Why did Asian countries fare better during the global financial crisis than during the Asian financial crisis?

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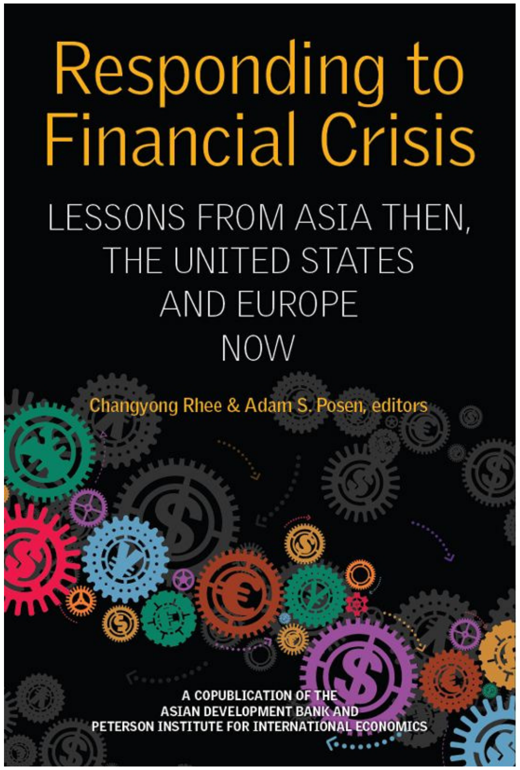
A Chapter of ADB-PIIE Book *Responding to Financial Crisis: Lessons from Asia Then, the United States and Europe Now*



Responding to financial crisis: lessons from Asia then, the United States and Europe now

edited by
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Outline of this presentation

- Motivation for the book
- Structure of the book
- Asia's performance during the GFC vs AFC

Why the book?

- The AFC in 1997–98 was devastating for the region; policymakers believed that they gained knowledge on how to prevent, mitigate, and resolve crises in the future
- Recently, Asian economies escaped the worst effects of the GFC in 2008–10, in part because they had learned the right lessons from their own experience
- This book illuminates the contrast between Asia's performance during the more recent crisis with its performance during its own crisis, and the gap between what the US and EU leaders recommended to Asia then and what they have practiced on themselves since then.
- Lessons emerging from the volume is that countries need to prepare for crises as if they cannot be prevented, make room for stabilization policies and deploy them rapidly when crises hit, and address the need for self-insurance globally if they can, or regionally if they must.

Structure

- Ch. 2: Banking Crises and "Japanization": Origins and Implications (Masahiro Kawai and Peter Morgan)
  - Draws lessons from Japan's 'two lost decades'
  - Accommodative monetary policies combined with steps to encourage banks to clean up their balance sheets are necessary once asset bubbles collapses.
- Ch. 3: Responses of Central Banks in Advanced Economies to the Global Financial Crisis (Joseph E. Gagnon and Marc Hinterschweiger)
  - Assesses the responses of central banks in advanced economies to the GFC
  - Preventing the failure of large financial institutions can avert a negative shock but do not constitute a "positive shock" to the economy
  - Adequate stimulus policies are needed in an event of large negative shocks

Structure

- Ch. 4: Why Did Asian Countries Fare Better during the Global Financial Crisis than during the Asian Financial Crisis? (Donghyun Park, Arief Ramayandi, and Kwanho Shin)
  - Is discussed in this presentation
- Ch. 5: Policy Advice and Actions during the Asian and Global Financial Crises (Simon Johnson and James Kwak)
  - Western countries drew lessons from the Asian crisis of the 1990s, but later failed to apply these lessons to themselves -- the events of September–October 2008, when Lehman Brothers collapsed, resembled a "classic emerging-market crisis"
  - Policy prescriptions for Asia after the crisis were not applied to the United States -- In Asia, insolvent financial institutions were forced to undergo resolution or restructuring; in the US crisis, authorities instead applied various forms of implicit and government financial support to such institutions
  - This increased moral hazard and enshrined the concept of banks "too big to fail," with possibly negative consequences for global financial stability in the future.

Structure

- Ch. 6: Evolution of the Asian and European Financial Crises: Role of the International Monetary Fund (Edwin M. Truman)
  - Reveals that the Asian crisis and the ongoing European crisis are more similar than different, despite le former is less severe than the latter
  - The main lessons: Despite promises to the contrary, history tends to repeat itself and non-crisis countries should realize that they have a stake in preventing and managing crises in other countries
  - Also, the IMF and its surveillance mechanisms should focus on monetary unions like the one in Europe and not simply on crises that might afflict individual countries
- Ch. 7: Global and Regional Financial Safety Nets: Lessons from Europe and Asia (C. Rhee, L. Sumulong, and S. Vallée)
  - Both AFC and the European crisis contributed to the development and deepening of regional safety nets arrangements
  - Argues that regional arrangements could be an important feature of preventing crises, but such arrangements should coordinate with the IMF to ensure that “regionalism” does not prevent broader cooperation in the future

Structure

- Ch. 8: Regional Responses to Financial Crises: The Americas, East Asia, and Europe (Stephan Haggard)
  - Points out that regional arrangements, just like IMF, must grapple with a 'difficult to manage tradeoffs' between timely provisions of liquidity and risks of opportunism and moral hazard
  - While coordination between regional arrangements and the IMF would seem ideal, implementing it would be a challenge due to divergent interests of the regional and international parties
  - "Division of labor" between regional and international players might be a more realistic goal than "coordination"
- Ch. 9: Sovereign Debt and Asia: International Lessons and Emerging Issues (William R. Cline)
  - Asia have learned the lessons of recent sovereign debt crises and have avoided high ratios of external debt to exports and reduced ratios of short-term external debt to reserves
  - They generally have also pursued sound management of fiscal deficits and debts, and managed to rely more on domestic currency denominated debt

To reiterate, the overall lessons are…

- Countries need to:
  – Prepare for crises as if they cannot be prevented,
  – make room for stabilization policies and deploy them rapidly when crises hit, and
  – address the need for self-insurance globally if they can, or regionally if they must.

“Why did Asian countries fare better during the global financial crisis than during the Asian financial crisis?”

