
Some Questions After the Global Financial Crisis

“Insanity is doing the same thing over and over again and expecting different results”

“This time is different”

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Outline

1. Macro (price) & Financial Stability Objectives?
2. The size of financial intermediation?
3. SIFIs and moral hazard?
4. Global inter-connectedness with high liquidity?
5. Information gaps and asymmetries?

1. Macro (price) & Financial Stability (1)

- 2 Objectives (risk, output-inflation), 2 Instruments (CB base rate & regulatory-Micro/Macro-Prudential tools (MiP & MaP)).
- CB rate → output-inflation (counter-cyclical prop known); but → risk (less known), MiP&MaP → risk (known); but → output (less known)

	CB rate	MiP & MaP
Output-inflation	Yes, counter-cyclical effects known	??
Risk	??	Yes, counter-cyclical effects known

1. Macro (price) & Financial Stability (2)

- 2 Objectives and 2 Instruments with 1 or 2 Authorities? Who defines SW function and weights?
- 2 Authorities might lead to policy dilemma, credibility issues

	1 or 2 Authorities? One CB or MA + FA?	
	MA	FA
Output-inflation	Greater Weight	Indifferent? Pro or Counter-cyclical?
Risk	Indifferent? Pro or Counter-cyclical?	Greater Weight

Macroprudential instruments cited by CGFS survey respondents

Type of instrument	Examples	Economies that have used the instrument	
		Advanced	EME
Measures targeting credit growth			
Limits calibrated to borrower risk characteristics	LTV caps, DTI limits, foreign currency lending limits	2	9
Absolute limits	Aggregate or sectoral credit growth ceilings, limits on exposures by instrument		4
Measures targeting size and composition of bank balance sheets			
<i>Measures to limit interconnectedness</i>			
Limits on leverage	Size-dependent leverage limits or asset risk weights, capital surcharges for systemically important institutions	2	2
Financial system concentration limits	Limits on interbank exposures	1	2
<i>Measures to limit procyclicality</i>			
Capital	Time-varying capital requirements, restrictions on profit distribution	1	1
Provisioning	Countercyclical/dynamic provisioning	1	5
<i>Measures to address specific financial risks</i>			
Liquidity risk	Loan-to-deposit limits, core funding ratios, reserve requirements	1	8
Currency risk	Limits on open currency positions or on derivatives transactions		8

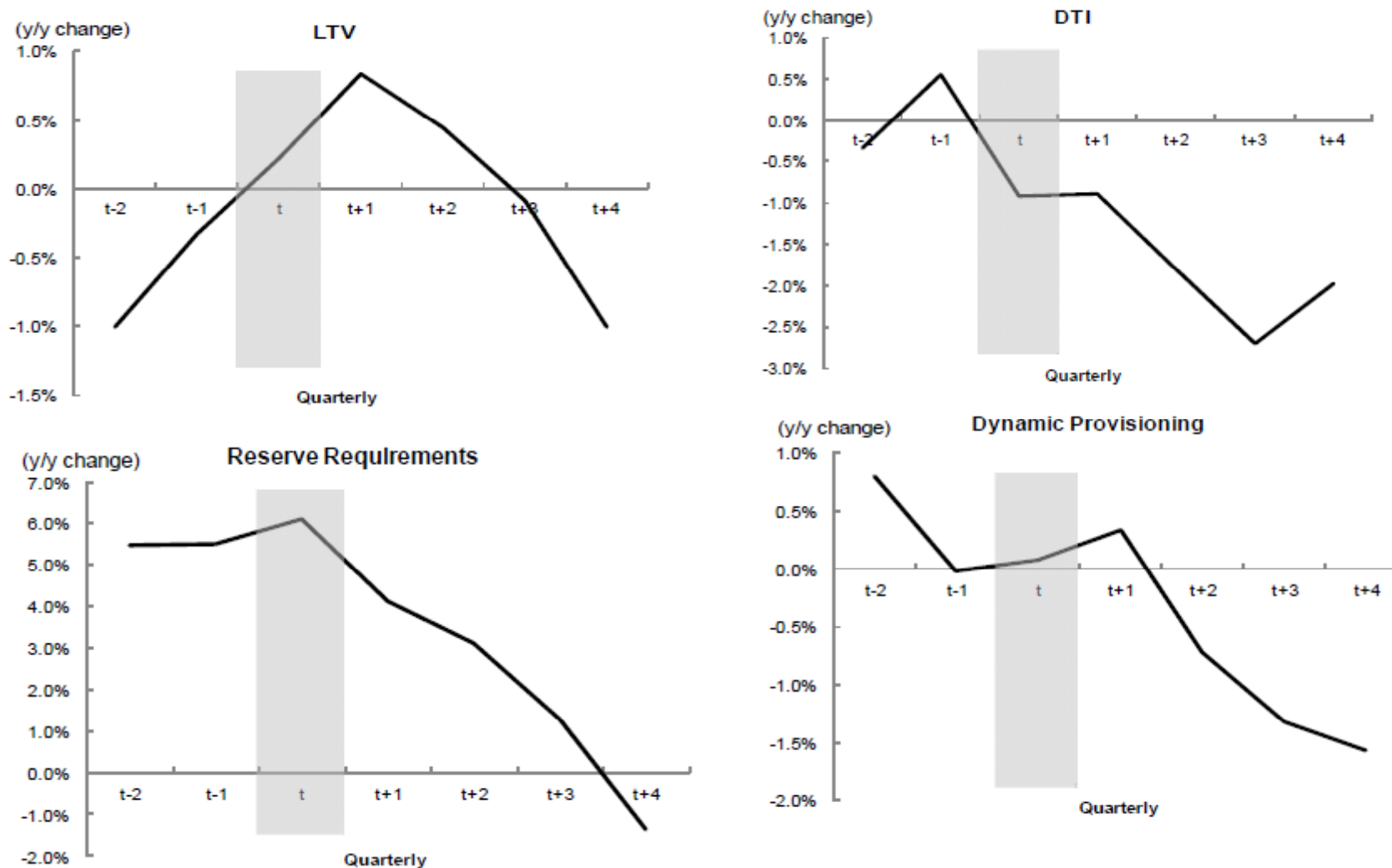
Source: BIS –Committee on the Global Financial System (CGFS), Macroprudential instruments and frameworks: a stocktaking of issues and experiences, CGFS PAPERS No. 38, May 2010

