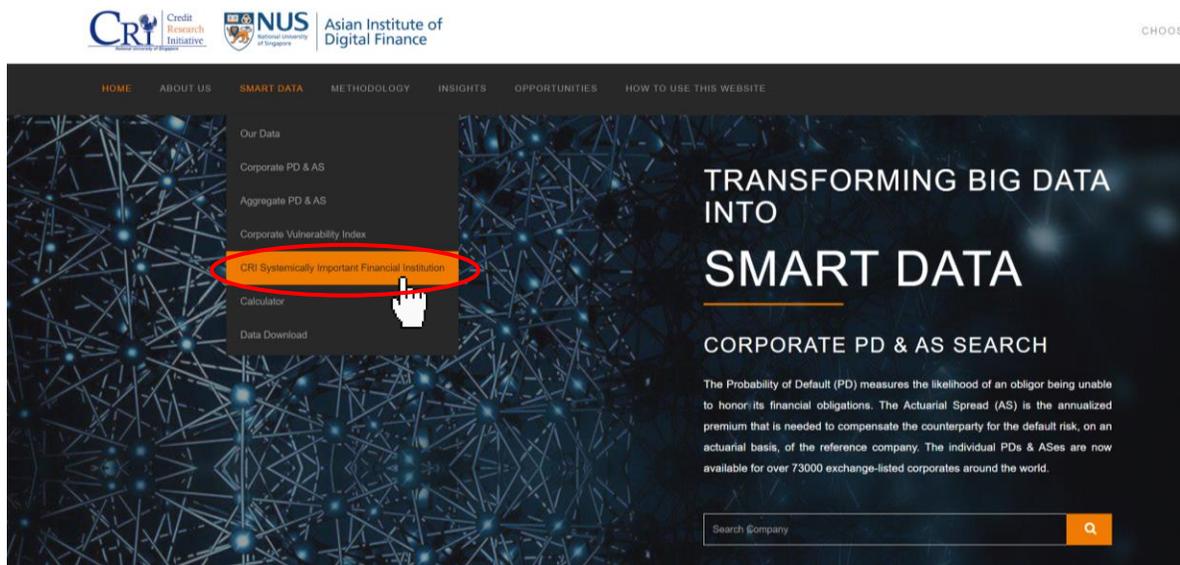


The grey area (before Feb 1, 2017) are back-calculated using the most recent calibration results to this month. All values after Feb 1, 2017 will be updated and supplemented to the series daily.

You can download the historical time series data of daily CVI by simply clicking on the buttons. (If you find problems in doing so, see “FAQs”)

## Query CRI Systemically Important Financial Institution (CriSIFI)

After login to your account on the CRI website, click on “**SMART DATA**” and choose “**CRI Systemically Important Financial Institution**” (shown as below).



Then, you will be directed to our *CRI Systemically Important Financial Institution* page.

### What is CriSIFI?

**CriSIFI (CRI Systemically Important Financial Institution)** is the ranking of systemic importance for the exchange-listed banks and insurers around the world. It is dynamic by nature, and it determines a firm's systemic risk by its size and interconnectedness with others.

A higher ranking of a firm means it is likely to pose larger threat to the global financial system. CriSIFI is available every month from January 2000 onward and covers 2,142 banks and insurance companies in January 2020.

(Please see [Chan-Lau, Duan, Chuang, and Sun \(2018\)](#) and the [white paper](#) for an in-depth explanation.)

On this webpage, you can query ranking of systemic importance for the listed banks and insurers of your interest (shown as below).

