G-SIB MONITOR

MONETARY AND CAPITAL MARKETS DEPARTMENT

September 29, 2020

Highlights:

- *After plummeting in March, most G-SIBs' share prices have stabilized or risen modestly.*
- *G-SIBs' capital positions have generally remained stable, well above regulatory requirements, and apparently sufficient to withstand authorities' stress scenarios.*
- *Profitability continues to decline across all regions. This mainly reflects revenue pressures on structurally falling net interest margins. This was offset for U.S. G-SIBs in 2000:Q2, by a spike in capital market revenues.*
- *After rising in 2000:Q1 across all regions, provisions in U.S. G-SIBs spiked further in 2000:Q2. The pattern of provision, reserves and NPL recognition is typical of early stages in an asset quality deterioration cycle.*

Most G-SIB shares plummeted in March and have since stabilized or begun to recover (Page 2). Recovery has been relatively strong in the North America and Europe (ex-UK), perhaps because the policies to mitigate the impacts (losses and capital buffers) of COVID-19 have been most pronounced in those jurisdictions. Despite policy support, banks have under-performed broader indices year-to-date.

Capital has been surprisingly stable, and buffers remain generally adequate. (2.1 to 3.6) U.S. and European G-SIBs experienced significant CET1 decline in 2020:Q1, then rebounded in 2020:Q2 to above end-2020 levels on average. (1.1, 1.2) Japanese and Chinese G-SIBs declined very modestly over the first half. (2.3, 2.4) At 30 June, almost all G-SIBs' capital positions remained well above 'fully-buffered' requirements (including G-SIB, capital conservation and other statutory requirements), in part because capital conservation buffers were cut to zero in virtually all countries. On the most recent supervisory stress tests, all U.S. and European G-SIBs are estimated to remain well above 'bare-bones' minimum capital requirements (Pillar 1 plus G-SIB buffers). (2.5) Most G-SIBs' leverage ratios have performed similarly: falling then rebounding, and generally remaining well above statutory minima even under projected stress conditions. (3.1, 3.2) The main determinant of changes in capital position has been balance sheet growth; particularly in the U.S.. Loans rose sharply in Q1 and retrenched in 2020:Q2 with the increase and decrease of precautionary borrowing. (3.3. 3.4) U.S. G-SIBs' capital positions are buttressed by relatively high risk-weighted asset densities (risk-weighted assets relative to total assets), a position relatively shielded from capital erosion due to upward supervisory pressure on measurement of risk-asset weightings.

Profitability has declined across all regions (4.1 to 4.6). Thirteen of 30 G-SIBs delivered 2020:Q2 earnings more than 20 percent below market expectations. (4.1) In addition, average ROEs and operating ROAs declined in all regions, in both 2020:Q1 and Q2 (4.2, 4.3), and North American G-SIBs' operating ROAs have plummeted by more than 80 basis points year-over-year (4.4), though the decline has decelerated in Q2 (2.3, 2.4). Rising provisions have, unsurprisingly, been the main source of year-on-year profitability erosion; but revenue margin erosion in North America (mainly from falling net interest margins) and in Europe (mainly non-interest income) have also buffeted profitability. (4.5) While Chinese G-SIBs' profitability has fallen dramatically in recent years, they continue to outperform mainly due to relatively robust net interest margin and operating cost performance. North American banks outperform on non-interest income generation. (4.6)

Revenue margin declines stem from both interest and non-interest income pressures (5.1 to 5.6). Revenue margins (relative to assets), which have declined across all regions over the past few years, fell sharply in 2020:Q2. (5.1, 5.2) This mainly reflects the decline of net interest margins, persistent in most regions and recently precipitous in North America – likely a by-product of very low and falling interest rates. (5.3, 5.4) Non-interest income, generally more volatile, fell in 2020:Q2 across all regions except North America. (5.5, 5.6)

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A spike in capital markets activity drove an increase of U.S. G-SIBs' non-interest income. (6.1 to 6.6). G-SIBs investment banking and trading revenues rose by nearly 50 percent year-on-year, with U.S. banks growing about three times faster than European rivals. (6.1) This was driven primarily by soaring secondary market trading in fixed income, currencies and commodities (FICC). (6.2) U.S. peers, which have been taking market share from European rivals since the Global Financial Crisis, now generate about 70 percent of capital market revenues. (6.3) This is in the context of a broad-based shift in G-SIB business models, illustrated by the decline among both US and European banks of market risk-weighted assets, derivatives positions and 'Level 3' (illiquid) investment assets. (6.4 – 6.6)

Pattern of provision, reserves and NPL recognition is typical of early stages in an asset quality deterioration cycle. (7.1 to 7.6) Provisions for loan-losses rose meaningfully in all regions in anticipation of potentially significant asset quality deterioration over the next few quarters. The particularly sharp spike among U.S. banks was caused by the adoption of 'current expected credit loss' (forward-looking) provisioning just as future credit losses rose sharply. (7.1, 7.2) As a result, U.S. banks appear to have significant 'precautionary' reserves relative to reported non-performing loans – similar to Chinese banks and apparently better prepared than European or Japanese peers for a potential rise in bad debt formation. (7.3, 7.4) Recognition of non-performing loans has ticked up slightly, especially in the U.S. and Europe. (7.5, 7.6) However, reported NPL ratios remain modest by historical standards, perhaps due to the mitigating impact of financial relief measures.

Share Price Performance and Valuations

Chart 1. Price Trend (1/1/2016 = 100)

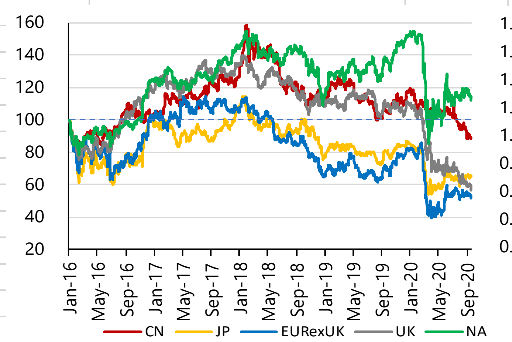


Chart 2. Valution Trajectory (Price / book)

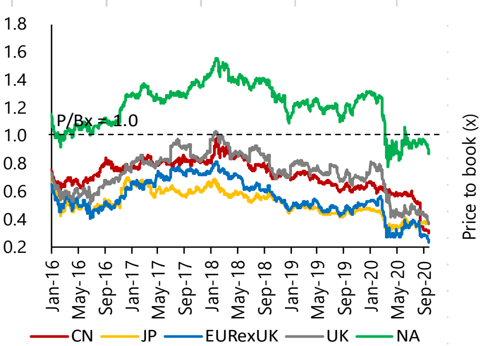
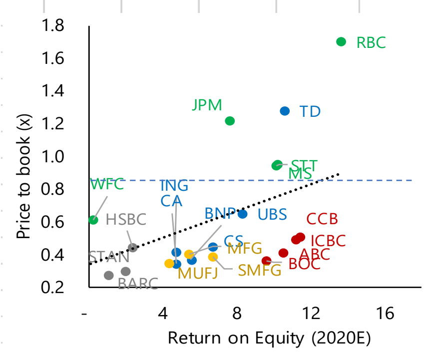