A chapter in *Responding to Financial Crisis: Lessons from Asia then, the United States and Europe Now*

Joint paper by Donghyun Park (Asian Development Bank), Arief Ramayandi (Asian Development Bank), and Kwanho Shin (Korea University)

Asia's performance during GFC vs AFC

- Asia suffered a devastating crisis in 1997-1998 yet fared remarkably well during the recent GFC despite large capital outflows
- Natural question to ask is why?
  - Asia was not immune, but growth remained healthy and Asia did not suffer a financial crisis
  - Over-confidence is, however, unwarranted

How do we approached the issue?

- Compare and contrasts the symptoms prior to each crisis
  - Focus on 5 East Asian economies devastated by the AFC
- Qualitatively analyzes the macro-state of these economies leading to each crisis
- Conducted a more formal empirical analysis on the determinants of (financial) crisis globally and draw implications to the EA-5
  - The chapter also looks at what determines the depth of- and the recovery from- a crisis

Stylized facts: East Asia-5 as a whole

- We have to first understand the actual stylized facts of the crises in 5 countries hit hardest by AFC
  - This is required for a meaningful comparative analysis
- We look at behavior of some key macro variables
  - Real GDP: recession milder, recovery quicker in GFC
  - Exchange rate: depreciation sharper in AFC
  - Exports: rebound in AFC, collapse in GFC
  - Investment: collapsed in AFC, held up well in GFC
  - Fiscal and monetary policy: moved in opposite directions

