

20th Seminar on Current Issues in Life Assurance

26 November 2025

**“Equity Walk”: Demonstrating equivalence between IEV
and the Ind AS Comprehensive Equity**

**Kunj Behari Maheshwari,
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The value of a business is measured
not by what has been put into it,
but by what can be taken out of it.

Benjamin Graham



“

We didn't start the fire.
It was always burning,
since the world's been turning.

Billy Joel



Challenges in valuing a life insurance business

06

the emergence of a revised value metric that more effectively explains the underlying financial performance of the life insurance business

05

calls for improvements in the standards to enhance transparency, consistency, and comparability of the reported metrics

04

a resulting desire to “control the narrative” and to better understand how the computed metrics evolve into subsequent realities



01

emergence of a new metric or standard

02

faithful adoption of its underlying principles

03

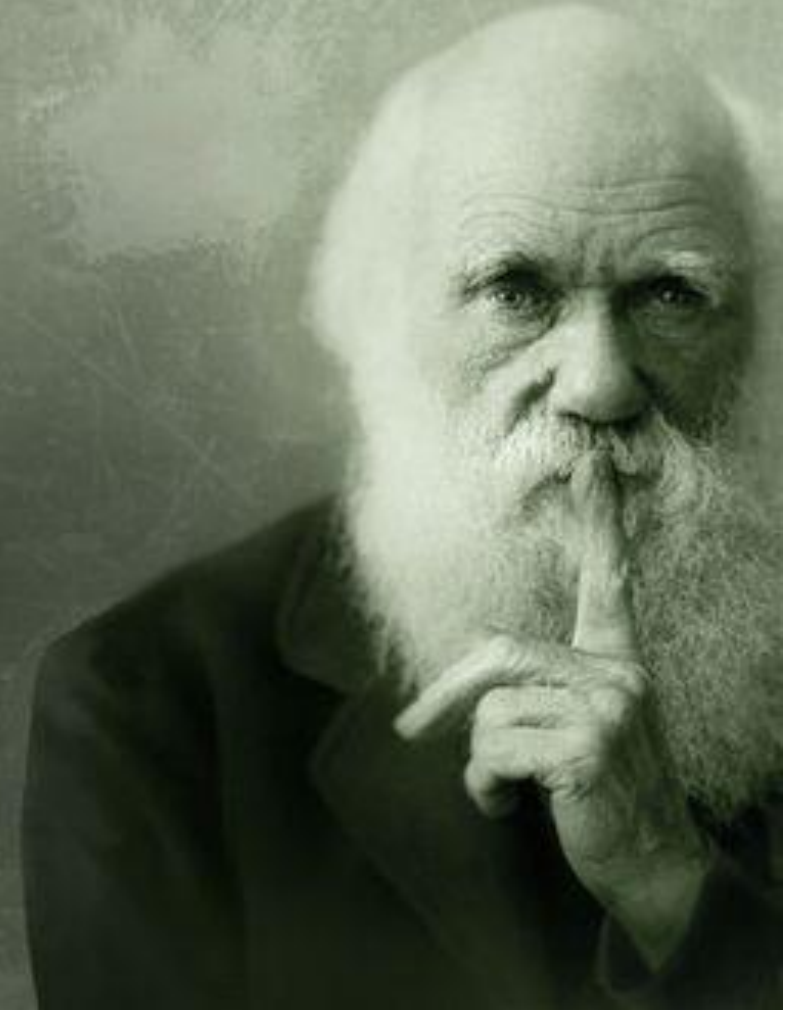
divergence between “actuals” and “expected” outcomes due to the presence of estimates and judgements

Challenges in valuing a life insurance business

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From so simple a beginning
endless forms most beautiful
and most wonderful have been,
and are being, evolved.

Charles Darwin



The origin of value:

A brief history of the evolution of life insurance value-metrics

1959

The 'grand-father of embedded value' introduced discounted cashflow methods for valuation and pricing in a life insurance context



James CH Anderson

Through late 1980s to 2010s, actuaries published more than 50+ articles and papers in reputed actuarial journals that led to global acceptance of market consistent valuation techniques, that were ultimately adopted by the CFO Forum within its MCEV Principles.



First external publication of EV by Royal Life (Royal & Sun Alliance) in the UK

1984

First external publications of market consistent EVs by Royal Life (Royal & Sun Alliance) and Pearl in the UK

2003

2002-10

MARKET-CONSISTENT VALUATIONS AND SOLVENCY II: IMPLICATIONS OF THE RECENT FINANCIAL CRISIS

By Kamran Foroughi

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[PRESENTED AT THE UK ACTUARIAL PROFESSION OPEN FORUM, STAPLE INN, 16 SEPTEMBER 2010]

ABSTRACT

The recent financial crisis has raised challenges to market-consistent valuation, both in its implementation and application. These include both commercial and technical challenges. The whole concept of mark-to-market accounting has been questioned in some quarters.

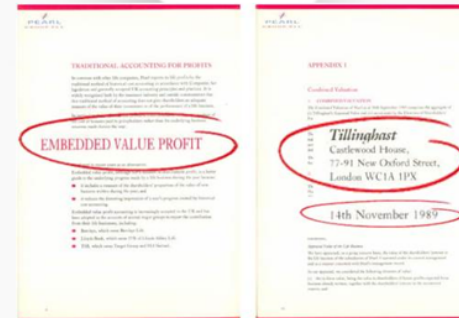
global developments in market consistent valuations

Hostile take-over of Pearl by AMP highlighted the importance of EV reporting that soon emerged primarily as a defense mechanism to protect shareholder interests resulting in widespread adoption of EV through 1980s and 1990s

1989

2007

Amongst the first publications setting out implications of market consistent valuations in the Indian context that fostered early thinking on adoption of market consistent techniques in India ... that ultimately culminated in the adoption of APS 10 in 2012 by the Institute of Actuaries of India.



