



CENTRAL BANK OF
TRINIDAD & TOBAGO

Macro-prudential Supervision and Financial Stability

Reshma Mahabir, Ph.D.

CGBS Conference, June 5-6, 2014

The views expressed are those of the author and not necessarily those of the Central Bank of Trinidad and Tobago.

Outline

- ▶ What is Macro-prudential supervision
- ▶ What are the indicators used
- ▶ What are the measures implemented
- ▶ What are we doing in the Caribbean
- ▶ What needs to be done

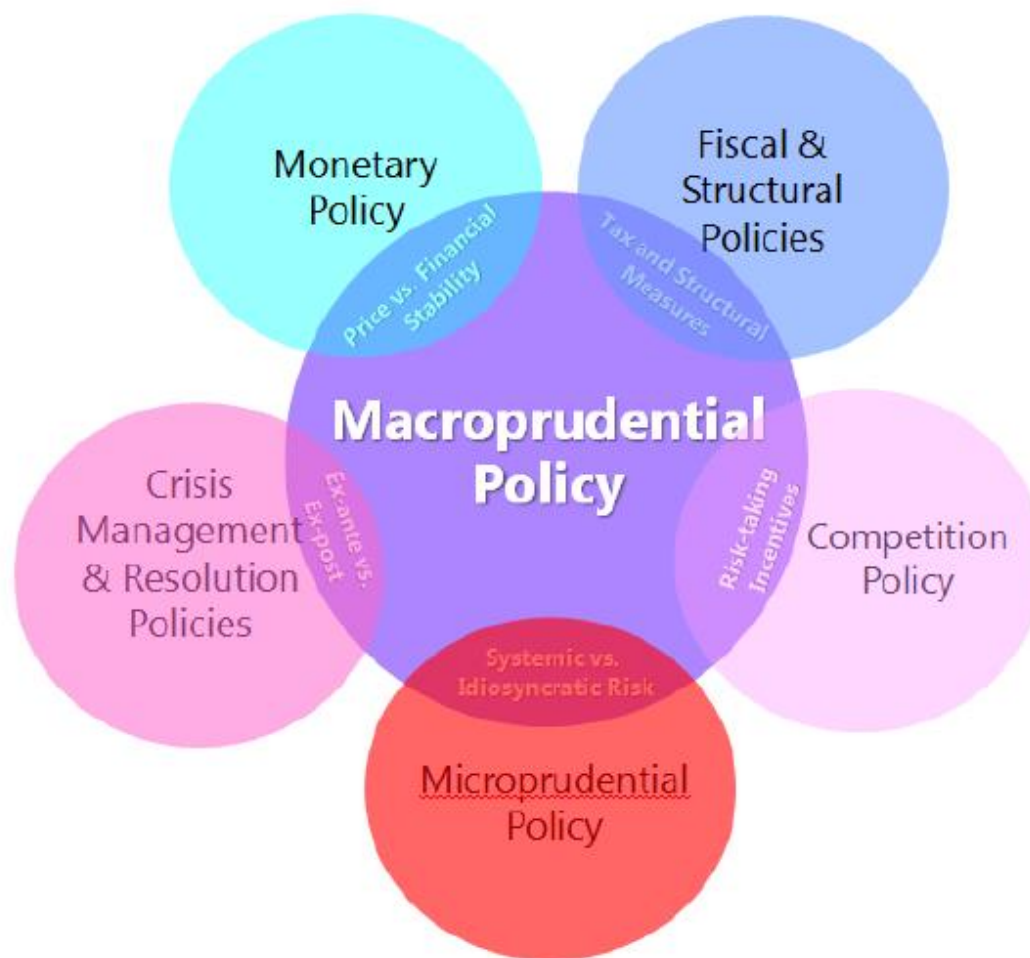


Macro-prudential Supervision...

