

The 9th International Probabilistic Safety Assessment
& Management Conference (PSAM)

Systematic Risk Management in Public Works Projects

19 May 2008



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Permanent Secretary for Development (Works)

**Winter in Wuhan,
China
February, 2008**









System Failure and Train Disasters



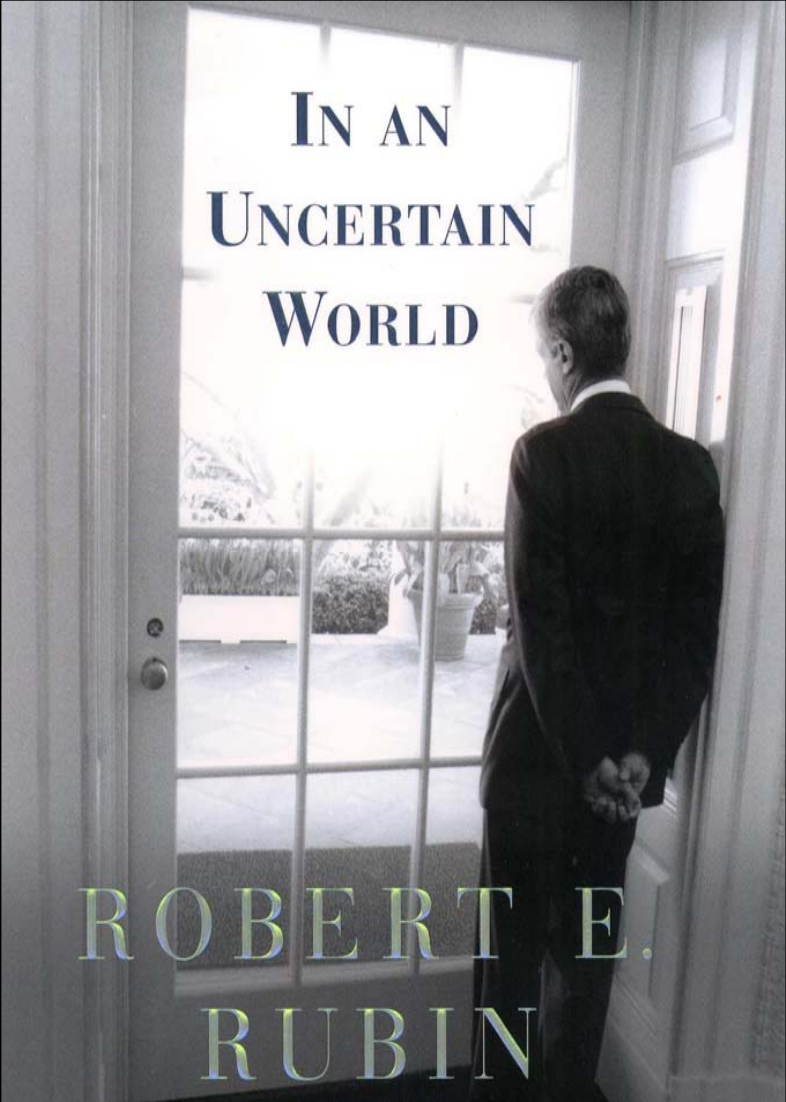


We don't know how the house looked like before.
But we know the old man can't rebuild it by himself.



We don't know how many schools collapsed.
But we know at that time many classrooms were full of students.



A man in a dark suit stands with his back to the camera, looking out a large window. The window is divided into several panes. Outside, a bright, somewhat overexposed outdoor scene is visible, including what appears to be a garden or courtyard. The text "IN AN UNCERTAIN WORLD" is overlaid in the upper left quadrant of the image, and "ROBERT E. RUBIN" is overlaid in the lower left quadrant.

IN AN
UNCERTAIN
WORLD

ROBERT E.
RUBIN

Risks and uncertainty with potentially damaging consequences are inherent in all construction projects. We should limit their potential damage through proactive and systematic risk management.

Robust control should be exercised over project variations.

It is also necessary to allocate risks in an equitable manner between the employer and the contractor to ensure successful project delivery.

***-- Construct for Excellence,
Report of the Construction
Industry Review Committee***

... Our conclusions are that we need a modern, safe, innovative, efficient, environmentally responsible and client-oriented construction industry that strives to deliver quality products in order to support the further development of our economy in the 21st century and to provide a better living environment for the population.

-- *Henry Tang,*
Chairman of the Construction
Industry Review Committee
January 2001

Jan 2001 Construct for Excellence,
Report of the Construction Industry
Review Committee

- **Contract Procurement : Effective risk management and equitable contracting arrangements**
 - a. Public sector clients to take a lead in promoting wider adoption of systematic risk management to improve project performance
 - b. Develop guidance notes on integrated and systematic risk identification and management

Jun 2005 Technical Circular No. 6/2005

Implementation of Systematic Risk Management in Public Works Projects (21 June 2005)

- a. Risk analysis at regular intervals throughout project implementation
- b. Allocating responsibilities to parties best able to manage the identified risks
- c. Assessment of the effectiveness of the risk control measures

Technical Circular No. 6/2005

Implementation of Systematic Risk Management in Public Works Projects (21 June 2005)

- a. A New Policy
- b. A Risk Based Management Process
- c. Risk Managers
- d. Project Risk Management Plan; Project Risk Register; Risk Treatment Plans
- e. Risk Management User Manual