Market-Consistent Embedded Value – An Indian Perspective

A paper by Kinj Maheshwari, Nidhi Narang, Parul Bhatia and Vivek Jalan

Written for the 9th Global Conference of Actuaries, Mumbai, 12-13 February, 2007.

Subject Code: A. Life Insurance

Abstract

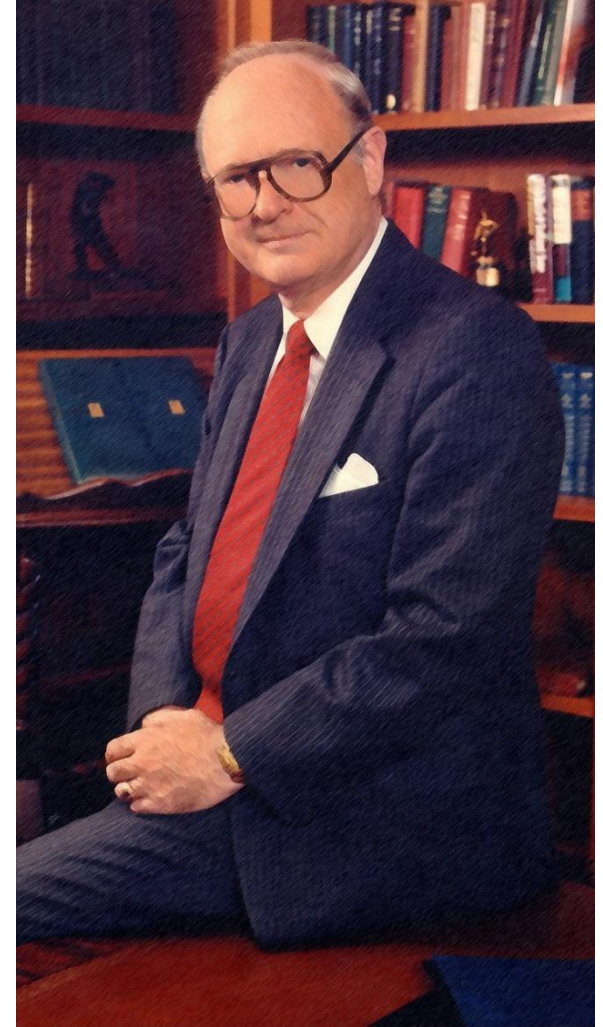
This paper is intended to briefly discuss the meaning and purpose of Market-Consistent Embedded Value calculation and the viability of such calculation in the Indian scenario.

The origin of value: A brief history of the evolution of life insurance value-metrics

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The value of a life insurance company is not adequately represented by the total of its capital and surplus. A more realistic value must take account of its business in force and agency organization.

James C. H. Anderson

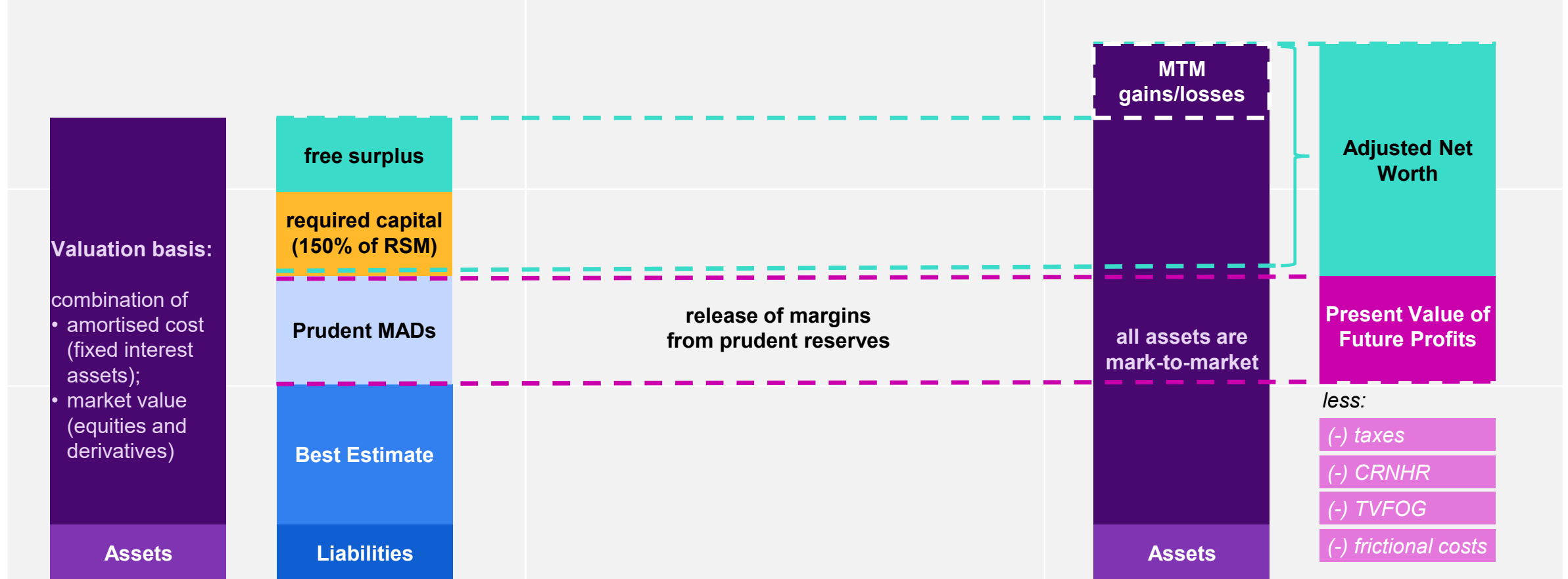


Components of Indian Embedded Value

Indian GAAP
(deferral and matching reporting)

Ind AS

Indian Embedded Value
(economic value reporting)



