

**EXAMINING THE EFFECTIVENESS OF MONETARY POLICY IN ASIA4:
THE PRE- AND POST-1997 ASIAN FINANCIAL CRISIS**
(*Mengkaji Keberkesanan Dasar Kewangan di Asia4: Krisis Kewangan Asia Pra- dan Pasca-1997*)

RONG WEI SOON, YI XUAN TAN, SIOK KUN SEK* & KHANG YI SIM

ABSTRACT

One of the main changes experienced by Asian countries due to the 1997 Asian financial crisis was the shift in monetary policy to inflation targeting, along with the release from rigid to flexible exchange rate regimes. This study focuses on four main Asian countries (Korea, Thailand, the Philippines, and Indonesia) that experienced such monetary policy changes. The aim is to evaluate the effectiveness of monetary policy in Asia4 before and after the shift in monetary policy. This research also aims to investigate the behaviour of economic variables (output growth and inflation) in reaction to the monetary policy stances between the two regimes. The data ranges from January 1990 to December 1996 (pre-crisis) and July 1999 to December 2019 (post-crisis). With these two sub-periods of data, a structural vector autoregressive (SVAR) model is applied to examine the performance of monetary policy. Generally, most variables are highly determined by their own shocks, indicating low predictability by other variables in two sub-periods and all of Asia4. However, the economic structure changes across these sub-periods. In the pre-crisis, the economic growth of Indonesia, Korea, and the Philippines was mainly determined by inflationary shocks, whereas output or real shocks are more influential in the post-crisis. The opposite condition holds for Thailand. Nevertheless, real and inflationary shocks are the main sources causing economic fluctuations in these four Asian countries. This study recommends that monetary policy be more accommodating and co-implement fiscal policy.

Keywords: monetary policy; Asian financial crisis; inflation; impulse shocks; exchange rate

ABSTRAK

Salah satu perubahan-perubahan utama yang dialami oleh negara-negara Asia akibat daripada krisis kewangan Asia 1997 ialah peralihan dasar kewangan kepada sasaran inflasi dan pelepasan daripada rejim kadar pertukaran yang tegar kepada rejim kadar pertukaran yang fleksibel. Kajian ini tertumpu kepada empat negara Asia utama (Korea, Thailand, Filipina, dan Indonesia) yang pernah mengalami perubahan-perubahan dasar kewangan tersebut. Objektif utama adalah untuk menilai keberkesanan dasar kewangan di Asia4 untuk sebelum dan selepas peralihan dalam dasar kewangan. Kajian ini juga bertujuan untuk mengkaji tingkah laku pembolehubah-pembolehubah ekonomi (pertumbuhan pengeluaran dan inflasi) sebagai tindak balas kepada pendirian dasar kewangan antara kedua-dua rejim. Data berkisar dari Januari 1990 hingga Disember 1996 (tempoh pra-krisis) dan Julai 1999 hingga Disember 2019 (tempoh pasca-krisis). Model autoregresif vektor struktur (SVAR) telah digunakan untuk mengkaji prestasi dasar kewangan dengan menggunakan dua sub-tempoh data. Secara amnya, kebanyakan pembolehubah banyak ditentukan oleh kejutan-kejutan mereka sendiri. Hal ini menunjukkan kebolehamalan yang rendah oleh pembolehubah-pembolehubah lain dalam dua sub-tempoh dan semua Asia4. Walau bagaimanapun, terdapat suatu perubahan dalam struktur ekonomi berbandingkan kedua-dua sub-tempoh. Dalam pra-krisis, kebanyakan pertumbuhan ekonomi Indonesia, Korea, dan Filipina telah ditentukan oleh kejutan-kejutan inflasi, manakala kejutan-kejutan pengeluaran atau sebenar lebih berpengaruh dalam pasca krisis. Keadaan sebaliknya berlaku untuk Thailand. Namun begitu, kejutan-kejutan sebenar dan inflasi adalah punca-punca utama yang menyebabkan turun naik ekonomi di empat negara Asia ini. Kajian ini

mengesyorkan agar dasar moneteri lebih akomodatif dan melaksanakannya bersama dengan dasar fiskal.

Kata kunci: dasar monetary; krisis kewangan Asia; inflasi; kejutan impuls; kadar pertukaran

