



# The Impact of the **Economic Crisis on** East Asia

Policy Responses from Four Economies

Edited by

Daigee Shaw

President, Chung-Hua Institution for Economic Research. Taiwan

Bih Jane Liu

Vice President, Chung-Hua Institution for Economic Research, Taiwan

IN ASSOCIATION WITH THE CHUNG-HUA INSTITUTION FOR **ECONOMIC RESEARCH** 

**Edward Elgar** 

Cheltenham, UK · Northampton, MA, USA



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Published by Edward Elgar Publishing Limited The Lypiatts 15 Lansdown Road Cheltenham Glos GL50 2JA UK

Edward Elgar Publishing, Inc. William Pratt House 9 Dewey Court Northampton Massachusetts 01060 USA

A catalogue record for this book is available from the British Library

Library of Congress Control Number: 2011924311



ISBN 978 0 85793 169 6

Typeset by Servis Filmsetting Ltd, Stockport, Cheshire Printed and bound by MPG Books Group, UK

### Contributors

Pi Chen Assistant Research Fellow, CIER, Taipei, Taiwan.

**Un Chan Chung** Former Prime Minister of South Korea, Professor of Economics and Former President of Seoul National University, South Korea.

**Chih-Chin Ho** Dean, College of Social Sciences, National Cheng Kung University, Taiwan.

**Yu-Shan Hsu** Assistant Professor, Department of Economics, National Chung-Cheng University, Taiwan.

Sheng-Cheng Hu Academician, Academia Sinica, Taiwan.

Masahiro Kawai Dean, Asian Development Bank Institute, Tokyo, Japan.

Chia-Hui Lin Analyst, CIER, Taipei, Taiwan.

Chih-Yung Lin Department of Finance, National Taiwan University, Taiwan

**Bih Jane Liu** Vice President, CIER, and Professor, Department of Economics, National Taiwan University, Taiwan.

**Ching-Shin Mao** Associate Professor, Department of Economics, National Taiwan University, Taiwan.

Daigee Shaw President of CIER, Taipei, Taiwan.

**Chung-Hua Shen** Professor, Department of Finance, National Taiwan University, Taiwan.

**Shinji Takagi** Professor, Graduate School of Economics, Osaka University, Osaka, Japan.

Jiann-Chyuan Wang Vice President, CIER, Taipei, Taiwan.

**Lee-Rong Wang** Director, Center for Economic Forecasting, CIER, Taipei, Taiwan.

**Yongding Yu** Director, Chinese Academy of Social Sciences, Institute of World Economics and Politics, Beijing, China.

### Preface

This book is for anyone who is interested in the economic conditions and policy response of four major East Asian economies in the wake of the 2008 global economic crisis. It is a compilation of ten academic theses written by a distinguished group of Asian social scientists from the region's top national universities, state research institutes, regional economic institutions and think tanks.

Largely a scholarly work of normative analysis, this synthesis study summarizes the economic impacts of the crisis on individual countries and their policy responses over the past years, with particular emphasis on carefully scrutinizing the immediate and remote causes of the crisis. It not only offers assessments of the impacts and identifies measures that can be undertaken in specific countries to stabilize the situation, but also looks at the crisis from three important disciplines of economies: a healthy fiscal system, international trade and the energy market. It offers reasons for the strategic programs needed for recovery and for promoting sustained economic growth. Although none of the authors provides a complete answer to all the problems, all the authors provide useful information and new ideas to fashion a workable program.

It will be apparent that we have addressed a wide range of economic issues in this volume. Yet, the ten theses are grouped into three parts based on common themes they share with one another. Each part offers treatment of a distinct area of study of economics, appropriately positioned in the context of economic crisis. Chapters 1 to 3, constituting the first part of the volume, examine various aspects of financial systems, since this economic crisis began with a financial crisis. In Chapter 1, orienting us with a detailed account of how the crisis first originated and then affected Taiwan, Hu offers a close examination of the recent US financial regulatory reforms in the aftermath of the crisis and presents us with a succinct evaluation of both the US and the Taiwanese banking systems. In Chapter 2, drawing lessons from the experiences of the pound sterling in the 1920s after World War I and the circumstances surrounding the British abandonment of the gold standard in 1931, Wang offers us her study of the possible demise of the dollar standard system after the recent crisis and the rise of the Chinese yuan as the world's primary reserve asset. Shen and Lin then present us in Chapter 3 with an analytic framework, *Preface* ix

based on multiple case studies, that suggests that the underperformance of government-owned banks commonly observed in developing countries during economic crises may be contingent on bad mergers with troubled private banks.