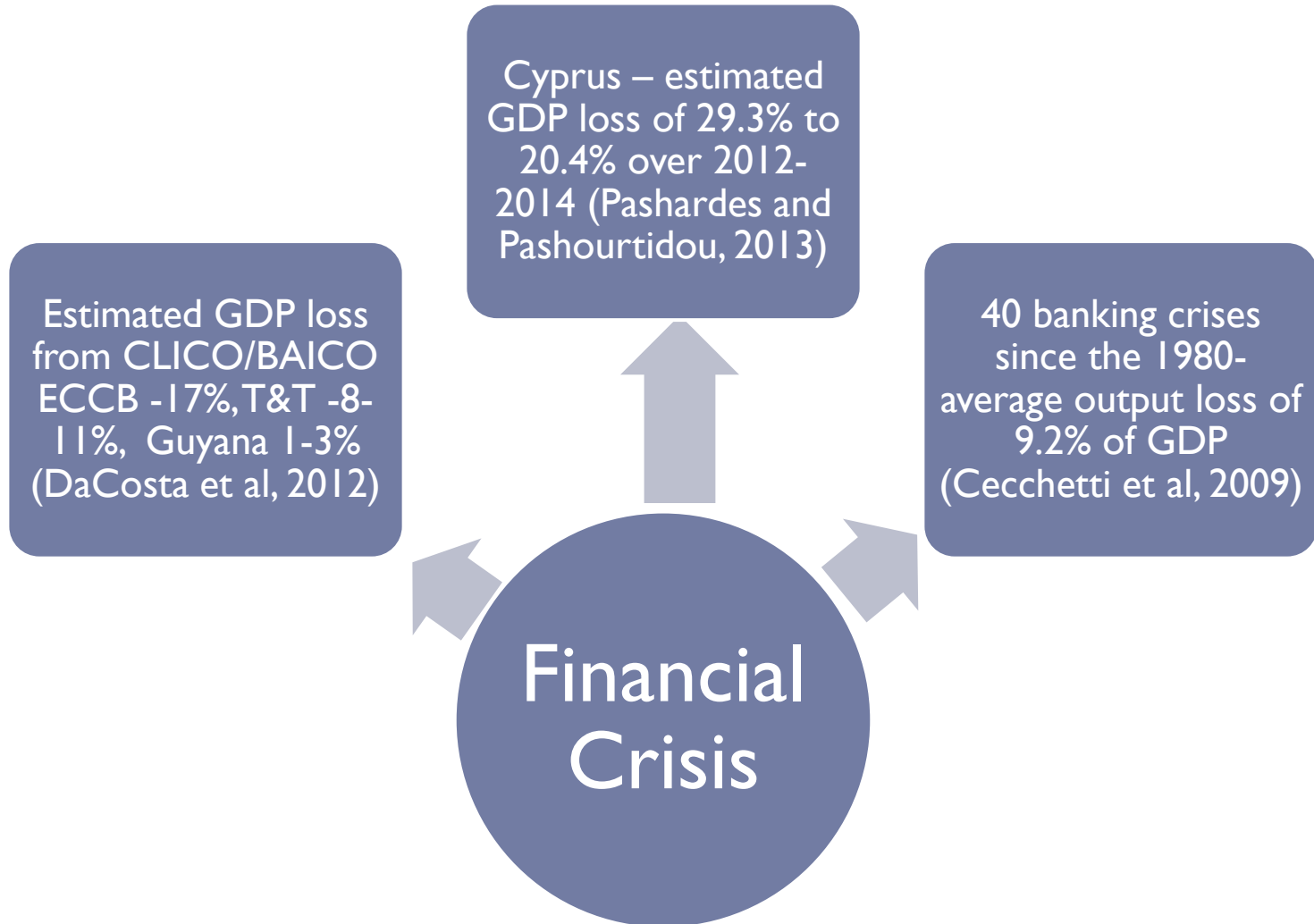
- ▶ “Macro-prudential supervision seeks to ensure financial stability by limiting disruptions to financial services caused by an impairment of all or parts of the financial system and [and which have] the potential to have serious negative consequences for the real economy.” (Source: Committee on the Global Financial System, 2010)
- ▶ “Macroprudential policy has been defined as the use of primarily prudential tools to limit systemic risk. A central element in this definition is the notion of systemic risk—the risk of disruptions to the provision of financial services that is caused by an impairment of all or parts of the financial system, and can cause serious negative consequences for the real economy”. (Source: IMF, 2013)



interacts with other policies.



The cost of financial instability...



The Caribbean Countries report FSIs...

