


BÂLE III ET LE FINANCEMENT DE L'ÉCONOMIE

AEFR 28 novembre 2023

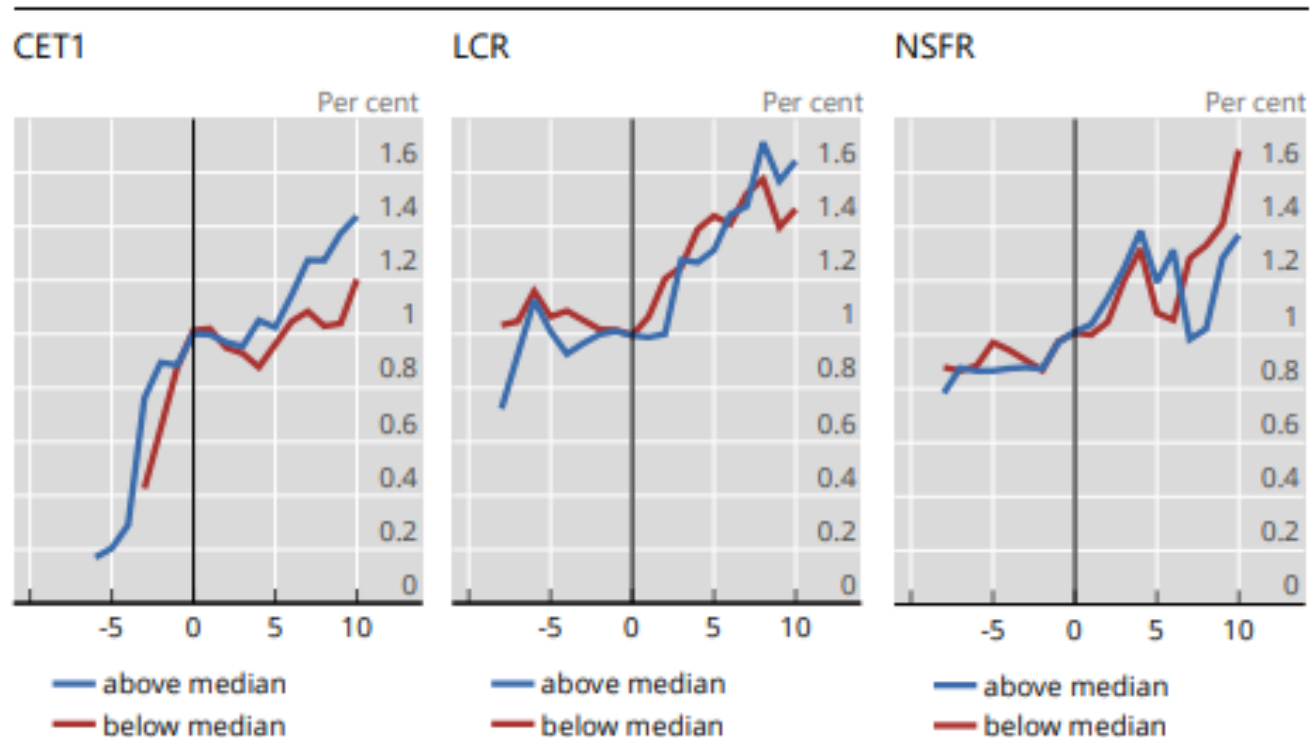
Olivier de BANDT
Directeur de la Recherche

Plan

- 
- Les bénéfices microéconomiques de la nouvelle réglementation Bâle III ont été mis en évidence par le rapport d'évaluation du Comité de Bâle
 - Pas d'effet négatif sur la distribution du crédit
 - Impact positif en termes de résilience
 - Nécessité de prendre en compte les bénéfices macroéconomiques à moyen terme en terme de stabilité financière d'un renforcement des exigences réglementaires.
 - Au-delà des exigences en fonds propres, la liquidité joue aussi un effet positif
 - Les crises récentes (Covid) ont montré l'intérêt du nouveau dispositif réglementaires, même s'il convient de rester vigilant.

