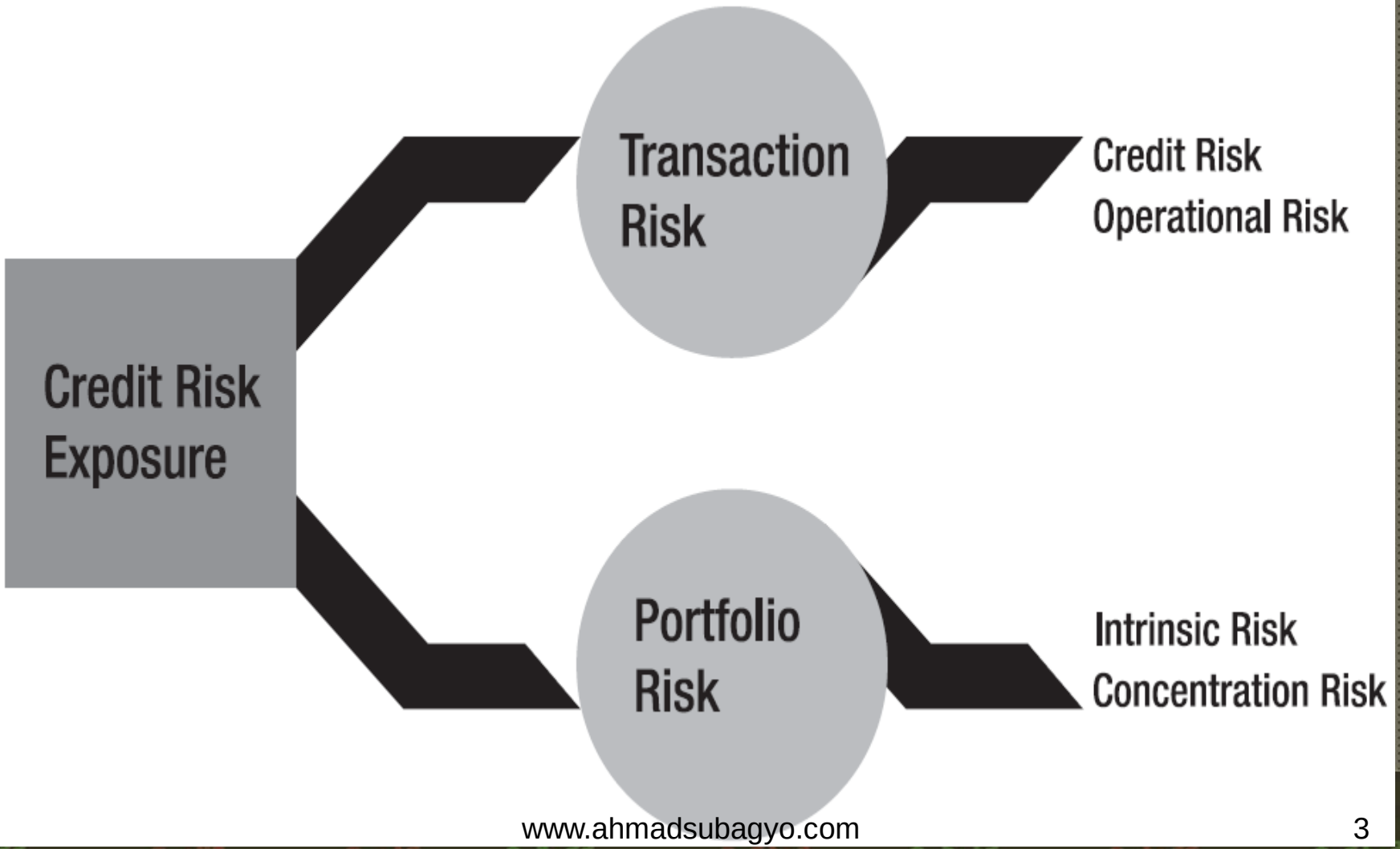
4. IMPLIKASI FAKTOR RISIKO

Prepared by