Components of Indian Embedded Value

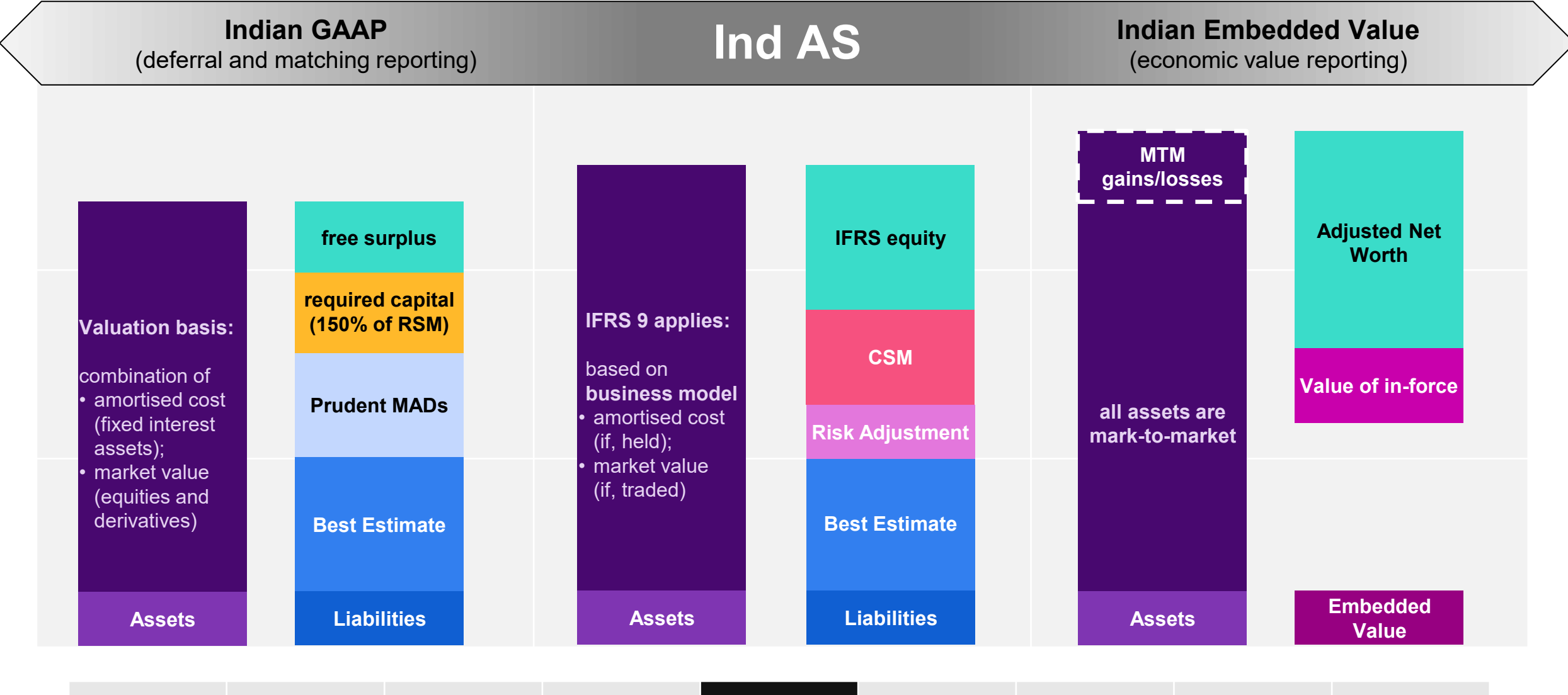
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The Board and its predecessor body,
the International Accounting Standards
Committee (IASC), worked on this
Standard for no less than 20 years, but I
believe it was entirely worth the wait.

Hans Hoogervorst



The Anatomy of Ind AS Comprehensive Equity

Hybrid approach overlaps with both current GAAP and IEV; with some new items introduced



The Anatomy of Ind AS Comprehensive Equity

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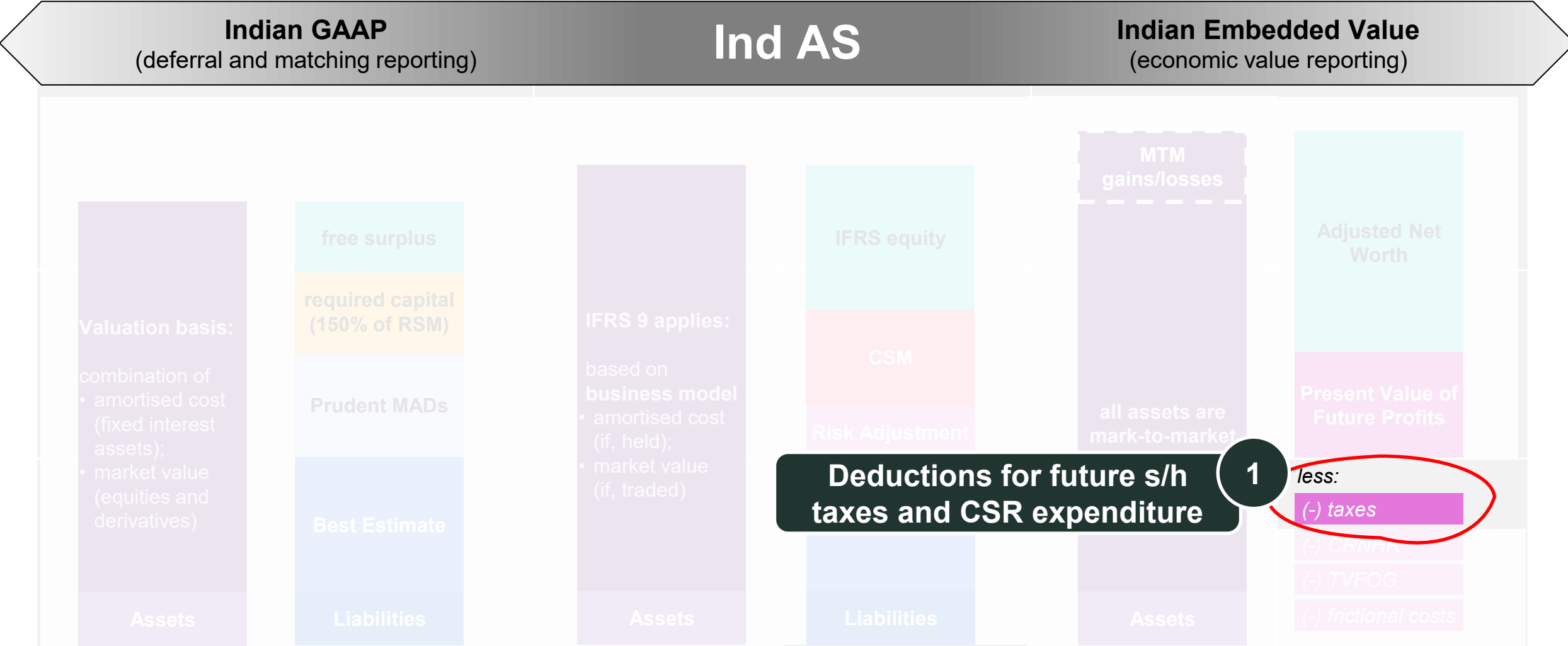
The lamps are different,
but the Light is the same.