Chart 3. Price to Book vs 2020 ROE



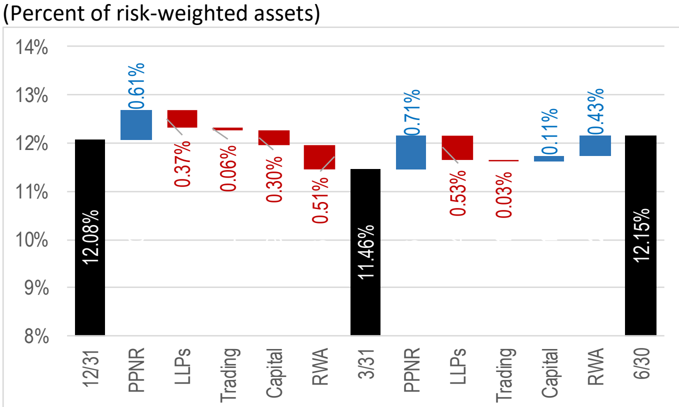
Ticker	Bank Name	Market Cap (USD Bn)	Price to Book	% Price Change (1D)	% Price Change (1M)	% Price Change (3M)	% Price Change (YTD)	CDS	2yr Default Prob	Implied Vol (90 D)	Implied Cost of Equity	Dividend Yield
BAC	Bank of America	204	0.8	0.6	(9.8)	1	(33)	53	0.99	40	10.2	3.1
BNY	Bank of New York Mellon	30	0.8	0.8	(11.1)	(8)	(34)	-	2.58	37	9.4	3.7
C	Citigroup	87	0.5	(0.4)	(18.8)	(15)	(47)	65	1.37	44	10.1	4.9
GS	Goldman Sachs	70	0.9	(0.1)	(7.2)	3	(15)	75	0.91	37	10.9	2.6
JPM	JP Morgan	285	1.2	0.9	(8.7)	1	(33)	55	1.01	38	9.9	3.9
MS	Morgan Stanley	74	0.9	0.9	(10.6)	(0)	(8)	60	0.71	39	10.8	3.0
STT	State Street	21	0.9	1.4	(15.5)	(3)	(26)	-	2.61	42	10.4	3.6
WFC	Wells Fargo	97	0.6	1.4	(3.9)	(7)	(56)	69	2.10	46	10.8	1.7
TD	Toronto Dominion	82	1.3	0.8	(7.7)	3	(16)	-	0.70	22		5.2
RBC	Royal Bank of Canada	100	1.7	0.3	(7.3)	4	(8)	-	0.58	20	9.5	4.6
North America		660	0.9	0.6	(9.7)	(2)	(32)	61	1.20	38	9.4	3.5
BARC	Barclays	20	0.3	(1.4)	(17.2)	(18)	(49)	93	1.78	50	10.8	-
HSBC	HSBC Group	73	0.4	(1.2)	(13.6)	(25)	(52)	83	1.06	37	8.6	-
STAN	Standard Chartered	14	0.3	(2.7)	(12.4)	(20)	(53)	84	1.28	46	9.3	-
United Kingdom		87	0.4	(1.5)	(13.4)	(24)	(52)		1.11	39	8.8	-
BNP	BNP Paribas	44	0.4	(2.9)	(17.1)	(12)	(43)	45	1.57	48	11.0	-
CA	Credit Agricole	24	0.4	(3.5)	(16.9)	(11)	(45)	39	2.09	47	13.0	-
CS	Credit Suisse	23	0.5	(1.6)	(13.7)	(9)	(33)	62	1.47	42	11.1	1.6
DB	Deutsche Bank	16	0.3	(1.2)	(16.8)	(15)	(1)	75	1.72	51	7.1	-
ING	ING Group	27	0.4	(0.8)	(15.1)	(2)	(45)	64	1.45	50	11.0	-
SAN	Banco Santander	30	0.3	0.2	(18.4)	(27)	(58)	55	14.24	53	11.2	-
SG	Societe Generale	11	0.2	(2.7)	(20.6)	(25)	(65)	48	2.49	54	12.0	-
UBS	UBS Group	40	0.7	(3.0)	(13.6)	(10)	(19)	-	0.75	38	10.1	3.5
UCG	Unicredit Group	18	0.3	(2.3)	(17.5)	(15)	(48)	100	1.97	49	12.6	-
Continental Europe		233	0.3	(1.9)	(15.2)	(13)	(37)	57	3.13	49	11.1	2.6
MUFJ	Mitsubishi UFJ Financial Group	57	0.4	1.0	(0.0)	2	(26)	-	1.73		8.5	5.7
MFG	Mizuho Financial Group	33	0.4	0.9	(4.0)	4	(18)	-	1.78		8.4	5.4
SMFG	Sumitomo Mitsui Financial Group	40	0.4	0.7	(0.7)	1	(23)	-	1.61		9.9	6.1
Japan		130	0.4	0.9	(1.3)	2	(23)		1.71		8.9	5.7
ABC	Agricultural Bank of China	157	0.4	(0.4)	(10.4)	(25)	(30)		0.77	24	15.4	8.3
BOC	Bank of China	124	0.4	(0.4)	(6.2)	(18)	(28)	53	0.98	23	14.5	8.8
CCB	China Construction Bank	164	0.5	(0.8)	(11.2)	(19)	(25)		0.79	25	15.4	7.0
ICBC	Industrial & Comm Bank of China	238	0.5	(0.7)	(11.3)	(16)	(34)	-	0.65	26	14.9	7.2
China		684	0.5	(0.6)	(10.0)	(19)	(29)		0.79	25	15.1	7.8
Total		1,793	0.5	(0.7)	(10.5)	(12.2)	(32.8)		1.7	36.8	11.6	4.7
Red Highlights?			*< 1.0*	*< 0.0*	*< 0.0*	*< 0.0*	*< 0.0*	*Highest*	*Highest*	*Highest*	*Highest*	*Lowest*
Green Highlights?			*Highest*	*> 0.0*	*> 0.0*	*> 0.0*	*> 0.0*	*Lowest*	*Lowest*	*Lowest*	*Lowest*	*Highest*

Note: Pricing is as of September 25, 2020. Regional averages are asset-weighted. Throughout this note, "EUR" includes all European banks. "NA" includes US and Canadian banks, "JP" = Japanese and "CN" = Chinese banks. "TOT" is the total across all G-SIBs.
Source: Bloomberg and IMF Staff Analysis.