1. Macro (price) & Financial Stability (3)

- FS & MaPs: many studies old and new literature: empirical evidence shows MaPs are effective (see IMF WP/11/238, October 2011)(*) in mitigating systemic risk
- Cross-country regression (49 countries) → MaP dampens pro-cyclicality (LTVs, DTI, caps of Credit growth, RR, CC K reqs., dynamic provisioning) used in combination
- Effectiveness does not depend on ERR, size of financial sector, AEs or EMEs, etc.
- Pbs: “Systemic Risk” definition; Asset price inflation not significantly affected

(*) Lin and alii, Macroprudential Policy: What Instruments and How to Use Them? IMF WP/11/238, October 2011)

Figure 6. Change in Credit Growth After the Introduction of Instruments

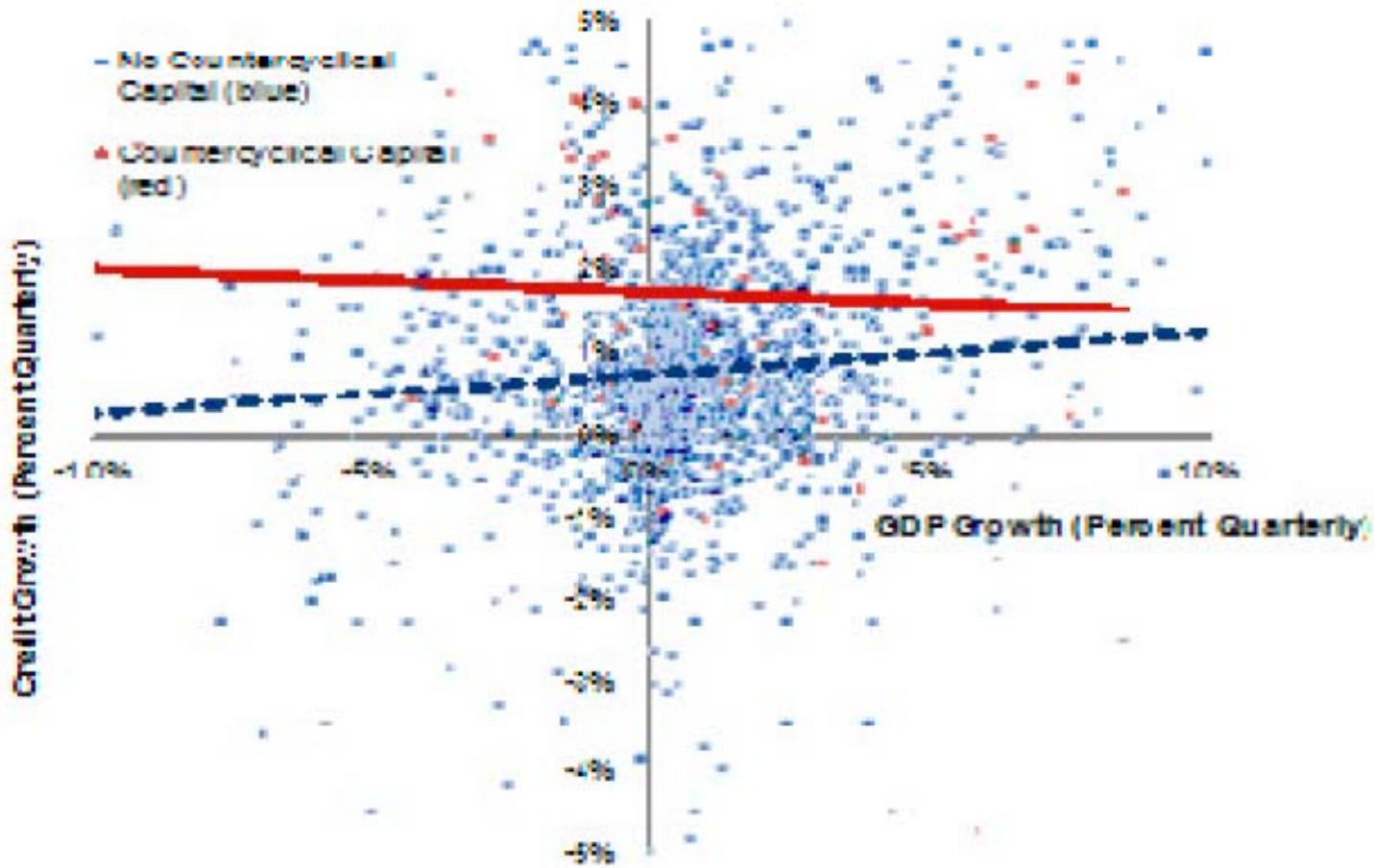


Notes:

- 1/ Average of sample countries' y/y growth in credit (detrended).