FIRM TYPE      DATE      REGION      ECONOMY

All      04/2022      Asia Pacific (Developed)      Singapore

Select from "All", "Bank", or "Insurer"      Choose the target date, region and economy.      SHOW

Download rankings and CRI PD Term structures at the end of the selected date      DOWNLOAD

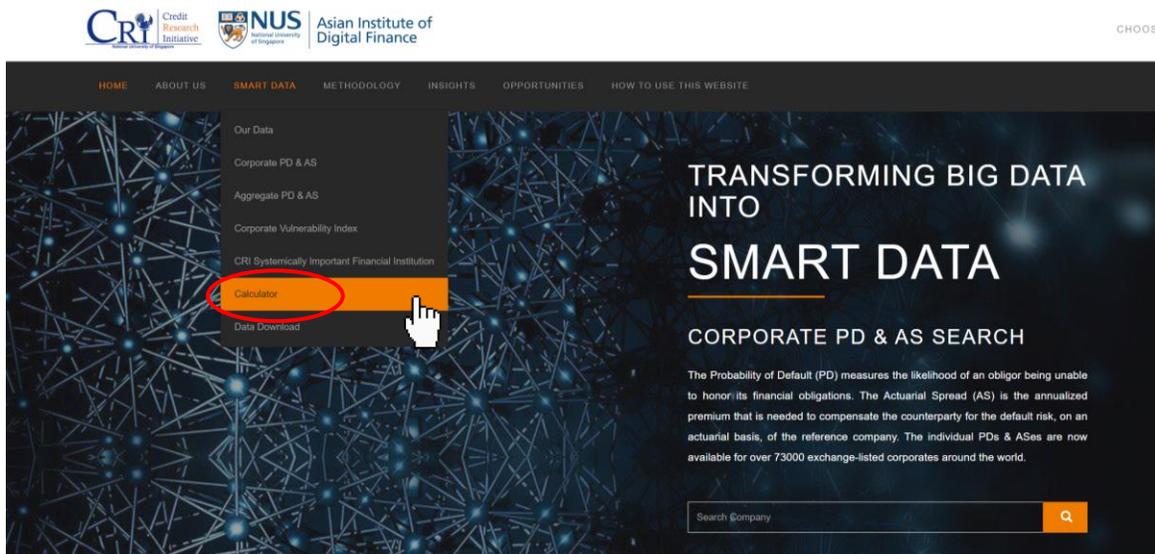
CRI Systemically Important Financial Institution (CriSIFI)\_04/2022

COMPANY	GROUP RANKING	GLOBAL RANKING	FIRM TYPE	REGION	ECONOMY	PROBABILITY OF DEFAULT
DBS Group Holdings Ltd	1	123	Bank	Asia Pacific (Developed)	Singapore	
Great Eastern Holdings Ltd	2	198	Insurer	Asia Pacific (Developed)	Singapore	
UOB-Kay Hian Holdings Ltd	3	290	Bank	Asia Pacific (Developed)	Singapore	
Oversea-Chinese Banking Corp Ltd (OCBC)	4	374	Bank	Asia Pacific (Developed)	Singapore	
United Overseas Bank Ltd (UOB)	5	508	Bank	Asia Pacific (Developed)	Singapore	
GK Goh Holdings Ltd	6	1099	Bank	Asia Pacific (Developed)	Singapore	
Raffles Financial Group Ltd	7	1455	Bank	Asia Pacific (Developed)	Singapore	
United Overseas Insurance Ltd	8	1716	Insurer	Asia Pacific (Developed)	Singapore	

Click this icon and you will be directed to the 'Corporate PD & AS' searching page of this firm

## PD & AS Calculator

After login to your account on the CRI website, click on “**SMART DATA**” and choose “**Calculator**” (shown as below).



PS & AS calculator helps you compute your own PD and AS, and provides you with a convenient tool for **sensitivity analyses**.

How to use this calculator? There are two steps for you to follow:

**Step 1.** Select the target region, economy, and sector (shown as below). The default values, which are the **median values** of the risk factors in this particular group, have been given in both dataset A and B.

**Step 2.** Keep the dataset A (original input) unchanged and adjust values in dataset B (variable input). Click on the “**COMPARE RESULTS**” button to compare PD and AS figures after risk factor adjustment.