Dr. Ahmad Subagyo

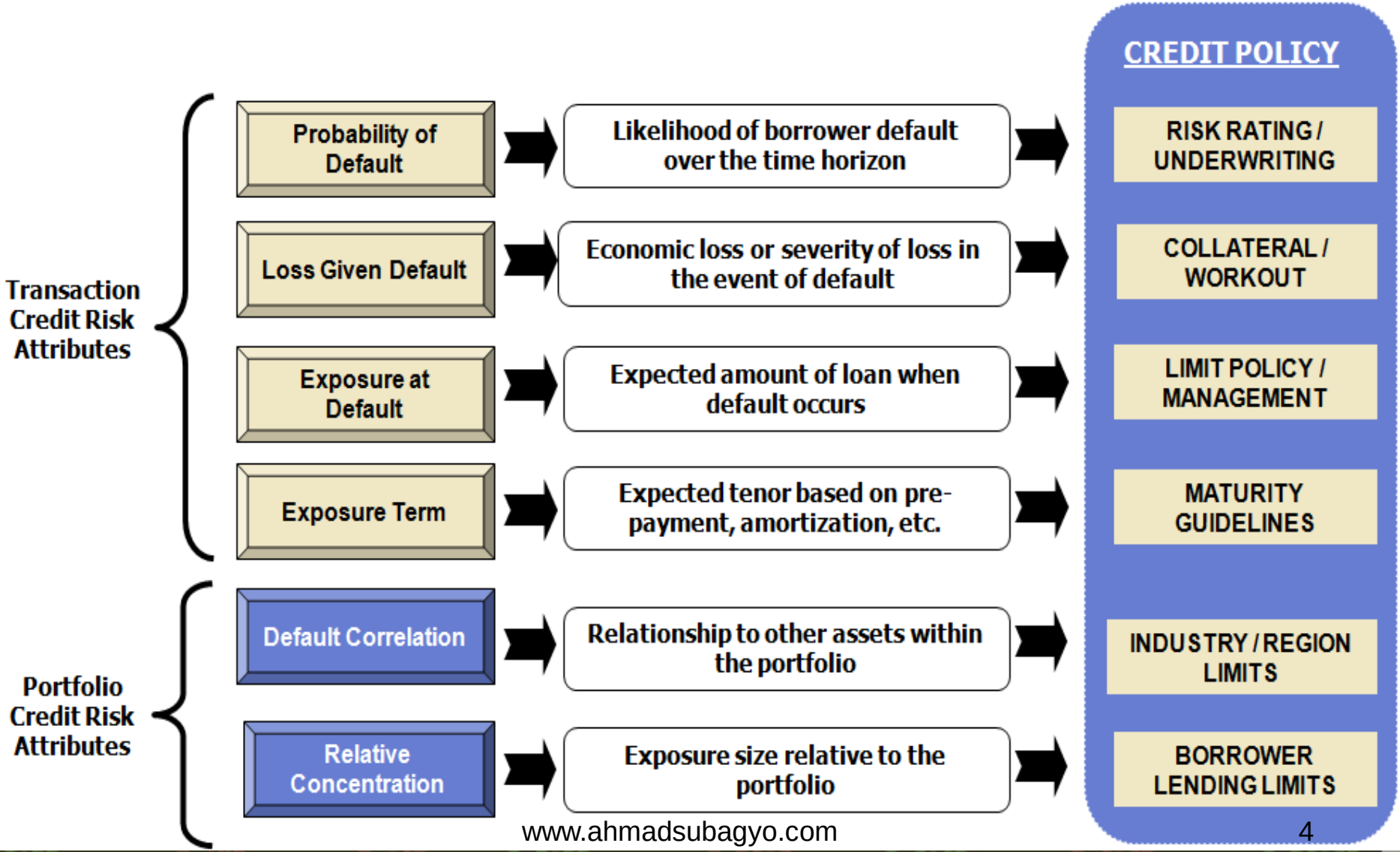
4. Implikasi Faktor Risiko.