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Fig 1 Real GDP growth rate

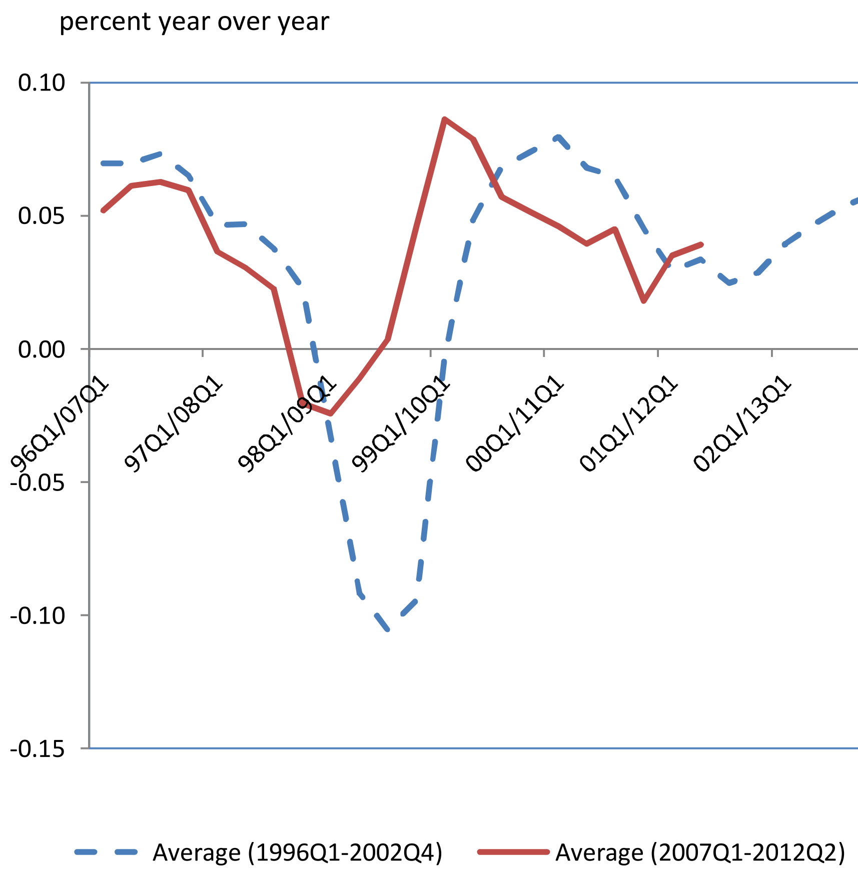


Fig 2 Exchange rate

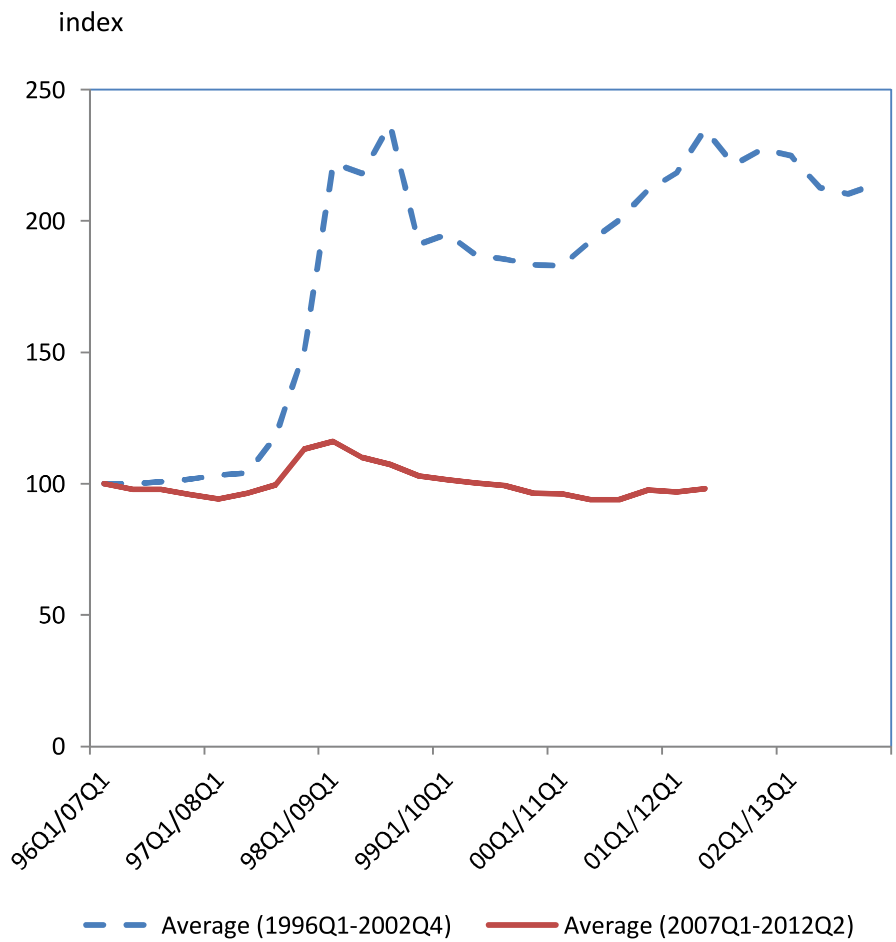


Fig 3 Real export growth rate