- 2/ t denotes the time of the introduction of instruments.

Credit and GDP Growth controlled by CC K

With and Without Countercyclical Capital Requirements



Source: IFS

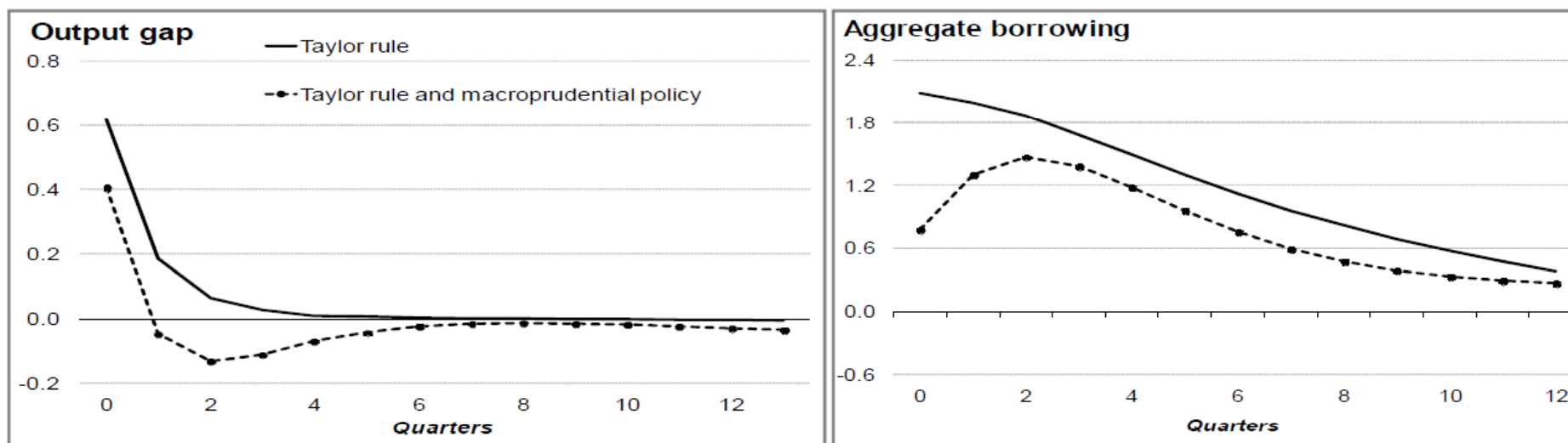
1. Macro (price) & Financial Stability (4)

- Assuming agency pbs solved, 2 (old) questions (e.g., how policy should react to FS and should FS be defined? e.g., “asset price bubbles”, “excessive credit growth”, etc.):
 - (Q1) should Monetary Policy (MP) be somehow combined with MiP and MaP? Are there optimal strategies to achieve both macro & financial stability?
 - (Q2) should MP rules be directly responsive to (some measure of) financial (in)stability?
- Old questions but new context (e.g., Global Crisis after Great Moderation). Literature shows (a) case against; (b) case for; (c) DSGE modeling exercises