Commercial Banks: Financial Soundness Indicators 2008 - March 2013

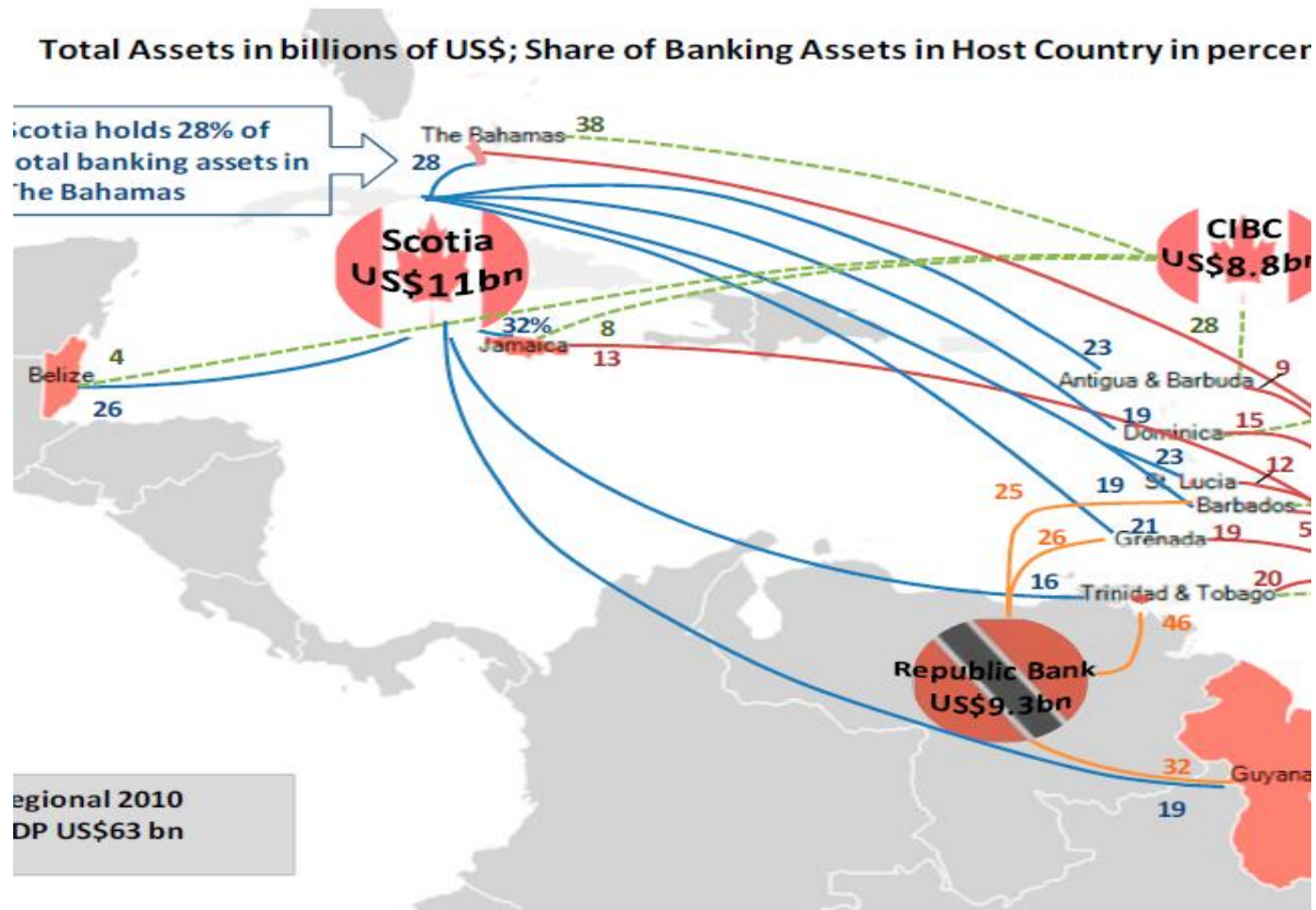
	2008	2009	2010	2011	2012	Mar-12	Mar-13
(in per cent unless otherwise indicated)							
<i>Capital adequacy</i>							
Regulatory capital to risk-weighted assets	18.8	20.5	24.2	25.1	24.6	26.1	24.4
Regulatory Tier I capital to risk-weighted assets	15.5	18.5	21.7	22.7	22.4	22.9	22.0
Regulatory Tier II capital-to-risk-weighted assets	3.2	2.0	2.5	2.4	2.2	3.3	2.4
Regulatory capital-to-total assets	12.1	10.7	12.2	12.1	12.0	12.5	11.7
<i>Banking sector asset composition</i>							
Sectoral distribution of loans-to-total loans							
Households	39.9	39.8	42.2	42.7	44.2	42.7	44.0
of which:							
Proportion secured as mortgage loans	28.4	36.7	37.4	39.5	42.3	40.5	41.4
Financial sector	19.8	18.8	16.3	17.0	16.2	17.1	14.6
Oil and gas sector	3.3	3.2	3.2	2.8	3.1	3.2	3.6
Construction	6.8	10.3	11.8	11.1	9.3	11.1	6.3
Transport and communication	1.8	2.2	2.0	2.1	3.2	2.1	2.2
Non-residents	6.6	5.9	4.5	4.5	4.5	4.5	4.2
Geographic distribution of loans-to-total loans							
Domestic	93.6	94.5	95.8	95.8	95.8	95.8	96.2
Foreign	6.4	5.5	4.2	4.2	4.2	4.2	3.8
Foreign currency loans-to-total loans	23.0	22.8	18.7	17.7	18.6	17.6	19.0
<i>Banking sector asset quality</i>							
Nonperforming loans-to-gross loans	2.5	5.0	6.2	6.3	5.4	6.8	4.7
Nonperforming loans (net of provisions)-to-capital	6.7	9.2	13.3	14.5	9.8	14.7	7.6
Total provisions-to-impaired loans*	40.3	55.1	39.5	35.2	49.5	37.9	56.1
Specific provisions-to-impaired loans	29.3	48.1	33.4	28.3	39.7	31.2	45.8
General provisions-to-gross loans*	0.3	0.3	0.4	0.4	0.5	0.5	0.5
Specific provisions-to-gross loans	0.7	2.4	2.1	1.8	2.1	2.1	2.1
<i>Banking sector earnings and profitability</i>							
Return on equity	25.9	20.2	17.2	17.2	18.1	15.0	15.0
Return on assets	3.5	2.7	2.3	2.4	2.6	2.1	2.1
Interest margin-to-gross income	65.2	66.6	67.0	64.8	65.4	67.1	65.2
Non-interest expenses-to-gross income	49.7	58.1	63.3	62.1	66.5	69.3	64.6
Spread between average lending and deposit rates	8.3	10.1	9.1	8.6	8.2	8.5	8.0
<i>Banking sector liquidity</i>							
Liquid assets-to-total assets	22.1	25.0	24.3	27.7	25.2	27.7	27.0
Liquid assets-to-total short-term liabilities	30.0	32.5	31.9	36.6	32.6	36.8	34.8
Customer deposits-to-total (non-interbank) loans	124.7	165.2	163.0	172.4	186.0	173.8	187.8
Foreign currency liabilities-to-total liabilities	32.7	33.1	27.5	27.0	27.9	26.6	28.0

