

CAMRI Global Perspectives

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Macro Prudential Policies Work

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Macro prudential policies are the new wave of policy making

Macro prudential policies are new tools designed by economists and implemented by only a few central banks to affect specific sectors of their economies that are determined to be out of equilibrium. They differ from traditional techniques that have been used by all monetary authorities for more than a century. Traditional techniques, such as raising and lowering some base interest rate that would alter borrowing costs throughout the yield curve, are considered blunt instruments and are thought to control aggregate demand in an economy that is out of balance.

Only a few avant-garde central banks in smaller economies have begun to employ macro prudential policies to test their effectiveness. These early ventures will become useful guides to central banks in bigger economies. The Monetary Authority of Singapore (MAS) is one of these advanced

central banks presently employing macro prudential policies.

Specific monetary policy tools from the past

Other traditional monetary policy tools such as quantitative easing and policy guidance (oral guidance to financial markets of policy makers' intent and intended timing for changes in their broad policies) are also policy instruments that affect the overall level of interest rates and therefore aggregate demand. A considerable helping of discretion is incorporated into the administration of these policy instruments, but in the end they affect the macro economy.

Exceptions to broad policy

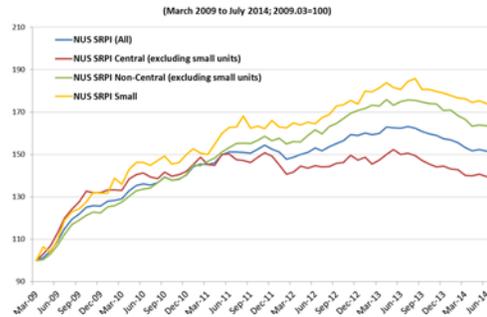
An exception to this categorization could be made. In the middle of the credit crisis during the great recession of 2008-2009 the US Fed targeted purchases of mortgage-backed securities issued by the federal mortgage agencies to unlock the

constriction in the mortgage market. It was believed there was enough market segmentation in the US credit markets that made specific help to a given segment of the US financial markets useful.

During the height of the crisis, the Fed also underwrote, or purchased commercial paper, and financed at below market rates, several types of commercial bank loans. These specific forms of monetary aid could be construed to be macro prudential.

Other policy tools that might qualify as industry or market specific, and therefore macro prudential but are no longer in vogue by central banks, are margin requirements and Regulation Q. Central banks used to raise and lower margin requirements for stock purchases. Central bankers had used them in the past to cool overheated equity markets. Regulation Q set limits on thrift deposit interest rates, and was used to slow the flow of funds to the thrift industry and dry up the principle source of funds for home mortgage creation. This instrument was abandoned in the 1980's and is no longer used as a specifically focused policy instrument. In the ensuing years since, the US experienced two successive housing booms.

Index of resale residential property prices falling since mid-2013*



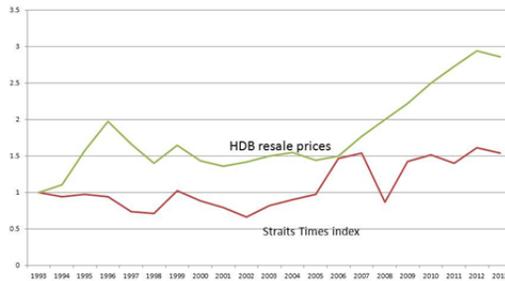
* NUS Institute of Real Estate Studies for their SRPI.

Capital requirements for commercial banks are another instrument used by policy makers, but they are mainly effective when applied internationally since banks could shift capital and domicile to countries with lower capital requirements to minimize their capital costs. Loan to deposit ratios have also been used but are very broad in their application and intent.

The MAS's use of macro prudential policies

Recently the MAS has most prominently employed macro prudential policies. The MAS recognized, after the financial crisis in 2008, that the role of monetary policy had to go beyond securing economic growth and price stability and needed to include financial stability as one of its goals. It had to be concerned about financial stability because credit cycles can upset macro stability and last longer than traditional business cycles as has been observed in the aftermath of the 2008 crisis.

HDB flat Resale prices Outperform ST Index (index to 1993)



Adding a new parameter to the Taylor rule

Policy makers at MAS believe that they must now lean against financial bubbles. However, traditional tools like interest rate management is too blunt an instrument to prick specific financial bubbles, and therefore macro prudential policies would have to be used. Moreover, in small open economies raising interest rates to control credit flows to a financial sector would attract more international capital investment and therefore be counterproductive.