JENIS FAKTOR-FAKTOR RISIKO KREDIT

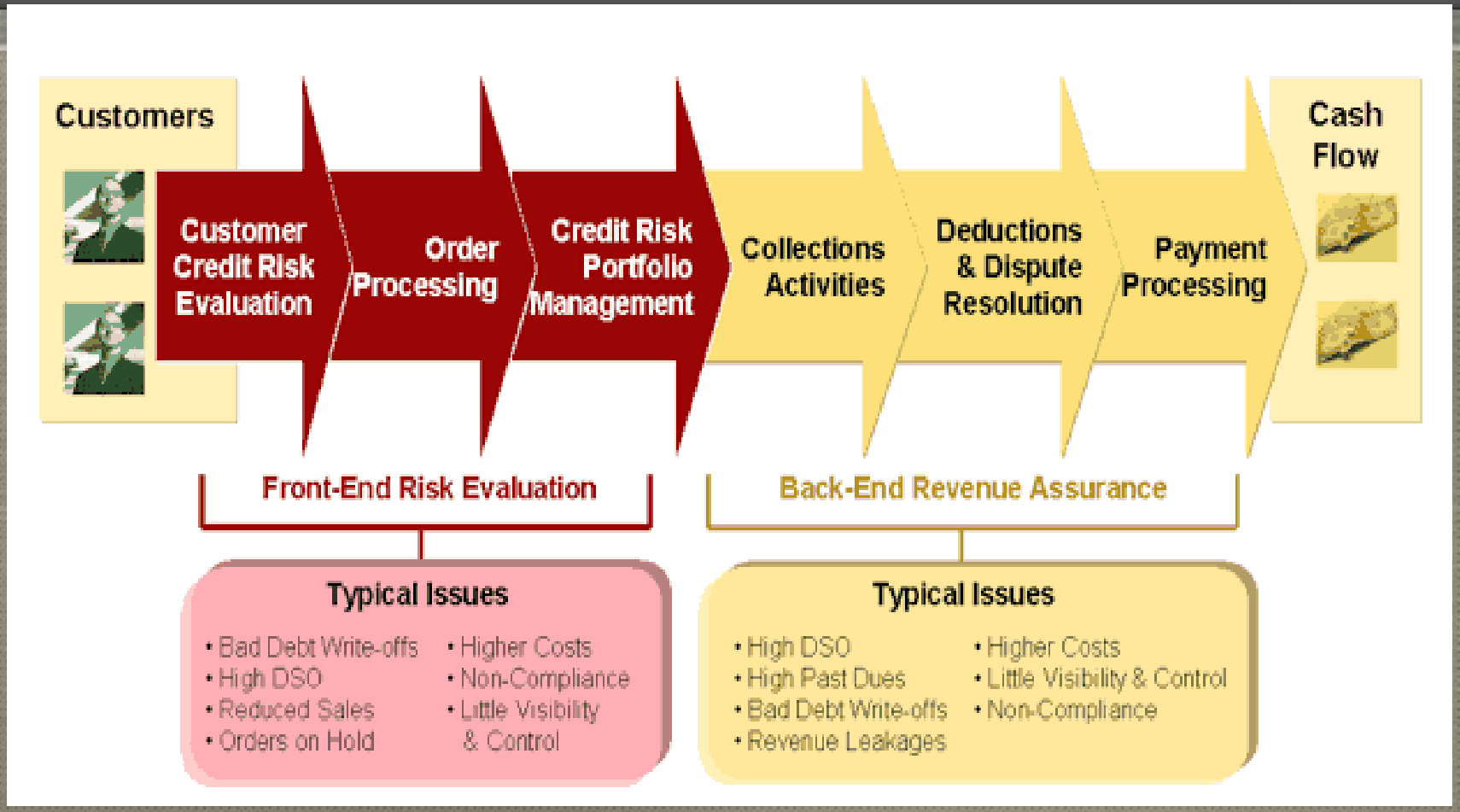
Primary Credit Risk Components



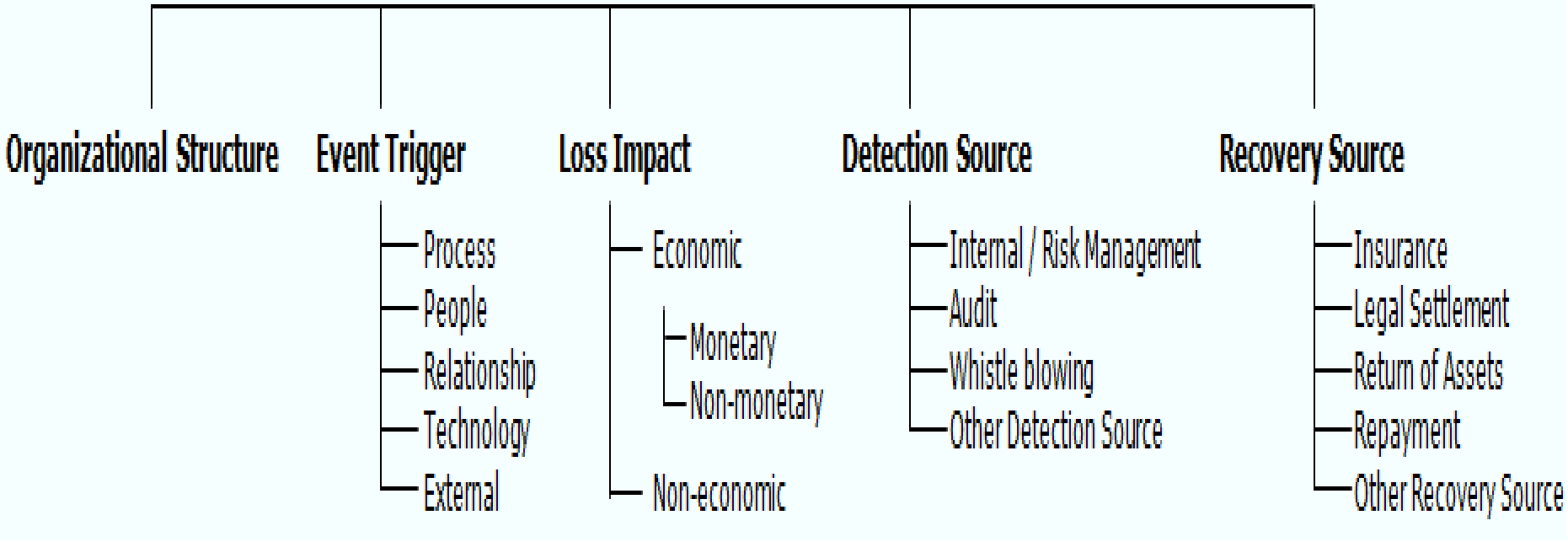
Credit Risk – Linkages to Credit Process



Credit Evaluation & Assurance



RISK MAP


Organizational Structure
Event Trigger
Process
People
Relationship
Technology
External
Loss Impact
Economic
Monetary
Non-monetary
Non-economic
Detection Source
Internal / Risk Management
Audit
Whistle blowing
Other Detection Source
Recovery Source
Insurance
Legal Settlement
Return of Assets
Repayment
Other Recovery Source

4. Implikasi Faktor Risiko

BAGAIMANA MEMBANGUN STRESS TESTING MODEL DAN MENYIKAPI HASIL STRESS TESTING TERSEBUT

What is stress testing?

- “Stress testing is a risk management technique used to evaluate the potential effects on an institution’s financial condition of a specific event and/or movement in a set of financial variables. The traditional focus of stress testing relates to exceptional but plausible events” (Bank for International Settlements, Committee of the global financial system, January 2005: Stress testing by large financial institutions: survey results and practice)

Key aspects of Stress Testing

- The environment in which banks have to operate
- The definition of unexpected loss
- How to use the outcome of the
- stress test

The Environment of Stress Testing

- Essentially there can be two sources of stress:
  1. Purely idiosyncratic events such as the default of a large obligor and
  2. Developments affecting the entire market, such as an economic downturn.

Types of Stress Tests

- Constant stress test :this involves the (simultaneous) movement of risk component(s), without taking into account the properties of the subportfolios or the interrelations with external events (that is, a flat stress is applied for PDs).
- Model-based stress test : this approach could be divided into univariate (relying on one random variable) and multivariate (involving a number of independent mathematical or statistical variables) approaches.

Stress Testing Scenarios

- Historical scenarios : extreme universes of risk factors observed in the past that are related, largely, to historical events and crises.
- Statistically based scenarios : based on the joint statistical distribution of risk factors. The key challenge in this approach is to have enough historical data to define the distribution.
- Hypothetical scenarios: focuses on rare events that might have an important impact on the portfolio but have not been observed yet