Source: Central Bank of Trinidad and Tobago, 2013

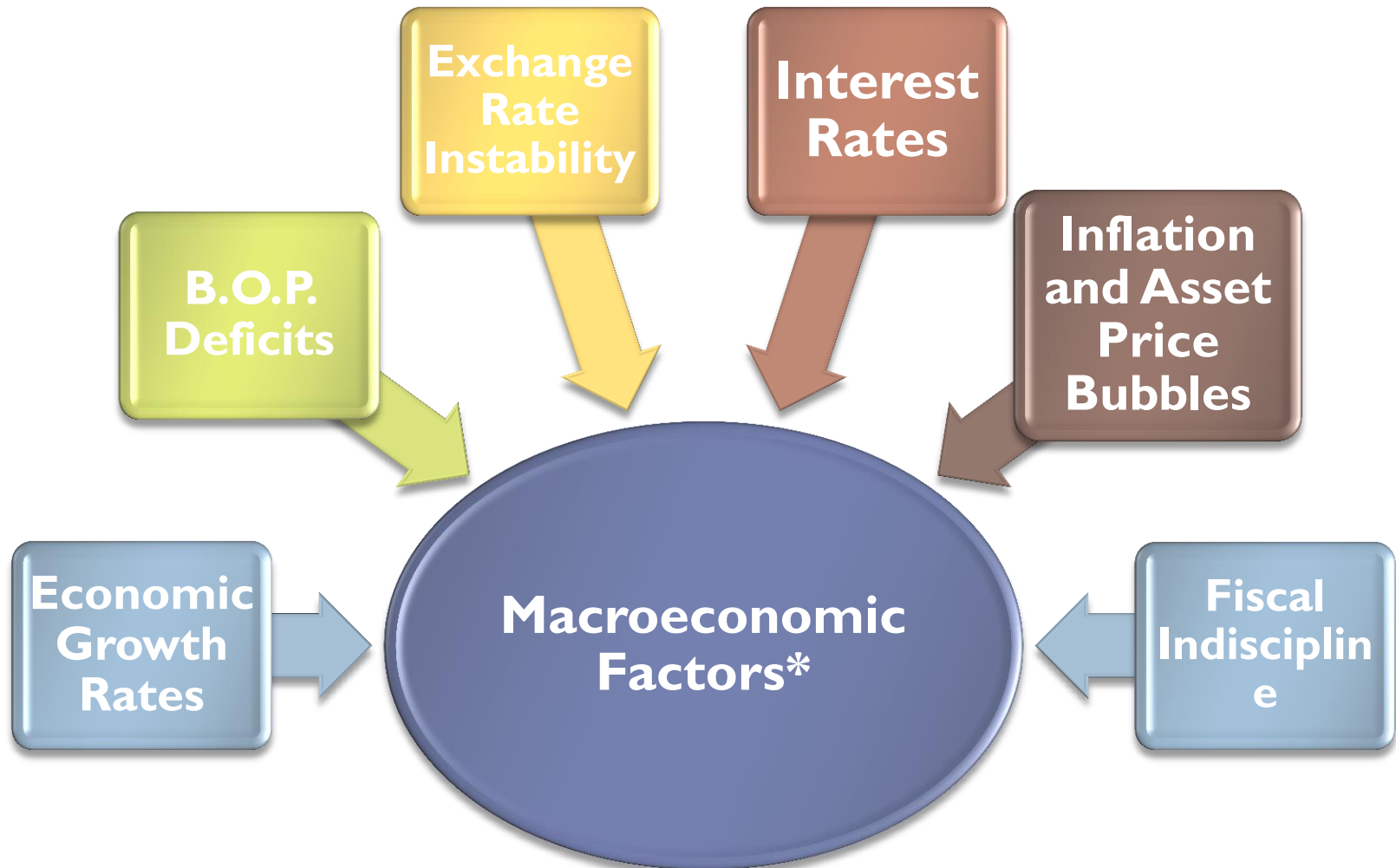
stress tests,...