Common Equity Tier 1 Capital: Progression and Position against Requirements

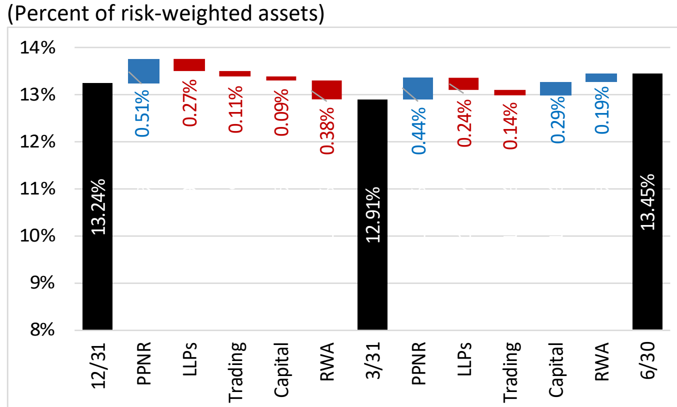
U.S., European and Japanese G-SIBs' CET1 ratios fell in Q1:2020 before rebounding in the second quarter.

Chart 2.1. CET1 Progression: 2020:Q1 and Q2 – U.S. G-SIBs
(Percent of risk-weighted assets)



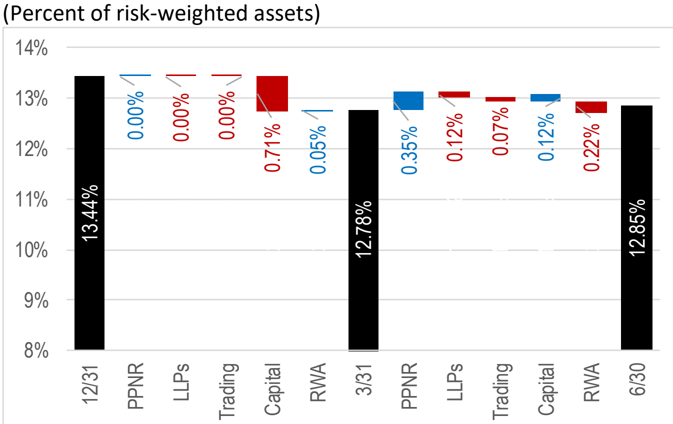
The major swing factor in both regions was RWAs – a drag in Q1 and positive in Q2, reflecting loan growth.

Chart 2.2. CET1 Progression: – European and UK G-SIBs
(Percent of risk-weighted assets)



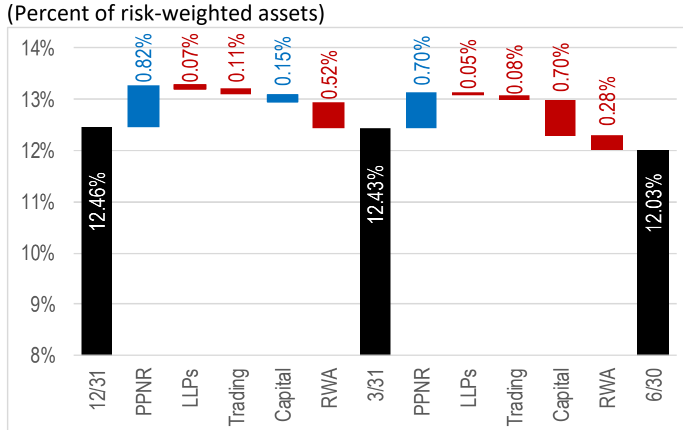
Also significant was the swing in 'capital', including payouts and 'other comprehensive income..

Chart 2.3. CET1 Progression: 2020:Q1 and Q2 – Japanese G-SIBs
(Percent of risk-weighted assets)



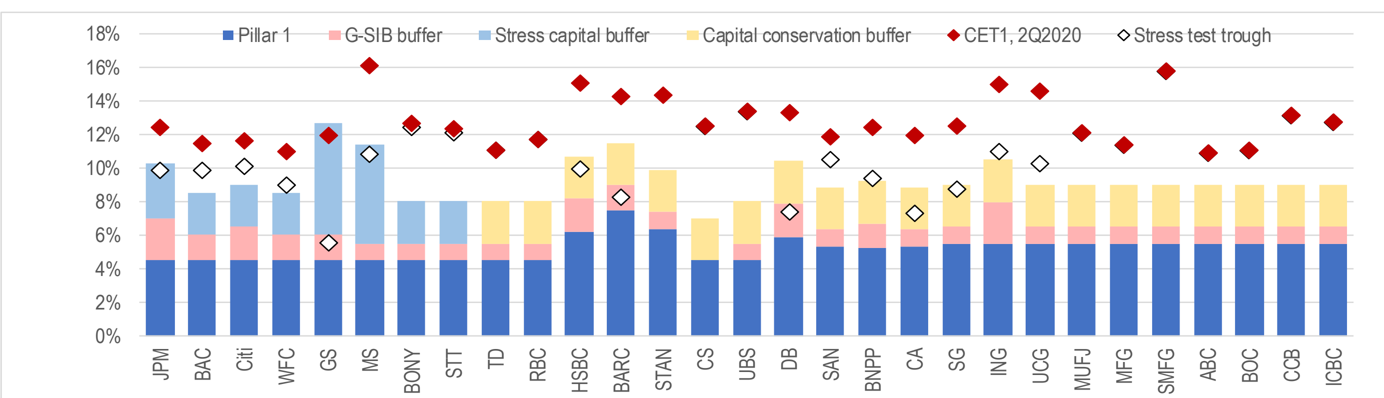
Chinese G-SIBs' impact from loan-loss provisions remain notably low, while RWA growth is a consistent drag.

Chart 2.4. CET1 Progression: 2020:Q1 and Q2 – Chinese. G-SIBs
(Percent of risk-weighted assets)



Nearly all G-SIBs exceed their most current capital requirements, though the new stress capital buffer challenges some U.S. banks; and all banks remain above their 'bare-bone' requirement of Pillar 1 plus G-SIB buffer.

Chart 2.5. U.S. G-SIBs: Reported and Required CET1, 2019:Q2 (Percent of risk-weighted assets)

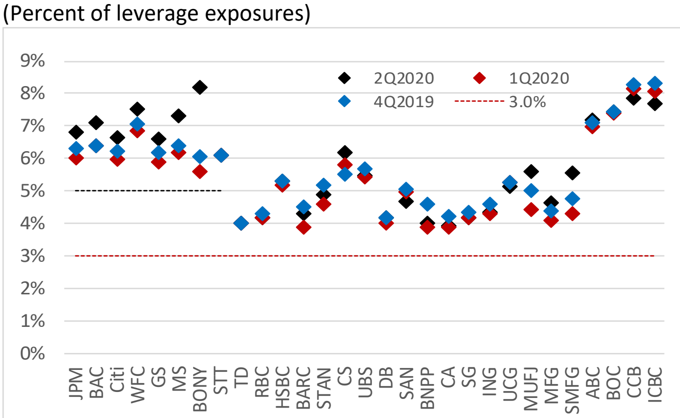


Sources: Bank financial statements, SNL, Bloomberg, Basel Committee, national supervisors, and IMF Staff.
Note: CET1= common equity tier 1 ratio; RWA = risk-weighted assets PPNR = pre-provision net revenue; LLPs = loan-loss provisions; Trading = gains on trading and investment; Capital = capital management (dividends, buybacks, 'Other Comprehensive Income.'