Chapters 4 to 8 are concerned with the impacts, consequences and policy responses of the crisis in several economies, particularly those in East Asia such as Taiwan, Korea, Japan and China. The focus of Part II is to present the reader with key findings on how the economic crisis affected trade, investment and growth in the four economies and the implications for crisis policymaking and management in East Asia. In Chapter 4, Liu gives an empirical account of the linkage between economic crisis and export performance, providing evidence that exports both in Asian and in advanced economies experienced an excessive fall and overshot their longrun equilibrium values during the 2008 and 2001 recessions. She makes some important preliminary clarifications concerning the occurrence of the so-called 'export overshoot' phenomenon and in this context examines factors and conditions that render Taiwanese exports susceptible to crisis. In Chapter 5, Wang and Lin identify Taiwan's most pressing development challenges in the further instability threatened by the recent crisis. They provide details of the nation's action plans for tackling these challenges, whose success is anchored heavily on the signing of the ECFA with China and the development of the six 'flagship' strategic industries in creating new drivers of growth. In Chapter 6, Chung presents a succinct account of how the Korean economy suffers from 'super capitalism' and an internal imbalance of investment and savings similar to the one seen in the US. and how the country is being held hostage by the complications of the deregulation policies applied in opening its burgeoning financial sector. In Chapter 7, Kawai and Takagi offer an empirical examination of the structural changes in trade and industrial structure that have taken place during Japan's lost decade, and how, based on their estimation, those changes have made the Japanese economy less resilient to adverse external shocks. In Chapter 8, Yu discusses China's overcapacity problem resulting from its investment-driven and export-led growth and the implications for Chinese output of the fall in global demand. He offers reasons why China could use a sizable economic stimulus package to boost its internal demand as the country has faced a sudden collapse in global demand and has found itself in the 'dollar trap'.

Finally, Chapters 9 and 10 make up the last part of the book and analyze the crisis from two broader perspectives, that is, fiscal discipline and energy crisis. In Chapter 9, Ho, Hsu and Mao develop a dynamic general equilibrium model under uncertainty that captures the debt-smoothing mechanism of the economy. They give a robust theoretical

exercise on formulating exit strategy for different fiscally disciplined regimes, as they warn governments not to spend their way out of recession by piling up debts with expansionary fiscal policies. In Chapter 10, Shaw and Chen show that the energy crisis was one of the causes of the economic meltdown that predated the bursting of the financial bubble, by describing the interplays between the energy and economic crises. They call it the dual crisis of energy and economy, and offer solutions to the challenge of finding a balance between the rising demand for fossil fuel energy and economic growth in the face of climate change; they show that the role of government may have upset the delicate balance of achieving sustainable development.

At the core of our endeavor, albeit one with many limitations, to compile a book about policy responses to the economic crisis is our firm belief that we can contribute in some way to a good contextual understanding of the individual economies from the region as the world slowly emerges from the Great Recession of 2008. For policymakers prioritizing resources to address the impact of the crisis, we believe that the key findings and policy recommendations of the study will serve as a useful source of information and ideas. For economists keen on keeping abreast of important economic issues of these East Asian economies immediately following the crisis, this book will give a good overview.

## Acknowledgments

This book emanated from an international conference held at the Chung-Hua Institution for Economic Research in Taipei in July 2009, where calls for papers in macroeconomics, finance, banking, international trade, industrial policy, natural resources and conservation were submitted as a series of Dr Sam-Chung Hsieh Memorial Conference Papers.

Dr Sam-Chung Hsieh (1919–2004) was a former Governor of the Central Bank of China and the founding Director of the Asian Development Bank. As Secretary-General of the Joint Commission on Rural Reconstruction and later as Chairman of Taiwan's National Development Bank, he played a leading role in efforts which sparked the 'Taiwan Miracle'. He also served as Chairman of the Chung-Hua Institution for Economic Research, of the China Trust Bank and of the Industrial Bank of Taiwan. He was a professor at National Taiwan University and a visiting professor at the Cornell University—University of the Philippines joint programs.