1. Combining MP and MiP and MaP (1)

- Proposition needs theoretical framework (not yet available). But can be tested numerically using DSGEs (*) increasing amount of literature being produced (academia, BIS, IMF, etc.)
- Ex: effect of positive risk shock using MP v-a-v MP+MaP

Dynamic Responses to a Positive Financial Shock *(percent deviations from steady state)*

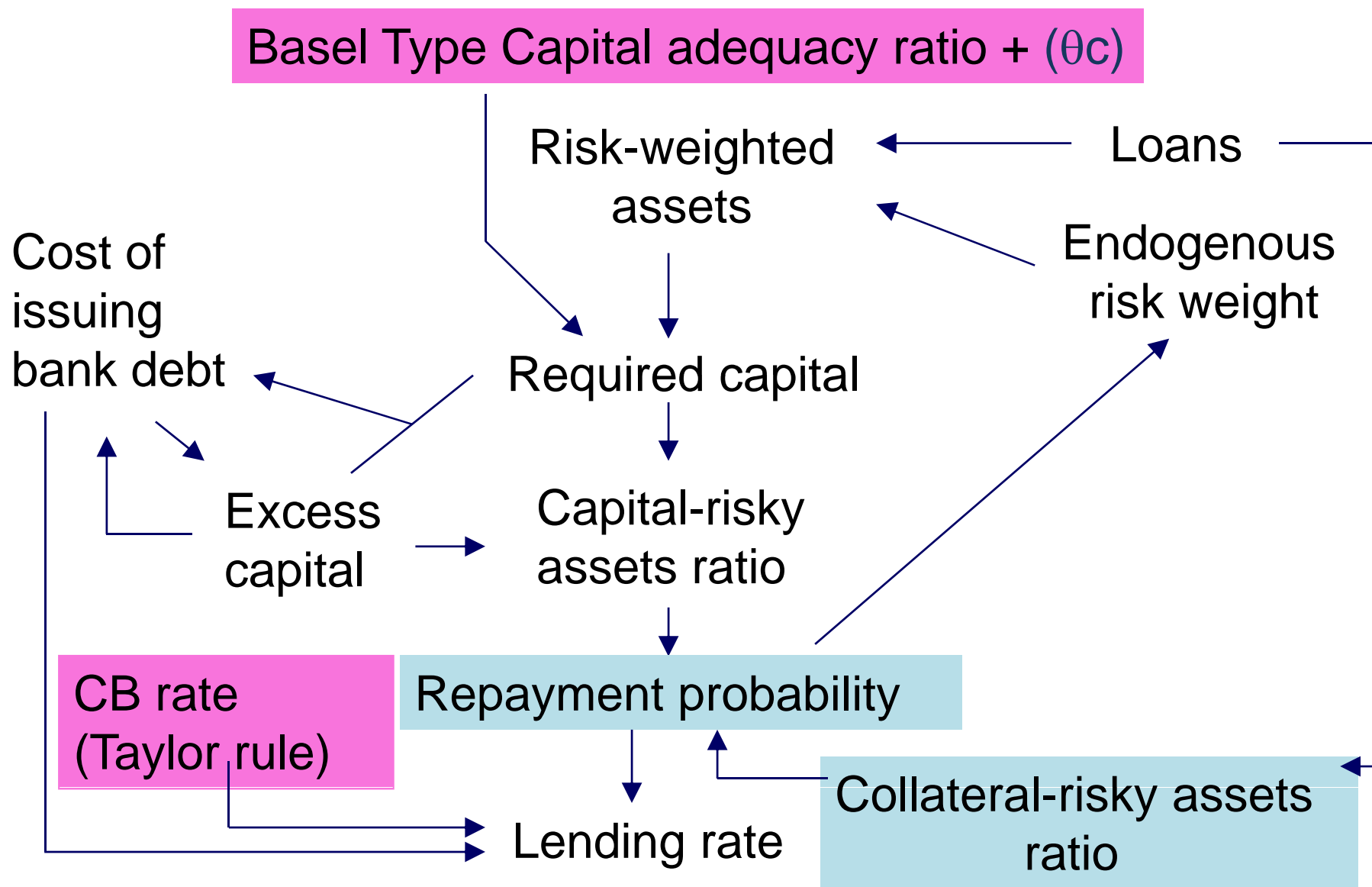


(*) see IMF WPS/11/238

1. Combining MP and MiP and MaP (2)

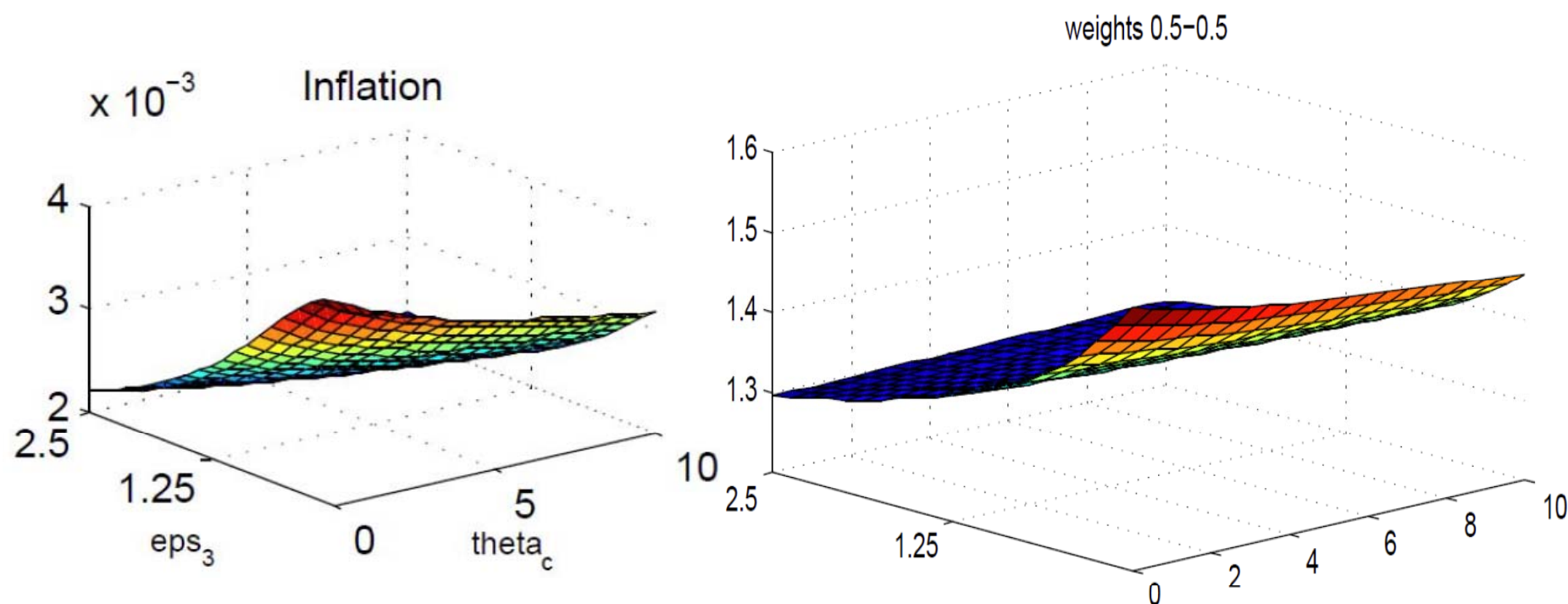
- Numerical “Optimality” v-a-v Macro (Price) Stability tested using DSGE with 2 instruments: (a) MP reacts thru Taylor rule; (b) MaP reacts thru CCK rule as in Basel 3; (c) Financial Stability (FS) defined as volatility of Housing price; and (d) Economic Stability = f [weights (FS, Price Stab)]
- Explicit specif. financial sector (K req endo, risk-sensitive to repayment probability); key is adequate transmission channel
- Comparison of stab property of 2 instruments to reach Eco. Stab.
 - CB rate = f [$\Delta(\text{inflation} - \text{target})$, output gap, $\varepsilon_3(\text{credit})$]
 - Countercyclical K buffer (θ_c) applying to banks