Leverage Ratios and Balance Sheet Drivers of Capital Position

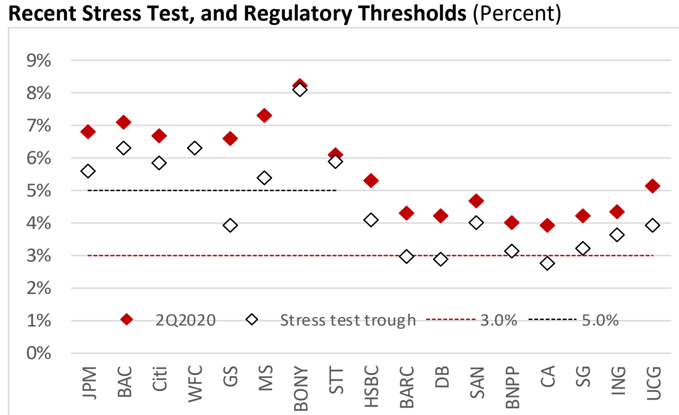
Most G-SIBs' leverage ratios also rebounded in 2020:Q2, and all remain above regulatory minima.

Chart 3.1. Leverage Ratio, 2019:Q4 to 2020:Q2
(Percent of leverage exposures)



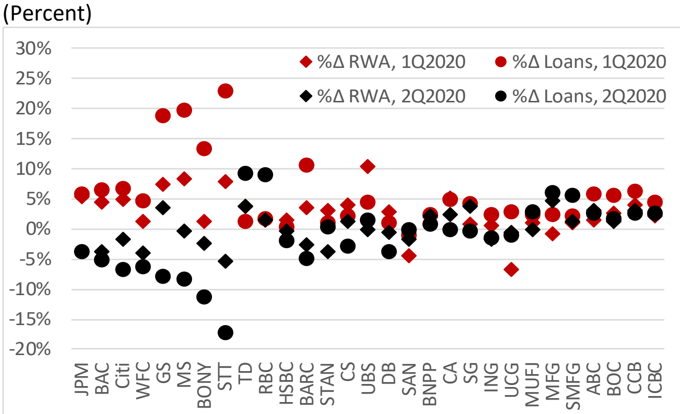
However, some could fall to near or below regulatory minima under stress test conditions.

Chart 3.2. Leverage Ratio, 2020:Q2, Estimated Trough Applying Most Recent Stress Test, and Regulatory Thresholds (Percent)



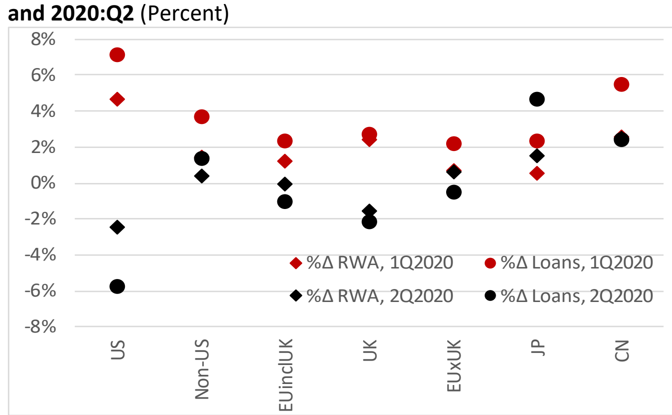
Capital and leverage ratios decline and recovery was driven mainly by balance sheet growth patterns.

Chart 3.3. QoQ Growth of Loans and RWAs, 2020:Q1 and 2020:Q2
(Percent)



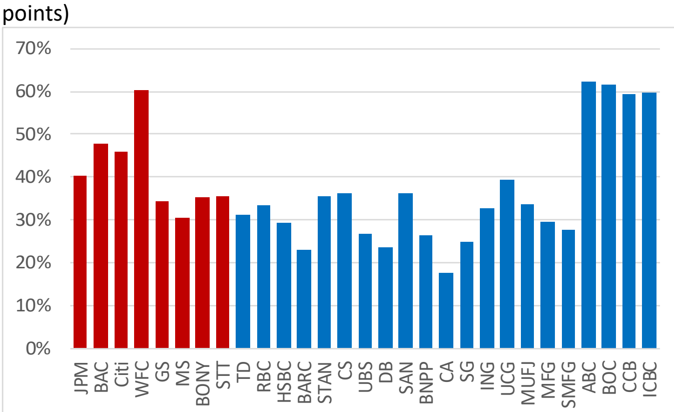
Rapid 2020:Q1 growth, driven by commitments drawdowns, was followed by 2020:Q2 contraction.

Chart 3.4. System Average QoQ Growth of Loans and RWAs, 2020:Q1 and 2020:Q2 (Percent)



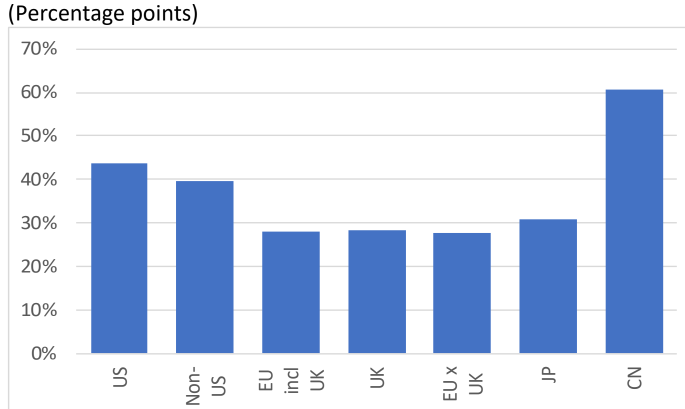
US and CN banks' healthy leverage ratios are consistent with higher RWA density.

Chart 3.5. Risk-Weighted Asset Density, 2020:Q2 (Percentage points)



European and Japanese banks may be vulnerable to tightening RWA recognition.