HK's infrastructure development

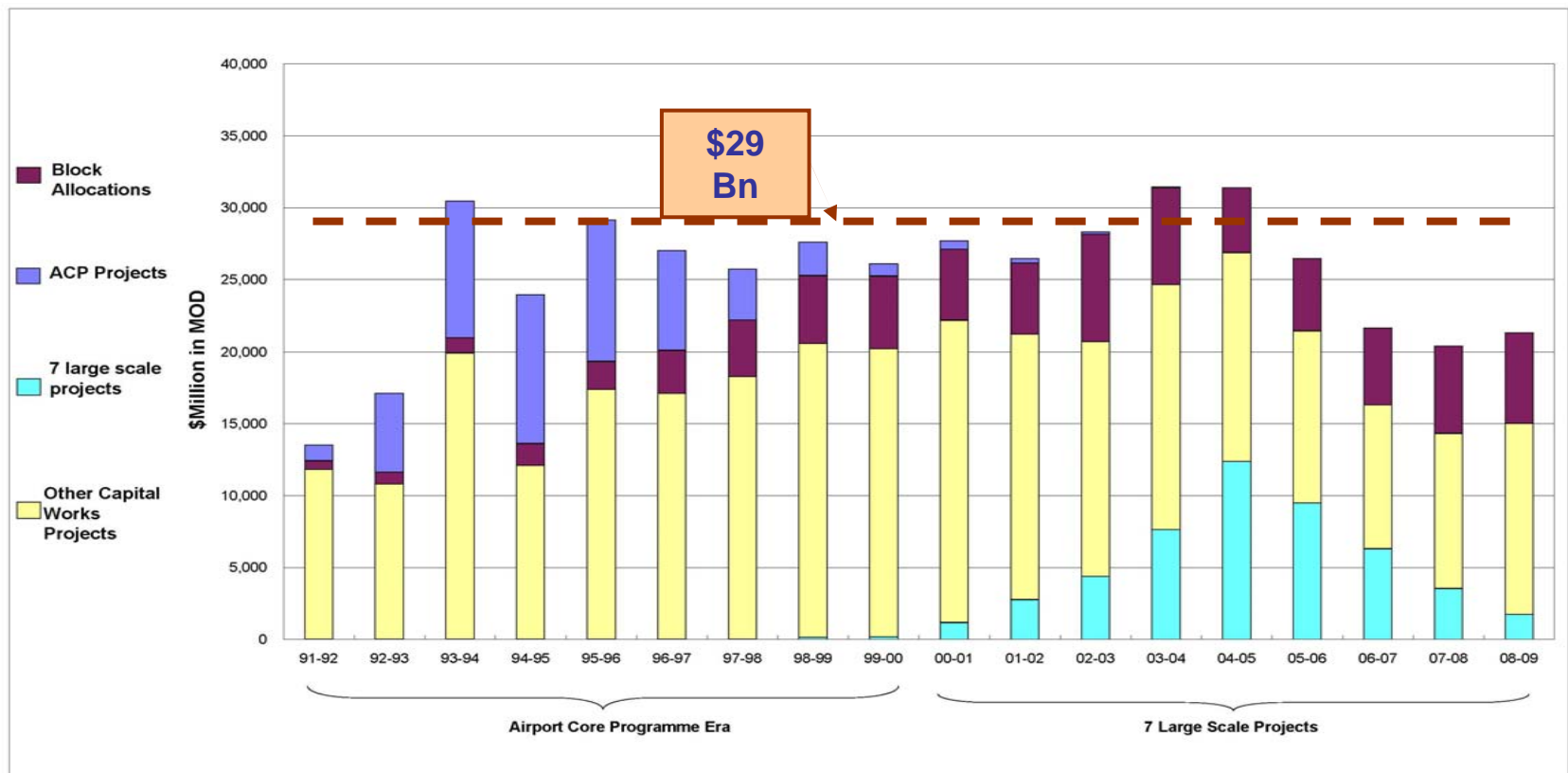


“Infrastructure development can bring about huge economic benefits. Both employment opportunities and wages will increase during the construction stage, and, upon completion, the infrastructure projects will boost economic activities and improve the living environment.”

*-- A New Direction for Hong Kong
Policy Address 2007*

HK's infrastructure development

Expenditure of the Capital Works Programme (From 1991-92 to 2008-09)



Systematic Risk Management in Public Works Projects

- a. Post 2010 Landslip Prevention and Mitigation Programme – Landslide Risk Management and the Role of Quantitative Risk Management Techniques
- b. General Strategy for Replacement of Aged E&M Assets in Government Premises
- c. Water Safety Plan
- d. Risk Assessment of DSD Asset
- e. Risk Management Registry for projects

... We have attempted to in this report to set strategic directives for a change programme that encompasses all sectors of the industry. ... The successful transformation for the industry will hinge critically on strong leadership and commitment from both the Government and industry in implementing the change programme.

-- *Henry Tang,*
Chairman of the Construction
Industry Review Committee
January 2001



Riding the Ball ...
to All levels!!

At All levels? Jack Reilly, intrepid photographer, perched from the 72nd story of the Manhattan Company Building on 13 Nov 1929



At All Levels Lunchtime Atop a Skyscraper 1932



Source of image from art.com

At All Levels or an afternoon lap before work !?



Source of image from art.com

Risk Assessment and Management

- Institutions
- Leadership
- A Total System **at All Levels**



Thank you