IMPACT SCORE	CONSEQUENCE	POSSIBLE CHARACTERISTICS
0	None	Unchanged capital adequacy Very small loan losses High profitability Small effects on liquid assets
1	Limited	Marginal weakening of capital adequacy in affected institutions Marginal increase in loan losses in affected institutions Fall in profitability in affected institutions Fall in liquid assets in affected institutions
2	Serious	Weaker capital adequacy in affected institutions Large loan losses in affected institutions Substantial fall in profitability in affected institutions General fall in liquid assets
3	Very serious/ system threatening	Substantial weakening of capital adequacy throughout the system Potentially very large loan losses throughout the system Substantial fall in profitability throughout the system Substantial fall in liquid assets throughout the system

and regional interconnectedness.

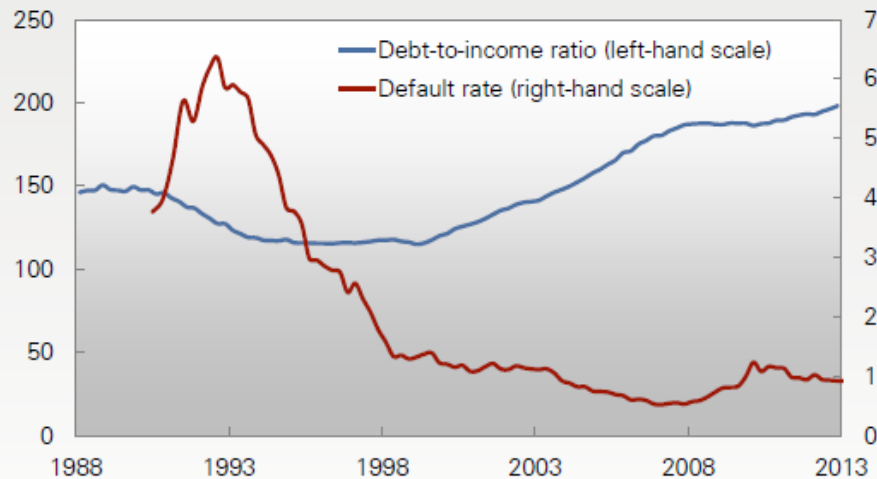


Macro-economic data are important...



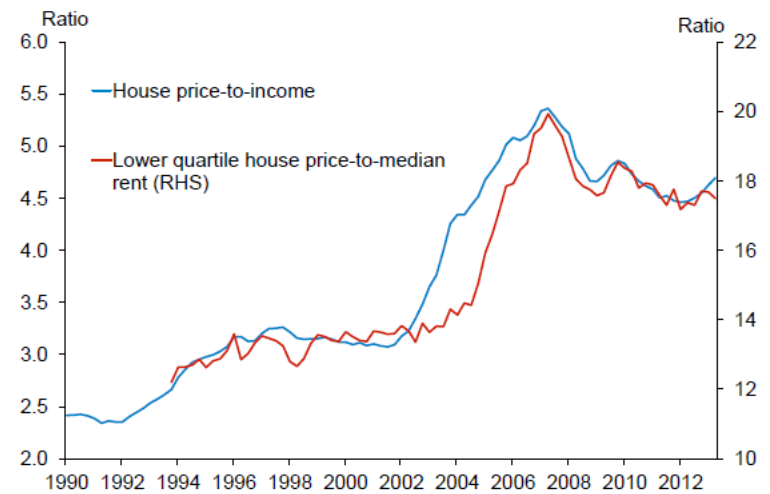
early warning indicators.

Chart 1 Default as a percentage of total loans to retail market from banks and mortgage companies. Debt as a share of disposable income. 1988–2013



Sources: Statistics Norway and Norges Bank

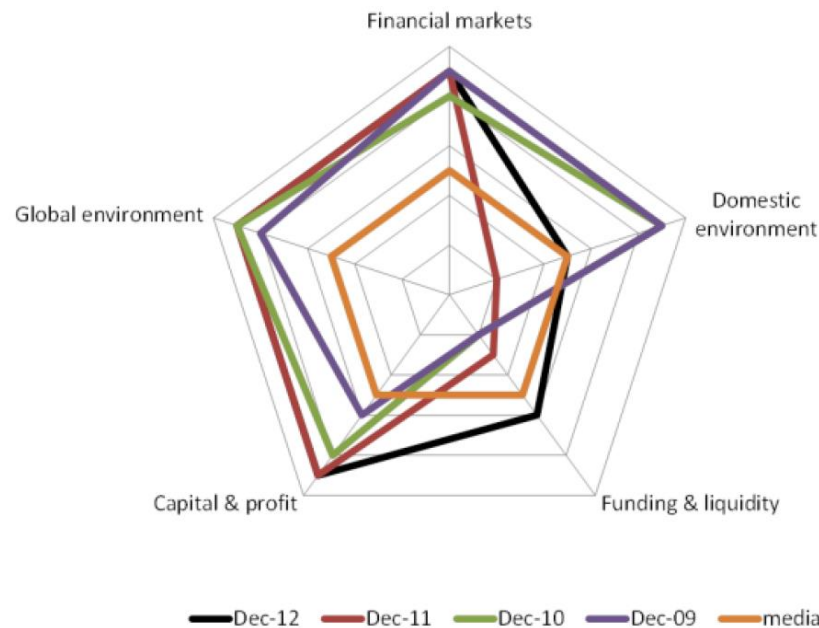
House prices relative to measures of fundamentals