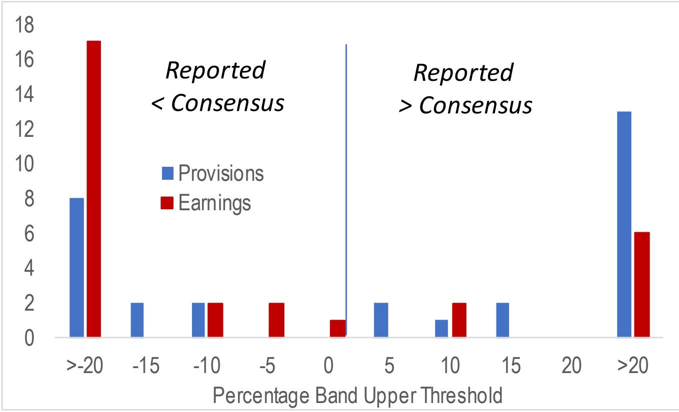
Chart 3.6. Average Risk-Weighted Asset Density, 2020:Q2
(Percentage points)



Sources: Bank financial statements, SNL, Bloomberg, Basel Committee, national supervisors, and IMF Staff.
Note: Leverage ratio = Tier 1 capital divided by 'leverage exposures', assets adjusted to reflect total exposures. Risk-weighted asset density = risk weighted assets divided by total assets. Most recent stress tests are the 2020 Federal Reserve Comprehensive Capital Analysis and Review (CCAR) and the 2018 European Banking Authority stress test. For comparability with non-U.S. peers, U.S. bank assets are adjusted to include net derivatives.

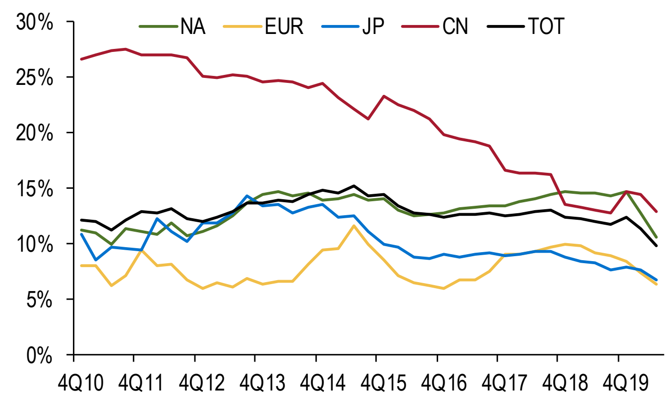
A plurality of G-SIBs missed consensus earnings on above-expected provisions; a minority out-performed.

Chart 4.1. Revenues vs. Consensus Estimates
(Number of G-SIBs within percentage intervals)



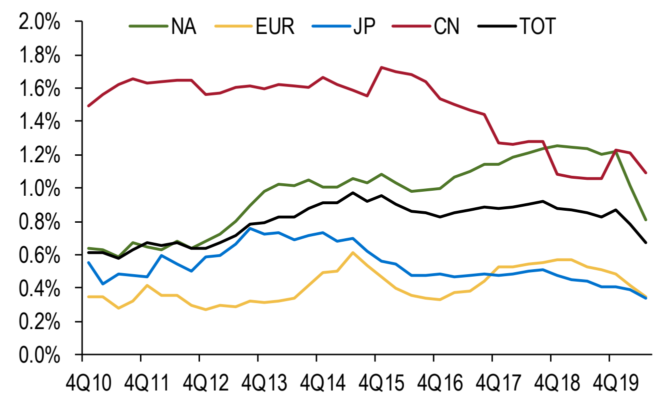
ROE fell sharply across regions, with NA banks falling most from relatively high levels …

Chart 4.2. Reported ROE, 4 Quarters Trailing
(Percent of average equity)



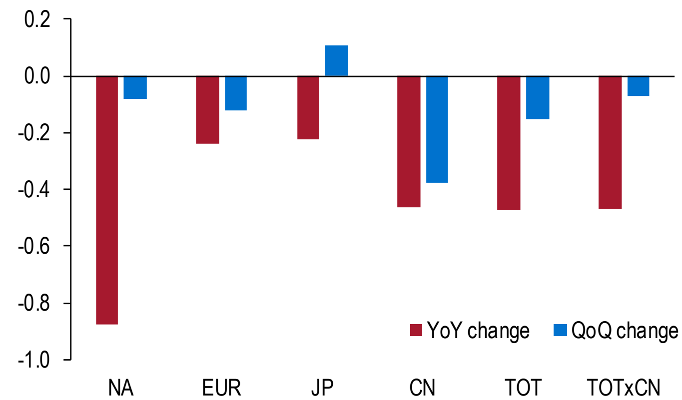
… driven by declines in underlying operating ROA.

Chart 4.3. Pretax Operating ROA, 4 Quarters Trailing
(Percent of average assets, ex conduct charges)



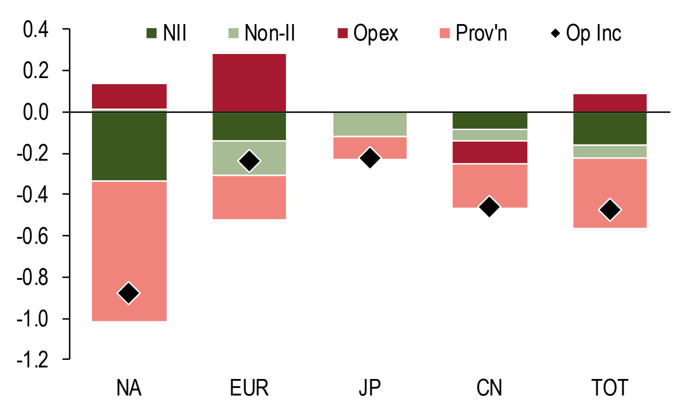
Most of the profitability drop occurred in 2020:Q1.

Chart 4.4. Change in Pretax Operating ROA
(Percentage points of average assets, ex conduct charges)



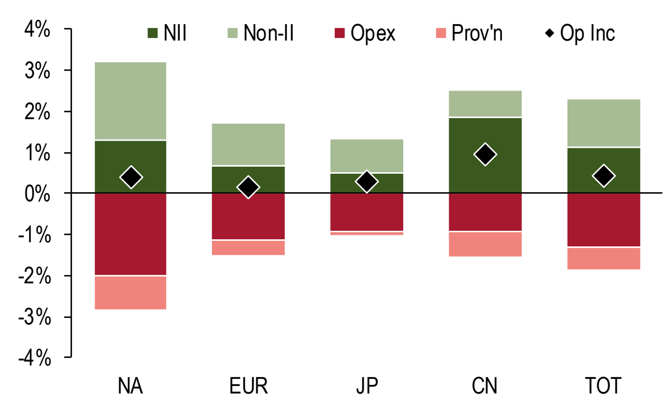
Profitability pressures was caused by deteriorating margins and higher provision expenses.

Chart 4.5. Decomposition of Change in Operating ROA, 2020:Q2 vs. 2019:Q2 (Percentage points)



CN G-SIBs continue to generate superior profitability on better margins and lower operating expense.

