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Deutsche Pfandbriefbank (“pbb”)

Hiding is not the right strategy

December 2023

Outline

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Executive summary

I EUR 4 billion exposure in an imploding US office sector

II EUR 3.5 billion development loans with zero provisions taken

III Overly active usage of management overlay

IV Funding squeeze

Executive summary

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- Petrus Advisers has for some time criticised pbb‘s ill-directed focus on loan book growth and its bloated cost structure while warning about credit risk in its US office book and financing of real estate developers
- Unfortunately, management has demonstrated a complete lack of judgement and understanding of CRE trends – we thus have had to conclude that risks in pbb’s US office portfolio and its development portfolio clearly outweigh self-help from certain initiatives(1)
- We have tried to discuss **flagrant and apparent warning signs** and **challenges** with you – yet, pbb management has refused to make themselves available:

I EUR 4 billion exposure in an imploding US office sector

- pbb has doubled its US office exposure since Q4’20 to c. EUR 4bn; its US NPL ratio has by now skyrocketed to >14%
- Its coverage ratio of US office NPLs seems very low in comparison to peers pointing to a risk of more provisioning needs

II EUR 3.5 billion development loans with zero provisions taken

- pbb has EUR 3.5bn of development loans
- Andreas Arndt praised the credit worthiness of developers during the Q3 earnings call – a few weeks later, SIGNA announced its insolvency – another risk area that might require further provisioning

III Overly active usage of management overlay

- pbb has used up its entire management overlay to smooth earnings, while nearly all European banks have kept buffers

IV Funding squeeze

- Spreads on pbb’s covered bonds (Pfandbriefe) have recently widened materially to the highest level in the entire sector
- The rest of the funding stack offers no relief to net interest margins: pbb has to pay 4% on 5Y term deposits (vs. 5Y swap rate at 2.7%) and faces pressure on junior debt

Notes: (1) Incl. cost reduction programme, exit of Capveriant, growth of fee business.

Source: Company filings, Weltsparen, Factset as of 11-Dec-2023, Bloomberg as of 11-Dec-2023, Petrus Advisers analysis

I

EUR 4 billion exposure in an imploding US office sector

Working from home has changed the rules in US office

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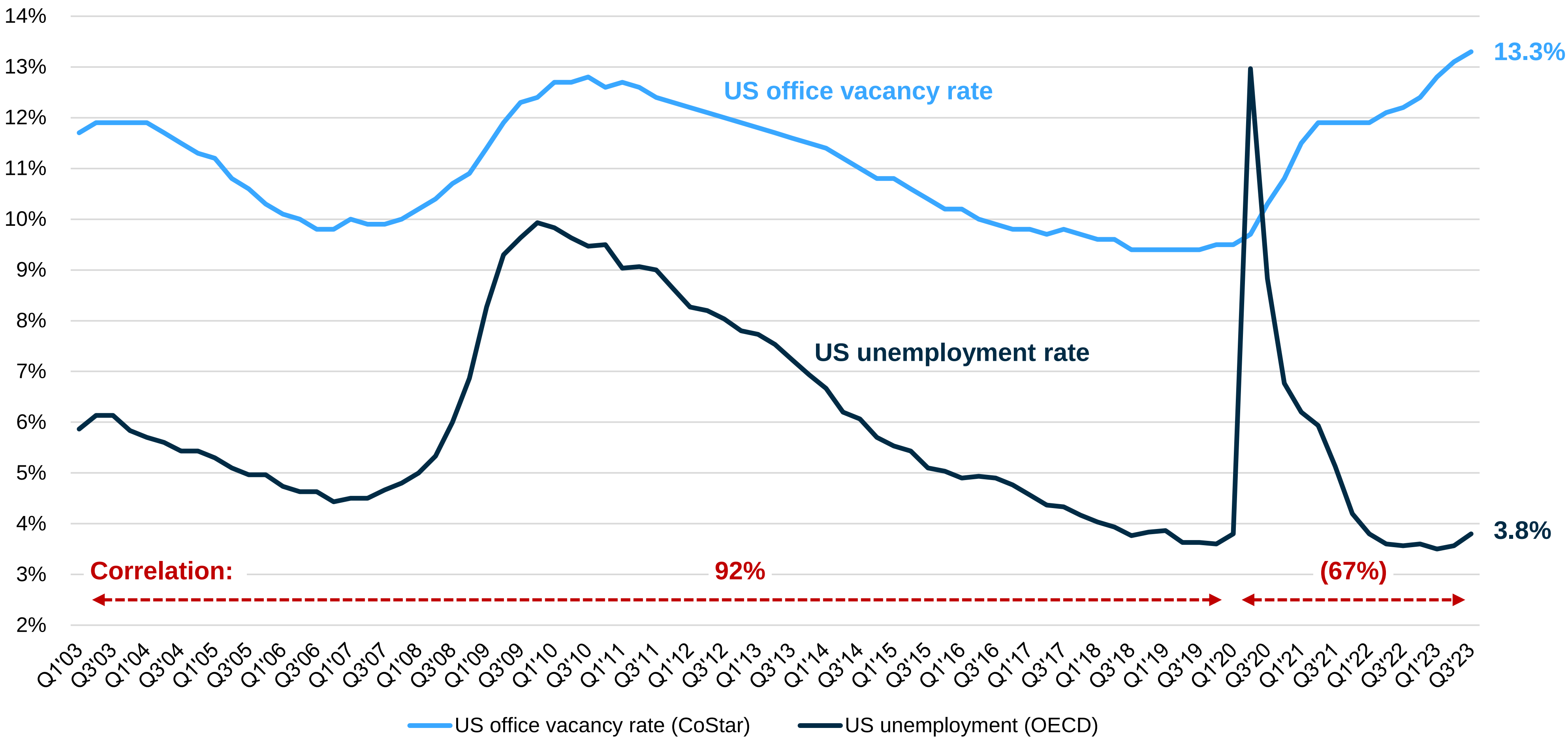
High historical correlation of US office vacancy and unemployment has changed since Covid – further potential downside from an economic slowdown to be considered