Regulatory Capital, Repayment Probability, and Lending Rate



1. Combining MP and MiP and MaP (3)

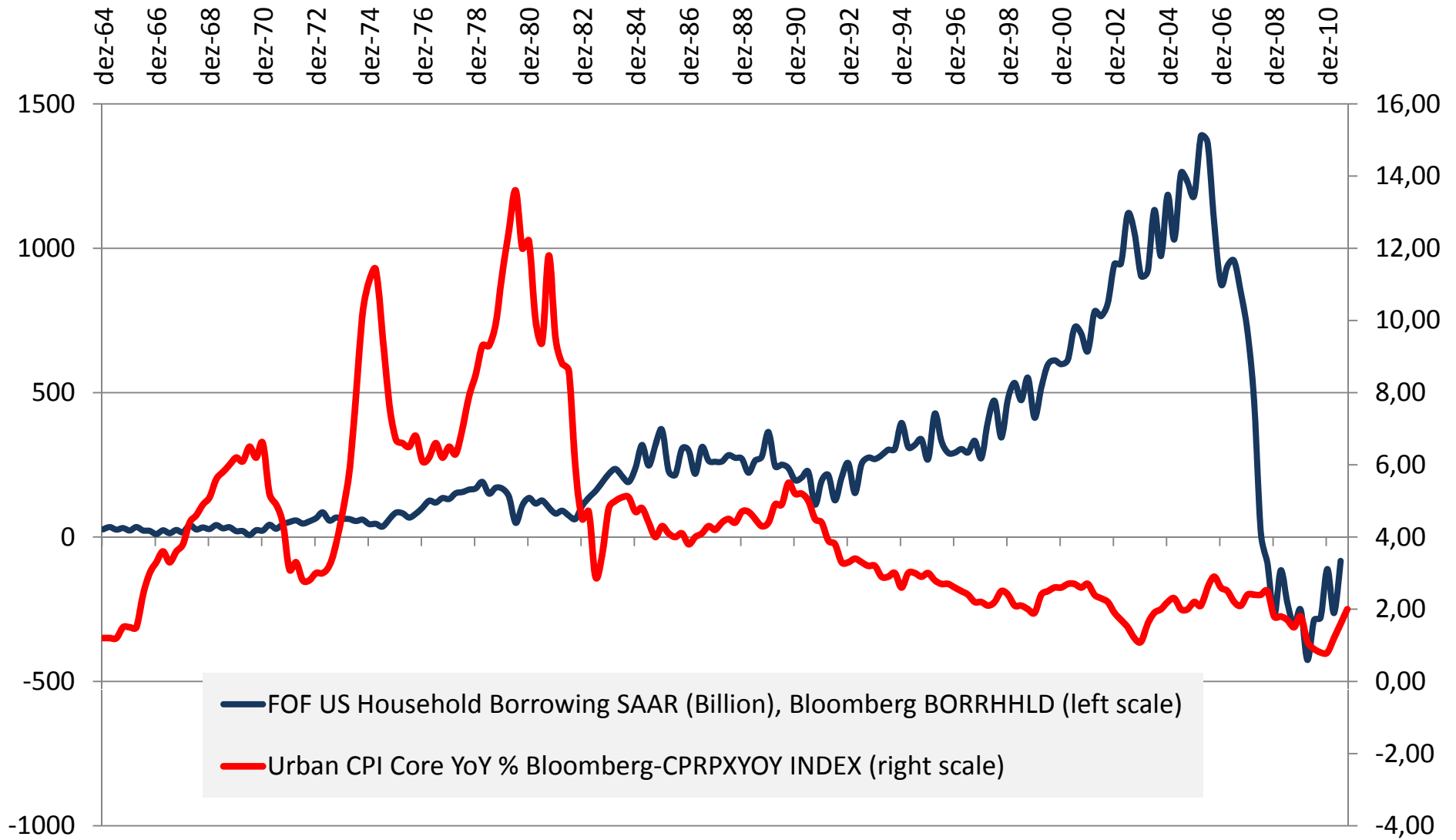
- With 50%-50% weights (of FS & Price Stab.), no trade-offs: instruments are complements not substitutes to achieve lower volatility (vertical axis) of Economic Stability: Results show positive effects of combining 2 rules (θ_c) and ϵ_3



1. Direct new MP Rule: Case **AGAINST**

- **CB rate too blunt** an instrument (possible adverse supply-side effects); sectoral tools may be better.
- **MiP & MaP rules sufficient**, both “old” (e.g., RR, liquidity ratios, LTV/DTI ratios) and “new” tools (dynamic provisioning, Basel 3, counter-cyclical buffers, etc.).
- **CB credibility pbs**, adding a financial stability objective to MP may confuse markets, weaken commitment to price stability, and destabilize expectations.
- **Implementation pbs (timing)**: when and how identify adequate moment for policy intervention? No consensus about “financial (ins)stability”

The “Great Moderation” in the US?



1. Direct new MP Rule: Case **FOR**

- **Loose MP correlated to excessive risk taking; compounds inherent financial procyclicality** (optimistic expectations, underpricing risks in good times, etc.).
- **“Leaning against the (financial) cycle”** MP may also help to stabilize conventional targets (output, inflation).
- **MiP & MaP rules IN-sufficient**, to (a) prevent excessive asset growth; (b) avoid interest capture; (c) prove effective (largely untested Basel 3 new tools)
- **“Cleaning after”** proved too costly (balance sheet transfer led to 2nd phase of the Global Crisis where we are now)

Annex 2: Phase-in arrangements (shading indicates transition periods)

(all dates are as of 1 January)

