G-SIB MONITOR

MONETARY AND CAPITAL MARKETS DEPARTMENT

April 7, 2021

Highlights:

- *G-SIB valuations have continued to rally, especially in the US and Japan.*
- *Capital ratios have improved, supported by improving earnings and lower capital distributions.*
- *Earnings recovery were entirely driven by lower provision charges.*
- *Underlying earnings dynamics improved in the US and China, but remained weak in Europe and Japan, reflecting divergent growth prospects and structural impediments to profitability.*
- *Outside of Europe, banks seem relatively optimistic on asset quality.*

G-SIB valuations have continued to rally, led by the US and Japan (Page 2). G-SIB equities have risen on average by nearly 20 percent in Q4, four times the return of the MSCI World index. Strong performance, led by US and Japanese G-SIBs, has been supported by above-consensus 2020:Q4 earnings, macro recovery, and the steepening of global yield curves.

Capital ratios surpassed pre-pandemic levels for the US and European G-SIBs. (2.1 to 2.6) CET1 ratios increased in Q4 for G-SIBs across all regions, with US and Europe already above 2019:Q4 levels; Japan and China only 10 bps below. In the US and Japan, the decline of provision charges and capital distribution supported capital accretion, similar to Q3. (2.1, 2.3) European G-SIBs continued to show the highest capital levels among all G-SIBs primarily due to lower capital distributions; provisions and relatively weak profitability remain a drag. (2.2) After three quarterly declines, CET1 ratios of Chinese G-SIBs recovered strongly in Q4 as banks limited capital distributions and RWA expansion. (2.4) RWA growth has picked up for US, European and Japanese G-SIBs, in part driven by loan growth. (2.5) Simple leverage ratios continued to impove in Q4, with ample buffers above minimum requirements. (2.6)

The earnings recovery continued in most regions, entirely due to lower provision charges; the trend reversed in Europe. (3.1 to 3.6) Close to half of the G-SIBs with available analysts' earnings forecasts delivered Q4 pre-tax earnings more than 20 percent above expectations. Nearly all of the sample reported provisions below consensus by more than 20 percent. (3.1) Operating RoE rose to 14.4 percent in the US (3.2), back to pre-pandemic levels, as underlying profitability improved further after a strong rebound in Q3. (3.3) A similar trend was seen in Japan, though profitability remains structurally low. Lower provision charges remain the sole driver of the recovery, while income dynamics continued to worsen in Europe and Japan. (3.4) Several European G-SIBs showed a fairly large drop in underlying profitability, pressured by unfavorable developments in operating expenses and provisions. Profitability at Chinese G-SIBs improved on a sharp decline in provision charges while interest income continue to grow with better margins and volumes. Non-interest income and expenses were much weaker than Q3, possibly due to year-end seasonality.

The compression in revenue margins continued but decelerated. (4.1 to 4.6) Revenue margins (relative to assets) dipped lower, extending the trend since 2018. (4.1, 4.2) In Q4, net interest margins improved materially in China and to a lesser extent in the US, on favorable interest rates environment; the compression

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in NIM has slowed in other regions. (4.3, 4.4) However, non-interest income, generally more volatile, fell across the board, with Chinese G-SIBs showing large swings in revenue pools. (4.5, 4.6)

Capital markets revenues remain strong at US G-SIBs, whose market share continues to rise. Following a surge in Q2, investment banking and trading revenues normalized further in Q4, but remained higher than previous year-end levels. (5.1, 5.2) US G-SIBs were particularly strong, given buoyant primary market activity and continuing strength in equity trading. FICC revenues normalized to historical average. European G-SIBs' capital market revenues remain healthy by historical standards, but lag their US counterparts by a large margin; their market shares by revenue have dropped below 30 percent in both FICC and equity markets. (5.3)

G-SIBs are managing down risk exposures, but US and European value-at-risk estimates have risen. (5.4 to 5.6) The most widely-available measures suggest G-SIBs have been reducing exposures to risky assets. Reductions in market risk-weighted assets and 'level 3' (illiquid, hard-to-value) assets appear primarily intended to limit potential losses. (5.4, 5.5) Despite this apparent intention, 'value-at-risk' suggests that earnings tail risk (from interest rates, commodities, currencies and other instruments) has risen in recent quarters. (5.6)

G-SIBs outside of Europe were relatively optimistic about asset quality. (6.1 to 6.6) US G-SIBs are no longer adding to their loan loss reserves, and Japanese and Chinese G-SIBs have also sharply reduced provision charges. In contrast, provisions increased again at European G-SIBs, reflecting relatively less benign macro outlook and the re-imposition of Covid-19 restrictions. (6.1, 6.2) Reserve coverage remains high in the US and China, and stable in other regions. (6.3) Estimated new NPL formation (new NPLs relative to average loans) dipped in China mainly on lower impairment charges; but continued to rise in other regions. (6.4) Gross NPL ratios have remained stable after a moderate yoy increase. (6.5). These reported credit risk indicators reflect aggressive policy initiatives to support borrowers' repayment abilities (e.g., moratoria) but perhaps also deferred recognition of credit deterioration. Nonetheless, a longer perspective highlights the very significant improvements over the past decade in bank asset quality – an additional form of increase in capital buffers. (6.6)