US unemployment vs. US office vacancy rates



Source: CoStar, OECD

No change to the work-from-home trend to be seen – example New York City

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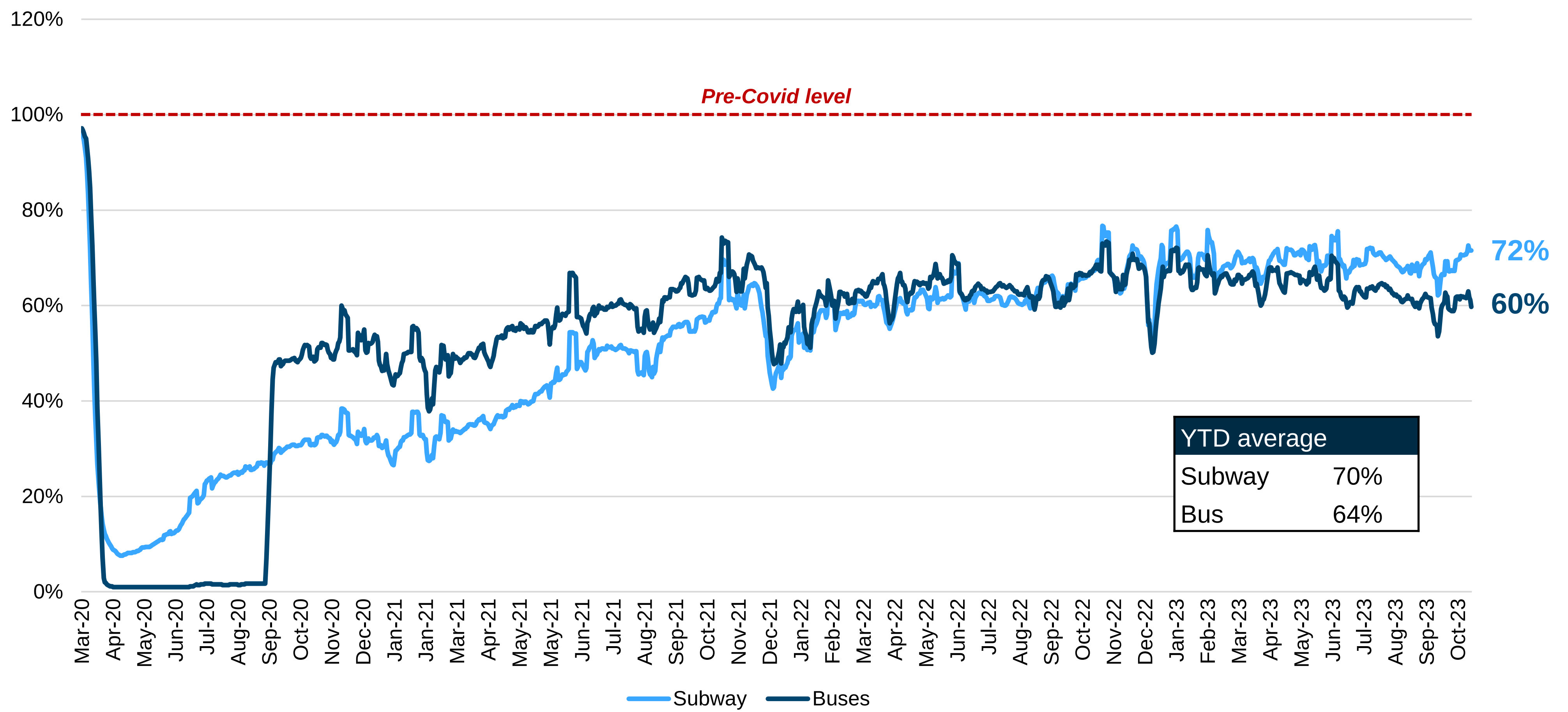
Subway and bus traffic in NYC has stagnated at 60-70% of pre-Covid levels – no improvement to be seen

NYC subway and bus traffic as % of comparable pre-pandemic day (7-day rolling average)



YTD average	
Subway	70%
Bus	64%

Source: Metropolitan Transportation Authority per 31-Oct

Read across from US banks Q3 earnings season points to longer-term issues in US office market

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Q3 data points from large US office lenders

Company	Reference from Q3 results
Aflac (Insurance company)	• "*We are seeing most property values quoted down 25 to 40%, but some distressed situations are driving market values down as much as 60%, far exceeding the 35 to 40% declines of the financial crisis. Our total commercial real estate watchlist remains approximately $1.0 billion, with around two-thirds of these in active foreclosure proceedings*"
Wells Fargo ($32bn office loans)	• Office nonaccrual loans increased by 84% QoQ • Allowances for credit losses (office only) increased by 16% QoQ (ACL as % of loans outstanding increased from 6.6% to 7.9%)
PNC ($8.6bn office loans)	• CRE NPLs more than doubled QoQ from $350m to $723m • Office NPL ratio increased from 3.3% to 7.7% QoQ • Office Reserves/loans increased to 8.5% from 7.4% QoQ
US Bancorp ($7bn office loans)	• Net charge off rate in CRE increased from 19bps to 36bps QoQ; CRE NPL ratio increased from 0.87% to 1.33% QoQ • But: only 13% of USB's $54bn CRE book is office, and they say "*Net charge-off rate and nonperforming loans increased from the previous quarter primarily driven by the office portfolio*"
Truist Financial ($5bn office loans)	• Office NPL ratio increased from 5.6% to 5.9% QoQ • Net charge-off ratio at 2.4% vs. 0.9% in Q2
M&T Bank ($5bn office loans)	• "*Office Risk Likely to Play Out Over Long Horizon*"