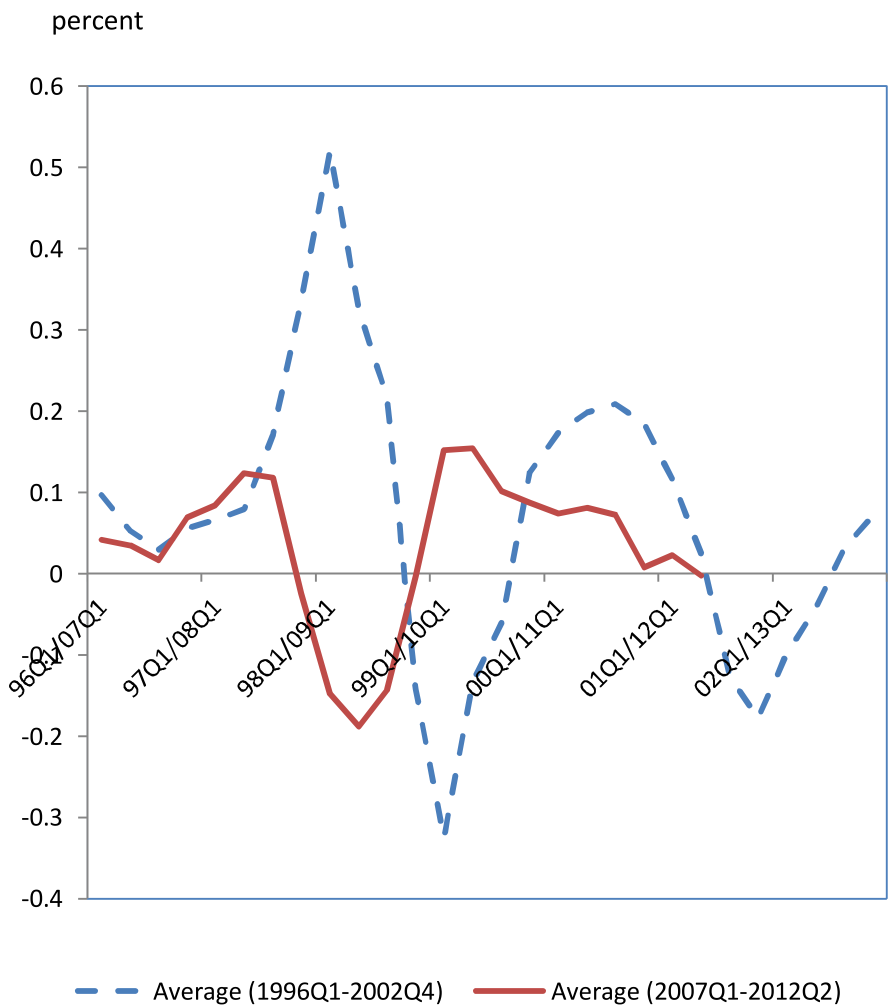


Fig 4 Investment rate

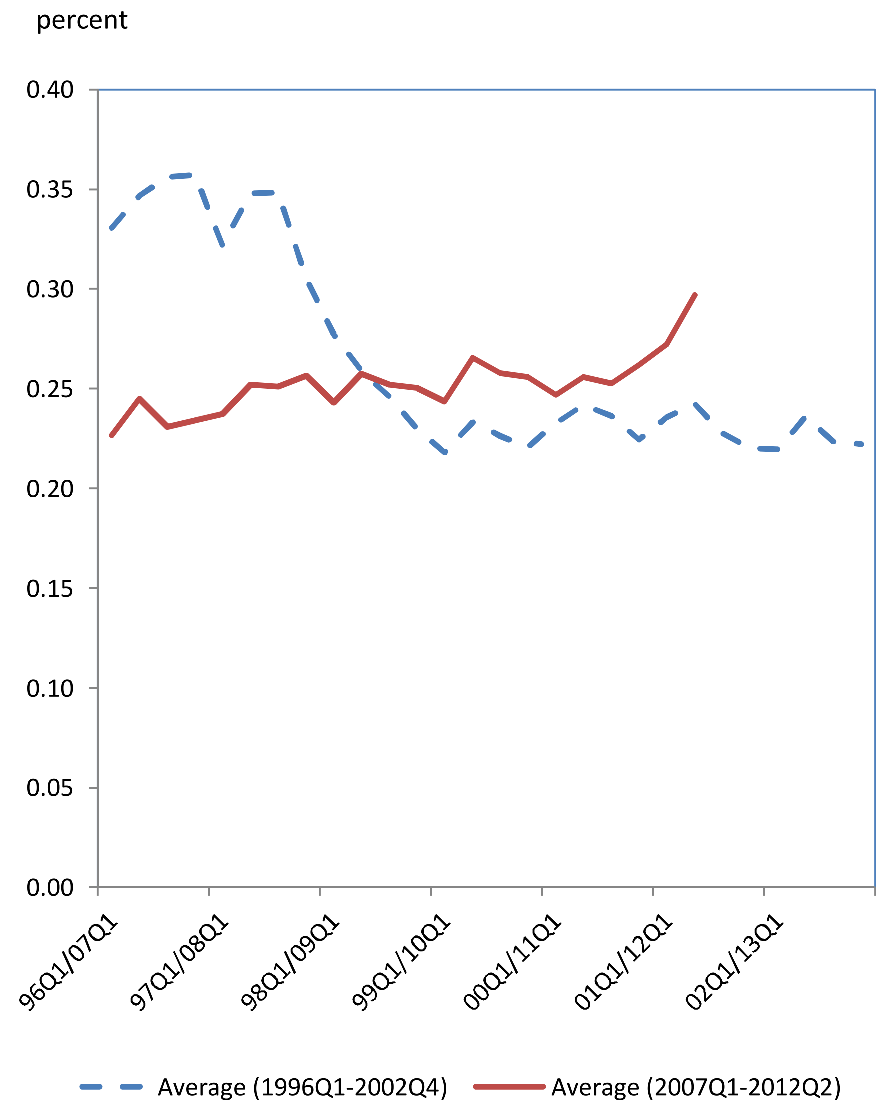


Fig 5 Growth rate of government expenditures

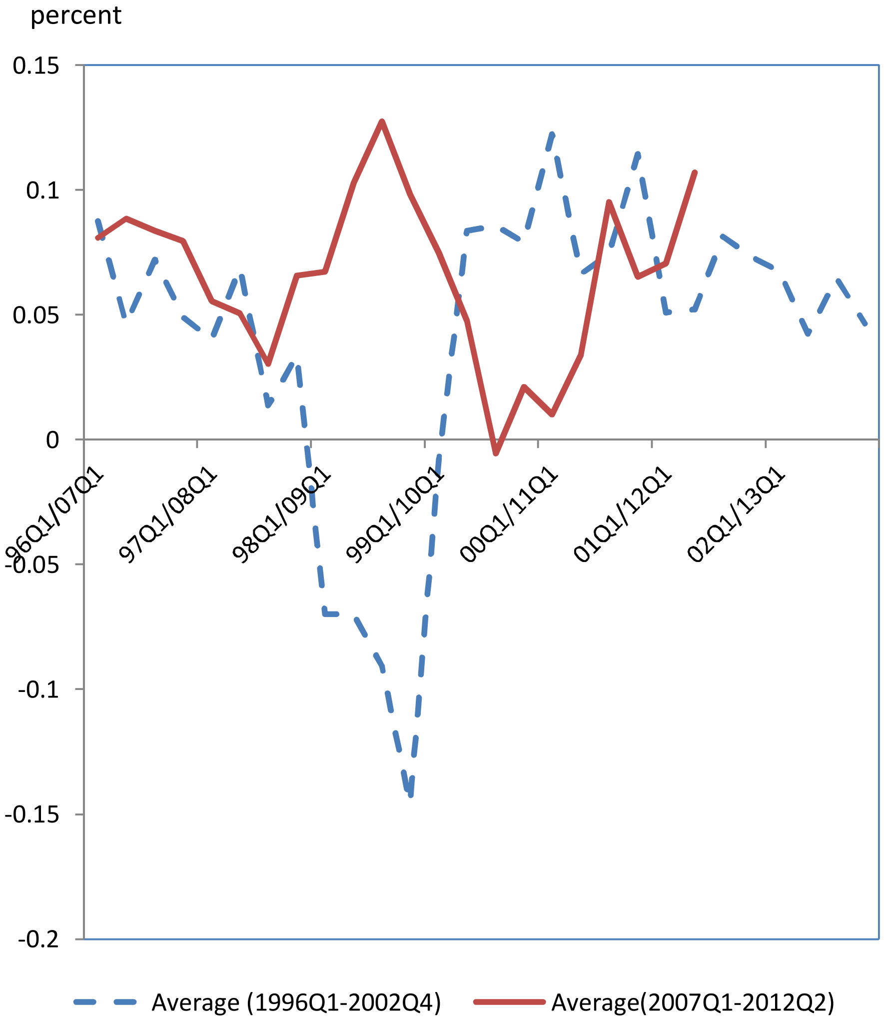
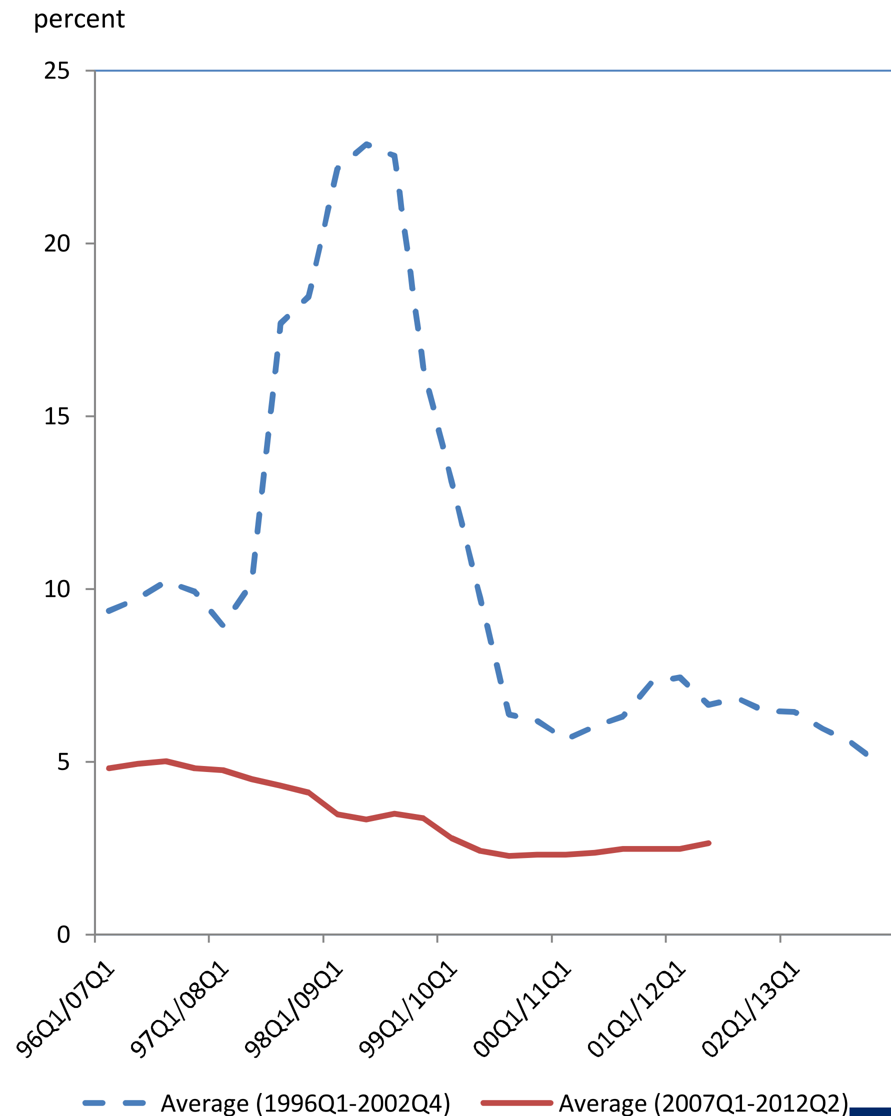