Share Price Performance and Valuations

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

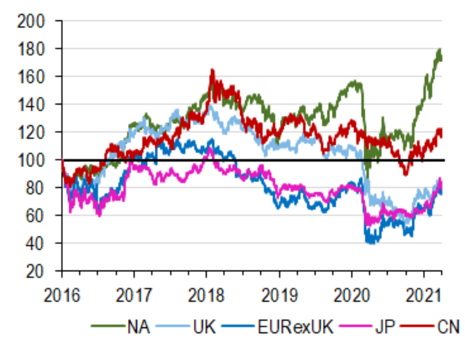


Chart 2. Valution Trajectory (Price / book)

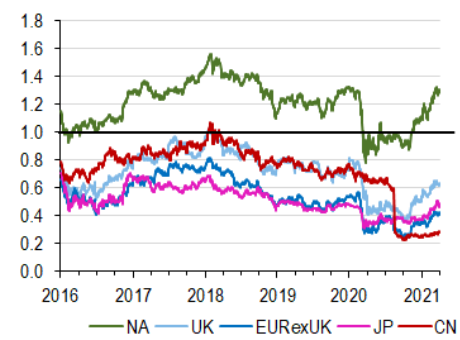
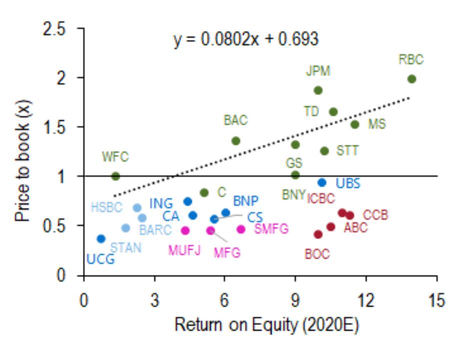


Chart 3. Price to Book vs 2020 ROE



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	341	1.4	2.1	8.2	31.5	30.3	48	0.3	30.2	10.2	1.8
BNY	Bank of New York Mellon	42	1.0	0.4	6.1	13.9	11.9	43	0.7	27.5	9.4	2.6
C	Citigroup	153	0.8	0.5	4.8	21.6	18.6	55	0.6	32.5	10.1	2.8
GS	Goldman Sachs	117	1.3	0.2	-0.5	23.6	24.2	61	1.2	28.2	10.9	1.5
JPM	JP Morgan	469	1.9	1.0	2.1	22.1	21.0	46	0.3	26.5	9.9	2.3
MS	Morgan Stanley	146	1.5	0.7	-3.6	14.5	14.1	55	0.6	30.3	10.8	1.8
STT	State Street	30	1.3	1.1	8.6	17.6	16.7	28	0.6	31.8	10.4	2.4
WFC	Wells Fargo	164	1.0	1.4	6.6	33.4	31.3	60	0.4	34.1	10.8	1.0
TD	Toronto Dominion	119	1.7	0.6	5.2	14.6	14.7	36	0.3	13.7		3.8
RBC	Royal Bank of Canada	131	2.0	0.1	5.6	10.8	10.9	53	0.3	12.8	9.5	3.7
North America		1060	1.4	1.0	4.3	22.9	21.7	50	0.5	27.4	9.4	2.3
BARC	Barclays	44	0.6	-1.0	10.4	28.2	25.4	56	1.0	33.5	10.8	0.5
HSBC	HSBC Group	119	0.7	0.0	-0.8	11.3	11.7	45	0.7	25.3	8.6	2.5
STAN	Standard Chartered	21	0.5	-1.9	2.7	5.8	5.2	50	1.1	28.6	9.3	1.3
United Kingdom		141	0.6	-1.9	0.0	10.1	10.3		0.8	26.0	8.8	2.3
BNP	BNP Paribas	77	0.6	0.5	1.0	21.3	21.0	35	1.0	31.1	11.0	2.1
CA	Credit Agricole	43	0.6	0.8	2.7	21.7	20.5	30	1.6	29.2	13.0	6.4
CS	Credit Suisse	26	0.6	2.6	-21.7	-10.9	-10.9	70	1.1	39.1	11.1	1.4
DB	Deutsche Bank	25	0.4	0.4	-0.3	17.0	14.7	52	1.5	36.4	7.1	0.0
ING	ING Group	48	0.7	-0.1	6.3	37.0	36.4	46	0.8	33.5	11.0	1.2
SAN	Banco Santander	59	0.6	-0.5	-2.0	12.3	13.6	36	1.2	35.0	11.2	1.0
SG	Societe Generale	23	0.3	1.6	6.9	35.8	33.2	34	1.9	34.6	12.0	2.4
UBS	UBS Group	61	0.9	1.7	3.0	17.9	19.3	46	0.3	24.9	10.1	1.2
UCG	Unicredit Group	24	0.4	0.0	1.3	18.9	17.9	67	1.8	35.0	12.6	1.3
Continental Europe		385	0.6	0.7	0.7	20.3	19.7	42	1.3	32.8	11.1	2.5
MUFJ	Mitsubishi UFJ Financial Group	73	0.5	-0.4	4.9	31.5	29.9	30	1.5		8.5	4.2
MFG	Mizuho Financial Group	36	0.5	-0.8	1.0	20.5	21.0	28	1.7		8.4	4.7
SMFG	Sumitomo Mitsui Financial Group	49	0.5	-0.9	2.5	24.0	23.2	28	1.4		9.9	4.8
Japan		158	0.5	-0.7	3.1	26.3	25.5	29	1.5		8.9	4.5
ABC	Agricultural Bank of China	175	0.5	0.3	1.6	10.6	9.9		0.8	23.9	15.4	7.0
BOC	Bank of China	138	0.4	-0.3	3.9	11.7	11.3	39	0.9	21.3	14.5	7.9
CCB	China Construction Bank	212	0.6	-0.3	0.5	13.4	10.7		0.7	21.8	15.4	5.9
ICBC	Industrial & Comm Bank of China	285	0.6	-0.4	1.6	15.6	10.5	39	0.6	22.0	14.9	5.7
China		810	0.5	-0.2	1.8	13.0	10.6		0.7	22.3	15.1	6.5
Total		2553	0.7	0.0	1.9	18.2	16.9		1.0	27.1	11.7	4.1
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: Regional averages are asset-weighted average of each bank in the region