Source: Company filings, earnings call transcripts

Calling the bottom – as CEO Arndt has(1) – appears unusually early

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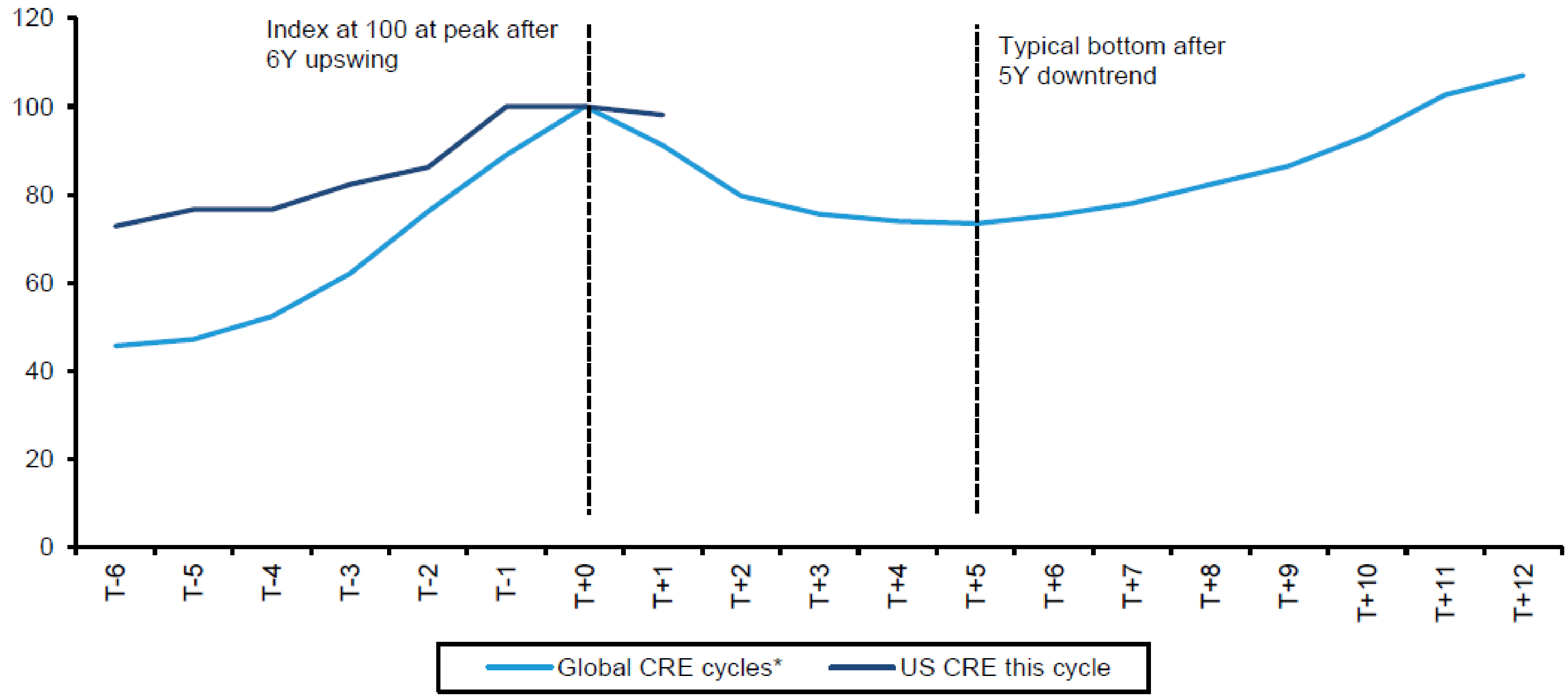
Historically, CRE cycles have taken around 5 years before bottoming out