Rumi



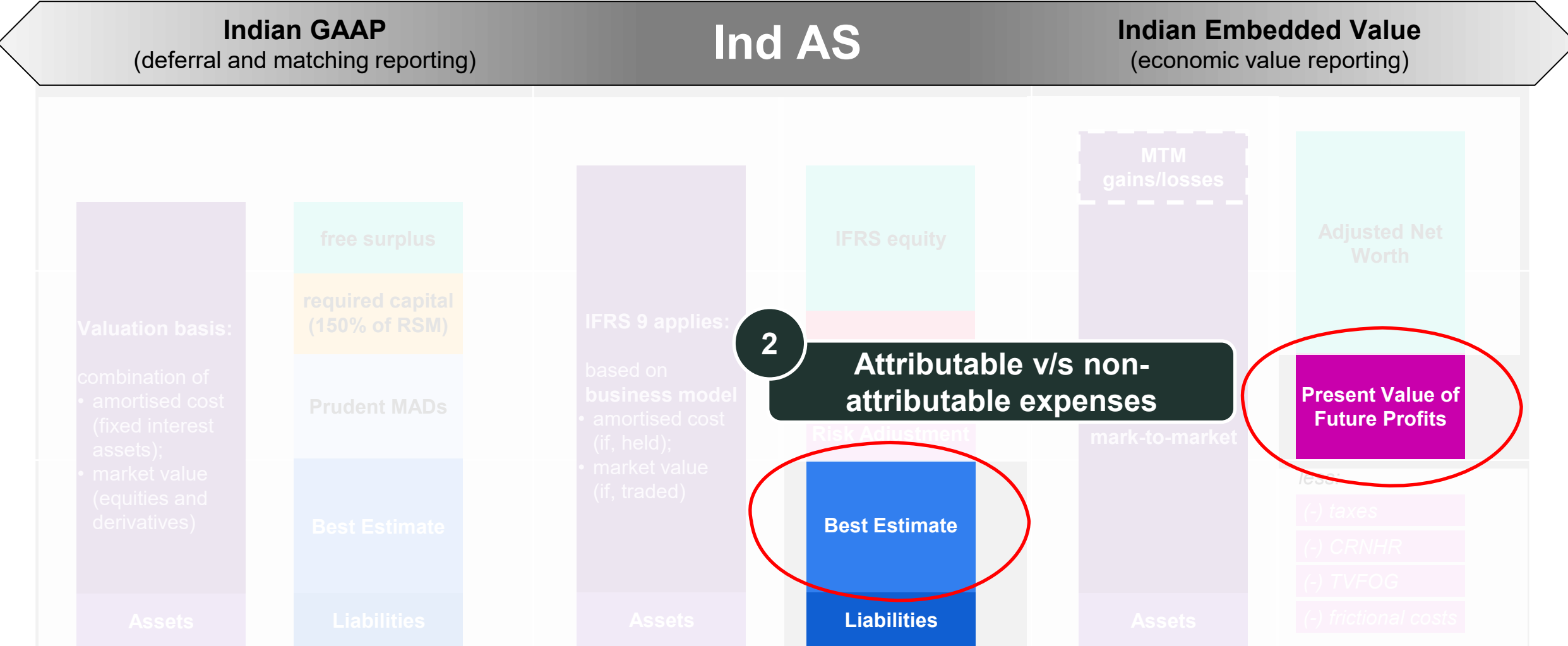
**Bridging IEV and Ind AS Comprehensive Equity:
Principal components of the reconciliation framework**

Key reconciliation items arising from differences in definitions within IEV and Ind AS