	2011	2012	2013	2014	2015	2016	2017	2018	As of 1 January 2019
Leverage Ratio	Supervisory monitoring		Parallel run 1 Jan 2013 – 1 Jan 2017 Disclosure starts 1 Jan 2015					Migration to Pillar 1	
Minimum Common Equity Capital Ratio			3.5%	4.0%	4.5%	4.5%	4.5%	4.5%	4.5%
Capital Conservation Buffer						0.625%	1.25%	1.875%	2.50%
Minimum common equity plus capital conservation buffer			3.5%	4.0%	4.5%	5.125%	5.75%	6.375%	7.0%
Phase-in of deductions from CET1 (including amounts exceeding the limit for DTAs, MSRs and financials)				20%	40%	60%	80%	100%	100%
Minimum Tier 1 Capital			4.5%	5.5%	6.0%	6.0%	6.0%	6.0%	6.0%
Minimum Total Capital			8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
Minimum Total Capital plus conservation buffer			8.0%	8.0%	8.0%	8.625%	9.25%	9.875%	10.5%
Capital instruments that no longer qualify as non-core Tier 1 capital or Tier 2 capital			Phased out over 10 year horizon beginning 2013						
Liquidity coverage ratio	Observation period begins					Introduce minimum standard			
Net stable funding ratio		Observation period begins						Introduce minimum standard	

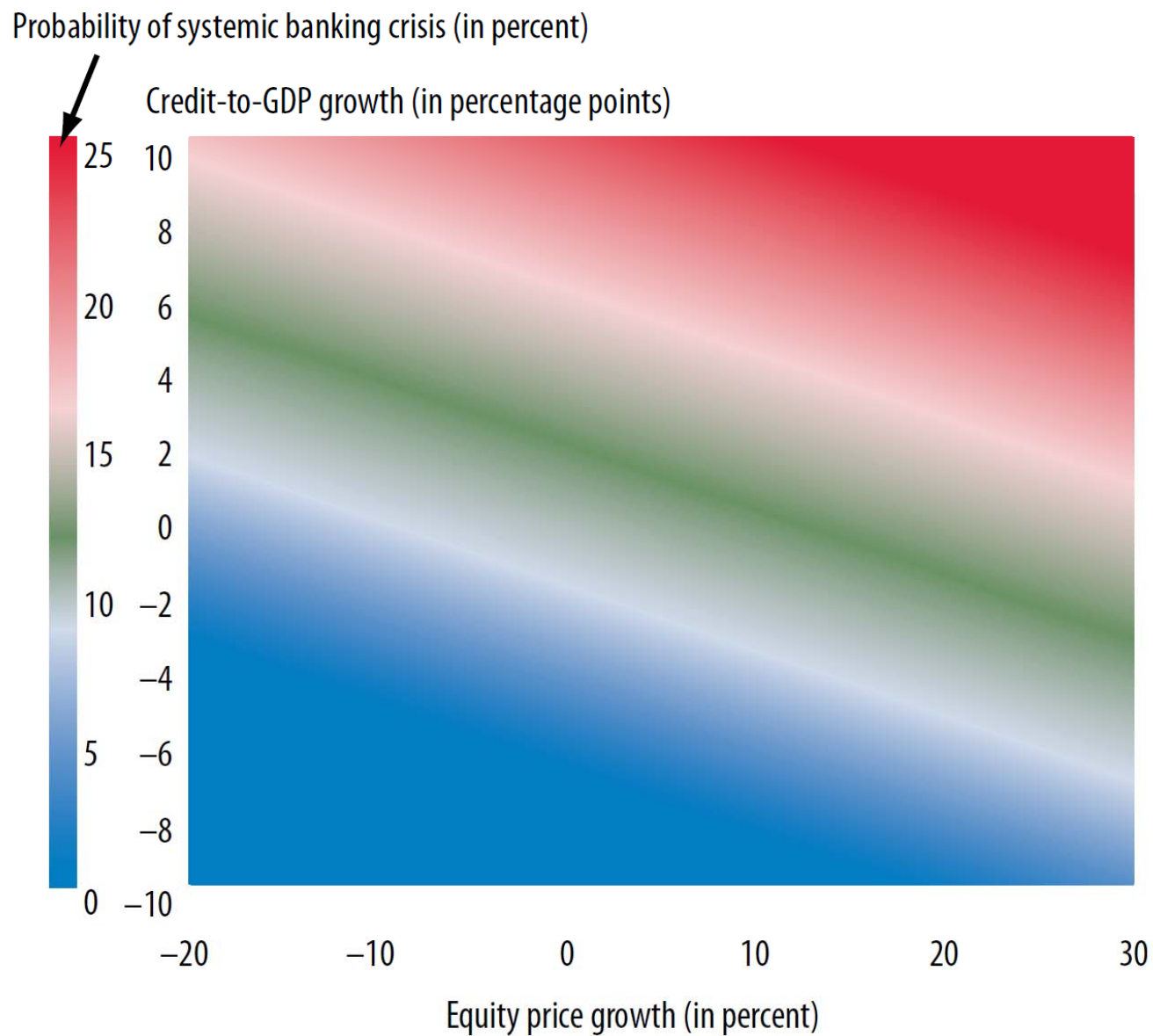
1. Pragmatic Approach (1)