Fig 6 Short-term interest rates



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Stylized facts: East Asia 5 as a whole

- Overall, internal structural problems contributed considerably to the outbreak of the Asian crisis and robust external demand helped the five countries export their way out of the crisis.
- In contrast, the global crisis was largely an external crisis from the viewpoint of the five countries, which enjoyed relatively strong internal fundamentals in 2007–08.
- Another important difference between the two crises was the stance of fiscal and monetary policy.

Dissecting macro-performance of the individual EA5 countries

- We take a more in-depth look by dissecting the fundamentals of individual countries
  - Output gap widen prior to both crises, but much bigger in AFC – Inflation is only significantly higher prior to AFC
  - Investment rate much higher prior to AFC, coupled by widened current account deficit
  - Role of the exchange rate in explaining the situation around crises
  - Financial imbalances were larger in AFC

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Fig 7 Output deviation from trend, 1994-2012

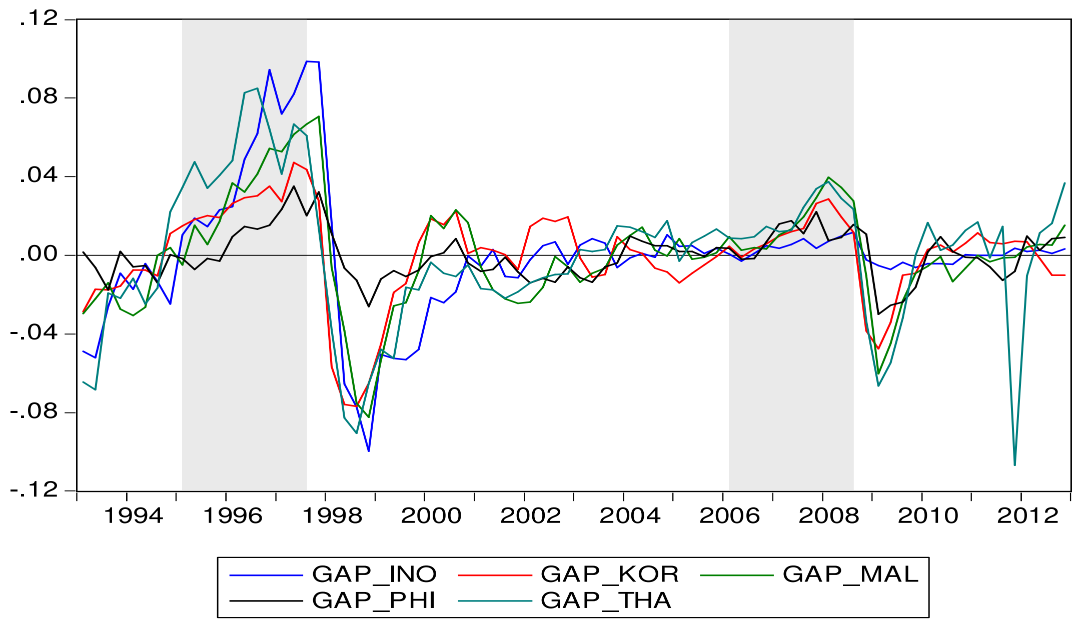


Table 4.1 Average quarterly (year-over-year) inflation in the five East Asian countries, 1993-2012
(percent)

Year	Indonesia	Republic of Korea	Malaysia	The Philippines	Thailand
1995-96	8.2	4.7	3.5	7.6	5.8
2006-07	9.7	2.4	2.8	4.2	3.5
Noncrisis years	7.9	3.5	2.4	5.4	3.3