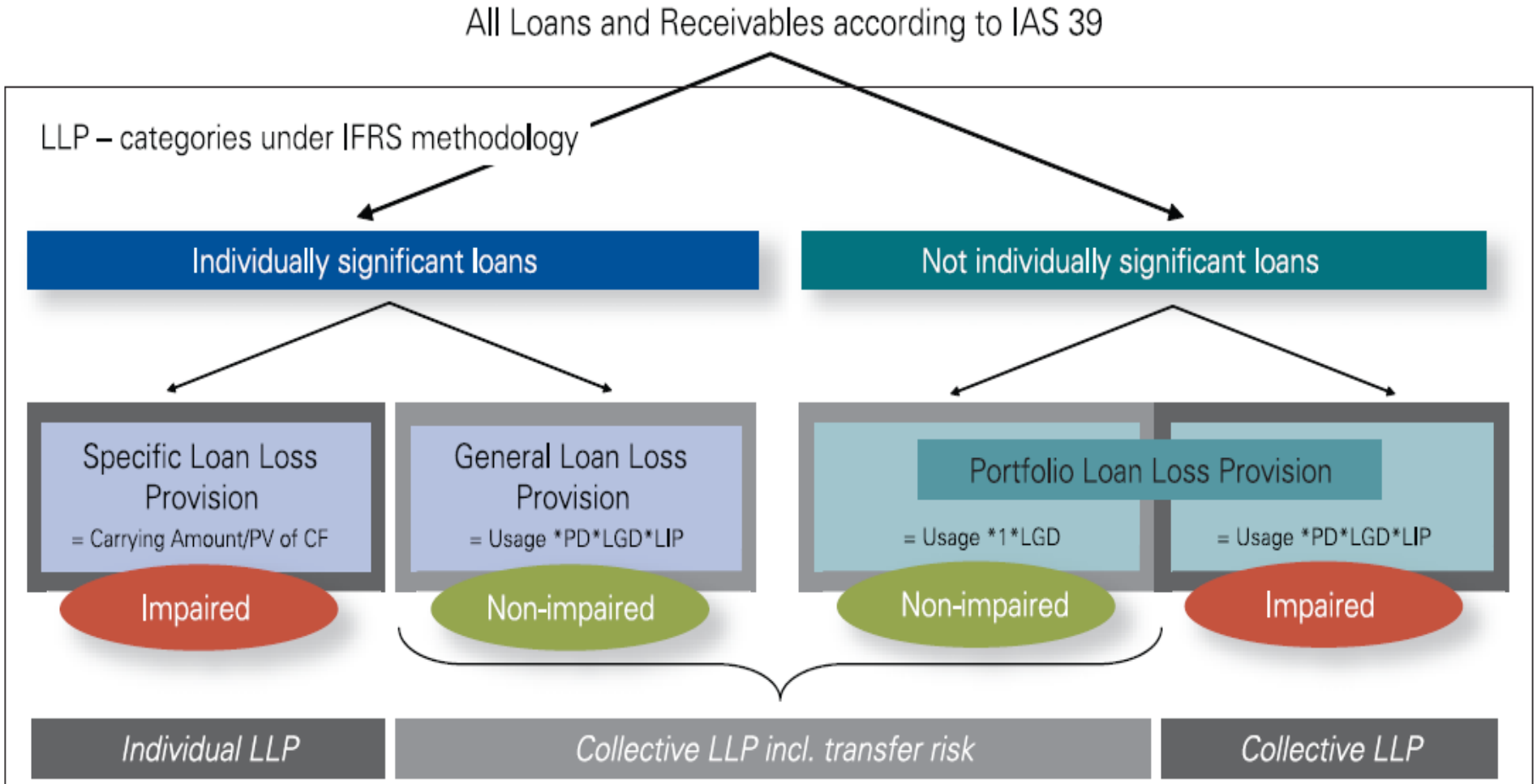
Stress Testing Approaches

- Portfolio or bottom-up : the identification of risk drivers is strictly dependent on the portfolio composition
- Event or top-down : a study of the impact of a chosen scenario

4. Implikasi Faktor Risiko

BERAPA BESAR DAMPAK-NYA TERHADAP PENCADANGAN KERUGIAN KREDIT (PPAP)?

Basel II and IFRS



LIP = "Loss Identification Period"

Above mentioned formulas are only applicable for on-balance sheet items (LaR)

Application of Basel II Parameter for IFRS Provisioning

Expected Loss	Incurred Loss
$EL = EAD*PD*LGD$	$IL = CA*PD*LGD*LIP$

For meeting the requirements of the IAS Incurred Loss Concept, adjustments to the Basel II advanced IRBA approach are necessary

a) Assignment of portfolio

b) EAD/Carrying Amount (Exposure at Default/expected amount of the debt at term of default)