Sources: Bloomberg Finance L.P.; and IMF staff analysis.
Note: Pricing is as of December 2, 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.

Common Equity Tier 1 Capital: Progression and Position against Requirements

G-SIBs' CET1 ratios increased across all regions, as provision charges and capital distribution continued to fall. RWA and loan growth has picked up.

Chart 2.1. CET1 Progression: US
(Percent of risk-weighted assets)

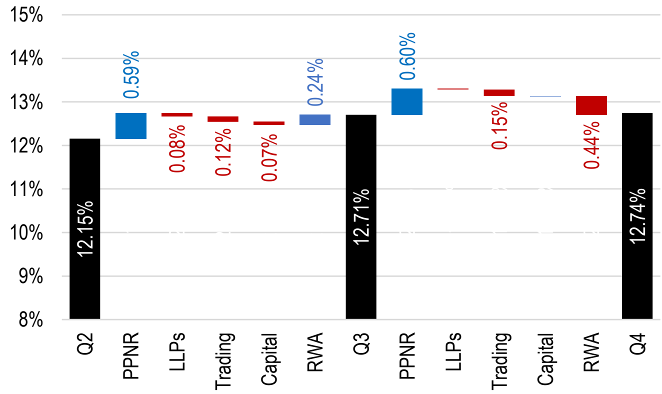


Chart 2.2. CET1 Progression: Europe and UK
(Percent of risk-weighted assets)

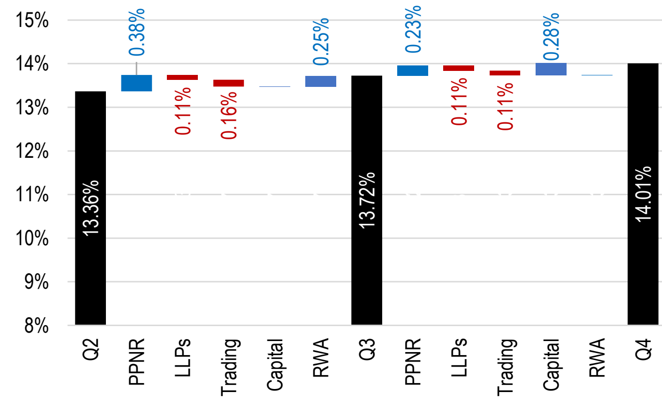


Chart 2.3. CET1 Progression: Japan
(Percent of risk-weighted assets)

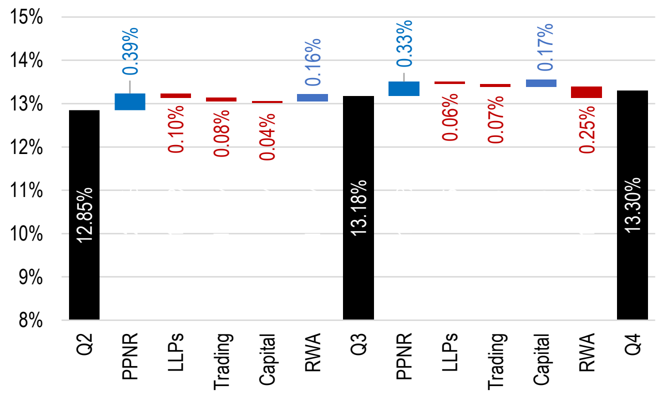
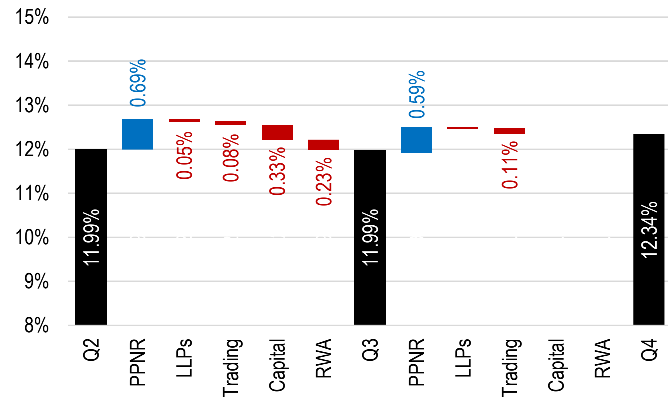
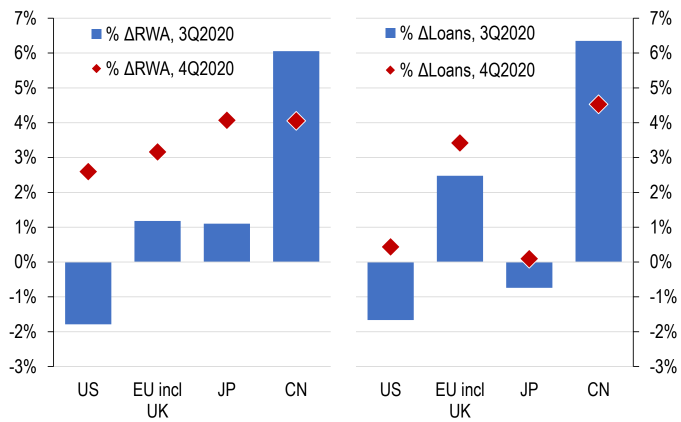