1. BÉNÉFICES MICROÉCONOMIQUES : DISTRIBUTION DU CREDIT

La mise en œuvre de Bâle 3 n'a pas conduit à une baisse de la distribution du crédit



Source : Evaluation of the impact and efficacy of the Basel III reforms, Bcbs décembre 2022

Note : comparaison du niveau des crédits pour les banques dont le ratio prudentiel est au départ (2011 en général) en-dessous de la médiane (rouge) ou au-dessus de la médiane (QIS database). 0: semestre de la réforme au niveau national



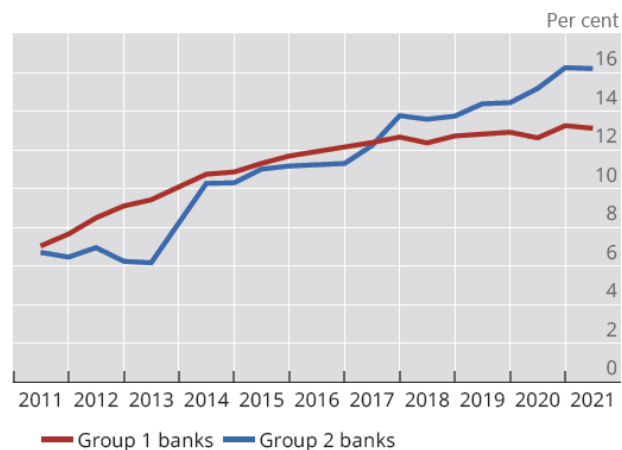
1. BÉNÉFICES MICROÉCONOMIQUES : RESILIENCE DES INSTITUTIONS –INDICATEURS COMPTABLES

Weighted average capital ratios

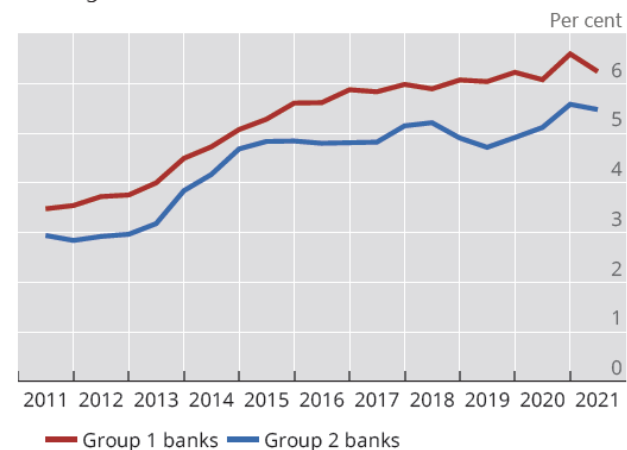
Balanced data set

Graph 1.1

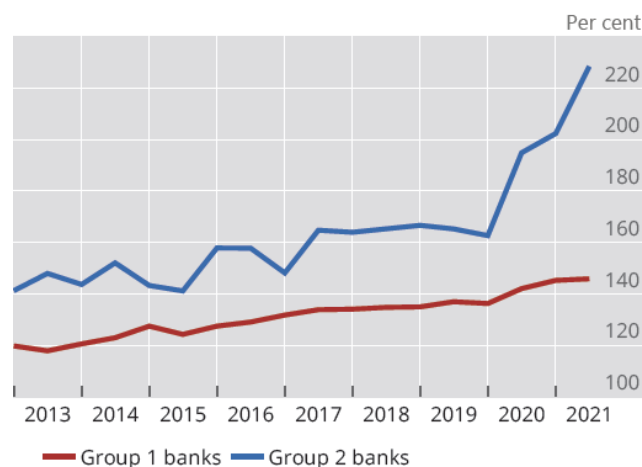
CET1 ratio



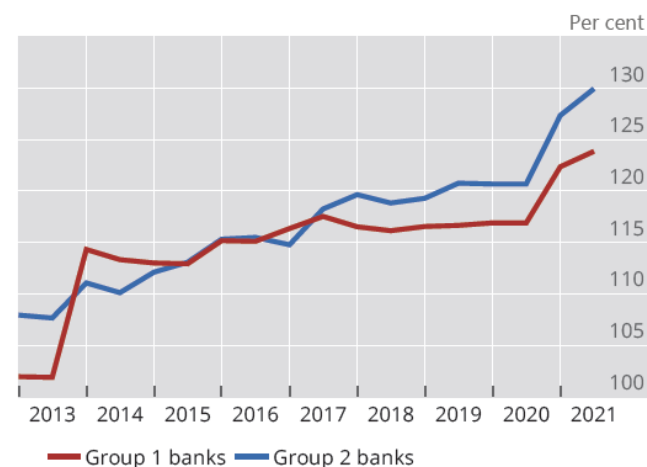
Leverage ratio



LCR



NSFR



Tous les ratios
prudentiels
sont en hausse
par rapport à 2011
ce qui signale une
plus grande
résilience