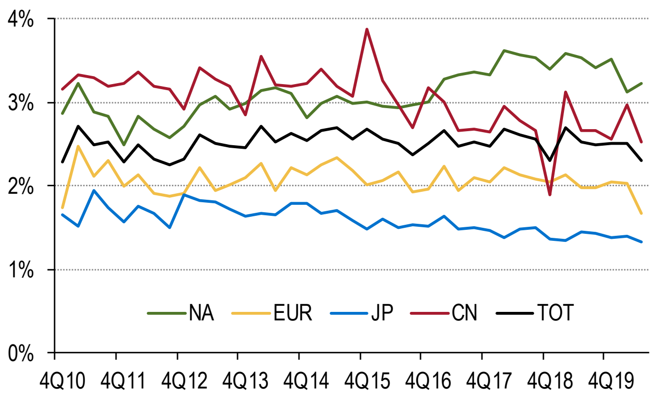
Chart 4.6. Decomposition of Operating ROA, by Region, 2019:Q2
(Percent)



Sources: Bank financial statements, SNL, Bloomberg, and IMF Staff.
Note: Panel 1 is based on consensus expectations as of July 13, 2020. Panel 2 shows 'underlying' operating performance which excludes tax, non-operating items and misconduct charges. In panels 5 and 6, NII = Net interest income. Non-II = Non-interest income. Opex = Operating expense. Prov'n = Provision for loan losses. Op Inc = Operating income before taxes and extraordinary items.

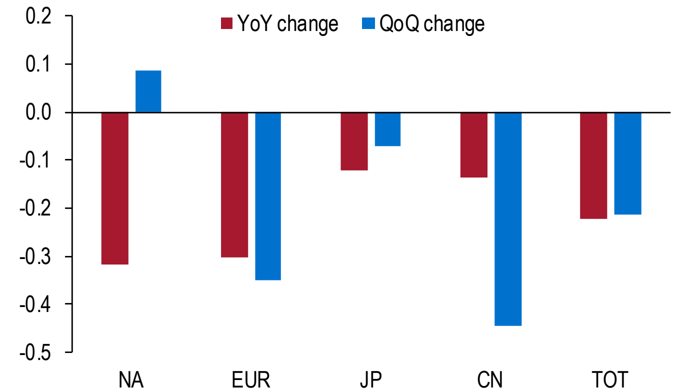
Overall revenue margins dropped across regions, as NA G-SIBs' fell from recent highs.

Chart 5.1. Reported Revenues/Assets, by Region
(Percent)



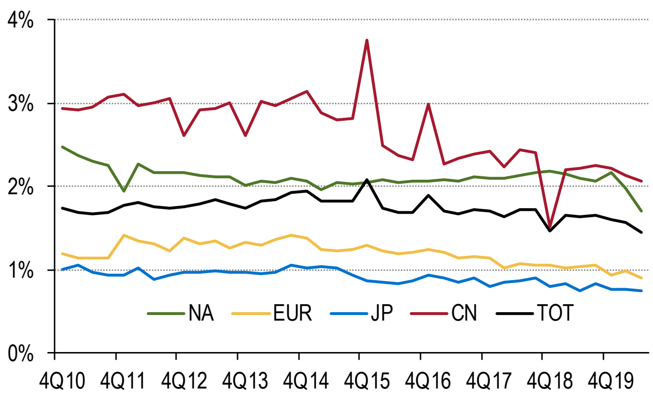
The declines accelerated in Q2 for EUR and CN G-SIBs, while NA G-SIBs recovered slightly.

Chart 5.2. Change in Revenues/Assets, 2019:Q2
(Percentage points)



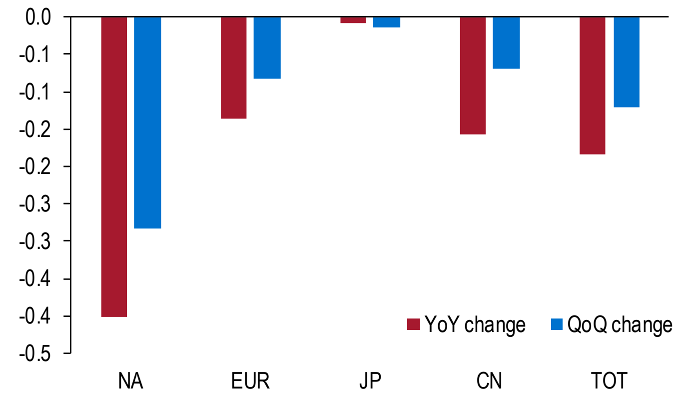
NA G-SIBs saw the largest NIM compression since GFC, while NIM continues to grind lower in other regions …

Chart 5.3. Annualized Net Interest Margin, by Region
(Percent)



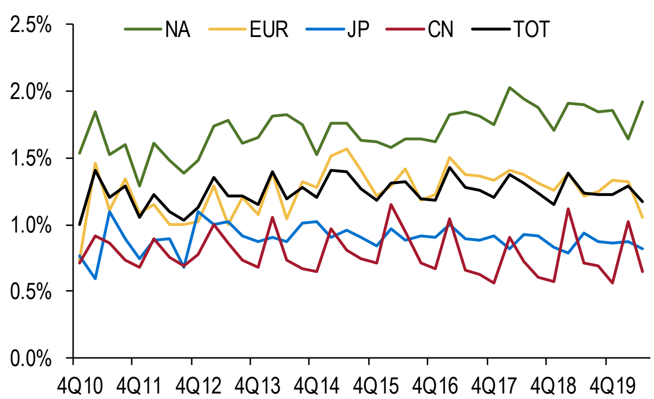
… with no sign of recovery across any region.

Chart 5.4. Change in Net Interest Margin, 2019:Q2 vs. Previous Periods (Percentage points)



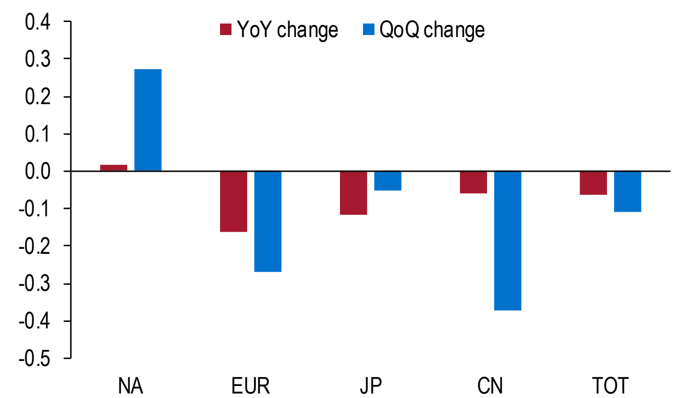
Non-interest income margins however are holding up relatively well, particularly in NA …

Chart 5.5. Non-Interest Income to Average Assets, by Region
(Percent)



… but the trend is pointing to further downside in other regions.