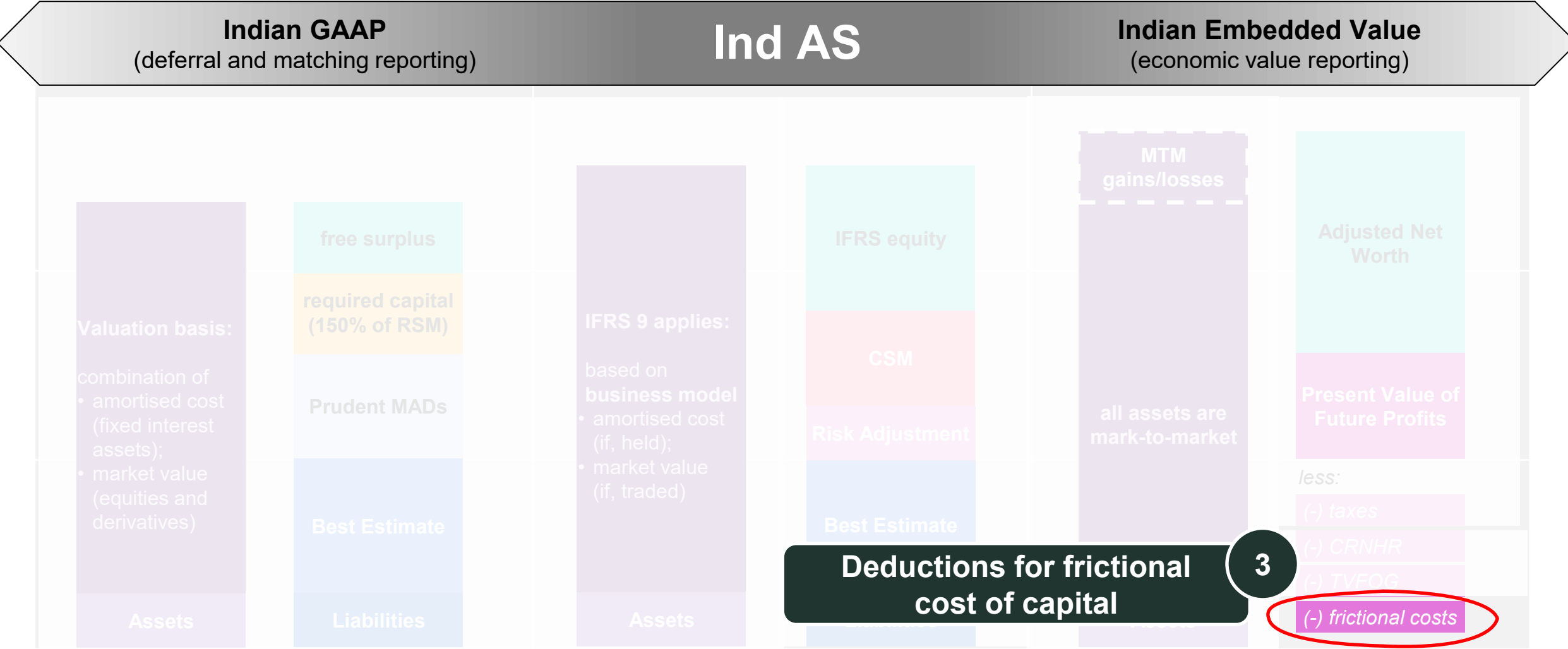
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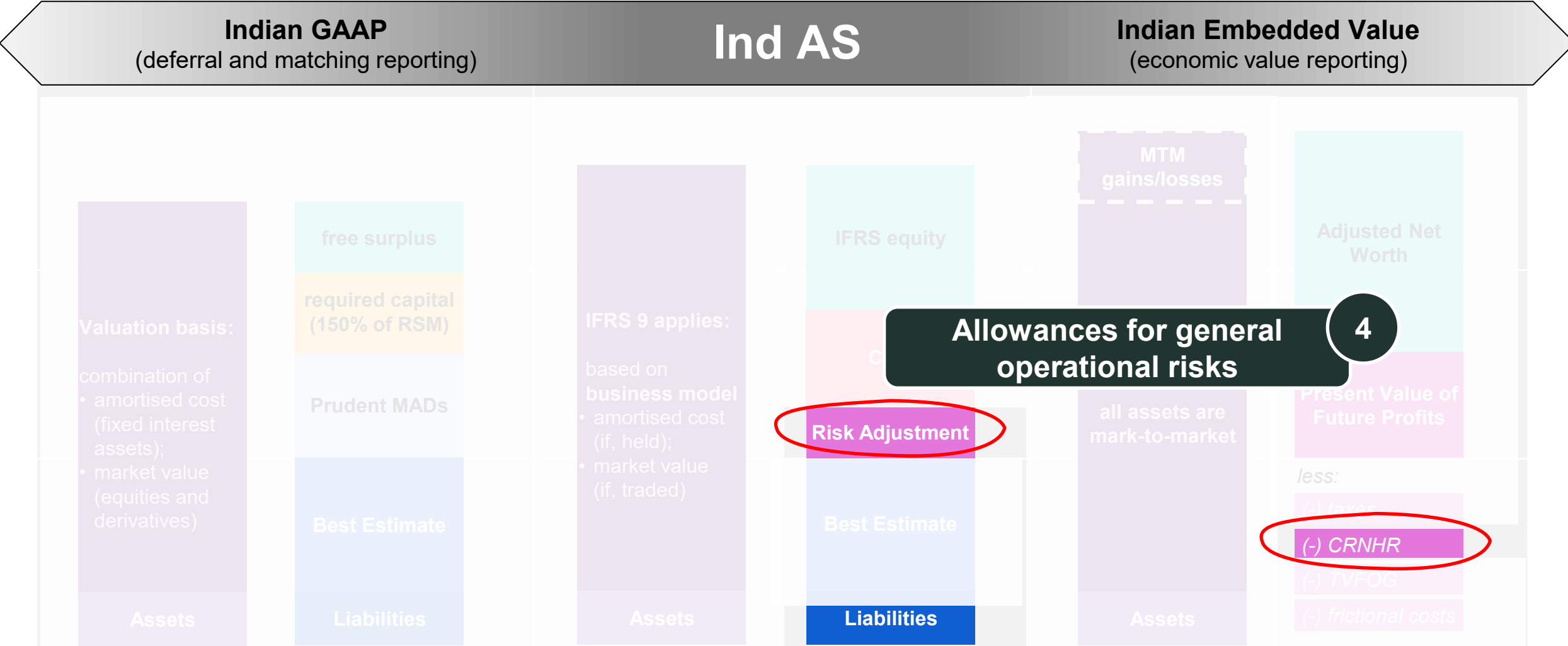
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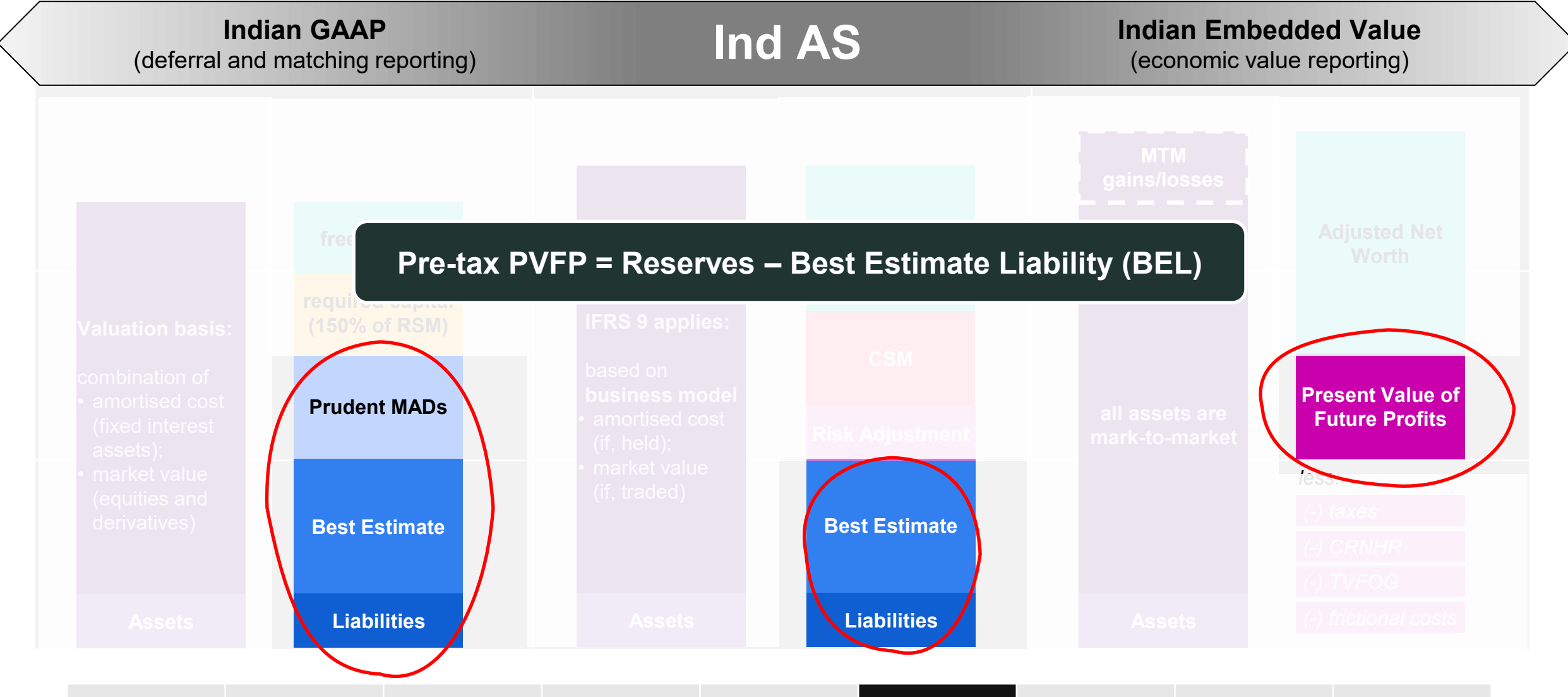
If all's alike in how it's done,
Then all's alike when all is run.