Source : BCBS
décembre 2022

1. BÉNÉFICES MICROÉCONOMIQUES :

RESILIENCE DES INSTITUTIONS –INDICATEURS COMPTABLES

Reform impact on regulatory ratios in percentage points, by years since jurisdictional announcement date

Table 1

Dependent variable	Regulatory Ratio			
	(1) CET1	(2) Leverage	(3) LCR	(4) NSFR
Reform considered				
One year after ($\tau = 1$)	0.081*** (0.028)	-0.008 (0.016)	0.086*** (0.028)	-0.016 (0.011)
Two years after ($\tau = 2$)	0.095** (0.044)	-0.041** (0.021)	0.227*** (0.046)	-0.020 (0.018)
Three years after ($\tau = 3$)	0.149*** (0.056)	-0.049* (0.026)	0.308*** (0.056)	-0.048* (0.026)
Four years after ($\tau = 4$)	0.158** (0.061)	-0.040 (0.031)	0.363*** (0.067)	-0.050 (0.036)
Five years after ($\tau = 5$)	0.176*** (0.061)	-0.029 (0.038)	0.420*** (0.070)	-0.074 (0.047)
R ² (within)	0.304	0.350	0.106	0.272
Observations	2,714	2,767	2,265	2,565
Number of banks	197	202	195	192

**La hausse des ratios est effectivement déclenchée par les annonces de nouvelle réglementation
→ Effet significatif pour toutes les réglementations**

The table shows the regression coefficients for CET1 ratio, leverage ratio, LCR and NSFR when the regulatory ratios are considered as dependent variables. The data set used is taken from the Basel Committee on Banking Supervision and described in more detail in Section 3.1; the methodology is presented in Section 3.2. $Impact_t$ is measured by the individual regulatory ratio at the jurisdictional announcement date. Controls are the lagged GDP growth, lagged implied volatility (VIX/V2X) and the lagged policy rate. Bank and time fixed effects are included. Robust standard errors, clustered at the bank level, are reported in parentheses. The symbols *, ** and *** denote significance at the 10%, 5% and 1% level.

Source: Basel Committee on Banking Supervision.

Source : BCBS
décembre 2022

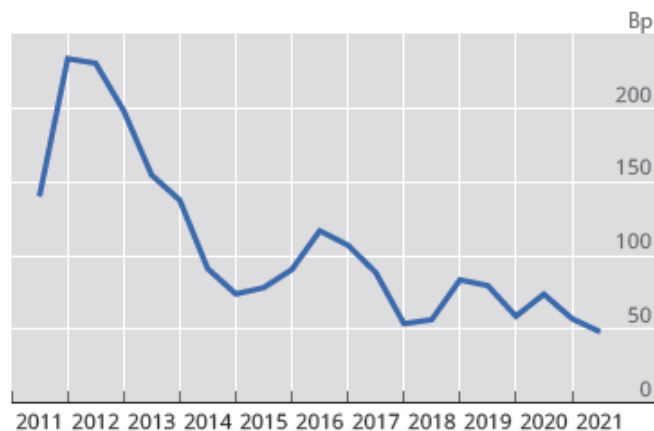


1. BÉNÉFICES MICROÉCONOMIQUES : RESILIENCE DES INSTITUTIONS -INDICATEURS DE MARCHÉ

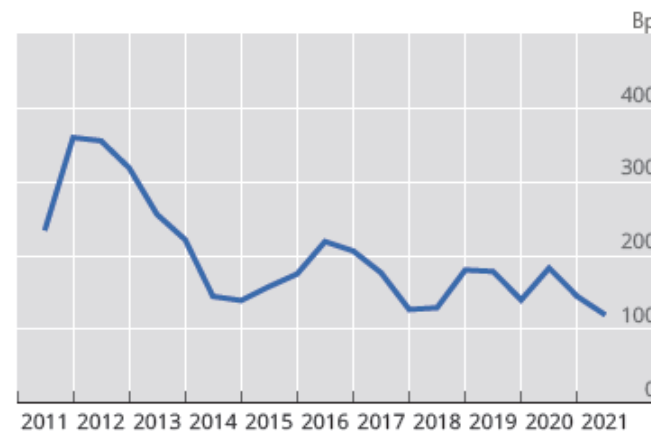
Mean market-based resilience measures, 2011–21