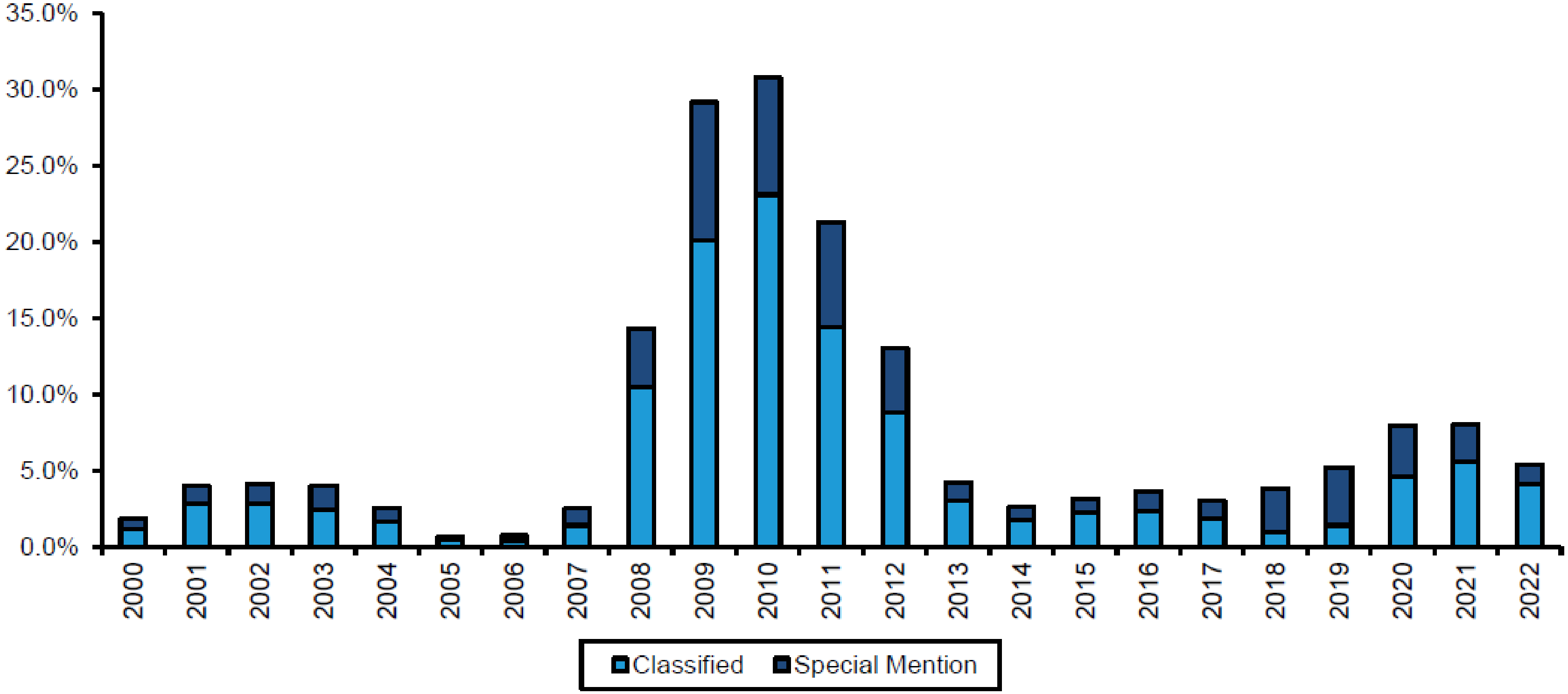


Notes: (1) Andreas Arndt Q3 2023 earnings call: "taking into account that the stabilization of prices will only come first half 2024".

*Source: Autonomous Research (Various national agencies, BIS. * Sweden 1989, Germany 1993, HK 1994, UK 1973 and 1989, Switzerland 1991, Japan 1990, US 2007)*

It typically takes several years for US CRE asset quality to really deteriorate

Troubled CRE loans in the Shared National Credit review as % total CRE commitments



Notes: Classified = substandard, weak and default. Special mention = loans with signs of emerging weakness.

Source: Autonomous Research (OCC)

pbb's growth push in US office lending has been very ill-timed and has added substantial risks

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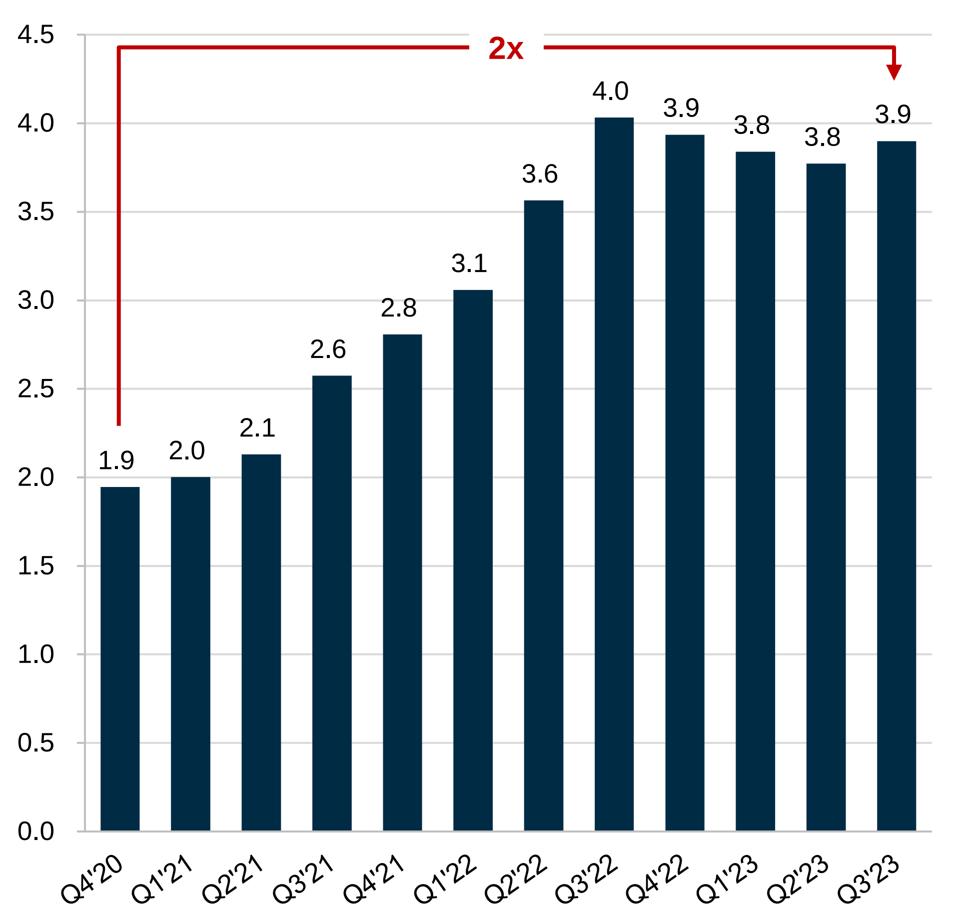
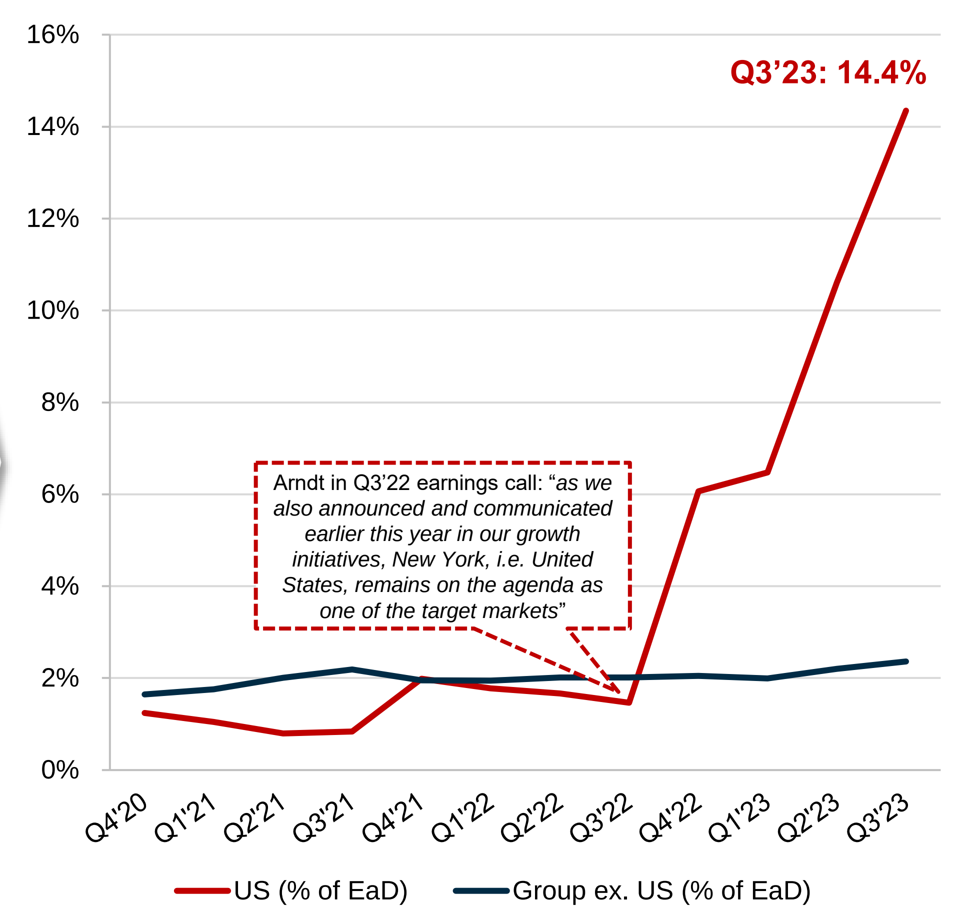
pbb has doubled its US office exposure since Q4'20 to c. EUR 4bn; its US NPL ratio has skyrocketed to >14% recently