BM Sampad



**Bridging IEV and Ind AS Comprehensive Equity:
Additional investigations to be conducted for extended reconciliation**

Additional control checks and investigations

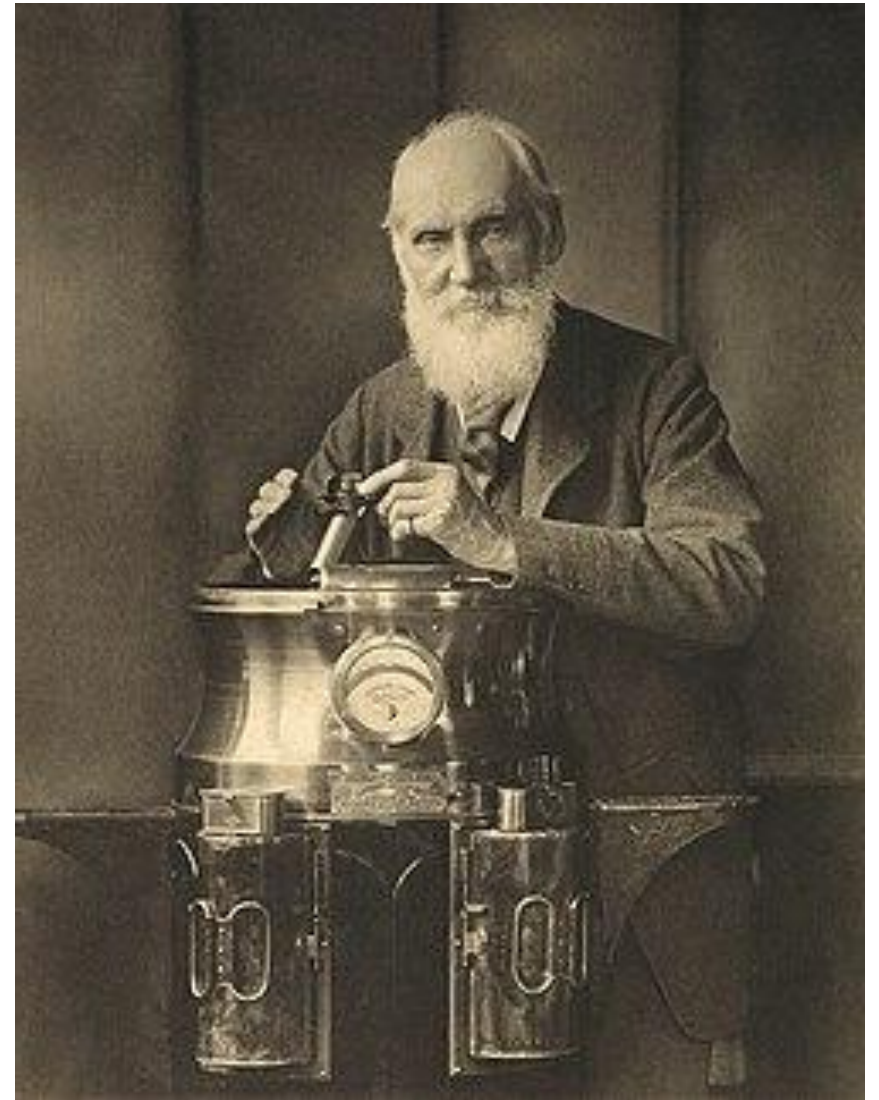


Bridging IEV and Ind AS Comprehensive Equity:
Principal components of the reconciliation framework

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When you can measure what you are speaking about, and express it in numbers, you know something about it; but when you cannot measure it, when you cannot express it in numbers, your knowledge is of a meagre and unsatisfactory kind.