Graph 2.1

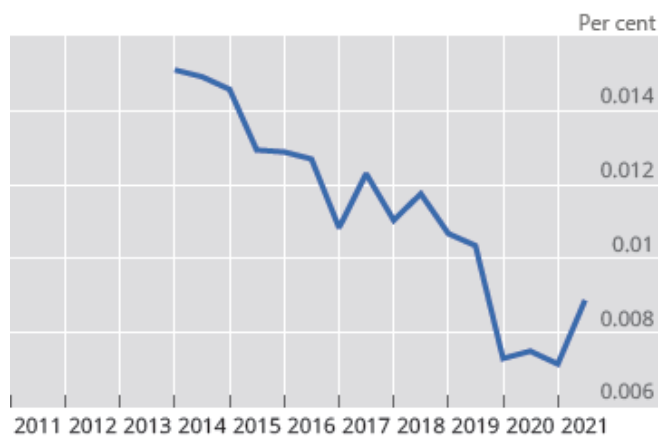
CDS spreads (senior)



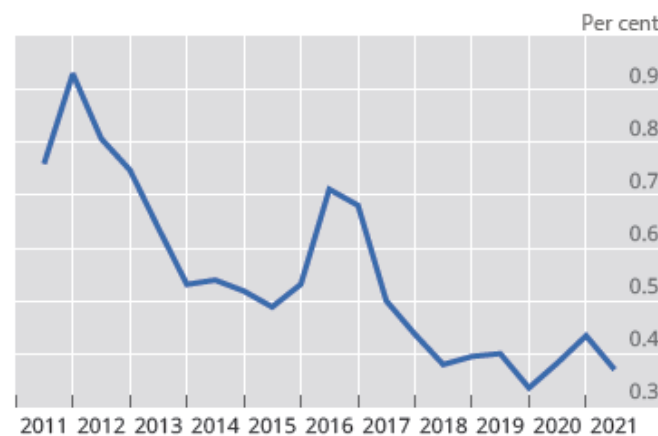
CDS spreads (subordinated)



PD



EDF



Note: This graph is generated using a balanced data set of publicly listed banks from the Committee data. Averages are taken of measures winsorised at the 1st and 99th percentiles.

Source: Markit.

Amélioration
de tous les
indicateurs
de risque
tirés des
marchés

Source : BCBS
décembre 2022



1. BÉNÉFICES MICROÉCONOMIQUES : RESILIENCE DES INSTITUTIONS - -INDICATEURS DE MARCHÉ

Reform impact on market-based resilience measures as dependent variable (bp), by years since jurisdictional announcement date

Table 2

Dependent variable	CDS (senior)				EDF			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Reform considered	CET1	Leverage	LCR	NSFR	CET1	Leverage	LCR	NSFR
One year after ($\tau = 1$)	-1.604 (1.074)	0.098 (1.610)	-0.115 (0.093)	0.013 (0.078)	-0.236 (0.590)	-0.429 (0.805)	0.004 (0.033)	0.063 (0.042)
Two years after ($\tau = 2$)	-4.596*** (1.690)	-2.986 (2.176)	-0.159 (0.154)	-0.074 (0.133)	-0.532 (1.140)	-0.296 (0.940)	0.075 (0.065)	-0.030 (0.070)
Three years after ($\tau = 3$)	-5.238** (2.097)	-2.862 (2.859)	-0.120 (0.202)	-0.020 (0.161)	-0.488 (1.474)	0.594 (1.236)	0.118 (0.090)	-0.048 (0.108)
Four years after ($\tau = 4$)	-5.819** (2.494)	-1.614 (4.106)	-0.281 (0.256)	-0.164 (0.209)	-0.619 (1.718)	1.744 (1.403)	0.056 (0.110)	-0.148 (0.176)
Five years after ($\tau = 5$)	-7.127** (2.835)	-5.006 (4.729)	-0.328 (0.304)	-0.152 (0.296)	-2.048 (2.155)	-1.096 (1.584)	0.066 (0.127)	-0.354*** (0.131)
R ² (within)	0.760	0.745	0.752	0.750	0.342	0.371	0.347	0.347
Observations	685	613	664	667	1,251	1,179	1,197	1,233
Number of banks	46	42	44	45	72	68	69	71

Effet le plus marqué provient de la réforme de la solvabilité
Impact significatif de la hausse du CET1 sur CDS

The table shows the regression coefficients for CET1 ratio, leverage ratio, LCR and NSFR when CDS spreads (senior) are considered as dependent variable in columns (1)–(4), while columns (5)–(8) display the coefficients for EDF as dependent variable. The data set used is taken from the Basel Committee on Banking Supervision and described in more detail in Section 3.1; the methodology is presented in Section 3.2. $Impact_t$ is measured by the individual regulatory ratio at the jurisdictional announcement date. Controls are the lagged GDP growth, lagged implied volatility (VIX/V2X) and the lagged policy rate. Bank and time fixed effects are included. Robust standard errors, clustered at the bank level, are reported in parentheses. The symbols *, ** and *** denote significance at the 10%, 5% and 1% level.