Fig 8 Share of investment in GDP

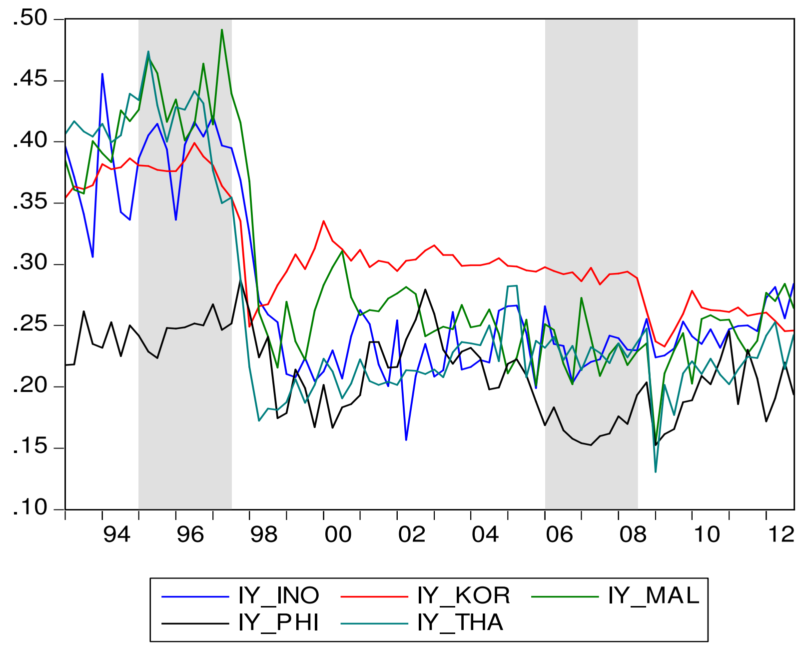
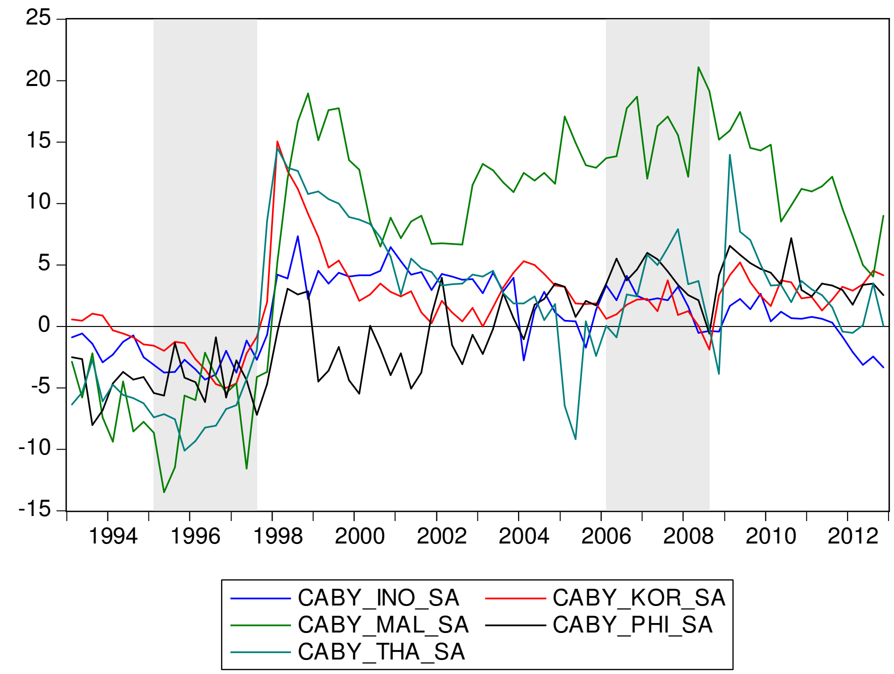
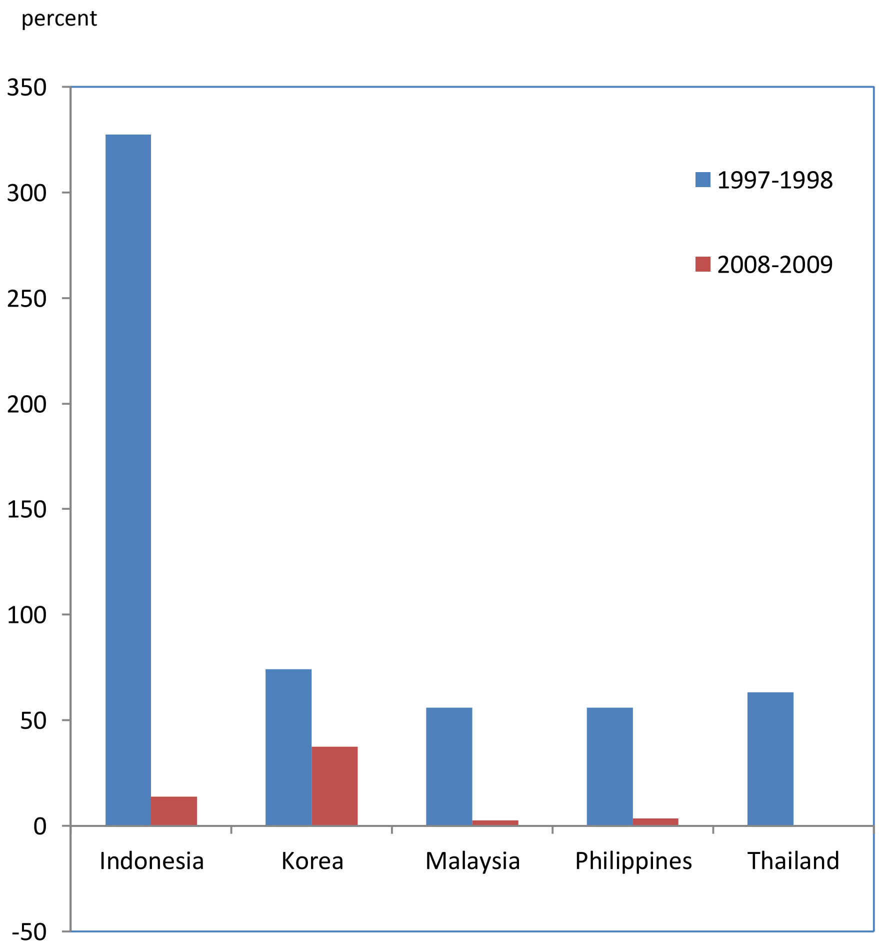


Fig 9 CAB as share of GDP



- Massive surge in investment prior to the AFC was accompanied by high rates of imports, leading to large current account deficits despite the EA-5's export-led growth strategy
- Investment share dropped sharply during the AFC and has not recovered since then; reversing the saving-investment gap into positive territory and make room for lower interest rates