REGION ECONOMY SECTOR

Asia Pacific (Developed) Australia Financial

**Step 1: Select the target region, economy and sector** [Go to charts](#)

Risk factors (model covariates)	Data set A (Original Input)	Data set B (Variable Input)
Stock index return	0.091589	0.091589
Interest rate	0.0017	0.0017
DTD level	4.48772	4.48772
DTD trend	-0.148769	-0.148769
Liquidity level	-2.34807	-2.34807
Liquidity trend	0.0	0.0
Net income/Total assests level	0.001862	0.001862
Net income/Total assests trend	5.1e-05	5.1e-05
Relative size level	1.58121	1.58121
Relative size trend	-0.037841	-0.037841
Market/book ratio	0.541491	0.541491
Idiosyncratic volatility	0.099666	0.099666
Aggregate DTD	4.34131	4.34131

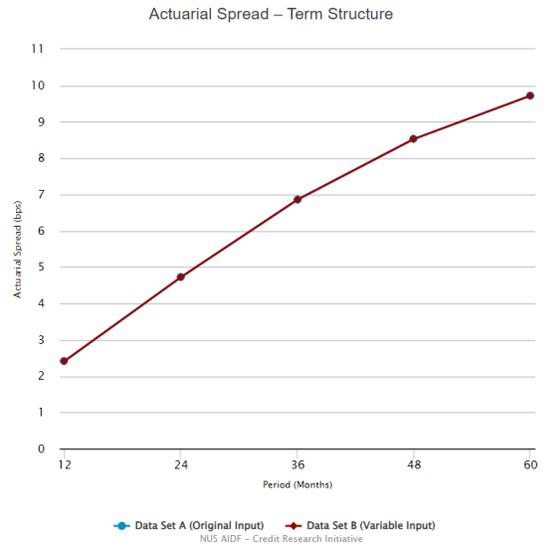
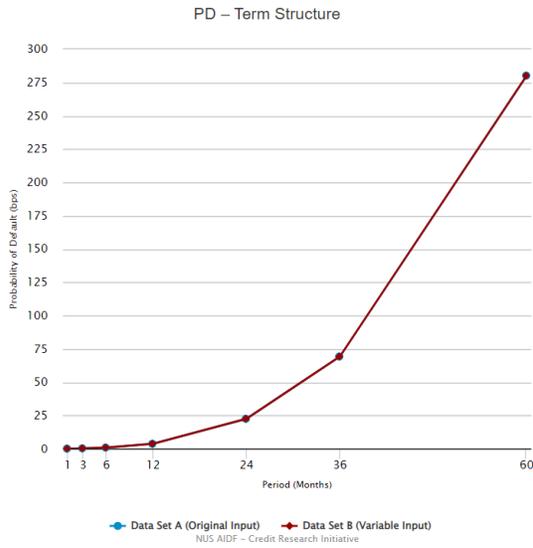
The table above shows the median inputs on **31 March 2022** (sector: **Financial**, economy: **Australia**).  
The underlying parameters were last calibrated on **08 April 2022** using data upto **31 March 2022**.

**Step 2: Change variable inputs and compare results**

RESET DATA SET B COMPARE RESULTS

You can click on the “**RESET DATA SET B**” button to clear all the adjustments you make to dataset B.

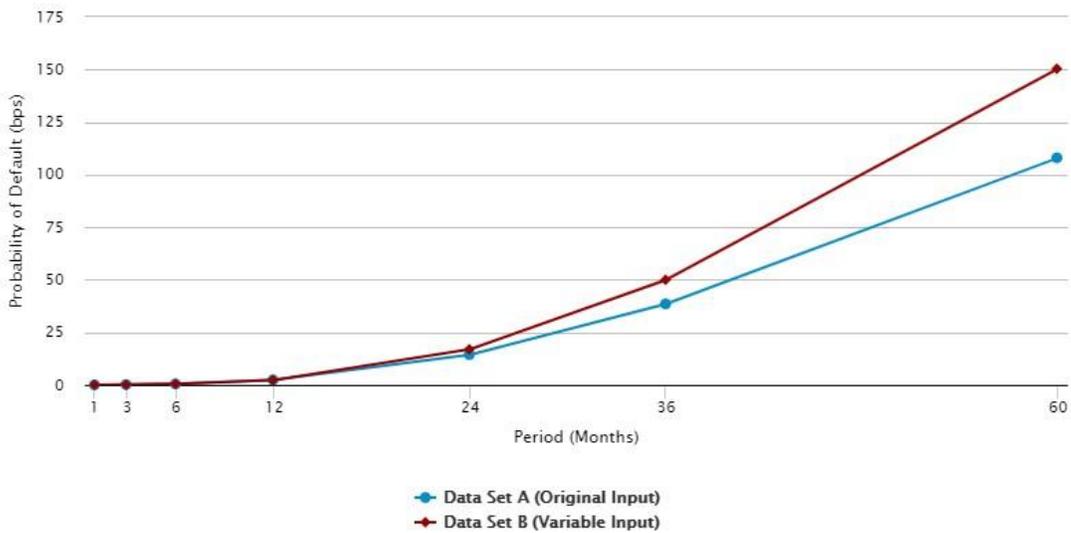
For example, we select “Asia Pacific (Developed)”, “Australia”, and “Financial” in the upper drop-down boxes, then we modify the “Stock index return” of dataset B to 0.5 (shown as above) and click on “COMPARE RESULTS” button. The comparing graphs of PD and AS are thus exhibited:



You can click on each graph to view more details.

**PD - Term Structure** ✖

Probabilities of Default for Different Prediction Horizons:



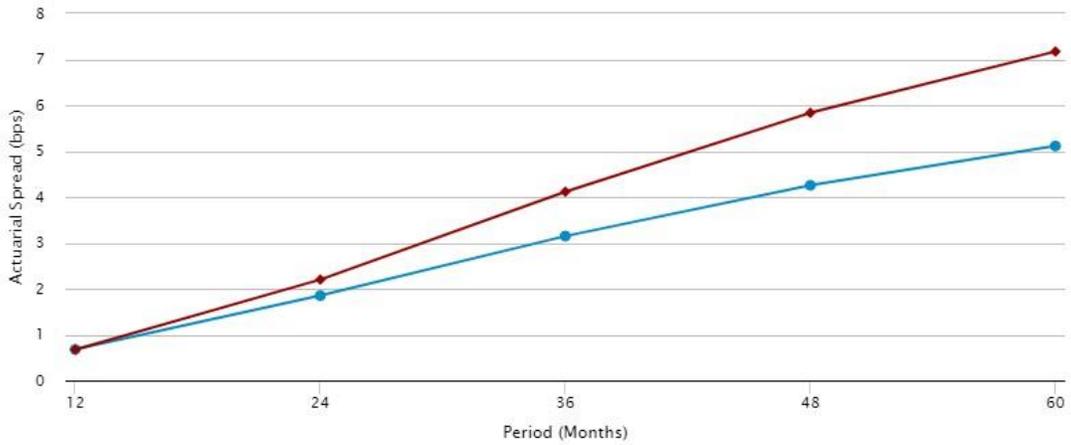
[Data Table](#)

Click to view the precise PD data of two datasets.

### Actuarial Spread – Term Structure



Actuarial Spreads for Different Tenors:



- Data Set A (Original Input) (RR: 40%)
- Data Set B (Variable Input) (RR: 40%)

Set recovery rate (RR, %)

You may change recovery rate based on your demand.

[Data Table](#)

Click to view the precise AS data of two datasets.