Source: Basel Committee on Banking Supervision.

Source : BCBS
décembre 2022

2. BÉNÉFICES MACROÉCONOMIQUES : SOLVABILITÉ

Impact de la mise en oeuvre d'une hausse des exigences en capital selon différents modèles
 → dépend de la prise en compte ou non des effets à long terme sur la stabilité financière

Unit	GDP % dev	Bank probability of default, % pts dev	Cost of crisis (% of GDP), % pts dev
Euro area with 3D model (Mendicino et al. 2020)	1.2	-7.50	-2.55 (1)
Euro area with de Bandt and Chahad (2016)	0.2	-0.29	-0.34 (1)
Euro area with Gerali et al. (2010) framework (cost approach)	-0.4	N/A	N/A
United States (Clerc et al., 2015, with US calibration)	0.9	-9.21	-3.36 (1)
Norway - moderate crisis prob. and severity (2) (Kockerols, Kravik and Mimir, 2021)	-0.2	-0.16 (4)	-0.85 (5)
Norway - high crisis prob. and severity (3) (Kockerols, Kravik and Mimir, 2021)	2.1	-1.63 (4)	-4.39 (5)

Note: The move from Basel II to Basel III is measured by a 5-percentage point increase in capital requirements.

(1) Change in bail out costs. (2) Moderate sensitivity of crisis probability and severity to credit growth. (3) High sensitivity of crisis probability and severity to credit growth. (4) Change in the probability of a financial crisis. (5) Change in the cost of a financial crisis.

Source : de Bandt et al. (2023) « Assessing the Impact of Basel III:

Review of Transmission Channels and Insights from Policy Models” International Journal of Central Banking

2. BÉNÉFICES MACROÉCONOMIQUES : SOLVABILITÉ

Multiplicité des canaux de transmission des politiques prudentielles

TABLE 2. Selected contributions to the literature by channels of transmission

Channels	Papers
Bank capital channel	Kiyotaki and Moore (1997); Gerali et al. (2010); Meh and Moran (2010); Gertler and Karadi (2011); Clerc et al. (2015); Korinek and Simsek (2016); Walther (2016); Ikeda (2018); Mendicino et al. (2018, 2020); Kravik and Mimir (2019); Jeanne and Korinek (2020); Elenev, Landvoigt and Van Nieuwerburgh (2021); Schroth (2021); Kockerols, Kravik and Mimir (2021)
Banks' liquidity	Covas and Driscoll (2014); De Nicolò, Gamba and Lucchetta (2014); de Bandt and Chahad (2016); Boissay and Collard (2016); Hoerova et al. (2018); Van den Heuvel (2019); Begenau (2020); de Bandt, Lecarpentier and Pouvelle (2021)
Bank runs	Angeloni and Faia (2013); Gertler and Kiyotaki (2015); Miller and Sowerbutts (2018); Gertler, Kiyotaki and Prestipino (2019); Kashyap, Tsomocos and Vardoulakis (2020)
Risk taking	Martinez-Miera and Suarez (2014); Boissay, Collard and Smets (2016); Collard et al. (2017); Martinez-Miera and Repullo (2017); Adrian and Boyarchenko (2018); Swarbrick (2019); Coimbra and Rey (2020); Adrian et al. (2020)
Interactions with non-bank financing	Kale and Meneghetti (2011); Fiore and Uhlig (2011, 2015); Plantin (2015); Gertler, Kiyotaki and Prestipino (2016); Jiménez et al. (2017); Meeks et al. (2017); Crouzet (2018); Ikeda (2018); Fève, Moura and Pierrard (2019); Martinez-Miera and Repullo (2019); Irani et al. (2021); Begenau and Landvoigt (2022); Durdu and Zhong (2022)

Source : de Bandt et al. (2023) « Assessing the Impact of Basel III: Review of Transmission Channels and Insights from Policy Models” International Journal of Central Banking