The MAS' specific objective in 2012 was and still is to control overheated home prices that appear out of balance with other asset prices (see chart 2). They chose to use a variety of macro prudential instruments because they did not want to resort to broader forms of monetary policy such as raising interest rates, which could have negative spillover effects and unintended consequences on the broader economy.

They sensed that Keynesian 'animal spirits' were at work in the Singapore housing sector causing an excess of optimism. As a result,

pricing signals in the housing sector were probably inefficient, increasing the likelihood of systemic trouble.

What are some macro prudential instruments?

A large number of instruments have been proposed [1,2,3]. There is no agreement about which one should play the primary role in the implementation of macro prudential policy. Most of these instruments are designed to prevent the pro-cyclicality of the financial system on the real economic sector. Some examples are:

- Cap on loan-to-value ratios and loan loss provisions
- Cap on debt-to-income ratio
- Cap on leverage
- Levy on non-core liabilities
- Time-varying reserve requirements
- Liquidity coverage ratios
- Liquidity risk charges that penalize short term funding
- Capital requirement surcharges proportional to size of maturity mismatch
- Minimum haircut requirements on asset-backed securities

Even the Basel III Accord has recognized the importance of a macro prudential approach to financial regulation. Under Basel III, banks' capital requirements have been strengthened. Additionally, new liquidity requirements, a leverage cap and a countercyclical capital buffer have been introduced. Also, the largest and most

globally active banks are required to hold more and higher-quality capital.

Macro prudential policies are new and untried

Because macro prudential policies are a new monetary tool designed to correct a specific issue, their potency are not well known, nor are the relative strengths of the measures taken known beforehand. Thus, we are witnessing monetary policy by “trial and error” and will wait to see the results.

What measures did the MAS Impose?

The MAS imposed several macro prudential property measures to ‘maintain a stable and sustainable property market’ in two rounds in 2012 and 2013. In their latest annual report they stated:

“In October 2012, MAS restricted the tenure of loans granted by financial institutions for the purchase of residential properties. We imposed a cap of 35 years on the tenure of housing loans granted by financial institutions. In addition, loans exceeding 30 years would face significantly tighter loan-to-value (LTV) limits. For housing loans granted by financial institutions to non-individuals, the LTV limit was lowered from 50% to 40%.

In January 2013, MAS lowered the LTV limits for property purchases by individuals with one outstanding housing loan from 60% to 50%, and by individuals with two or more outstanding housing loans from 60% to 40%. Loans with longer tenure would face even

tighter LTV limits. We also increased the minimum cash down payment requirement from 10% to 25% for property purchases by individuals with at least one outstanding housing loan. In addition, the LTV limit for housing loans to non-individuals was further lowered to 20%. To moderate the demand for HDB flats and instill greater financial prudence among buyers, MAS introduced a mortgage servicing ratio requirement of 30% on loans granted by financial institutions for the purchase of HDB flats” (4).

How successful were these policies?

It is premature to judge the ultimate effects and success of the policies taken thus far; similarly it is premature to judge whether quantitative easing has worked. What we can observe is that the fine tuning policies taken thus far have stalled the rise in real estate prices without substantially reducing the demand for real estate. This is an early measure of success. Some evidence:

1. Resale prices of private homes declined in July 0.3% according to the Singapore Residential Price Index (SRPI) calculated by the NUS Institute of Real Estate Studies (see chart 1). Prices for smaller units fell the most; however, they also experienced the most appreciation. In another measure of housing prices the URA index of real estate prices for private property declined three consecutive quarters from a peak reached in Q3 2013 for a total decline of 2.8%.

2. HDP resale prices fell 1.1% in August according to the Singapore Real Estate Exchange, and are down 7.1% from last August and 8.6% from their peak in April 2013. Again, it was prices for the smallest units that fell the most. As expected, the number of resale transactions shrank 1.1% in August, and transactions are down 63% from the peak level in May 2012.
3. The rental private property index calculated by the Inland Revenue Authority of Singapore slipped 0.6% in Q2 2014 and it has also decreased for three consecutive quarters for a total decline of 2%. This is a much more modest decline than for resale property prices.
4. Developers' profit margins for new condominium launches have fallen by half from a year ago according to a study by Knight Frank. As a result, the number of projects launched declined significantly, and the average take up rate has plunged to 32.3% down from 96.9% two years ago.

What's Next?

Since it is premature to judge success, it is premature to adjust, or remove certain aspects of policy. The MAS will lose credibility if it immediately capitulates to domestic pressures by the industry and residents. If they bow to pressure and remove these policies prematurely, the

public will know that they should continue buying properties, and prices will keep rising because the MAS will not have the will to sustain these bubble-pricking policies until they achieve their intended objectives.