Chart 2.4. CET1 Progression: China
(Percent of risk-weighted assets)



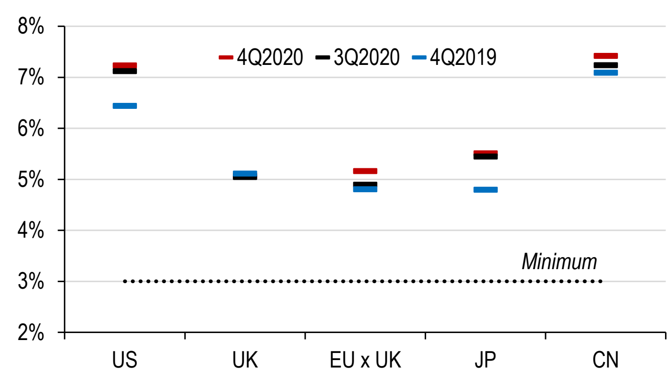
Loan and RWA growth accelerated in most region.

Chart 2.5. Sequential Growth of Loans and RWAs, 2020:Q3 and 2020:Q4 (QoQ, Percent)



Leverage ratios continue to improve with ample buffers

Chart 2.6. Average Leverage Ratio, 2019:Q4 to 2020:Q3
(Percent of leverage exposures)

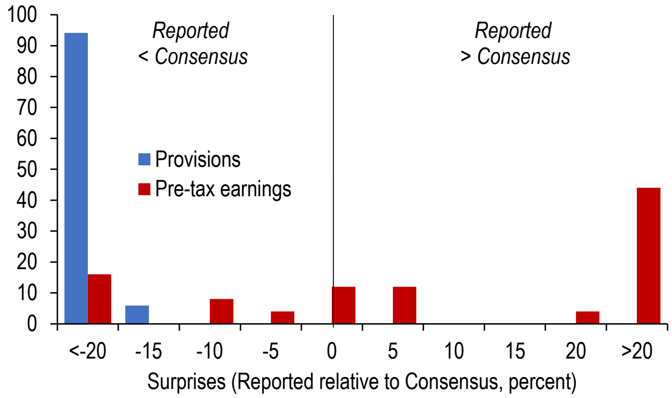


Sources: Bank financial statements; Bloomberg Finance L.P.; Basel Committee; national supervisors; SNL; and IMF Staff.
Note: CET1= common equity tier 1 ratio; RWA = risk-weighted assets PPNR = pre-provision net revenue; LLPs = loan-loss provisions; Trading = gains on trading and investment; Capital =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

Earnings Overview

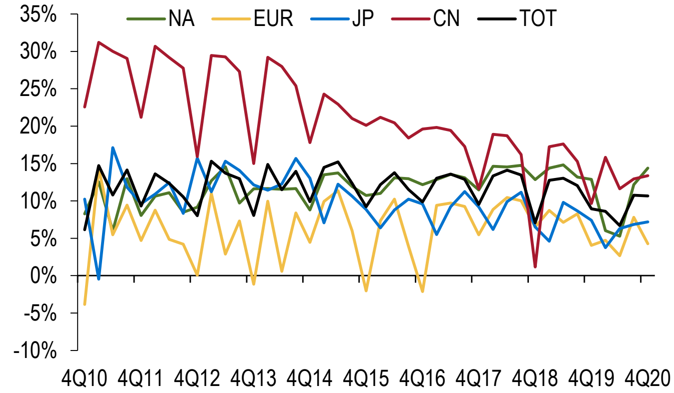
Most G-SIBs sharply outperformed Q4 earnings forecasts on lower than anticipated provisions.

Chart 3.1. Earnings and Provisions vs. Consensus Estimates
(Percent of sample with available forecasts in each intervals)



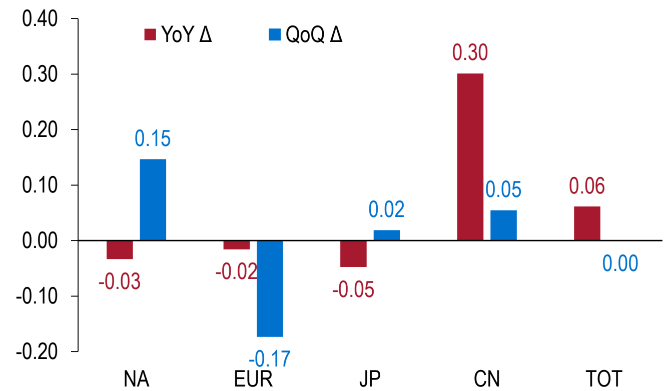
The rebound in RoE continued in most regions, but stalled in Europe …

Chart 3.2. Operating ROE
(Percent of average equity, ex conduct charges)