2. BÉNÉFICES MACROÉCONOMIQUES : SOLVABILITÉ

Mais d'autres canaux de transmission ont été mis en évidence dans la littérature

Table 3. Policy and Academic Literature on the Modeling Challenges Associated with Basel III

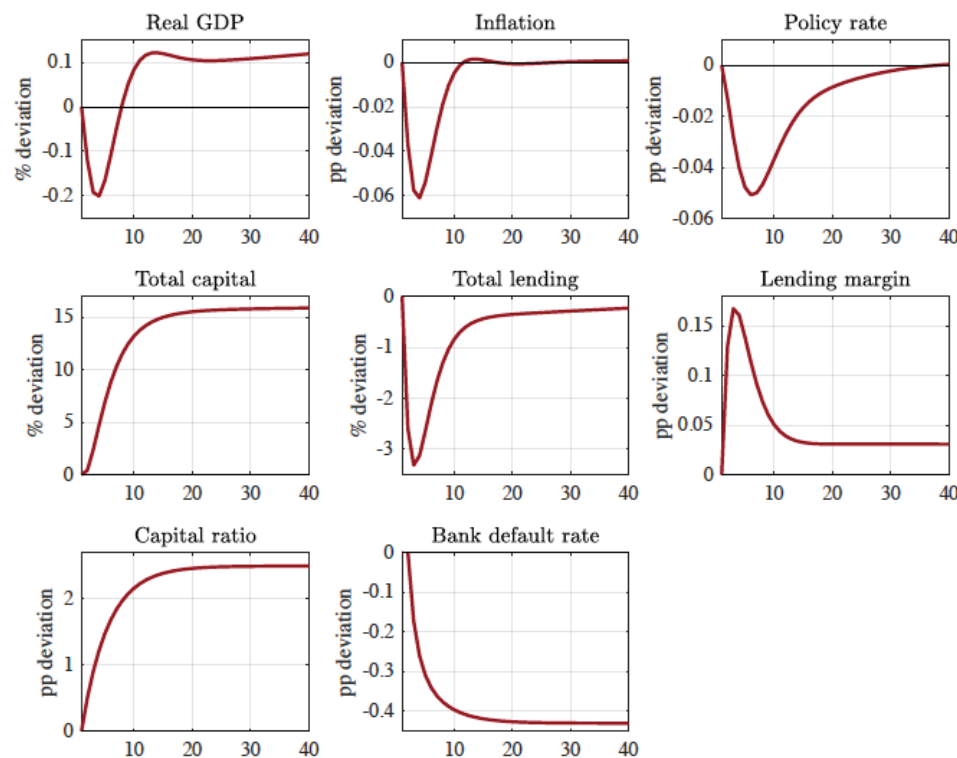
Challenge	A Selection of Policy Models	Other Academic References
Detailed Regulatory Policies	Gerali et al. (2010); Covas and Driscoll (2014); De Nicolò, Gamba, and Lucchetta (2014); Clerc et al. (2015); de Bandt and Chahad (2016); Mendicino et al. (2018, 2020); Kravik and Mimir (2019) (Central Bank of Norway's NEMO model); Darracq-Pariès et al. (2022)	
Non-linearity	Kockerols, Kravik, and Mimir (2021)	Brunnermeier and Sannikov (2014); Holden, Levine, and Swarbrick (2019); Lang and Forletta (2020); Dou et al. (2021); Elenev, Landvoigt, and Van Nieuwerburgh (2021); Schroth (2021); Jondeau and Sahuc (2022); Suarez (2022)
Multiplicity of Channels	See line 1	Adrian and Boyarchenko (2018); He and Krishnamurthy (2019); Begenau (2020)
Endogenous Crisis Heterogeneous Banks	Kockerols, Kravik, and Mimir (2021)	Gertler, Kiyotaki, and Prestipino (2020) Badarau and Levieuge (2011); Corbae and D'Erasmus (2019); Coimbra and Rey (2023)

Source : de Bandt et al. (2023) « Assessing the Impact of Basel III: Review of Transmission Channels and Insights from Policy Models” International Journal of Central Banking

2. BÉNÉFICES MACROÉCONOMIQUES : SOLVABILITÉ

Effets négatifs à court terme, avec soutien de la politique monétaire, effets positifs à long terme

Figure 1. Transition from 14% capital ratio to 16.5% in the euro area with 3D model