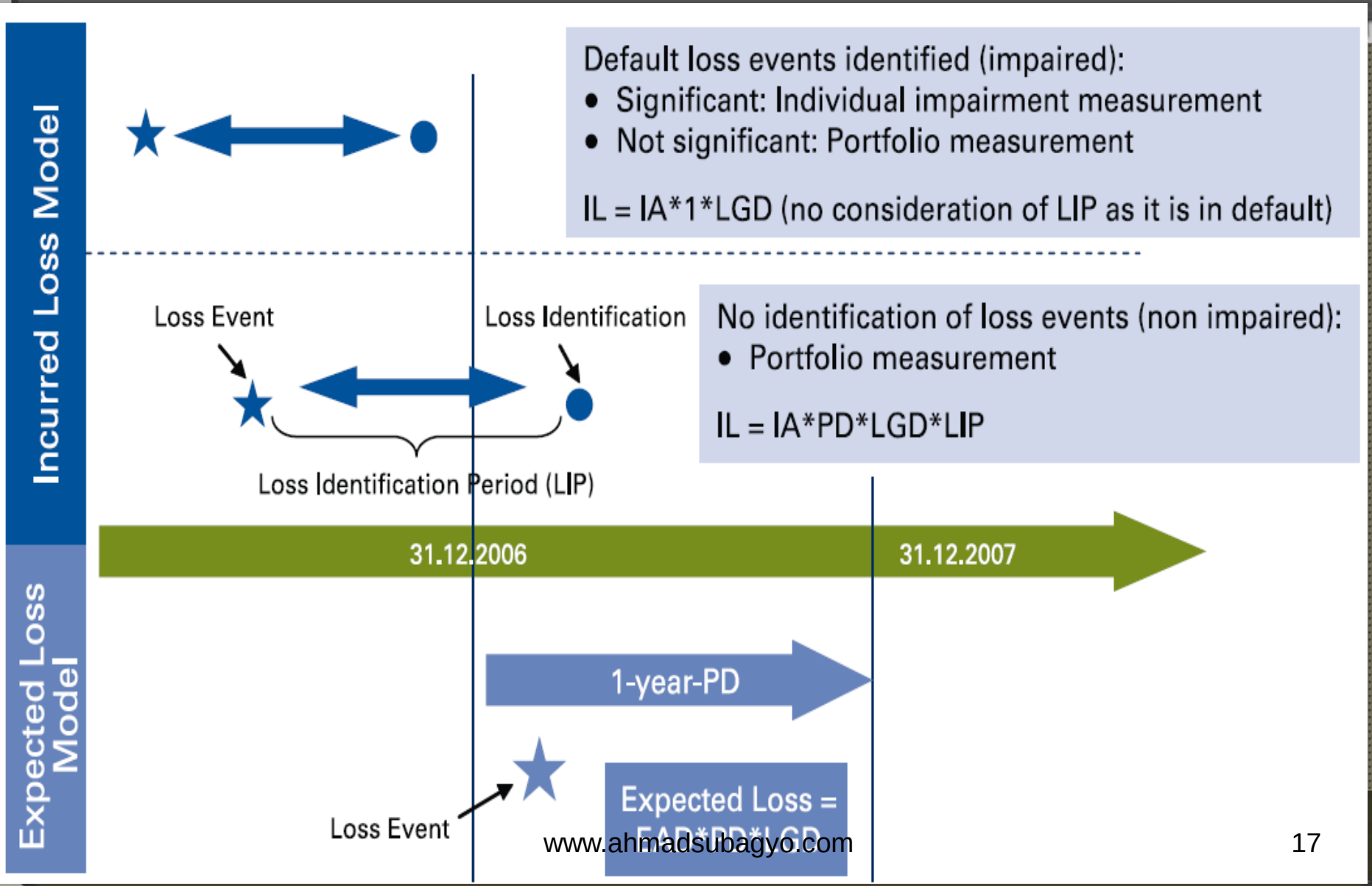
c) PD (Probability of Default)

d) LGD (Loss Given Default)

e) LIP (Loss Identification /Emergence Period)

EL = Expected Loss, EAD = Exposure at Default, PD = Probability of Default, LGD = Loss Given Default, IL = Incurred Loss, CA = Carrying Amount and LIP = Loss Identification Period