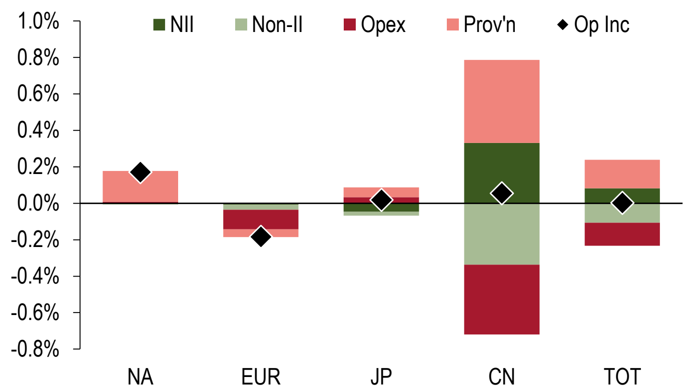
… in line with underlying RoA.

Chart 3.3. Change in Operating ROA
(Percentage points, ex conduct charges)



Earnings were entirely driven by lower provisions; volatility in China with typical seasonality.

Chart 3.4. Decomposition of Change in Operating ROA, 2020:Q4 vs. 2020:Q3 (Percentage points)

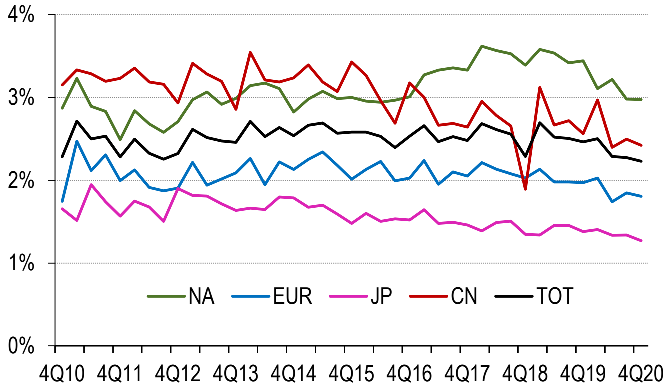


Sources: Bank financial statements; Bloomberg Finance L.P; SNL; and IMF staff.
Note: Panel 1 is based on consensus expectations as of October 13, 2020. Panels 2 to 4 shows 'underlying' operating performance which excludes tax, non-operating items and misconduct charges.

Revenue Performance

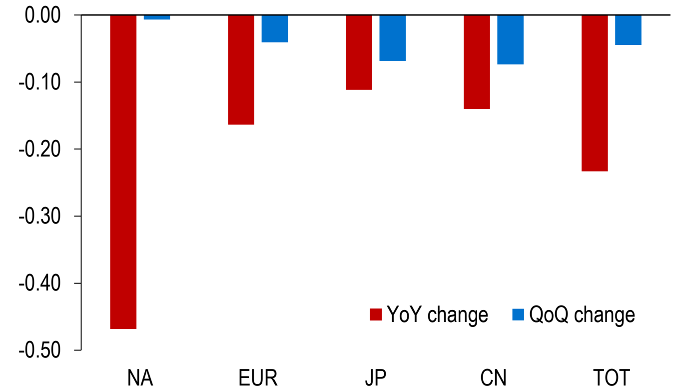
Revenue margins continued to deteriorate.

Chart 4.1. Reported Revenues/Assets, by Region
(Percent)



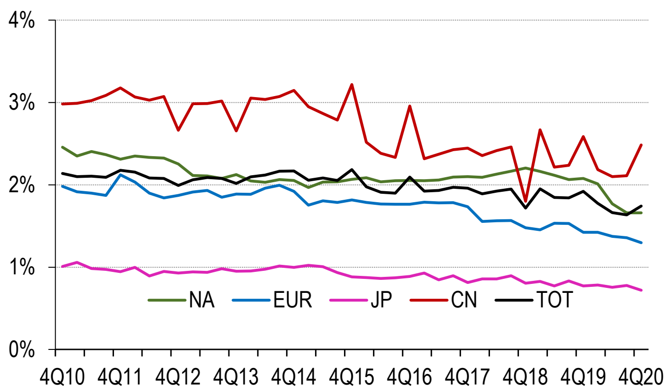
… but the pace has slowed.

Chart 4.2. Change in Revenues/Assets, 2020:Q4
(Percentage points)



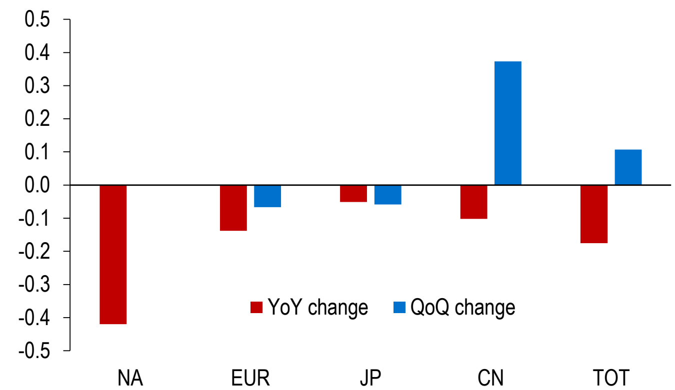
With relatively better interest rate environment, NIM increased notably in China and held steady in US …

Chart 4.3. Annualized Net Interest Margin, by Region
(Percent)



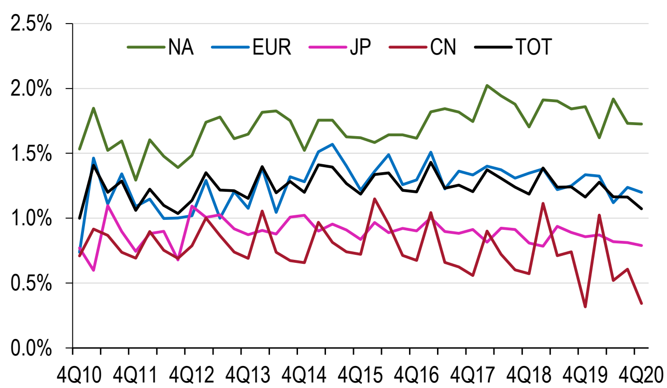
… but continued to compress in Europe and Japan.