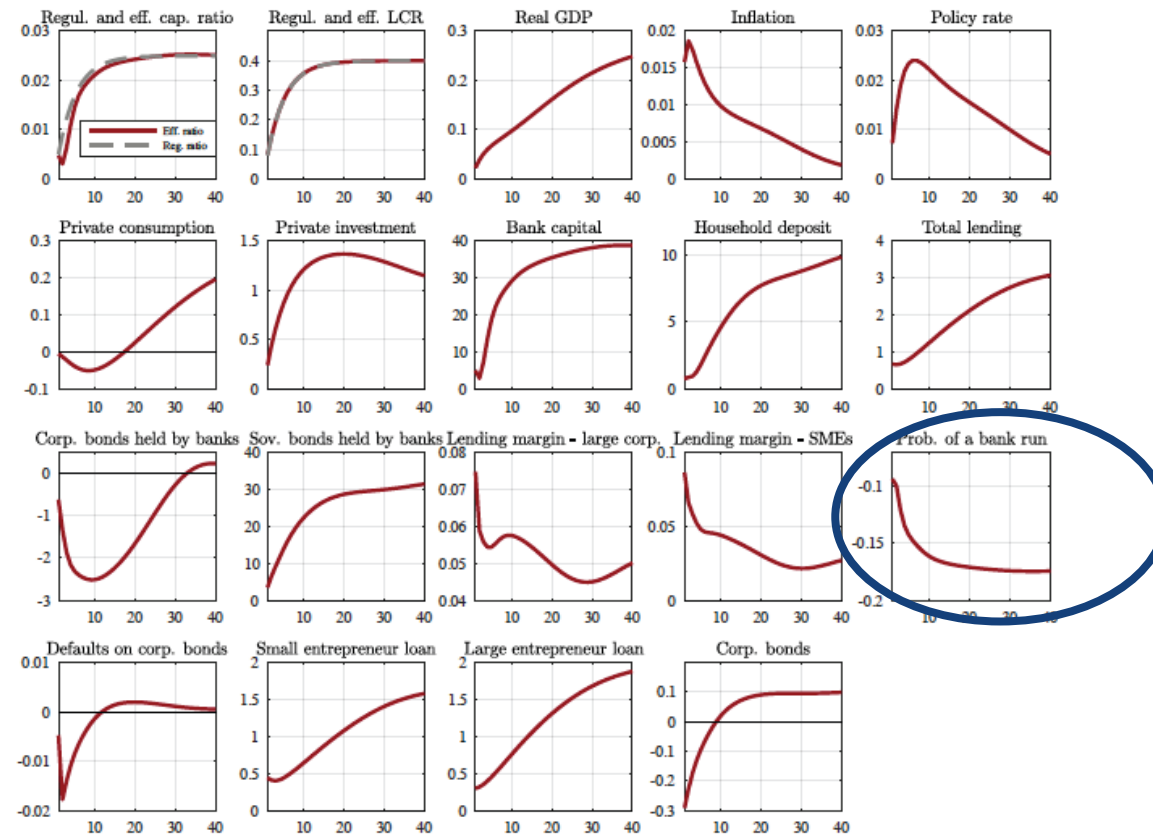


Source : de Bandt et al. (2023)
« Assessing the Impact of Basel III: Review of Transmission Channels and Insights from Policy Models” International Journal of Central Banking

Note: Variables are expressed in deviation from initial steady state. "3D model" refers to the model used by Mendicino et al. (2020).

3. BÉNÉFICES MACROÉCONOMIQUES : LE RÔLE DE LA LIQUIDITÉ

Figure 2. Impact of LCR implementation with the model by de Bandt and Chahad (2016)
for the euro area (with regulated and effective capital ratios)



Source : de Bandt et al. (2023)
« Assessing the Impact of Basel III: Review of Transmission Channels and Insights from Policy Models”
International Journal of Central Banking

Note: This figure represents the dynamics of several macroeconomic and financial variables to an increase in LCR and capital ratio. The top left 2 charts exhibit the actual (or effective) ratios contrasted to the regulatory requirements. All variables are expressed as deviations from the initial steady state.