- **Theory and practice under construction.** But is the true objective to “prevent” or to “reduce” the probability of crises?
 - Lean against vs cleaning after? Clear that social cost of “cleaning after” unbearable, too high (even for the G7, e.g., in % of GDP and for any political economy setting).
 - Detecting, minimizing, bursting “bubbles”? Good luck! Separate fundamentals and “irrational exuberance”?
- **More promising : strengthening financial infrastructure** (e.g., G20-FSB, Basel 3 agenda → cost & quantity of K, CC buffers, micro-incentives, supervision, resolution frameworks, etc.)

1. Pragmatic Approach (2)

- **More promising** : smoothing financial accelerator, getting the “right” credit multiplier → reducing “excesses” in prices & quantities (leverage, asset-credit growth,...)
- **More promising** : provisioning for white swans (better be dynamic) and buffers for black swans (K and liquidity)
- **More promising** : avoiding, minimizing contagion (hedging obligation, identification of counterparties, registration in CCPs, micro-prudential rules, etc.)
- **More promising** : clear governance structure and rules for LOLR (MA) and Financial Stability Authority, 2 Committees?

Figure 3.4. Probability of a Systemic Banking Crisis



Source: IMF, Global Financial Stability Report (2011, p. 11).

2. The size of financial intermediation

- Between “Robinson Crusoe” and the “alphabet soup” of derivatives, what is the “right” balance, the desirable contribution of financial intermediation (FI) to the economy?
 - Cost-benefit analysis of marginal return of increase in FI v-a-v increase in risk and expected social welfare loss
 - Financial sophistication is a good or bad thing? Reduces cost of FI, expanding financial inclusion? Or increases information asymmetries and counterparty risks?
 - Can prudential-regulatory rules set “right” balance? Or can they set excessive controls → financial repression

3. SIFIs and moral hazard

- SIFIs, especially global ones pose systemic risk for financial sector because of asset size, interconnectedness, cross-border activities.
 - Is small more beautiful (or at least safer)? But would FI costs rise without using economies of scale and information?
 - Can MiP and MaP set “right” size for SIFIs? (e.g., work of BCBS “equalizing” probability of failure and facilitating resolution processes across jurisdictions thru cost of K)
- Moral hazard can emerge without SIFIs, if success of MP & MiP-MaP policies “numb” incentives for prudent behavior

4. Global interconnectedness w high liquidity

- Global interconnectedness of K markets in a situation of high liquidity create new challenges for MP and CBs exacerbating old impossible trinity
 - Case for using MiP-MaP to avoid excessive credit growth in recipient countries, complementing MP action (and FP) to dampen aggregate demand pressure
 - Greater K movements may continue after QEs; changes in relative country risk & lower home bias → portfolio composition
- Case for global coordination (G20) between recipient and emission centers to smooth cross-border flows and stocks?

5. Information gaps and asymmetries

- Information gaps and asymmetries need to be addressed in the new financial sector architecture
 - Comprehensive coverage and nature of exposures (including cross-border); linkages & BS connections, etc.
→ legal registration in CCPs for all transactions and all financial & non-financial agents
 - Standardization vs customization to reduce risk, increase awareness, transparency? Or loose accuracy/purpose?
- Transmission mechanisms into credit and asset markets of K flows, collateral values, other BS effects → better modeling tools, at least including BS effects and financial sectors

Preliminary Conclusions & More Questions

- (Some) prevention (leaning) seems better than “mopping-up” (cleaning) after; prudential regulation MiP-MaP strong candidate; MiP-MaP policies can be effective to foster financial stability and reduce risk
- Combining 2 objectives (financial & price stability) and 2 instruments (MaP & MP+FP) seems pragmatic; But: clear communication to preserve credibility of both needed. Moreover: leaning against what? (e.g., credit or other asset growth)
- More work needed to better understand : (a) effects of MP on risk; (b) effects of MaP on activity; and (c) transmission mechanisms of MP under various configurations of MaP
- Theoretical framework might come after pragmatic approaches?

“Dans les champs de l'observation le hasard ne favorise que les esprits préparés.”

In the fields of observation chance favors only the prepared mind.

Louis Pasteur - Lecture, University of Lille (7 December 1854)

Thank You