Lord Kelvin



Deriving Equivalence:

An algebraic “proof” of the reconciliation framework

Indian Embedded Value (IEV) =	Adjusted Net Worth (ANW)	+	Value of in-force (VIF)
	= Indian GAAP (Assets – Liabilities)		= Present Value of Future Profits, PVFP ¹
	+ MTM (net of tax) adjustments		- Cost of Residual Non-Hedgeable Risks, CRNHR
			- Time Value of Financial Options & Guarantees, TVFOG
			- Frictional Cost of Capital, FCoC
	≈ MV (Assets) – Reserves		
	- Tax on MTM adjustments		
	+/- Other (assets – liabilities) ⁸		≈ (Reserve – BEL) ¹ – tax – CRNHR – TVFOG – FCoC
...bring it together:			
Indian Embedded Value (IEV) =	MV (Assets) – Reserves + Reserve – BEL – TVFOG – CRNHR		
	- s/h tax deductions in IEV +/- Other (assets – liabilities) – FCoC		
	≈		MV (Assets) – BEL – TVFOG – CRNHR
			+ PV (non-attributable expenses) – PV (non-attributable expenses) + CSM – CSM (Note 2)
			- s/h tax deductions in IEV +/- Other (assets – liabilities) – FCoC
	≈		MV (Assets) ³ – (BEL – PV(non-attributable expenses) + TVFOG) ⁴ – CRNHR ⁵ – CSM
			– PV (non-attributable expenses) + CSM
			- s/h tax deductions in IEV +/- Other (assets – liabilities) – FCoC
	≈		Ind AS 109 (Assets) ³ – Ind AS 117 (PVCF ⁴ + RA ⁵ + CSM) +/- Other (assets – liabilities) + CSM
			- s/h tax deductions in IEV – PV (non-attributable expenses) – FCoC – OpRisk ⁵
	≈		Ind AS (Assets – Liabilities) ⁶ + CSM, i.e. Ind AS Comprehensive Equity ⁷
			- s/h tax deductions in IEV – PV (non-attributable expenses) – FCoC – OpRisk
...therefore, ceteris paribus	Indian Embedded Value (IEV)		
	+ s/h tax deductions in IEV (refer Section 6.1)		
	+ Present Value of non-attributable expenses (refer Section 6.2)		
	+ Frictional Cost of Capital (refer Section 6.3)		
	+ Allowance for operational risks within CRNHR (refer Section 6.4)		
	+/- Any other adjustments arising due to further investigations (refer Section 7)		
	= Ind AS Comprehensive Equity		

IEV Value of New business	
=	NB.(PVFP – TVFOG – CRNHR – FCoC)
=	PV (Income – Outgo – Change in Reserves) – TVFOG – CRNHR – FCoC
=	PV (Premium) – PV (Policyholder outgoes) – PV (shareholder taxes) – TVFOG – CRNHR – FCoC
	+ [PV (Investment Income) – PV (Change in Reserves)] => ≈0 under risk-neutral assumptions
(reversing signs)	(-) [PV (Policyholder outgoes + attributable expenses – premiums) + TVFOG
	+ PV (non-attributable expenses) + PV (shareholder taxes)
	+ CRNHR
	+ FCoC]
	≈ (-) [Ind AS 117.Initial Recognition.PVCF + Risk Adjustment]
	- PV (non-attributable expenses) - PV (shareholder taxes)
	- OpRisk
	- FCoC
	≈ (-) Ind AS 117.Initial Recognition.FCF => CSM, if positive; and LC, if negative
	- PV (non-attributable expenses) - PV (shareholder taxes) – FCoC – OpRisk
...therefore, ceteris paribus	IEV.VNB
	+ Present value of shareholder tax deductions in VNB
	+ Present value of non-attributable expenses
	+ Frictional Cost of Capital
	+ Allowance for operational risks within CRNHR
	+/- Any other adjustments arising because of additional investigations described below
	= Ind AS 117 CSM/(LC)