## Abbreviations

ADB Asian Development Bank ADBI Asian Development Bank Institute AIC Akaike information criterion AIG American International Group AS Akciová Společnost (Czech: Joint Stock Company) ASEAN Association of Southeast Asian Nations BIS Bank for International Settlements BRIC Brazil, Russia, India and China **BVC** Biotechnology Venture Capital CAM Crédit Agricole de Maroc CBC Central Bank, ROC CBO Congressional Budget Office (US) CDO collateralized debt obligation Cambridge Energy Research Associates CERA Chung-Hua Institution for Economic Research (ROC) CIER CPI consumer price index **DGBAS** Directorate-General of Budget, Accounting and Statistics (ROC) DRAM dynamic random access memory **EASE** East Asia Seminar on Economics **ECFA** economic cooperation framework agreement EIA Energy Information Administration (US) FAI fixed asset investment FDI foreign direct investment FPI foreign portfolio investment **FSC** Financial Supervisory Commission (ROC) FTA free trade area GCC Gulf Cooperation Council GDP gross domestic product **GNP** gross national product GOB government-owned bank **HSBC** Hong Kong Shanghai Banking Corporation ICT information and communications technologies IEA International Energy Agency IMF International Monetary Fund

IP Intellectual Property

IPB Investični a Poštovni Banka KDI Korea Development Institute

KIEP Korea Institute of International Economic Policy

KPI key performance indicator
LDC less-developed country
LED light-emitting diode
MA moving average

MOEA Ministry of Economic Affairs (ROC) MUFJ Mitsubishi UFJ Financial Group

NBER National Bureau of Economic Research (US)

NDRC National Development and Reform Commission (PRC)

NIEs newly industrializing economy

NT New Taiwan

ODM original design manufacturing
OEM original equipment manufacturing

OTC over-the-counter

PBOC People's Bank of China (PRC)
PPP purchasing power parity

ppt presentation (PowerPoint) file extension

PRC People's Republic of China (Mainland China)

RMB renminbi

ROC Republic of China (Taiwan)

RT Részvénytársaság (Hungarian: Public Limited Company)

SA Société Anonyme (French: Limited Company)

SDR special drawing rights
SIC Supra Information Center
SMEs small and medium enterprises
STB Société Tunisienne de Banque

STEP Senter for Innovasjonsforskning (Norwegian: Center for

Innovation Research)

TFDA Taiwan Food and Drug Administration

VAR vector autoregression WSJ Wall Street Journal

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# PART I

Financial system and financial crisis



# 1. The global financial crisis: lessons for Taiwan

#### **Sheng-Cheng Hu**

#### 1.1 INTRODUCTION

The US subprime mortgage problem became an apparent crisis in summer 2007 and soon escalated into the worst global financial crisis and economic downturn in 60 years.

In the global financial crisis, the five largest investment banks in the US became history and would either disappear or no longer exist in their current forms. The government-sponsored agencies such as Fannie Mae and Freddie Mac also had to seek assistance from the US government. The US Federal Reserve System (the Fed) had to come to the rescue of non-banking financial institutions such as Bear Stearns, Merrill Lynch and AIG, while allowing to fail some others (such as Lehman Brothers) that had looked too big to fail. The UK experienced its first bank run (Northern Rock) of any macroeconomic significance since 1866 (Miline and Wood, 2008). The three largest banks in Iceland, accounting for about 85 per cent of its banking sector, collapsed within a span of slightly more than a week, and the country avoided bankruptcy only with emergency assistance from the IMF in November 2008.

The IMF (2009a) estimated global bank write-downs for 2007–10 to be US\$2.81 trillion. According to a study commissioned by the Asian Development Bank (Loser, 2009), capital losses in financial assets worldwide (including stock market valuations, private and public debt, and bank assets) in 2008 amounted to US\$50 trillion, while those for developing Asia were US\$9.6 trillion, or just over one year's worth of its gross domestic product (GDP). The losses caused a bank liquidity crisis, as well as a decline in domestic demand.

The US and other governments responded to the current global financial crisis by collectively undertaking drastic expansionary monetary and fiscal policy measures. They first tried to stabilize financial markets by providing liquidity and by repeatedly lowering interest rates to historically low levels. They then stimulated their economies by cutting taxes,

raising subsidies to the poor or to the affected industries, and increasing public infrastructure expenditures. According to the IMF (2009b) estimates, fiscal balances (in percentage of GDP adjusted for purchasing power parity (PPP)) worldwide would rise from -0.5 per cent for 2007 (the pre-crisis year) to -6.7 per cent for 2009 and -5.6 per cent for 2010. The situation was worse for advanced G20 countries. Their fiscal balances rose from -1.9 per cent for 2007 to -9.7 per cent for 2009 and -8.7 per cent for 2010. And their general government debt (gross) would rise from 78.2 per cent for 2007 to 98.9 per cent in 2009, then to 106.7 per cent in 2010 and further to 118.4 per cent in 2014. Although these concerted stimulus measures have helped stabilize the world economy and speed up its recovery, the resulting increases in government debt have already caused Greece and Ireland to request rescue efforts by the IMF and European Union. They can carry further danger if other countries give a perception of a lack of fiscal discipline, and if this perception is realized. (Freedman et al., 2009.)