Chart 4.4. Change in Net Interest Margin, 2020:Q3 vs. Previous Periods (Percentage points)



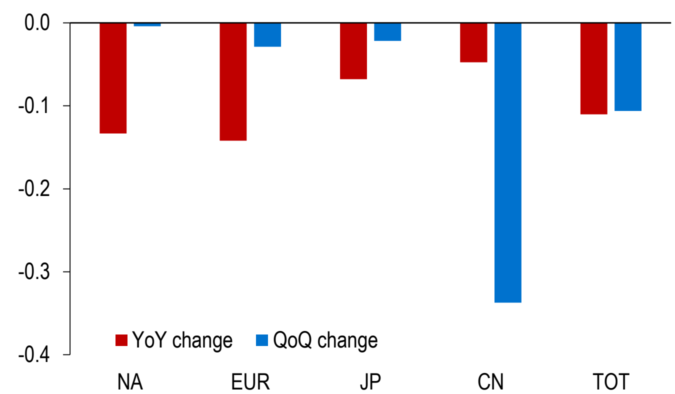
Non-interest income continued to be anemic …

Chart 4.5. Non-Interest Income to Average Assets, by Region
(Percent)



… with Chinese banks showing large swing in revenue pools.

Chart 4.6. Change in Non-Interest Income to Average Assets, 2020:Q3 vs. Previous Periods (Percentage points)



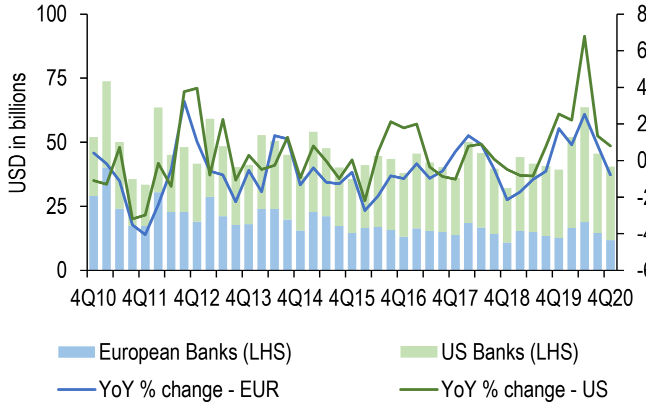
Sources: Bloomberg Finance L.P.; SNL; and IMF staff analysis.
Note: In panels 5 and 6, NII = Net interest income. Non-II = Non-interest income. Opex = Operating expense. Prov'n = Provision for loan losses. Op Inc = Operating income before taxes and extraordinary items.GFC = global financial crisis (2008-09).

Market Revenues and Market Risk

Markets-related revenues moderated further in 2020:Q4 after strong growth in earlier quarters …

Chart 5.1. Investment Banking and Trading Revenues

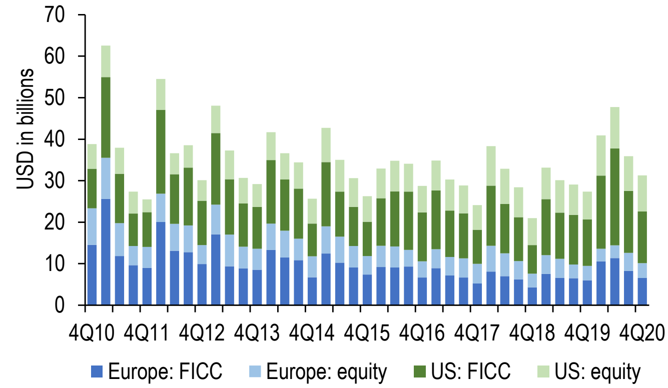
(USD in billions, Percent)



… as FICC normalized to historical average level while equity revenue remains strong at US banks.

Chart 5.2. Trading Revenues, by FICC and Equities

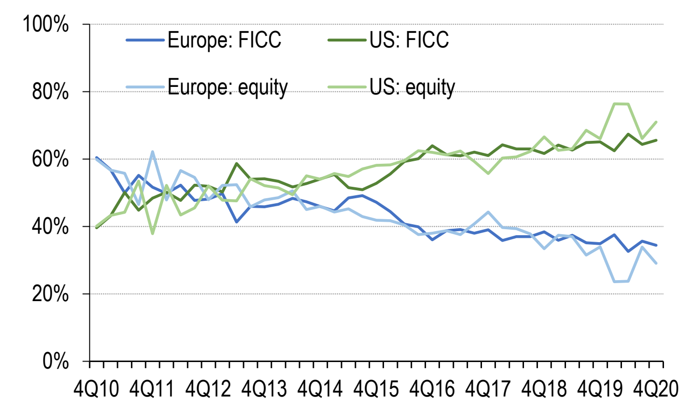
(USD in billions)



US G-SIBs continued to grab market shares, now above 70% for both FICC and Equities.