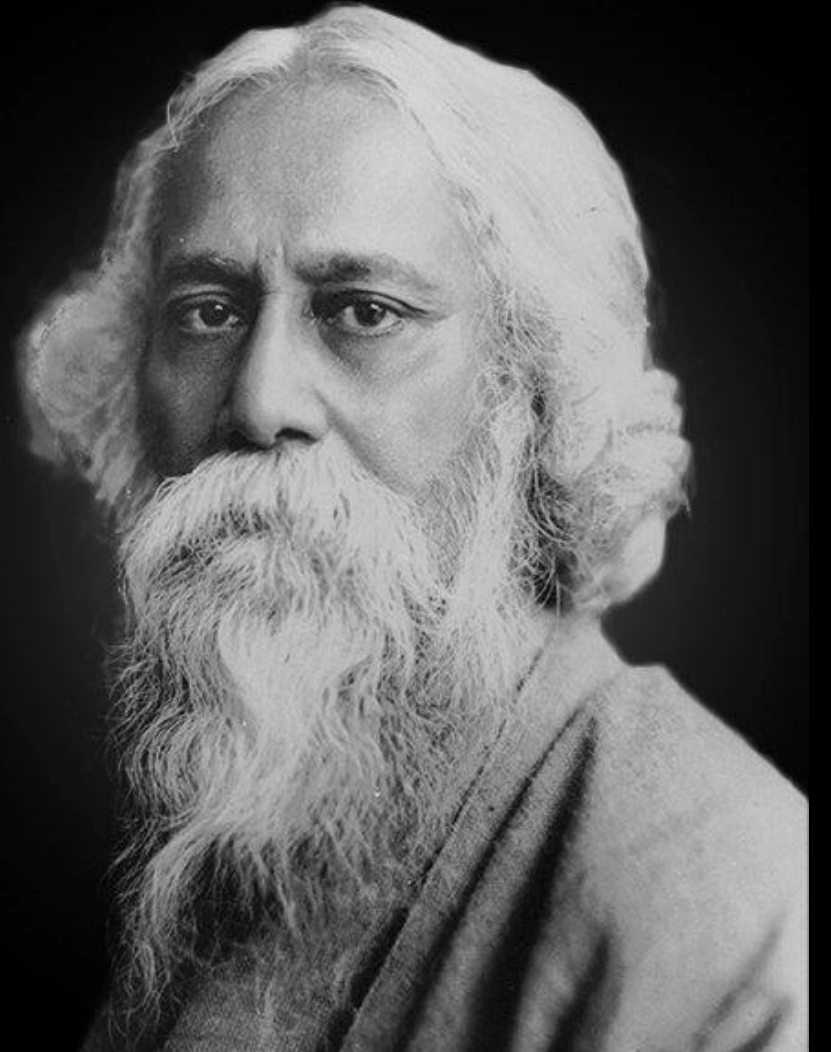
Deriving Equivalence:

An algebraic “proof” of the reconciliation framework

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We read the world wrong
and say that it deceives us.

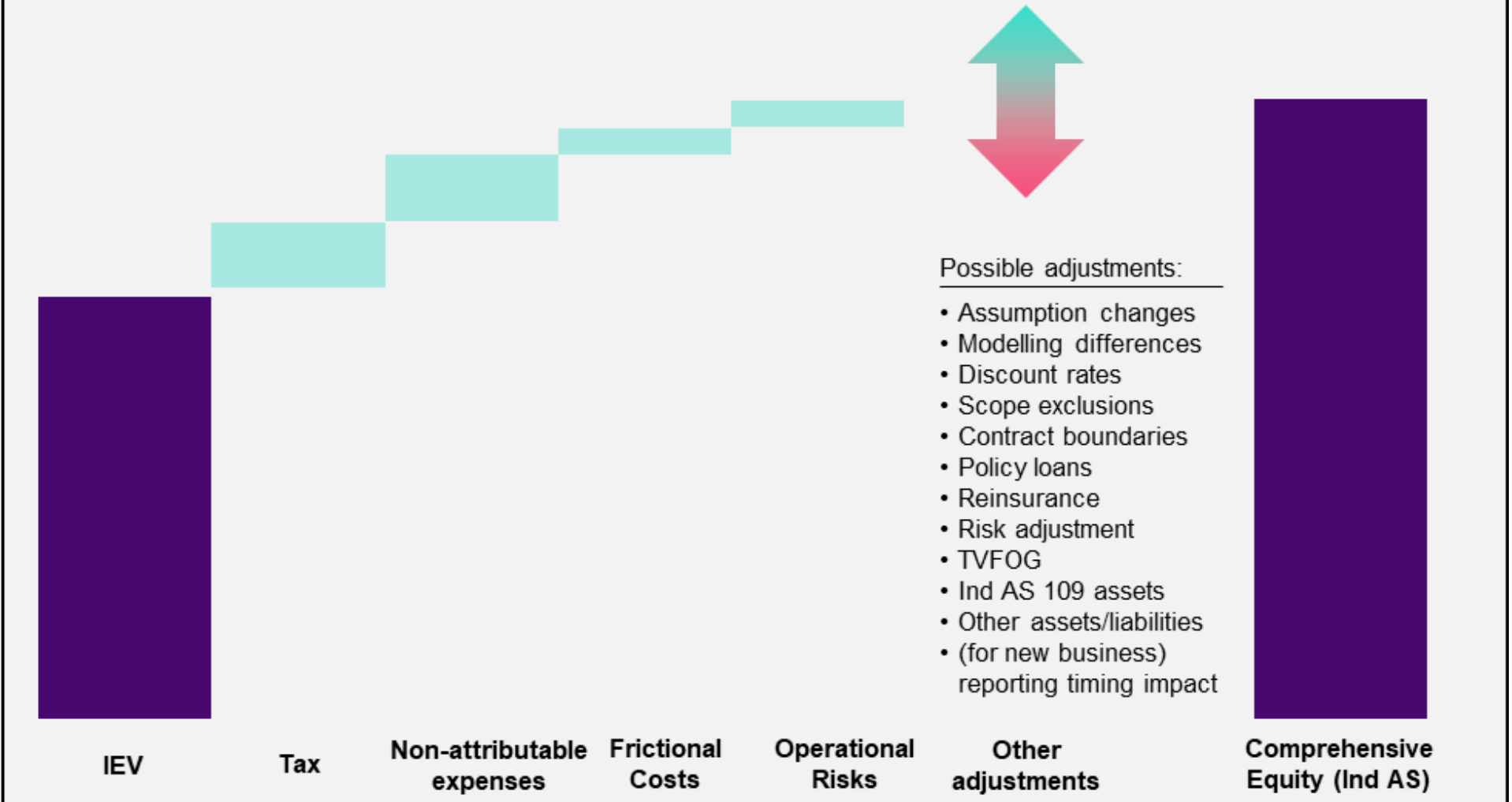
Rabindranath Tagore



Bringing it all together: concluding remarks

Bridging IEV and Ind AS Comprehensive Equity: a waterfall summary

For illustrative purposes only



Bringing it all together: concluding remarks



A final thought on the future of Embedded Value