Source: Property IQ, RBNZ, Statistics New Zealand, Department of Building and Housing.

They all are used to assess financial stability.

Figure 2.2 Financial stability cobweb



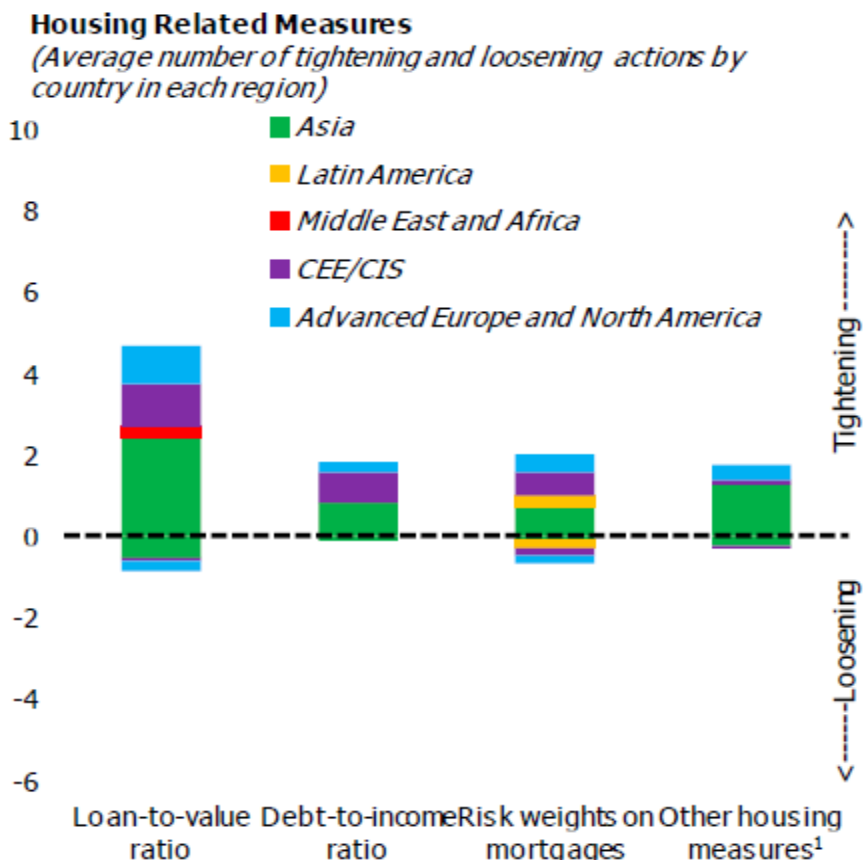
Note: The orange band represents a normal level of risk. Movements away from the centre of the diagram represent an increase in financial stability risks. Movements towards the centre of the diagram represent a reduction in financial stability risks.



Different tools are used ...