These policies were designed to temper demand and they did. Now that prices have fallen and construction margins have tightened, the supply of new units will be affected. Slimmer profit margins will continue to slow the production of new units and the reduction of available supply will help to stabilize the decline in prices.

Consequently, the present criticism over the effects of real estate controls will moderate along with the halt in the fall in home prices and rental income.

The future of monetary policy is macro prudential

Other central banks with similar financial distortions and overall adequate economic growth and price stability will learn from the MAS's foray into macro prudential initiatives and emulate them, perhaps with a new twist of their own to make their macro policies specifically designed to affect particular issues. Ultimately these policy instruments will become mainstream tools used by all central banks rather than a novel addition to more traditional tools as they are now.

Economic performance in the advanced economies over the past six years has shown that traditional monetary policy instruments eventually lose their effectiveness,

especially when applied at their lower boundaries. Consequently, central banks need to embrace new tools to supplement changes in the level of interest rates and the supply of money, and to directly influence financial imbalances.

References

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2. Hanson, S., Kashyap, A. and Stein, J. (2011). A macroprudential approach to financial regulation. *Journal of Economic Perspectives*, 25: 3-28;
3. Goodhart C. and Perotti, E. (2012). Preventive macroprudential policy. VoxEU.org, 29 February;
4. MAS Annual Report 2012/2013, Page 21.

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KEY INDICATORS TABLE (AS OF 9 September 2014)								
INDEX	LEVEL (LC)	%1MO (LC)	%1MO (USD)	%1YR (LC)	%1YR (USD)	INDEX	LEVEL	%1YR
S&P500	1988.44	3.16	3.16	21.42	21.42	3MO LIBOR	0.23	-8.71
FTSE	6829.00	4.62	0.32	8.62	11.26	10YR UST	2.50	-14.02
NIKKEI	15749.15	6.63	2.07	12.70	5.49	10YR BUND	1.00	-49.17
HANG SENG	25190.45	3.94	3.95	14.92	14.99	10YR SPG	2.20	-51.56
STI	3342.96	2.32	1.35	11.63	12.17	10YR SGS	2.38	-11.09
EUR	1.29	-3.53		-2.40		US ISM	59.00	4.80
YEN	106.20	4.08		6.65		EU PMI	50.70	-1.40
CMCI	1400.02	-2.72		-5.29		JP TANKAN	7.00	450.00
Oil	92.75	-5.02		-15.31		CHINA IP	9.00	-13.50

Source: Bloomberg

APPENDIX

GLOSSARY OF KEY TERMS (Source: Bloomberg, with tickers in parenthesis. In US\$ where applicable)

S&P500: capitalization-weighted index of the prices of 500 US large-cap stocks (SPX)

FTSE: capitalization-weighted index of the prices of the 100 largest LSE-listed stocks (UKX)

NIKKEI: capitalization-weighted index of the largest 225 stocks of the Tokyo Stock Exchange (NKY)

HANG SENG: capitalization-weighted index of companies from the Hong Kong Stock Exchange (HSI)

STI: cap-weighted index of the top 30 companies listed on the Singapore Exchange (FSSTI)

EUR: USD/EUR exchange rate: 1 EUR = xx USD (EUR)

YEN: YEN/USD exchange rate: 1 USD = xx YEN (JPY)

CMCI: Constant Maturity Commodity Index (CMCIPI)

Oil: West Texas Intermediate prices, \$ per barrel (CLK1)

3MO LIBOR: interbank lending rate for 3-month US dollar loans (US0003M)

10YR UST: 10-year US Treasury yield (IYC8 – Sovereigns)

10YR BUND: 10-year German government bond yield (IYC8 – Sovereigns)

10YR SPG: 10-year Spanish government bond yield, proxy for EU funding problems (IYC8 – Sovereigns)

10YR SGS: 10-year Singapore government bond yield (IYC8 – Sovereigns)

US ISM: US business survey of more than 300 manufacturing firms by the Institute of Supply Management that monitors employment, production inventories, new orders, etc. (NAPMPMI)

EU PMI: Purchasing Managers' index for the 17 country EU region (PMITMEZ)

JP TANKAN: Bank of Japan business survey on the outlook of Japanese capital expenditures, employment and the overall economy, quarterly index (JNTGALLI)

CHINA IP: China's Industrial Production index, with 1-month lag (CHVAIOY)

LC: Local Currency

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