References

- Abu Asab N., Cuestas J.C. & Montagnoli A. (2018). Inflation targeting or exchange rate targeting: Which framework supports the goal of price stability in emerging market economies? *PLoS ONE* **13**(8): e0201798.
- Amisano G. & Giannini C. 1997. *Topics in Structural VAR Econometrics*. 2nd Ed. Heidelberg: Springer Berlin.
- Angeriz A. & Arestis P. 2007. Monetary policy in the UK. *Cambridge Journal of Economics* **31**(6): 863-884.
- Bernanke B.S. & Woodford M. 2004. Introduction to "The Inflation-Targeting Debate". In Bernanke B.S. & Woodford M. (eds.). *The Inflation-Targeting Debate*: 1-10. Chicago: University of Chicago Press.
- Breitung J., Brüggemann R. & Lütkepohl H. 2004. Structural vector autoregressive modelling and impulse responses. In Lütkepohl H. & Krätzig M. (eds). *Applied Time Series Econometrics*: 159-196. New York: Cambridge University Press.
- Blanchard O.J. & Quah D. 1989. The dynamic effects of aggregate demand and supply disturbances. *The American Economic Review* **79**(4): 655-673.
- Brito R.D. & Bystedt B. 2010. Inflation targeting in emerging economies: Panel evidence. *Journal of Development Economics* **91**(2): 198-210.
- Caballero R.J. & Krishnamurthy A. 2004. Inflation targeting and sudden stops. In Bernanke B.S. & Woodford M. (eds.). *The Inflation-Targeting Debate*: 423-446. Chicago: University of Chicago Press.
- Calvo G.A. & Mishkin F.S. 2003. The mirage of exchange rate regimes for emerging market countries. *Journal of Economic Perspectives* **17**(4): 99-118.
- Calvo G.A. & Reinhart C.M. 2002. Fear of floating. *The Quarterly Journal of Economics* **117**(2): 379-408.
- Creel J. & Hubert P. 2010. Has inflation targeting changed monetary policy preferences? *Documents de Travail de l'OFCE* **14**: 1-28.
- de la Horra L.P., Perote J. & de La Fuente G. (2021). Monetary policy and corporate investment: A panel-data analysis of transmission mechanisms in contexts of high uncertainty. *International Review of Economics & Finance* **75**: 609-624.
- Dotsey M. 2006. A review of inflation targeting in developed countries. Business Review, *Federal Reserve Bank of Philadelphia* **Q3**: 10-20.
- Ferreira de Mendonça H. & Simão Filho J. 2007. Economic transparency and effectiveness of monetary policy. *Journal of Economic Studies* **34**(6): 497-514.
- Fraga A., Goldfajn I. & Minella A. 2003. Inflation Targeting in Emerging Market Economies. National Bureau of Economic Research Working Paper Series No.10019.
- Fratzscher M., Grosse-Steffen C. & Rieth M. (2020). Inflation targeting as a shock absorber. *Journal of International Economics* **123**: 103308.
- Gonçalves C.E.S. & Salles J.M. 2008. Inflation targeting in emerging economies: What do the data say? *Journal of Development Economics* **85**(1-2): 312-318.
- Ito T. & Sato K. 2008. Exchange rate changes and inflation in post-crisis Asian economies: Vector autoregression analysis of the exchange rate pass-through. *Journal of Money, Credit and Banking* **40**(7): 1407-1438.
- Krušković B. (2020). Exchange rate targeting versus inflation targeting: Empirical analysis of the impact on employment and economic growth. *Journal of Central Banking Theory and Practice* **9**(2): 67-85.
- Kuepper J. 2020. The Asian Financial Crisis. <https://www.thebalance.com/what-was-the-asian-financial-crisis-1978997> (29 April 2020).
- Lin S. & Ye H. 2007. Does inflation targeting really make a difference? Evaluating the treatment effect of inflation targeting in seven industrial countries. *Journal of Monetary Economics* **54**(8): 2521-2533.
- Lütkepohl H., Krätzig M. & Boreiko D. 2006. VAR analysis in JMULTi. Handbook of Economic Forecasting.
- Ma Y. & Lin X. 2016. Financial development and the effectiveness of monetary policy. *Journal of Banking & Finance* **68**: 1-11.
- Mishkin F.S. 2004. Can inflation targeting work in emerging market countries? National Bureau of Economic Research Working Paper Series No.10646.
- Mishkin F.S. & Schmidt-Hebbel K. 2001. One decade of inflation targeting in the world: What do we know and what do we need to know? National Bureau of Economic Research Working Papers Series No. 8397.
- Mishkin F.S. & Schmidt-Hebbel K. 2007. Does inflation targeting make a difference? National Bureau of Economic Research Working Paper Series No. 12876.
- Mishra P.K. & Pradhan B.B. 2008. Financial innovation and effectiveness of monetary policy. Available at SSRN: <https://ssrn.com/abstract=1262657> or <http://dx.doi.org/10.2139/ssrn.1262657>.

- Morgan P.J. 2013. Monetary policy frameworks in Asia: Experience, lessons, and issues. Asian Development Bank Institute Working Paper Series No. 435.
- Nasir M.A., Huynh T.L.D. & Vo X.V. 2020. Exchange rate pass-through & management of inflation expectations in a small open inflation targeting economy. *International Review of Economics & Finance* **69**: 178-188.
- Rasche R.H. & Williams M.M. 2007. The effectiveness of monetary policy. *Federal Reserve Bank of St. Louis Review* **89**(5): 447-489.
- Schmidt-Hebbel K. & Tapia M. 2002. Inflation targeting in Chile. *The North American Journal of Economics and Finance* **13**(2): 125-146.
- Sek S.K. & Lim H.S.M. 2016. An investigation on the impacts of oil price shocks on domestic inflation: A SVAR approach. *API Conference Proceedings* **1750**: 060002.
- Sims C.A. 2005. Limits to inflation targeting. In Bernanke B.S. & Woodford M. (eds.). *The Inflation-Targeting Debate*: 283-308. Chicago: University of Chicago Press.
- Thornton J. 2016. Inflation targeting in developing countries revisited. *Finance Research Letters* **16**: 145-153.
- Vega M. & Winkelried D. 2005. Inflation targeting and inflation behavior: A successful story? *International Journal of Central Banking* **1**(3): 153-175.
- Walsh C.E. 2009. Inflation targeting: What have we learned? *International Finance* **12**(2): 195-233.

School of Mathematical Sciences

Universiti Sains Malaysia

11800 Minden

Pulau Pinang, MALAYSIA

*E-mail: edwardsoon0625@gmail.com, tyxusm@gmail.com, sksek@usm.my**,

khangzyisim@gmail.com

Received: 1 August 2023

Accepted: 8 January 2024

*Corresponding author