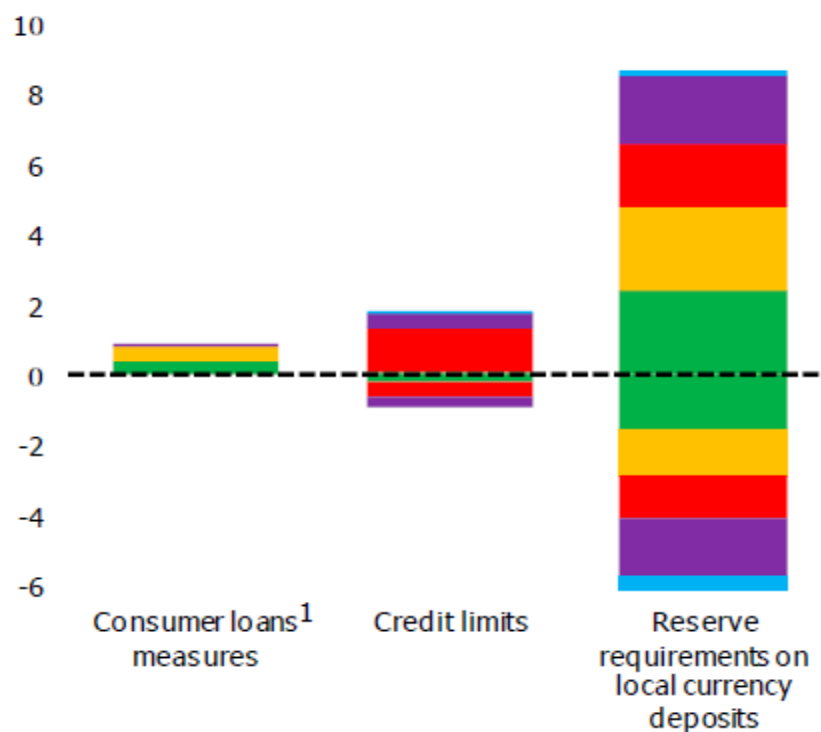
Country	Instrument	Communication	Activation
Austria	Net new lending to local stable funding ratio (LLSFR) as a monitoring ratio	March 2012	December 2012
	Capital surcharge for large banking groups	March 2012	January 2016
	Guiding principles on foreign exchange lending	January 2010	April 2010
	Financial Market Authority (FMA) minimum standards for the risk management and granting of foreign currency loans and loans with repayment vehicles	September 2012	January 2013
Netherlands	Loan-to-value cap	April 2012	January 2013
	Capital surcharge for large banking groups	November 2011	January 2016
Norway	Loan-to-value cap	March 2010	March 2010
	Loss given default (LGD) floor on mortgages	October 2013	January 2014
	Countercyclical capital buffer	December 2013	July 2015
Sweden	Loan-to-value cap	July 2010	October 2010
	Macro-liquidity measure (liquidity coverage ratio)	June 2012	January 2013
	Risk-weight floor on mortgages	May 2013	May 2013
Switzerland	Sectoral countercyclical capital buffer	February 2013	September 2013

with reserve requirement measures...



¹ Include provisions on housing loan requirements, housing/land related taxation, limits on adjustable rates component of mortgages.

Credit Measures and Reserve Requirements
(Average number of tightening and loosening actions by country in each region)

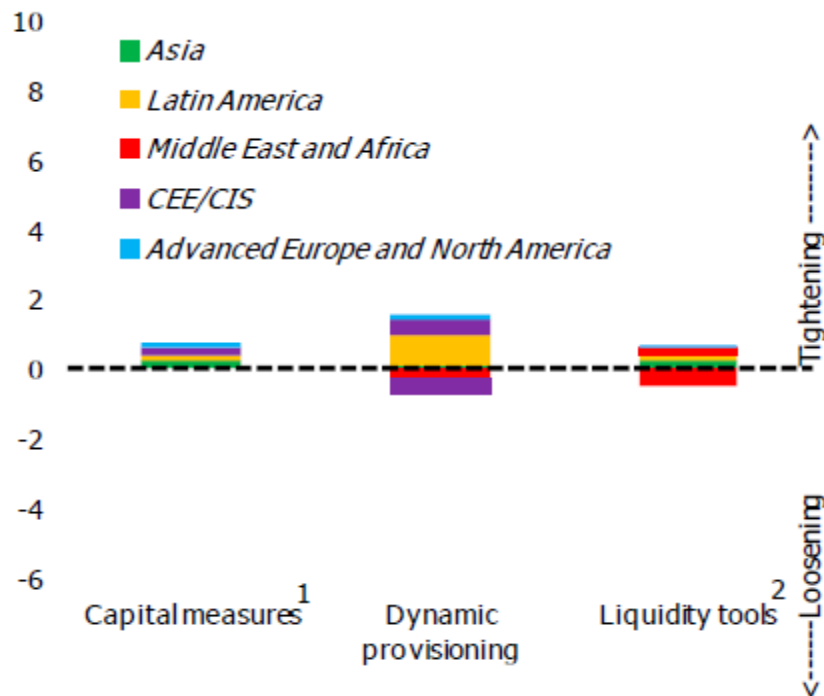


¹ Include regulations and debt service limits on credit cards and personal loans.

and FX measures being popular.

Capital, Provisioning and Liquidity

(Average number of tightening and loosening actions by country in each region)