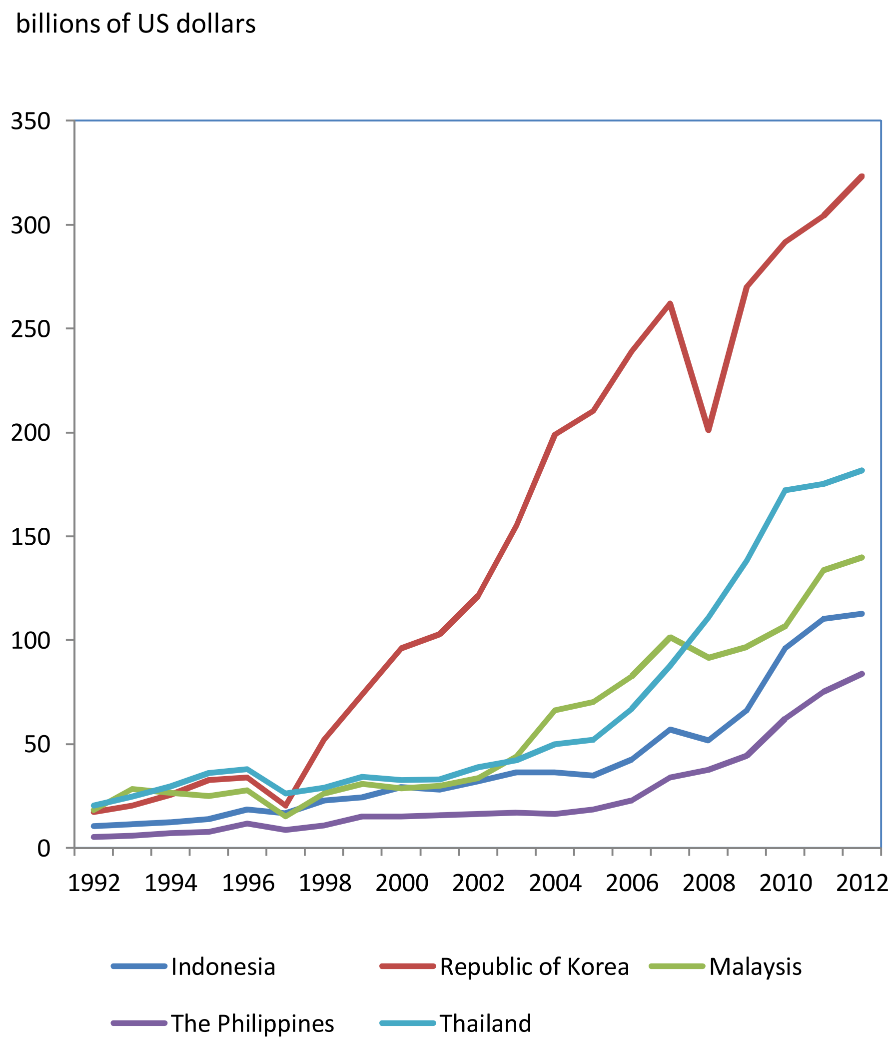
Fig 11 Nominal exchange rate depreciation



- Exchange rate plays significant role in explaining the different behavior of investment and the current account during the two crises
  - Overvalued prior to AFC with limited movements → Cheaper imports
  - lowered the cost of borrowing overseas →fueling booms in investment that relied on external debt and imported capital goods
- Massive correction to misaligned exchange rates have reversed the above trend

- Haunted by the exchange rate collapse during AFC, the economies built up reserves despite more flexible ER regimes
  - Helped by CAB surplus
  - Defended the currencies in GFC

Fig 12 Gross FX reserves



More flexible ER regimes after AFC limits pressures for ER correction in GFC

Table 4.2 Residual from the interest parity condition (percent)

Year	Indonesia	Republic of Korea	Malaysia	The Philippines	Thailand
1995-96	-3.63	-3.6	-5.02	2.05	-7.03
2006-07	2.52	-7.21	3.19	11.68	5.69
Noncrisis years	4.52	3.56	0.83	8.82	0.49

A negative value suggests that the domestic interest rate is too low to match changes in the exchange rate, and vice versa.

In sum…

- Different fundamentals prior to AFC vs GFC had major implications for monetary and fiscal policy
  – Prior to AFC, there was no scope for easing monetary policy. In contrast, prior to GFC, there was plenty of scope for monetary expansion.
  – Fiscal consolidation became inevitable after AFC. On the other hand, EA5 countries had ample fiscal space prior to GFC.
- The stronger fundamentals prior to GFC enabled the EA-5 to implement appropriate macroeconomic policy

Empirical framework

- We perform a more in-depth comparative econometric analysis of AFC and GFC
  - Quarterly data from 1990Q1 – 2011Q4
- First, we run a panel probit regression on the *likelihood of a crisis*
  - Crisis is currency crisis as in Reinhart and Rogoff (2011)
- Second, we identify economic factors determining the *depth of a crisis*
- Third, we identify what economic fundamentals determine *recovery from a crisis*

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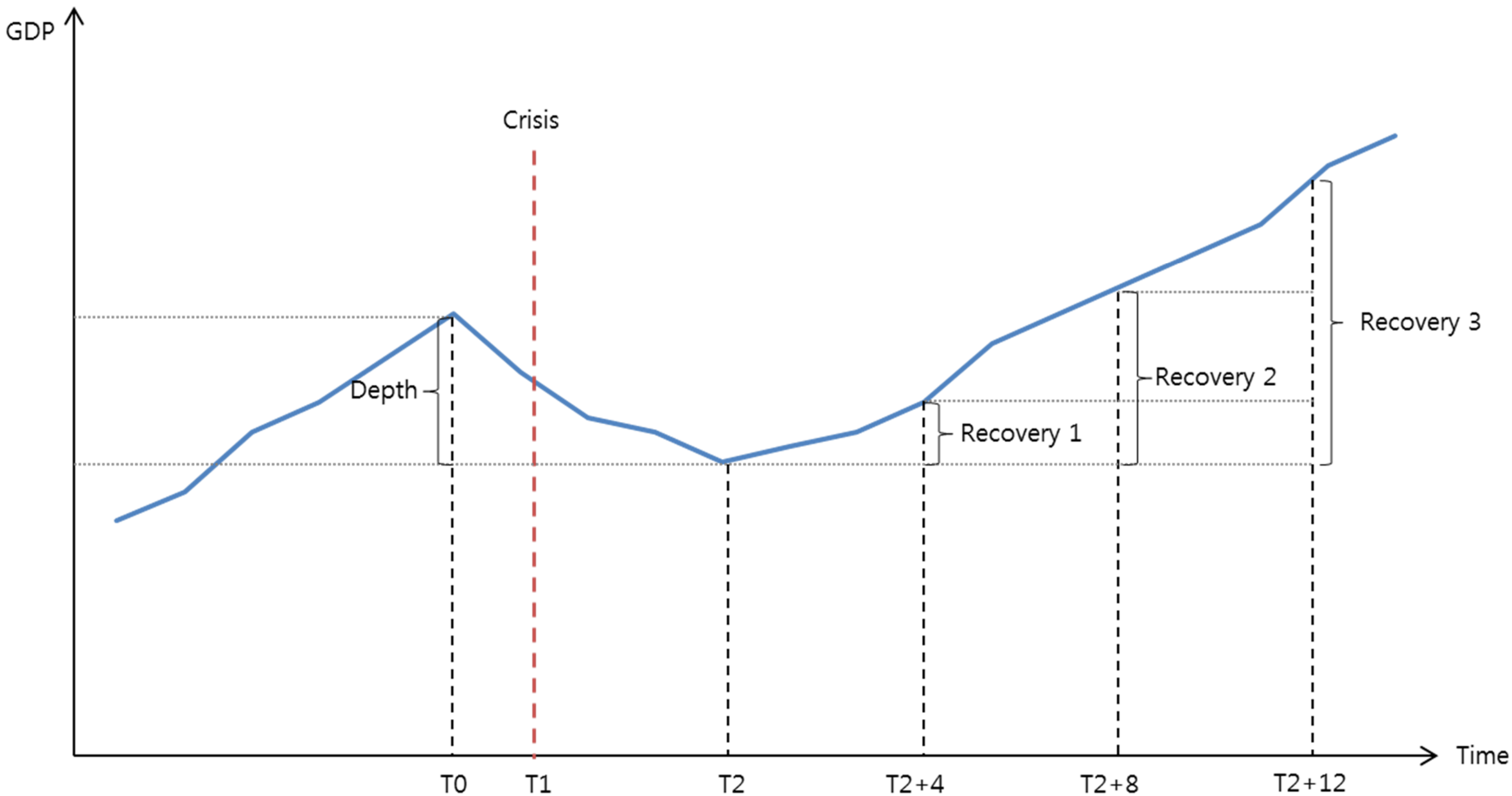
How can depth of a crisis and recovery from a crisis be measured?