Chart 5.3. Market Share of FICC and Equities Trading Revenues

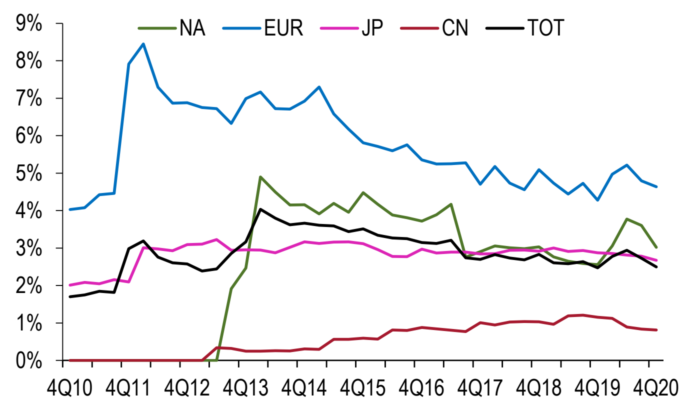
(Percent)



Market risk fell notibally in US from the highs in Q2.

Chart 5.4. Market RWA / Total RWA

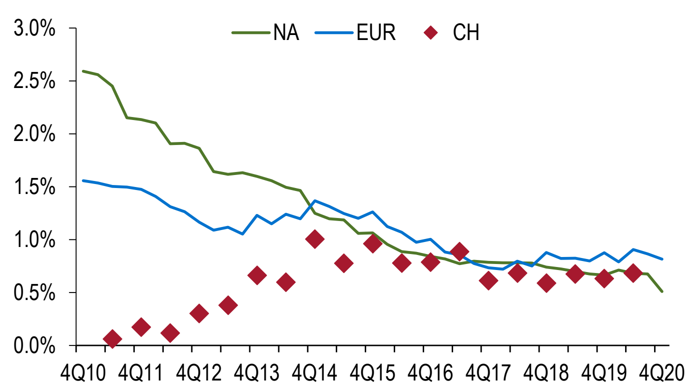
(Percent)



… as Level 3 dropped sharply at one US G-SIB due to disposal.

Chart 5.5. Level 3 Assets / Total Assets

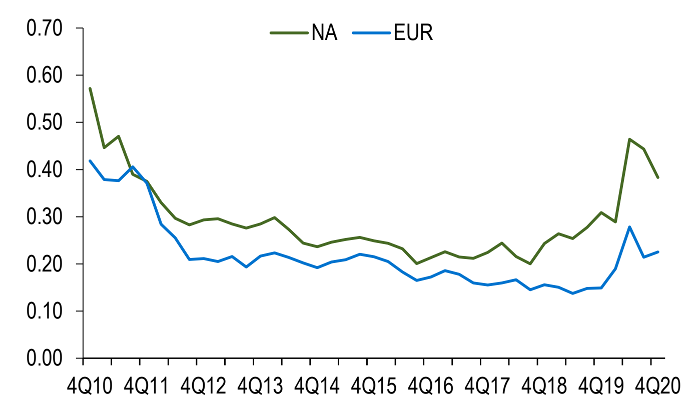
(Percent)



Value-at-Risk has fallen from the recent peak in Q2, but remains elevated in US.

Chart 5.6. Average Value-at-Risk / Total Assets

(Basis points)



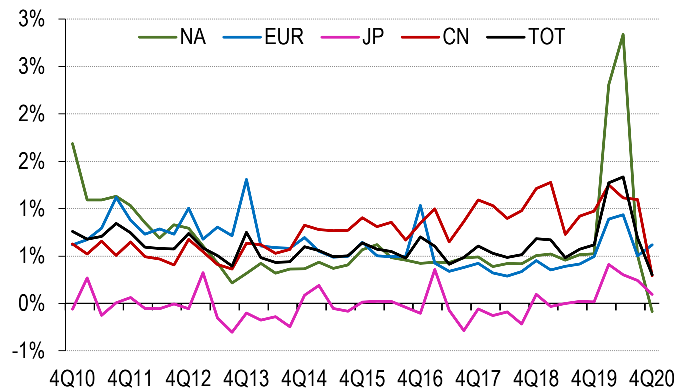
Sources: Various brokerage analysts; and IMF Staff analysis.

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. Value-at-risk represents a statistical estimate of the daily loss in a 95-percent worst-case outcome, including risks related to interest rates, equities, currencies, commodities and other exposures, offset by the diversification benefits of hedging across asset classes.

Asset Quality and Credit Costs

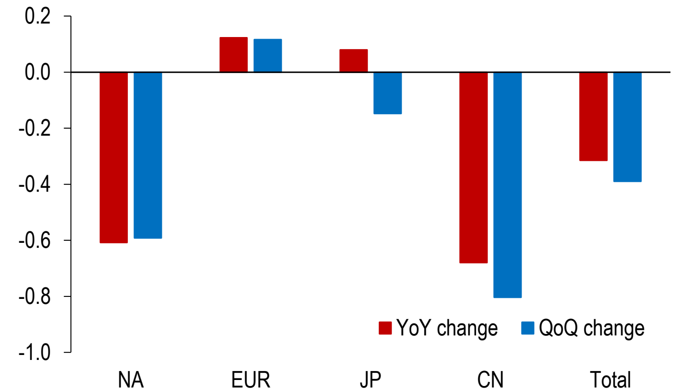
US banks are no longer adding to their reserves, with provison charges falling sharply in China and Japan.