# Global Access

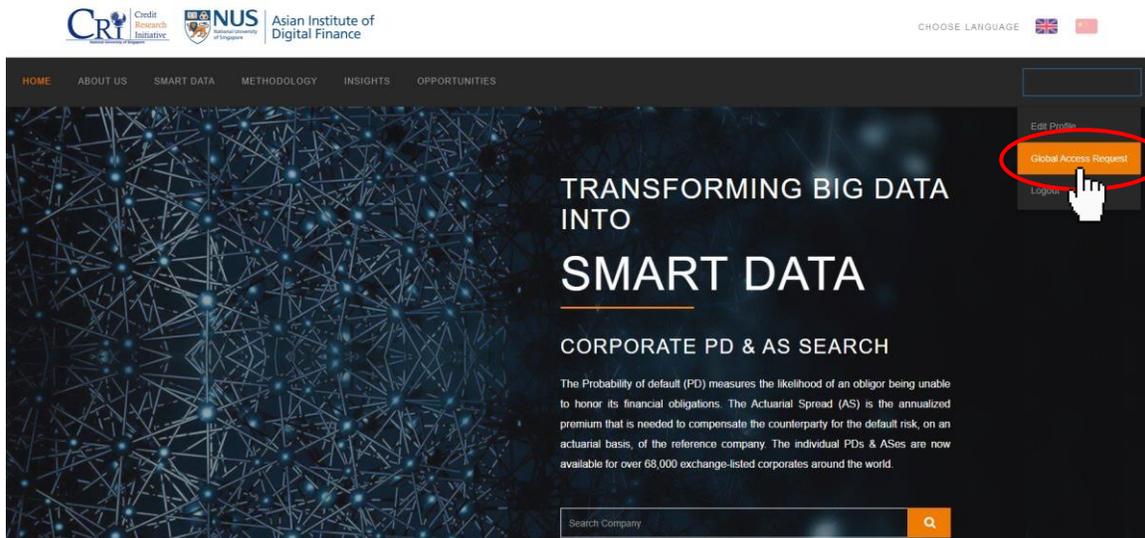
Since the General Access covers only a limited number of 5,000 selected listed firms data, the “**Global Access**” will allow you to have the full access to the CRI database comprises of over 80,000 listed firms across the globe.

In this section, we provide more details on how to apply for the “Global Access”, and we will introduce the “**Data Download**” function with “Global Access”.

## Applying for the Global Access Database

Please visit our website: <http://nuscri.org/> and sign in with your account credentials.

After signing in, bring your mouse over to your username on the upper right corner of the website and select “**Global Access Request**” shown as below.



Then, you will be directed to the Global Access application page:

- Change Profile
- Change Password
- Global Access**
- Subscription

GLOBAL ACCESS

Beyond the publicly available access to 5,000 firms, users with credible professional qualifications can request access to the entire set of over 66,000 firms, including firms that are now delisted. Approval will be granted at the discretion of RMI. To request global access, please use your official email address to open an account and visit our website again.

EMAIL:	<input type="text"/>
FIRSTNAME:	<input type="text"/>
LASTNAME:	<input type="text"/>
COMPANY:	<input type="text"/>
POSITION:	<input type="text"/>
INDUSTRY:	<input type="text"/>
CV:	<input type="file"/>

I hereby agree and consent that my personal data provided in this form may be collected, used and disclosed by NUS for the purpose of processing my request and other administrative tasks related to granting this data access, in accordance with the Personal Data Protection Act 2012 and all subsidiary legislation related thereto. In respect of disclosure, I understand that NUS may provide and/or transfer such data to third parties (which may be in or outside of Singapore) when necessary for such purpose.

Please visit the NUS Personal Data Protection Guidelines for further details on our data protection policy, including how you may access and correct your personal data or withdraw consent to the collection, use or disclosure of your personal data.

**REQUEST**

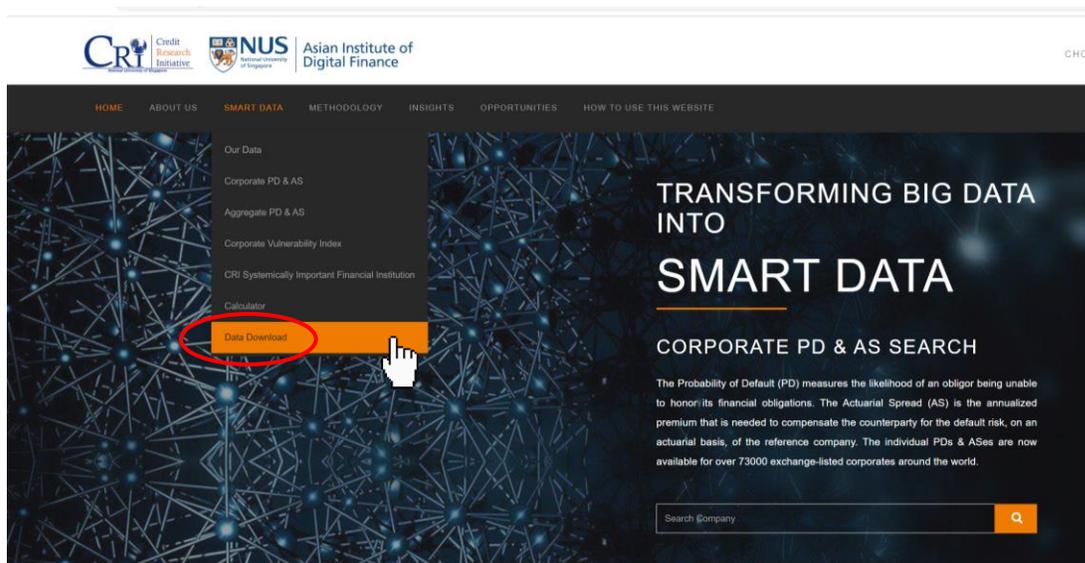
Fill in your personal information and attach your real CV to proceed. Otherwise, your application will be rejected.