Empirical framework

- There are a number of economic variables considered in the early-warning literature that signal a crisis.
- For our purposes, we consider economic variables that are identified to be most significant in recent studies.
  - Pierre-Olivier Gourinchas and Maurice Obstfeld (2012)
  - Jeffrey A. Frankel and George Saravelos (2010) --- review of more than 80 papers

Empirical framework

- Based on the 2 studies, we choose the following 7 explanatory variables for probit analysis of a crisis.
  - foreign reserves/GDP
  - five-year average of real exchange rate appreciation
    - The real exchange rate is the real effective exchange rate against OECD countries where trade shares are used as weights.
  - credit/GDP
    - Following Gourinchas and Obstfeld (2012), domestic credit measured in domestic currency comes from the IMF's *International Financial Statistics*.
      - The credit-to-GDP ratio is calculated by dividing domestic credit by nominal GDP in domestic currency

Empirical framework

- Based on the 2 studies, we choose the following 7 explanatory variables for probit analysis of a crisis.
  – five-year average growth rate of real GDP
  – current account balance/GDP
  – five-year average of the inflation rate
  – export share of GDP
    - Export share of GDP is exports divided by GDP

Empirical framework

- We run both bivariate and multivariate panel regressions.
- For likelihood of crisis, we use panel probit estimation with random effects. For depth of crisis and recovery from crisis, we use pooled ordinary least square regressions.
- All explanatory variables are lagged by one year.
- For depth of a crisis and recovery from crisis, we add measures of fiscal policy and monetary policy.
  - Monetary policy: M2 growth rate or interest rate change
  - Growth rate of real government expenditures

Key empirical results

- Determinants of crisis
  - All the chosen explanatory variables are informative early indicators of a crisis
  - For the global crisis, only four variables—real exchange rate appreciation, domestic credit expansion, the real GDP growth rate, and the export share of GDP—contains valuable information
    - This suggests that the impact of the global crisis seems to be more closely related to capital inflows.

Key empirical results

- Depth of crisis
  – In general, a crisis is deeper if the pre-crisis inflation rate is higher, pre-crisis domestic credit expansion is larger, the pre-crisis real GDP growth rate is higher, the interest rate increases during the crisis, and/or the growth rate of real government expenditures decreases during the crisis.
  – For the global crisis, besides the policy variables, higher credit expansion, higher real exchange rate appreciation before a crisis, and a higher pre-crisis real GDP growth rate make the recession deeper.

Key empirical results

- Recovery from crisis
  - In general, policy variables such as monetary and fiscal expansions are quite significant in explaining quick recovery from a crisis. There is some evidence that the recovery is faster when the export share is higher.
  - For the global crisis, policy variables continue to be significant in explaining the fast recovery. We also found some evidence that higher foreign reserves, a higher real GDP grow rate, and a current account surplus led to a faster recovery.

Key empirical results

- Fundamentals were much stronger during the global crisis than during the Asian crisis.
  - Ratio of foreign reserves to GDP was higher
  - Pre-crisis real exchange rate appreciation was lower
  - Credit expansion was lower
  - Current account surplus was larger
  - Pre-crisis inflation rate was lower
  - Export share was larger
- Policy was more appropriate for reviving demand and growth
  - Interest rates fell and real government expenditure rose after 2008 GFC

Concluding observations

- Overall, the empirical analysis yields a number of important and interesting findings.
  - First, economic fundamentals exert a significant influence on the likelihood of crisis.
    - Foreign exchange reserves, real exchange rate appreciation, domestic credit, pre-crisis real GDP growth, the current account, inflation, and export shares
  - Second, economic fundamentals significantly affect the depth of a crisis
    - Inflation rate, domestic credit expansion, and the precrisis GDP growth rate
  - Third, the policy stance during the crisis matters
    - Countercyclical expansionary monetary and fiscal policy can mitigate the impact of a crisis and contribute to a more robust recovery.
  - To sum up, the evidence strongly suggests that economic fundamentals and macroeconomic policy matter a lot in staving off a crisis, cushioning its blow, and laying the foundation for recovery.

Concluding observations

- The overarching policy implication for Asian policymakers is to do more of the same—pursue the sound policies and robust fundamentals that have served the region well in the past.
- Fundamentals have improved since the Asian crisis
  - For example, Asia's healthy current account balances and foreign exchange reserve levels are a response to the severe shortage of US dollar liquidity the region suffered during the Asian crisis.
- Furthermore, the expansionary stance of both fiscal and monetary policy during the global crisis was far more appropriate than the contractionary stance during the Asian crisis.