The global financial crisis has drawn attention to regulatory weaknesses, and there have been calls for re-examining their design (Blanchard, 2008). The Obama administration has already released a plan to overhaul the US financial supervision and regulation (US Department of the Treasury, 2009). The Obama financial reform plan calls for robust supervision and regulation of financial firms, comprehensive supervision of financial markets, improved protection of consumers and investors from financial abuse, provision to the relevant government agencies of the tools to manage a crisis, and upgrading of international regulatory standards and improvement of international cooperation.

As the global financial crisis began to unfold, Taiwan's financial sector was relatively healthy. However, as a mid-sized, export-oriented open economy, Taiwan could not be immune from the crisis. The Taiwan economy suffered the contagion of the crisis through three channels. First, the crisis resulted in losses in the market value of Taiwanese stocks and overseas assets held by Taiwanese investors, including mortgage-based securities and other toxic assets. These losses in turn depressed domestic demand. Second, the crisis caused a greater volatility in Taiwan's financial markets, although this was relatively mild. Third, and most importantly, the crisis brought about a deep slowdown in the global economy and thereby Taiwan's exports. The decline in exports and domestic demand in turn caused the worst economic slowdown in Taiwan since World War II.

The financial crisis can be studied from a number of directions. First, in view of the deep economic downturn brought about by the crisis, what should be Taiwan's policy response to a financial crisis like this one? Second, what would be the possible structural changes in the global

economy in the aftermath of the crisis, and how should Taiwan react? Third, what are the regulatory weaknesses revealed by this crisis, and how should Taiwan take the lessons into account in its own financial reform? This chapter takes the last direction. It first reviews briefly the causes of the crisis, then considers its impacts on the Taiwan economy, and finally discusses the regulatory implications.

#### 1.2 IMPACTS ON THE TAIWAN ECONOMY

When the global financial crisis began to unfold, Taiwan's financial system was relatively healthy and was more globalized than before. At that time it was considered one of the least vulnerable to a financial crisis among emerging market economies.<sup>4</sup> Most importantly, Taiwan had just cleaned up nonperforming loans, improved capital adequacy, and disposed of zombie banks. The nonperforming loan ratio for domestic banks fell from the peak of 11.27 per cent in April 2001 to 1.84 per cent in December 2007. The Bank for International Settlements (BIS) capital adequacy ratio rose from 10.4 per cent in 2001 to 11.72 per cent in 2007. All zombie banks but one had been disposed of by the Financial Supervisory Commission (FSC), Executive Yuan, ROC. Some other financially troubled banks had either been acquired by other banks or found new capital injection. In taking over the zombie banks, the FSC in conjunction with the Central Bank and the Ministry of Finance had developed expertise in crisis management.

In addition, Taiwan not only has very little foreign debt but also has built up a substantial foreign exchange reserve, which stood at US\$266 billion at the outset of the crisis (June 2007) and at US\$355 billion in March 2010, the third largest in the world, to cushion against any possible external shocks to the economy and financial markets (Figure 1.1).

In recent years, Taiwan has vigorously expanded globalization of its financial sector and encouraged foreign entry into the markets in an effort to develop a regional hub for fundraising and asset management. International banks such as Standard Chartered, Citibank, HSBC and Royal Bank of Scotland have all entered the market by acquiring local banks. The market share of branches and subsidiaries of foreign banks increased from 7.2 per cent in 2004 to 15.8 per cent in 2007. As a result of capital inflows into Taiwan's stock markets, the share of foreign ownership of stocks listed on the Taiwan Stock Exchange rose from 19.8 per cent in 2001 to 32.9 per cent in 2007. Foreign direct and portfolio investments concentrated heavily in the ICT and financial sectors, accounting for more than 50 per cent of shares in some of the largest firms in the two sectors.

Overall, as a result of the relaxation of restrictions on capital flows,