4. LA RÉSILIENCE FACE AUX CRISES RECENTES

Les banques qui avaient un ratio de capital plus élevé avant la crise du Covid, on eu ensuite une distribution du crédit plus forte

Regression results with CET1 capital ratio (left columns) and LCR on loan growth (right columns) Table 4

Model	CET1		LCR	
	Cumulative loan growth (1)	Quarterly loan growth (2)	Cumulative loan growth (1)	Quarterly loan growth (2)
$CET1\ Ratio_{2019-Q2} * 2019-Q4$	0.108 (0.119)		$LCR_{2019-Q2} * 2019-Q4$	0.00134 (0.00543)
$CET1\ Ratio_{2019-Q2} * 2020-Q1$	0.292** (0.128)		$LCR_{2019-Q2} * 2020-Q1$	0.00710 (0.00768)
$CET1\ Ratio_{2019-Q2} * 2020-Q2$	0.2220 (0.149)		$LCR_{2019-Q2} * 2020-Q2$	0.00244 (0.00859)
$CET1\ Ratio_{2019-Q2} * 2020-Q3$	0.612** (0.262)		$LCR_{2019-Q2} * 2020-Q3$	0.00309 (0.0109)
$CET1\ Ratio_{t-1} * COVID_t$		0.260** (0.118)	$LCR_{t-1} * COVID_t$	-0.00286 (0.00365)
$CET1\ Ratio_{t-1}$		0.292 (0.449)	LCR_{t-1}	0.00739 (0.00875)
Time*Country FE	YES	YES	YES	YES
Covid*Bank type FE	YES	YES	YES	YES
Bank FE	YES	YES	YES	YES
Clustering at bank level	YES	YES	YES	YES
R-squared	0.894	0.528	0.892	0.625
Observations	1,268	986	908	847

Source :
BCBS, 2021

4. LA RESILIENCE FACE AUX CRISES RECENTES

Il convient de rester vigilant sur les évolutions du système bancaire (par exemple sorties de liquidité) → “Report on the 2023 banking turmoil”, BCBS, Octobre 2023

Box A: Liquidity outflows of distressed banks – a historical comparison

Table A.1 summarises the outflow rates and associated time period of selected banks during the recent turmoil and the GFC based on public / readily-available data. A.1 compares these outflows with some of the outflow rates in the Liquidity Coverage Ratio (LCR).

Table A.1: Deposit outflow of distressed banks

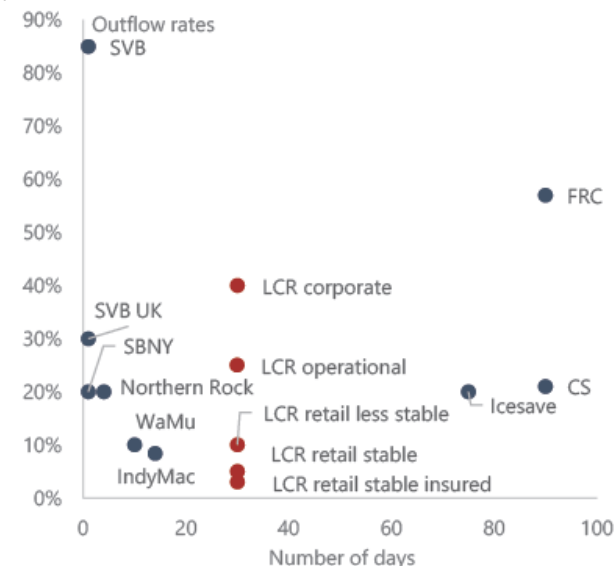
Bank	Deposit outflow	Number of days
SVB (2023) ^(a)	85%	2
FRC (2023) ^(a)	57%	90
SVB UK (2023)	30%	1
CS (2023)	21%	90
SBNY (2023)	20%	1
Icesave (2008)	20%	75
Northern Rock (2007)	20%	4
WaMu (2008)	10%	10
IndyMac (2008)	8%	14
LCR ^(b)	3% - 40%	30

Sources: FRB (2023), NAO (2009), Rose (2015), Zeissler et al (2019), published accounts and Secretariat calculations.

(a) FRC deposit outflows excludes \$30bn of deposits placed by banks during Q1 23. SVB outflows include expected outflows by management for 10 March.

(b) LCR outflow rates are the range for retail, SME, operational and corporate deposits.

Graph A.1: Distressed banks and LCR outflows^(a)



Sources: FRB (2023), NAO (2009), Rose (2015), Zeissler et al (2019), published accounts and Secretariat calculations.

(a) FRC deposit outflows excludes \$30bn of deposits placed by banks during Q1 23. SVB outflows include expected outflows by management for 10 March.

1. Effets nets positifs du nouveau dispositif, en prenant en compte l'ensemble des canaux de transmission, y compris au plan macroéconomique.
2. Condition d'une distribution du crédit plus stable.
3. Système plus résilient, qui a mieux résisté aux crises.
4. Mais vigilance sur les changements structurels en cours (changement climatique, digitalisation, etc).