Chart 5.6. Change in Non-Interest Income to Average Assets, 2019:Q2 vs. Previous Periods (Percentage points)

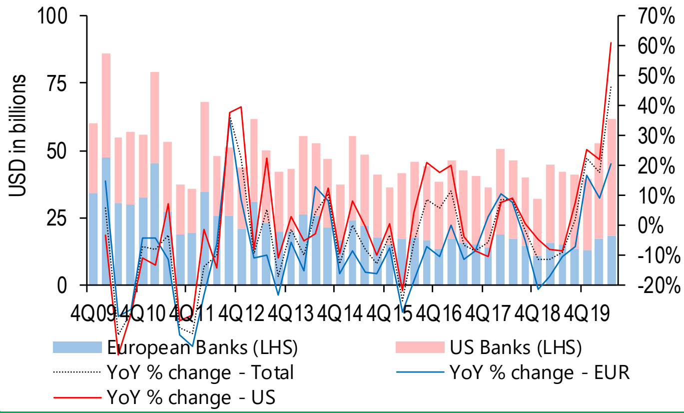


Sources: Bloomberg, SNL, IMF Staff analysis.
Note: GFC = global financial crisis (2008-09).

Market Revenues and Market Risk

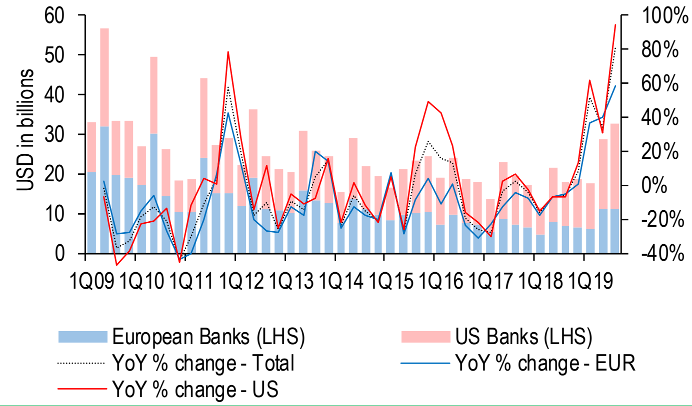
Non-interest revenues were driven by rebounding markets and investment banking businesses, …

Chart 6.1. Investment Banking and Trading Revenues
(USD in Millions, Percent)



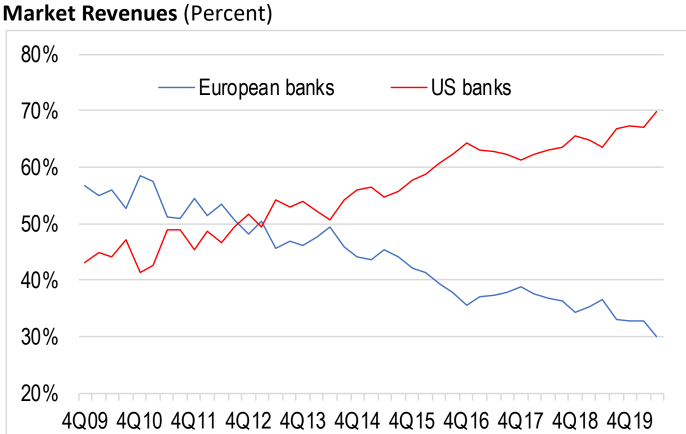
… especially the near-doubling of secondary-market fixed income revenues.

Chart 6.2. Trading Revenues – Fixed Income, Currency and Commodities) (USD in Millions, Percent)



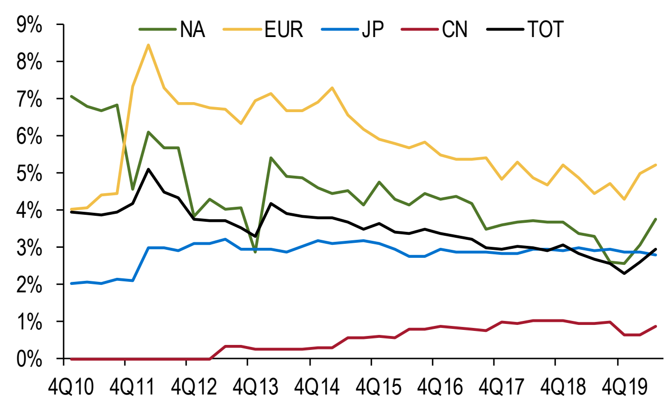
U.S. G-SIBs captured most of the growth and increasingly dominate investment banking and markets.

Chart 6.3. U.S. and European Bank Share of Investment Banking and Market Revenues (Percent)



Market risks have risen given extraordinary price and volatility swings, reversing a decade-long falling trend.

Chart 6.4. Market RWA / Total RWA
(Percent)



EUR G-SIBs appear to have re-risked on derivatives and hard-to-value assets, slowing diverging from other regions.

Chart 6.5. Notional Derivatives / Total Assets
(Times)

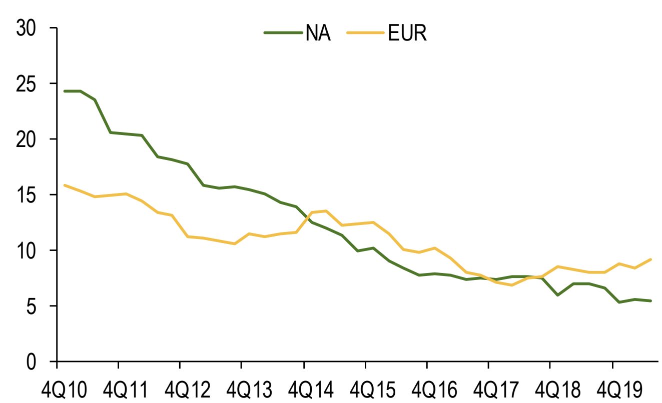
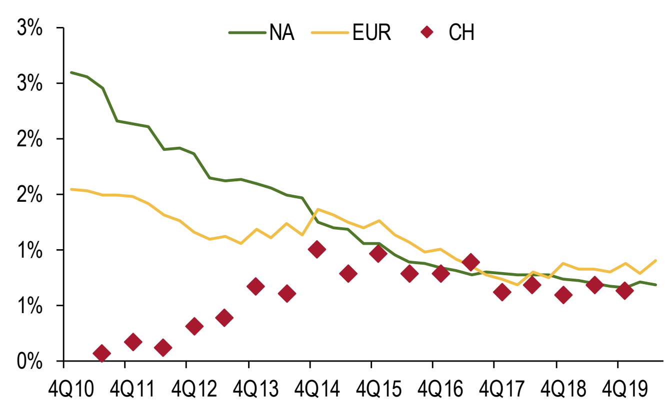