Loss Models - The LIP concept



Menghitung PD

PROBABILITY OF DEFAULT UNTUK KELOMPOK KREDIT KPR

MIGRATION ANALYSIS

Tahun Data 2006 - 2007

1. Mengumpulkan Data

Desember 2006		Migrasi di th 2007 atas Balance 2006									
Umur Tunggakan	Saldo	0 Hari	1-30 Hari	31-60 Hari	61-90 Hari	91-120 Hari	121-180 Hari	> 180 Hari	Hapus Buku	Pembayaran	Jumlah
0 Hari	1,106,153,940.30	695,154,480.80	65,905,950.90	161,408,666.00	0.00	83,151,679.20	98,617,152.60	1,916,010.80	0.00	0.00	1,106,153,940.30
1-30 Hari	233,814,998.60	0.00	0.00	184,532,767.60	0.00	49,282,231.00	0.00	0.00	0.00	0.00	233,814,998.60
31-60 Hari	203,404,238.40	0.00	0.00	139,859,817.40	63,544,421.00	0.00	0.00	0.00	0.00	0.00	203,404,238.40
61-90 Hari	42,320,981.90	0.00	0.00	0.00	13,533,902.70	21,842,635.00	0.00	6,944,444.20	0.00	0.00	42,320,981.90
91-120 Hari	44,762,679.70	0.00	0.00	0.00	0.00	22,582,605.40	17,240,720.70	4,939,353.60	0.00	0.00	44,762,679.70
121-180 Hari	100,393,519.20	0.00	0.00	0.00	0.00	44,611,261.60	30,731,884.30	25,050,373.30	0.00	0.00	100,393,519.20
> 180 Hari	126,544,108.70	0.00	0.00	0.00	0.00	13,720,866.50	8,638,760.30	35,559,606.70	38,488,579.60	30,136,295.60	126,544,108.70

2. Menghitung Probability of Default

Desember 2006		Migrasi di th 2007 atas Balance 2006										PD to HB 2006-2007
Umur Tunggakan	Saldo	0 Hari	1-30 Hari	31-60 Hari	61-90 Hari	91-120 Hari	121-180 Hari	> 180 Hari	Hapus Buku	Pembayaran	Jumlah	
0 Hari	1,106,153,940.30	62.84%	5.96%	14.59%	0.00%	7.52%	8.92%	0.17%	0.00%	0.00%	100.00%	**1.78%**
1-30 Hari	233,814,998.60	0.00%	0.00%	78.92%	0.00%	21.08%	0.00%	0.00%	0.00%	0.00%	100.00%	**3.35%**
31-60 Hari	139,859,817.40	0.00%	0.00%	68.76%	31.24%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	**2.57%**
61-90 Hari	42,320,981.90	0.00%	0.00%	0.00%	31.98%	51.61%	0.00%	16.41%	0.00%	0.00%	100.00%	**8.23%**
91-120 Hari	44,762,679.70	0.00%	0.00%	0.00%	0.00%	50.45%	38.52%	11.03%	0.00%	0.00%	100.00%	**6.28%**
121-180 Hari	100,393,519.20	0.00%	0.00%	0.00%	0.00%	44.44%	30.61%	24.95%	0.00%	0.00%	100.00%	**7.59%**
> 180 Hari	126,544,108.70	0.00%	0.00%	0.00%	0.00%	10.84%	6.83%	28.10%	30.42%	23.81%	100.00%	**30.42%**

SUMMARY PD-LGD-CKPN

SUMMARY DATA PD
MIGRATION ANALYSIS

PERHITUNGAN % CKPN

Umur Tunggakan	Saldo 2006	Saldo 2007	Saldo 2008	PD TO HB 2006-2007	PD TO HB 2007-2008	PD TO HB 2008-2009	PD	LGD	CKPN
0 Hari	1,106,153,940.30	786,201,319.80	673,922,033.60	1.78%	2.03%	0.13%	**1.31%**	**72.07%**	**0.95%**
1-30 Hari	233,814,998.60	743,663,462.30	938,359,428.60	3.35%	0.17%	0.55%	**1.36%**	**72.07%**	**0.98%**
31-60 Hari	139,859,817.40	348,285,855.60	439,710,357.60	2.57%	0.62%	0.17%	**1.12%**	**72.07%**	**0.81%**
61-90 Hari	42,320,981.90	169,581,522.90	465,441,646.40	8.23%	2.84%	0.59%	**3.89%**	**72.07%**	**2.80%**
91-120 Hari	44,762,679.70	224,126,501.20	228,275,346.30	6.28%	12.49%	0.65%	**6.47%**	**72.07%**	**4.67%**
121-180 Hari	100,393,519.20	222,993,864.50	114,736,805.80	7.59%	21.37%	3.12%	**10.69%**	**72.07%**	**7.71%**
> 180 Hari	126,544,108.70	180,385,148.40	327,788,905.90	30.42%	38.91%	41.08%	**36.80%**	**72.07%**	**26.53%**