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Distance to default

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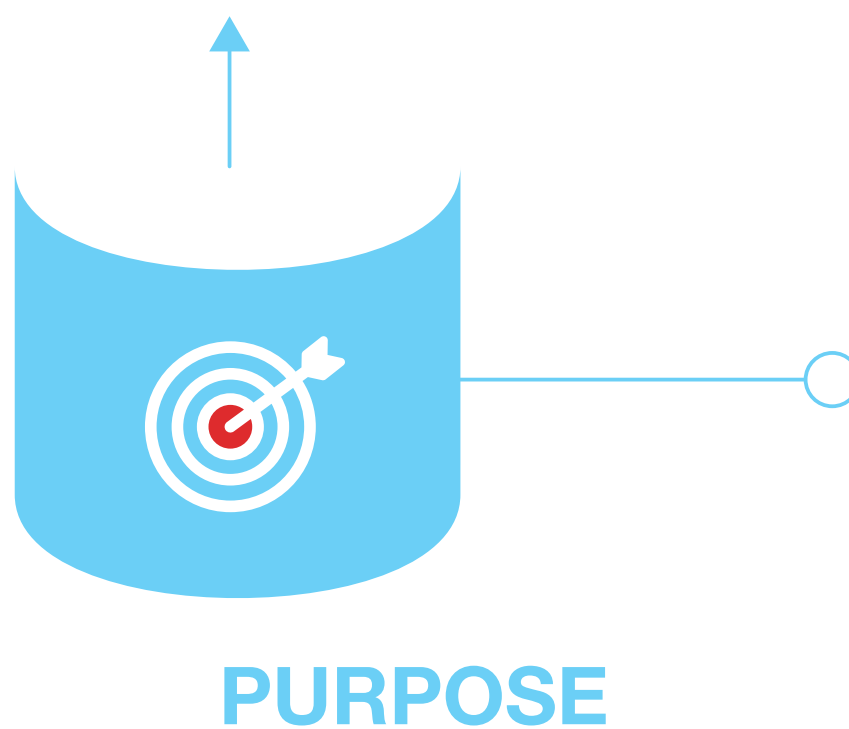
DISTANCE TO DEFAULT

AEC Asean Economics Community

PURPOSE

This poster addresses one particular chapter of the thesis on default risk.
It assesses the significance of the **Distance to Default (DD)** model in predicting financial distress for **6 countries in the ASEAN** region.

METHODOLOGY

The firm defaults when asset volatility causes the market value of assets to fall below its debt values.

$$DD = \frac{\ln\left(\dfrac{V}{F}\right) + (\mu - 0.5\sigma_v^2)T}{\sigma_V\sqrt{T}}$$

The data includes 120 firms (listed and delisted) from 1997 to 2016 for each of 6 Southeast Asian countries.

The aggregate prediction scores based on DD models will be compared to aggregate corporate nonperforming loans (**NPLs**) and interest cover (**ICRT**).

RESULT

The DD model can provide an early warning indicator of potential financial problems.

Note: **AFC:** Asian Financial Crisis
GFC: Global Financial Crisis
A higher DD means a lower risk; a ranking of 1 shows the highest risk

Table 1. Credit risk results

ASEAN Countries	DD	NPLs	ICRT
AFC	3.75	19.55	5.37
Pre GFC	7.40	10.92	8.70
GFC	4.98	3.26	8.65
Post GFC	12.86	1.90	9.45
Whole period	8.89	6.75	8.52

Table 2. DD scores of ASEAN countries. Crisis periods compared to non-crisis periods

Country	AFC	Rank	Pre GFC	Rank	GFC	Rank	Post GFC	Rank	Whole period	Rank
Vietnam	-	-	-	-	2.76	1	7.49	1	6.54	2
Thailand	2.46	2	5.50	1	4.64	4	7.75	3	6.01	1
Singapore	3.08	3	6.77	2	7.58	6	33.70	6	17.25	6
Philippines	3.85	5	7.20	3	4.07	3	7.55	2	6.69	3
Malaysia	3.35	4	9.89	5	7.15	5	12.20	5	9.88	5
Indonesia	1.44	1	7.64	4	3.68	2	8.51	4	6.97	4

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