US office (exposure at default, EURbn)



NPL ratio (% of EaD)[1]



Notes: (1) US NPL dividend by exposure at default (15% of EUR 32.1bn).
Source: Company filings, Earnings call transcript, Petrus Advisers analysis

Substantial loss potential in the US office book

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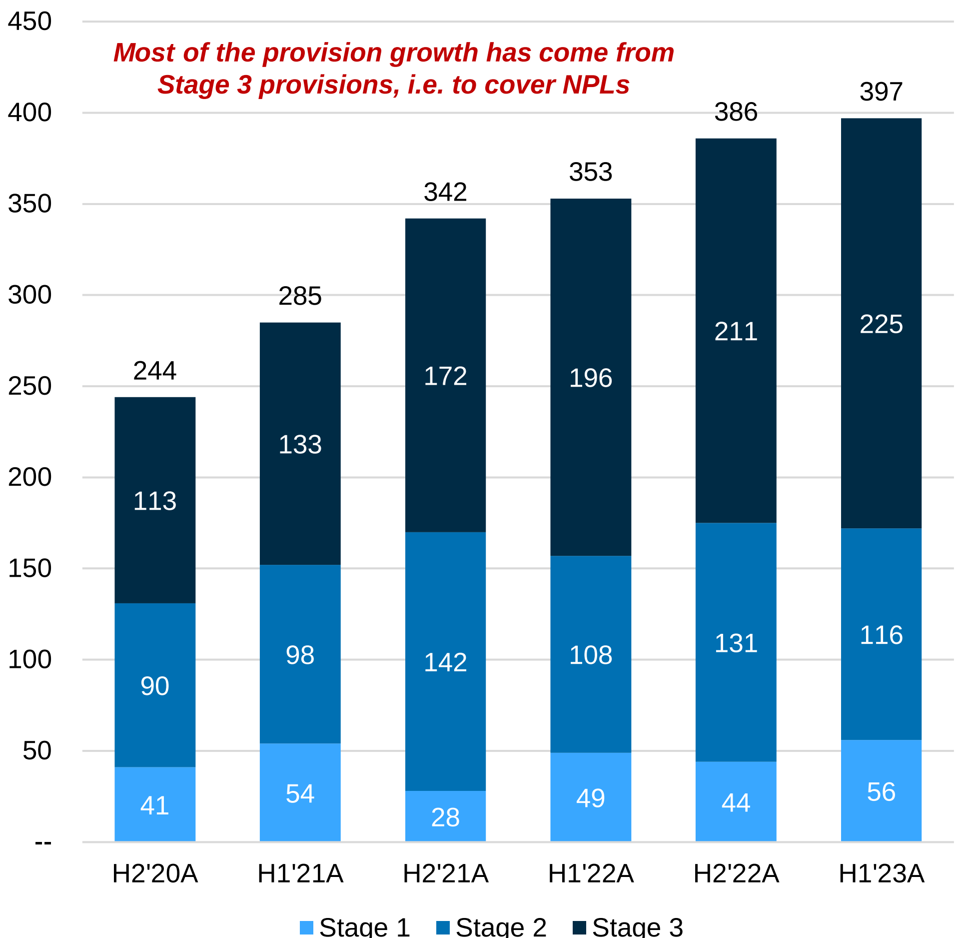
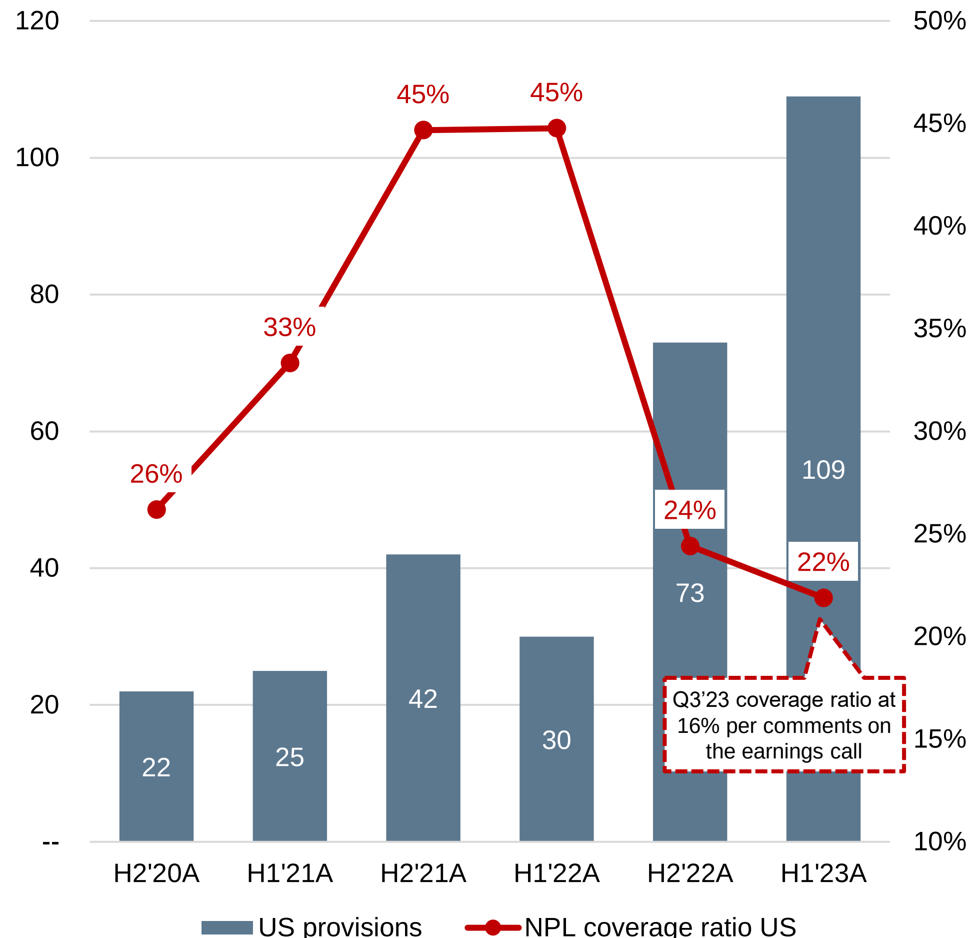
Management has been forced to acknowledge problems in US office with stage 3 leading the LLPs build-up – yet US NPL coverage ratios are low, reflecting an aggressive approach by management