Chart 6.6. Level 3 Assets / Total Assets
(Percent)



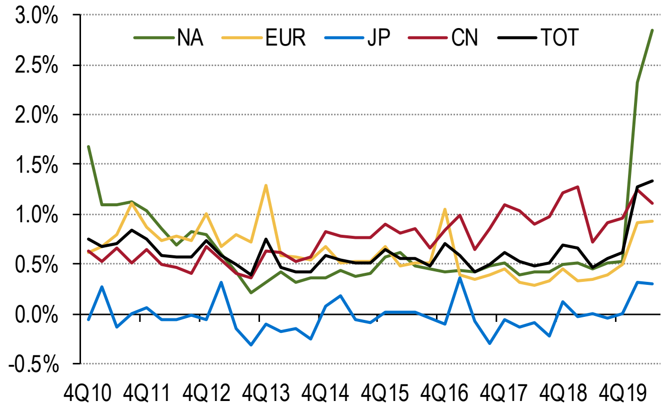
Sources: Various brokerage analysts, and IMF Staff analysis.
Note: FICC = Fixed income, currencies and commodities. RWA = Risk-weighted assets. Level 3 assets is a category exposures, mainly unlisted securities or other illiquid investments, whose valuation is deemed uncertain and volatile.

Asset Quality and Credit Costs

G-SIBs in NA, EUR and JP more than doubled provision expenses this year.

Chart 7.1. Provision Expense / Loans

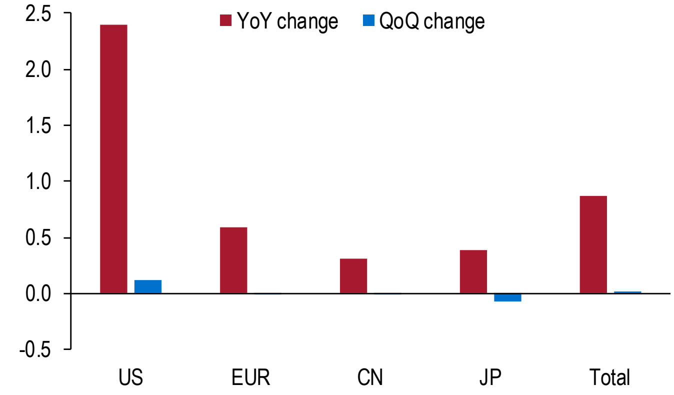
(Percent)



The smaller provisions in CN G-SIBs may reflect faster re-opening and economic recovery.

Chart 7.2. Change in Provision Expense / Loans

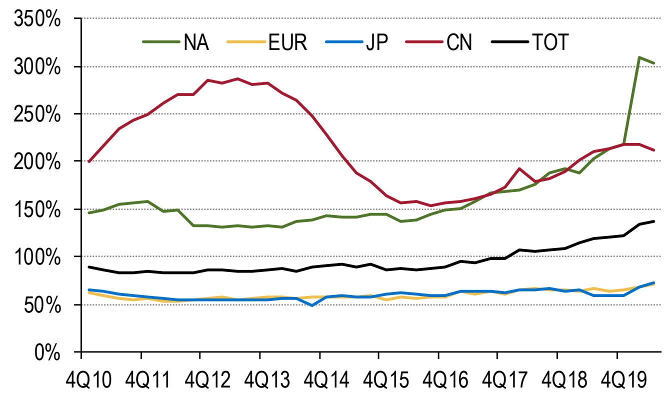
(Percentage Points)



U.S. banks' reserves coverage has spiked above other regions, suggesting precautionary provisioning.

Chart 7.3. Loan-Loss Reserves / NPLs

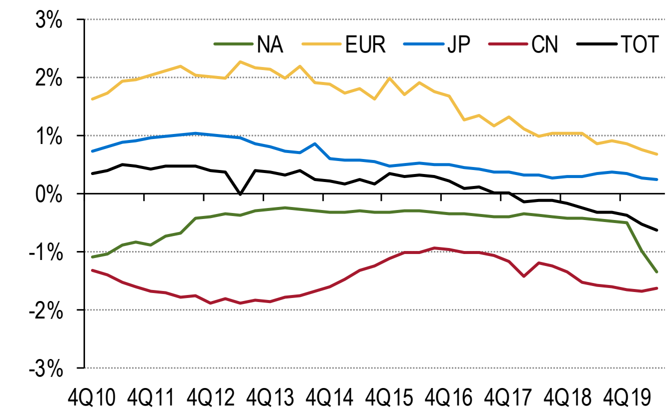
(Percent)



Overall, net NPL ratios remain low across regions.

Chart 7.4. Net NPL Ratio

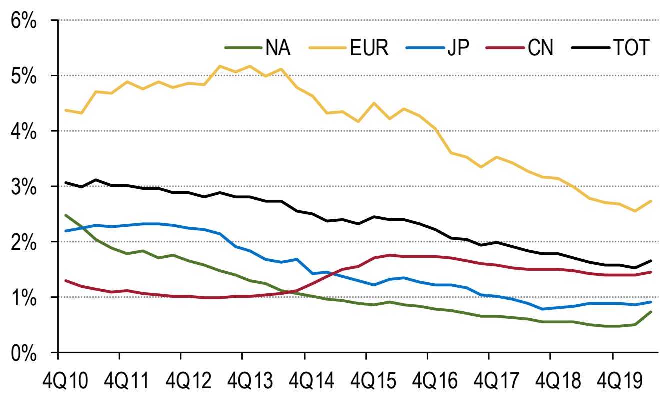
(NPLs, net of LLRs, as Percent of Loans)



Gross NPL ratios have picked up …

Chart 7.5. Gross NPL Ratio

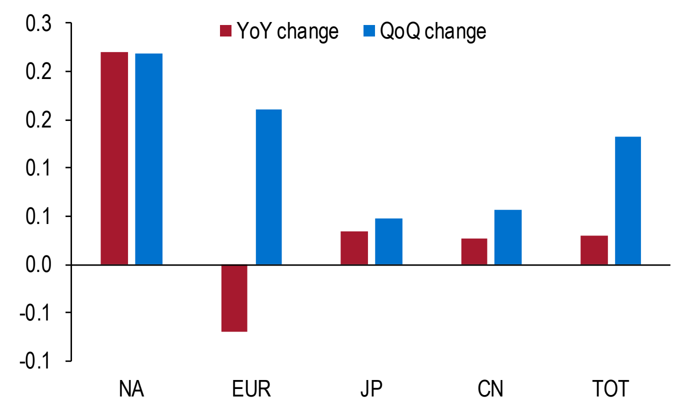
(Percent)



… particularly in NA and EUR.

Chart 7.6. Change in Gross NPL Ratio, 2019:q2 vs. Previous Periods

(Percentage points)



Sources: Bloomberg, SNL, IMF staff analysis.