(Note: It may take some time for us to process with your request, and the request can only be examined on work days. You will be able to have an access to our data once we have proceeded with our acceptance to your details. If you encounter any problems, please email us at: [nuscricri@nus.edu.sg](mailto:nuscricri@nus.edu.sg))

## Data Download

With your “Global Access” entitlement granted, you will be able to conveniently download full historical data in bulk.

On the homepage of the CRI website, click on “**SMART DATA**” and select “**Data Download**” (shown as below).



The Historical PD Data presents the entire history of PD data with term structure ranging from 1 month to 5 years for the corresponding companies.

There are several files available for downloading. You can filter and download files based on your interest.

See what you can get from “**Data Download**”:

### PD Data

➤ [Aggregate PD Data](#) (update semi-annually with 1-year to 1 year and half lag in data. Please see historical files under “Archive”) ★ explanatory note ([click on the hyperlink](#))

★ by Economy (mean value or median value)

★ by Economy/Sector (mean value or median value)

- ↗ Individual PD data (update semi-annually with 1-year to 1 year and half lag in data. Please see *historical files under "Archive"*)
- ↗ Company Mapping List ("Company Information\_20XXXXXX.csv" contains information of all the companies which have ever been added to our system; "bics\_mapping.csv" and "gics\_mapping.csv" provides mapping for "BICS\_Sector" and "GICS\_Sector" in "Company Information\_20XXXXXX.csv")
  - ★ PD Data for All Economies (combination of all the .csv files in "PD Data for Individual Economies")
  - ★ PD Data for Individual Economies (separate .csv files for each economy)

## **AS Data**

- ↗ Aggregate AS Data (update semi-annually with 1-year to 1 year and half lag in data. Please see *historical files under "Archive"*) ★ explanatory note (*click on the hyperlink*)
  - ★ by Economy (mean value or median value)
  - ★ by Economy/Sector (mean value or median value)
- ↗ Individual AS data (update semi-annually with 1-year to 1 year and half lag in data. Please see *historical files under "Archive"*)
  - ★ Company Mapping List (it contains information of all the companies which have ever been added to our system)
  - ★ AS Data for All Economies (combination of all the .csv files in "AS Data for Individual Economies")
  - ★ AS Data for Individual Economies (separate .csv files for each economy)

## **DTD Data**

- ★ Company Mapping List (it contains information of all the companies which have ever been added to our system)
- ★ DTD Data for All Economies (combination of all the .csv files in "DTD Data for Individual Economies")