Loan loss allowances by stages (in EURm)(1)



US provisions (EURm)(2) vs. US NPL coverage ratio (%)(3)



Notes: (1) Excl. off-BS exposure; (2) Accumulated impairment per disclosure report; (3) Accumulated impairment / defaulted exposure (disclosure report).

Source: Company filings, Petrus Advisers analysis

Tangible loss risks and low provisioning relative to the European banking universe

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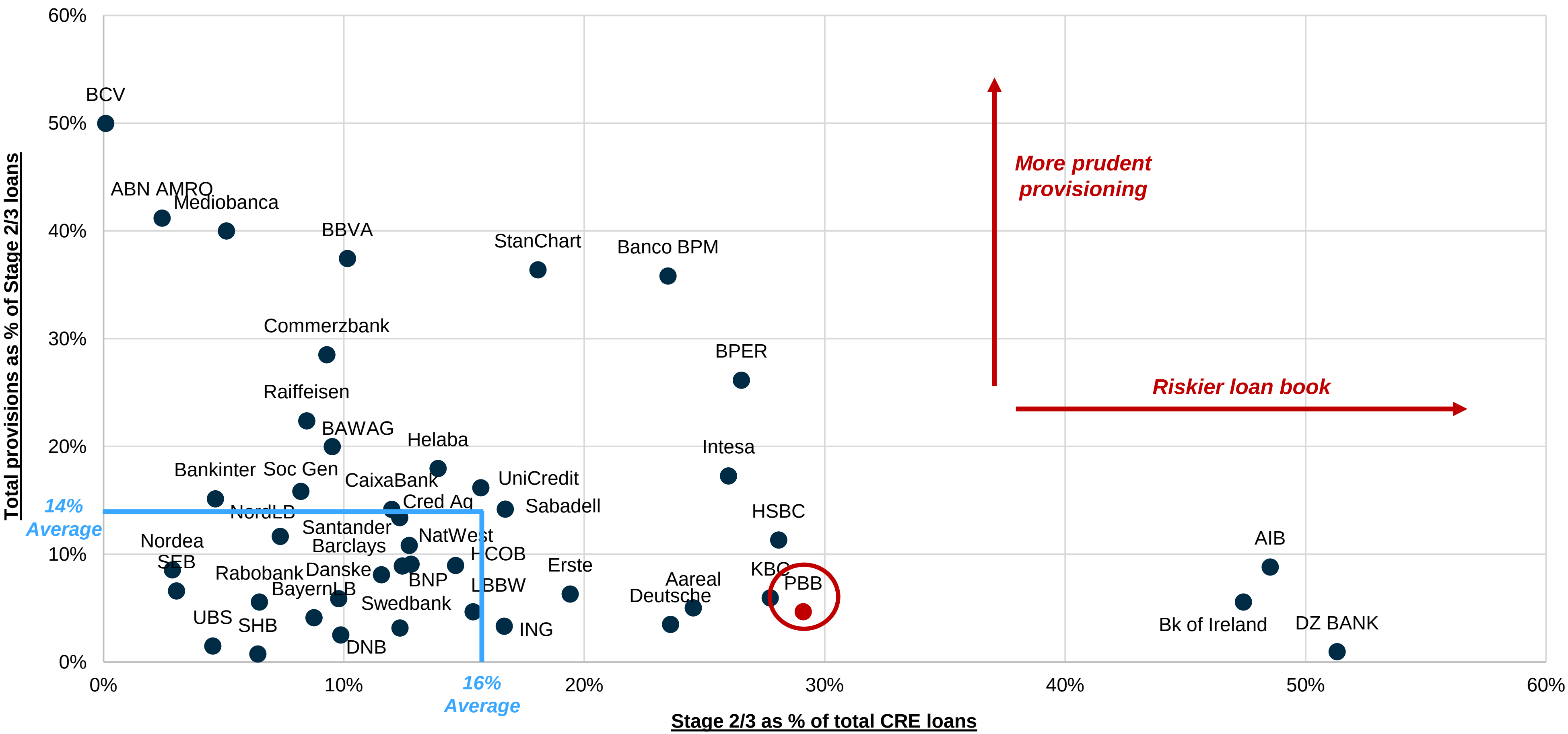
Almost 1/3 of pbb's CRE loans are classified as Stage 2 or 3 while the coverage ratio of these loans is below sector average