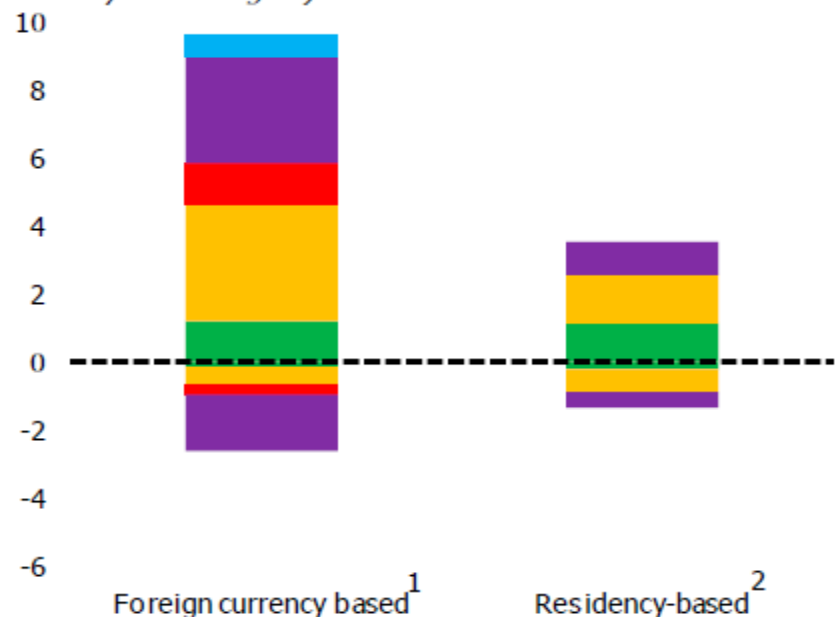


¹ Include countercyclical capital requirements and restrictions on profit distribution.

² Include core funding ratio and liquidity ratio.

Other Macprudential and Capital Flow Management Measures

(Average number of tightening and loosening actions by country in each region)



¹ Include limits on net open position in foreign currency, reserve requirements on forex deposits, limits on foreign currency lending, additional provisioning requirement on forex lending.

² Include withholding tax or restrictions on non-resident holding of assets, unremunerated reserve requirements on non-resident deposits.

Empirical analysis suggest that...

- ▶ Krznar and Morsink (2014): Canada - Reductions in maximum LTV ratios for first-time buyers and refinancing in 2010, 2011, and 2012 curbed mortgage credit growth and moderated the surge in house price. Results suggest that a 1% reduction in the maximum LTV ratio lowers annual mortgage credit growth by about $\frac{1}{4}$ to $\frac{1}{2}$ %.
- ▶ Wang and Sun (2013): Empirical analysis based on 171 banks in China shows that some usefulness of macro-prudential policy tools (e.g., the reserve requirement ratio and house-related policies) in containing systemic risk.



macro-prudential policy has achieved some level of success.

- ▶ **IMF (2012): 2000 to 2011, 36 countries,**
 - ▶ Findings -credit growth -statistically significant effects for both capital requirements and reserve requirements. house price appreciation –statistically strong effects for limits on LTV ratios and capital requirements, but not for reserve requirements.
 - ▶ **Claessens et al (2013) 2800 banks in 48 countries over 2000–2010**
 - ▶ measures aimed at borrowers – caps on debt-to-income and loan-to-value ratios, and limits on credit growth and foreign currency lending – are effective in reducing leverage and asset growth during boom times. While countercyclical buffers (such as reserve requirements, limits on profit distribution, and dynamic provisioning) also help mitigate increases in bank leverage and assets.
-



Regionally...

- ▶ Several countries produce financial stability reports – Barbados, Jamaica, Trinidad and Tobago
- ▶ CCMF is coordinating the Regional Financial Stability Report
- ▶ In addition the IMF occasional produces Financial Stability Assessment Reports on the countries – most recent Barbados Feb. 2014, also did a regional one for ECCB in Sept. 2004



and locally policy is being developed.

- ▶ Financial Stability Committee supported by a Financial Stability Secretariat
- ▶ Creation of a Financial Stability Unit
- ▶ Reorganization of the Financial Stability Report – risk based, forward looking
- ▶ Development of New Indicators



Tools currently available in the region...

	Barbados	Belize	Jamaica	Trinidad and Tobago
Reserve Requirement	Govt securities - 10.0%; Domestic deposits - 5.0%; Foreign currency deposits - 2.0%	Commercial banks - 8.5% of deposit liabilities in Cash Reserves	Commercial Banks, FIA Licensees, Building Societies - 12.0% (domestic), 9.0% (foreign); *Building societies meeting 'qualifying assets' threshold - 1.0% (domestic), 1.0% (foreign)	Primary Reserve Ratio - 17.0% (commercial banks), 9.0% (non-banks); Secondary Reserve requirement ratio - 2.0%
Loan to Value Ratio				
Liquidity Requirements		Commercial Banks - 23.0% of deposit liabilities in approved liquid assets	Commercial Banks, FIA Licensees, Building Societies - 26.0% (domestic), 23.0% (foreign); **Building societies meeting 'qualifying assets' threshold - 5.0% (domestic), 5.0% (foreign)	
Debt to Income Ratio				
Counter-cyclical capital buffers				
Sectoral Capital Buffers				
Dynamic Provisioning				



Source: Various Central Banks

needs to be supplemented.

- ▶ Adequate data – timely, accurate, long time series
- ▶ Develop appropriate early warning tools and instruments
- ▶ Investigate further interconnectedness
- ▶ Understand the linkages between the real and financial sector
- ▶ Development of a shadow rating system for the Caribbean



Thank you