Chart 6.1. Provision Expense / Average Loans (Annualized)
(Percent)



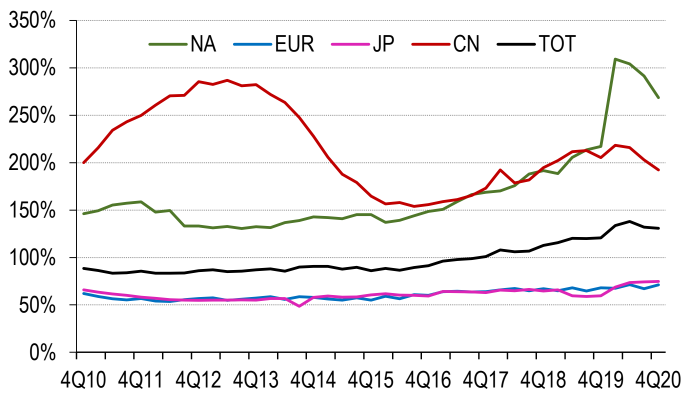
Provisions continued to rise in Europe.

Chart 6.2. Change in Provision Expense / Loans
(Percentage points)



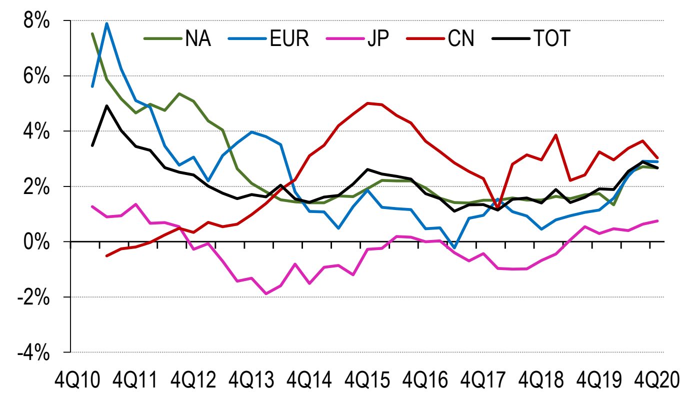
Lower provisions to some extent reflects the decline of reserve coverage in US and China.

Chart 6.3. Loan-Loss Reserves / NPLs
(Percent)



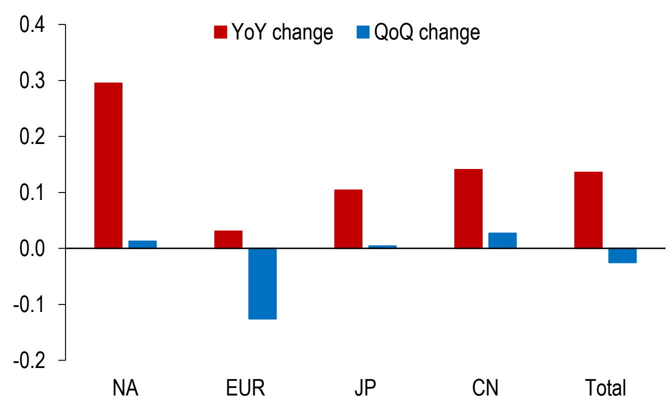
New NPL formation dropped in China on lower impairment charges.

Chart 6.4. New NPL Formation / Average Loans (Annualized)
(Percent)



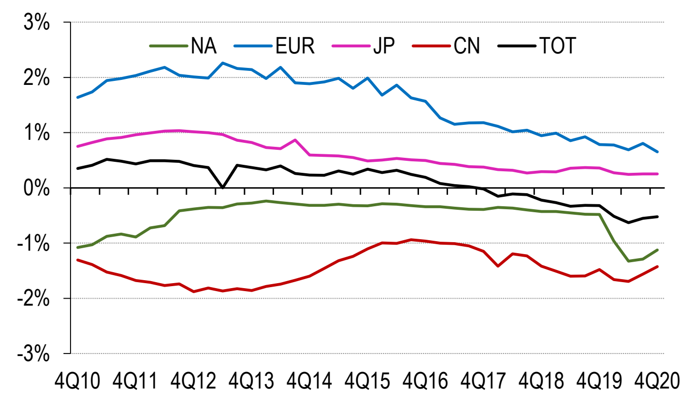
So far, gross NPL were little changed in Q4 with only a moderate yoy rise.

Chart 6.5. Change in Average Gross NPL Ratio
(Percentage points)



Similarly, net NPL ratios remain at healthy level despite lower reserve coverage.

Chart 6.6. Average Net NPL Ratio, 2010:Q4 to 2020:Q3
(Percent)



Sources: Bloomberg Finance L.P.; SNL; and IMF staff analysis.
Note: New NPL formation is estimated from two identities: NPL_{EOP} = NPL_{BOP} + *New NPLs* – *Write-offs net of recoveries*, and LLR_{EOP} = LLR_{BOP} + Provision charge – *Write-offs net of recoveries*, where terms in italics are derived from reported terms in standard font; LLR = loan-loss reserves, EOP = end of period, BOP = beginning of period. Net NPL ratio = Gross NPLs less loan-loss reserves, divided by average loans.