Stage 2/3 of total CRE loans vs. stage 2/3 coverage ratio (per H1'23, disclosure report data)

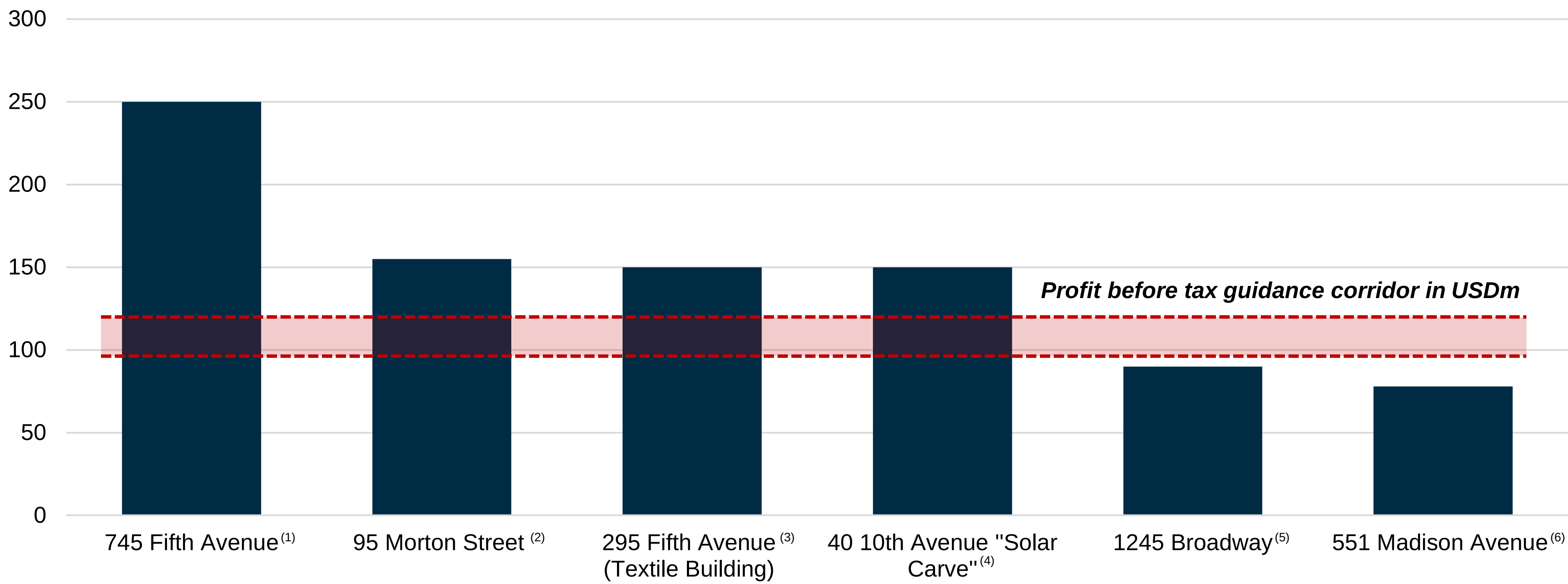


Source: Autonomous research (disclosure reports), Petrus Advisers analysis

Risk of pbb's business model: Individual loans are significantly larger than full-year profitability

Many of pbb's largest exposures were entered at the peak of the cycle

Selected pbb US NYC office loans in USDm



Date	Oct-2020	Jul-2022	Nov-2022	Aug-2020	Mar-2023	Jul-2022
Type of loans	Refinancing	Investment loan	Refurbishment loan	Refinancing	Refinancing	Refinancing
Borrower	Wilhelm von Finck family and Paramount Group	Meadow Partners	PGIM, Meadow Partners, Tribeca Investment	Aurora Capital Associates and William Gottlieb RE	GDS Development Mgmt, Corem Property Group	Lexin Capital

Notes: (1) https://www.pfandbriefbank.com/en/media/press/detail/pbb-arranges-re-financing-for-745-fifth-avenue-in-new-york.html; (2) https://therealdeal.com/new-york/2022/07/12/aby-rosen-sells-west-village-office-building-for-288m/; (3) https://www.davispolk.com/experience/meadowtribecapgim-jv-150-million-financing-295-fifth-avenue; (4) https://www.pfandbriefbank.com/en/media/press/detail/pbb-provides-usd-150mn-re-financing-for-solar-carve-tower-in-new-york.html; (5) https://www.corem.se/en/press-releases/corem-closes-a-90-millon-usd-green-loan-at-1245-broadway-4490230/; (6) https://commercialobserver.com/2022/07/deutsche-pfandbriefbank-refis-551-madison-with-78m-loan/.