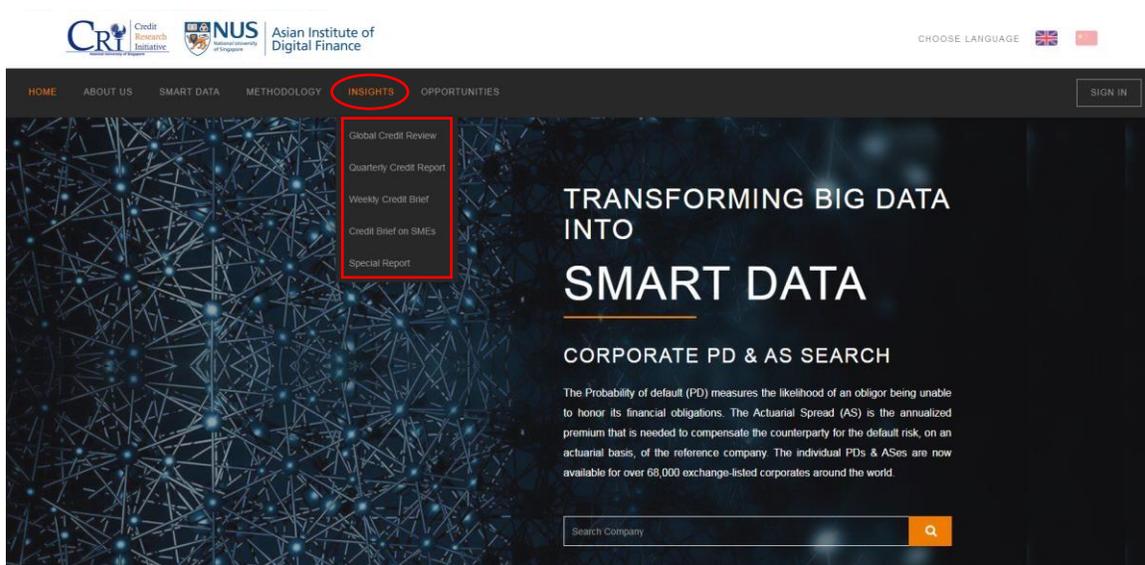
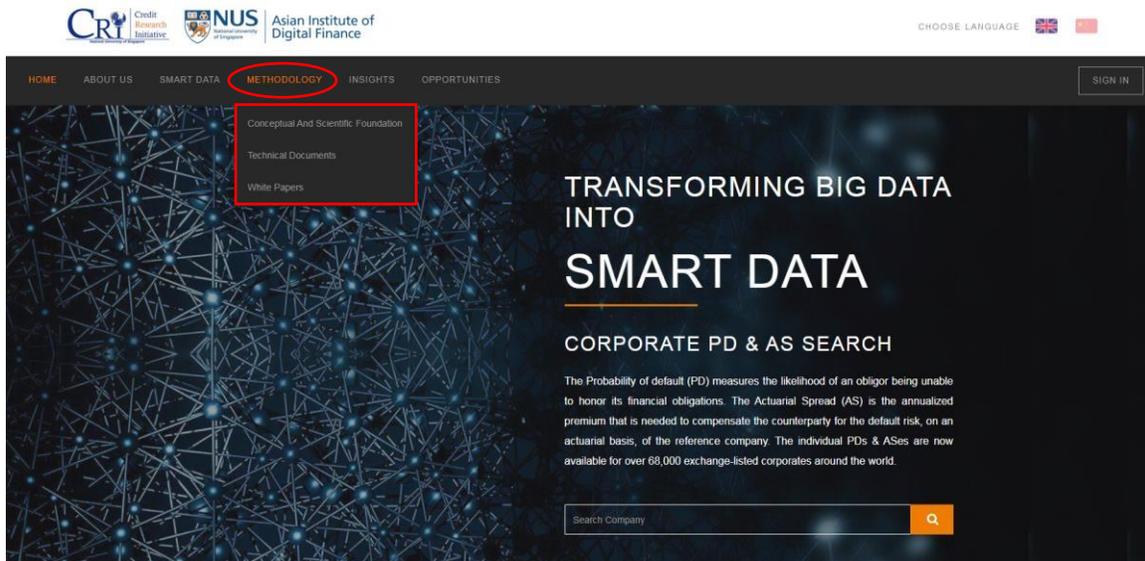
- ★ DTD Data for Individual Economies (separate .csv files for each economy)  
**Parameter Data**

↗ (update monthly. Please *see historical files under "Archive"*)

- ★ explanatory note (*click on the hyperlink*)
- ★ Parameter Estimates (includes all files of individual economies' parameter estimates)
- ★ NS Parameter Estimates (includes all files of individual economies' four parameter estimates for the Nelson-Siegel function of each covariate)

# Methodology & Insights

To learn more technical details about CRI methodology and insights, you can click on “**METHODOLOGY**” and “**INSIGHTS**” buttons respectively for the drop down menus (shown as below).



All the methodology papers and insight reports are available even without an account.



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