Source: See detailed footnote above, company filings

Higher risk at pbb with no compensation from higher yields has resulted in a dangerous net interest margin squeeze

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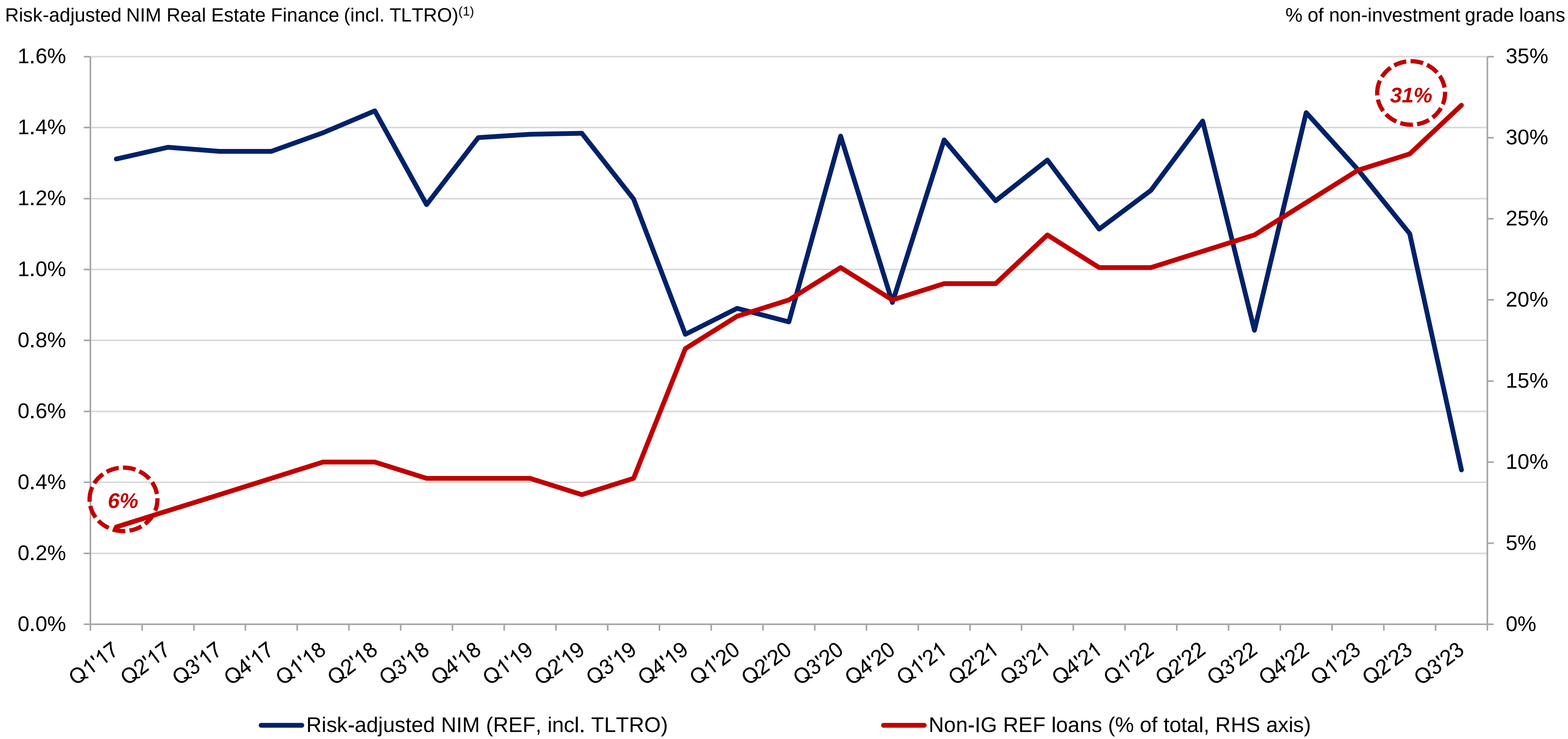
pbb's business model locks in credit spreads and matches funding with asset side; Churning the low-yielding back-book will take time and keep RoEs low

Risk-adjusted net interest margin (Real Estate Finance) vs. % of non-investment grade CRE loans[1]

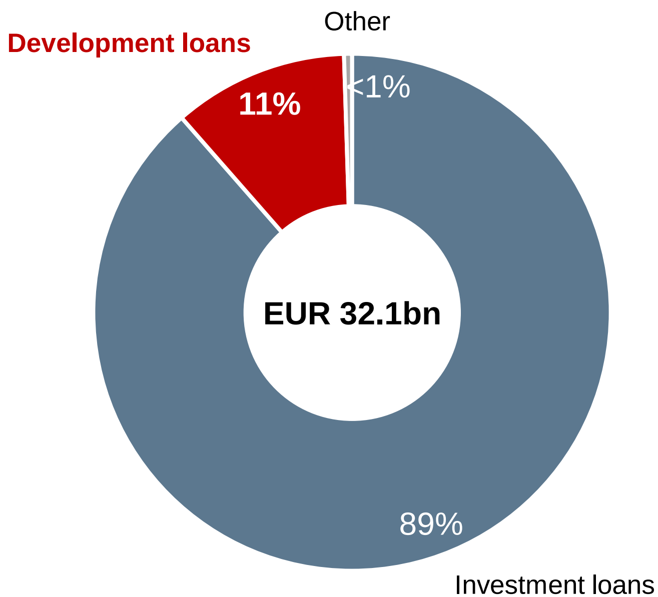


Notes: (1) Risk adjusted NIM = NIM less cost of risk.
Source: Company filings, Petrus Advisers analysis

II EUR 3.5 billion development loans with zero provisions taken

EUR 3.5bn exposure to development loans: pbb's next big misjudgement?

pbb loan book by product class (per Q3 2023)



Recent insolvencies of German developers

Insolvency date	Name	pbb relationship?
Jul-2023	Centrum-Gruppe	**Yes**(1)
Aug-2023	Development Partner	**?**
Aug-2023	Euroboden	**?**
Aug-2023	Gerch	**Yes**(2)
Nov-2023	Signa Holding	**Yes**(3)

"Now, as far as development loans in Europe are concerned, we can say up until now, the situation for the bank is that we have no written provisioning for development loans"

(Andreas Arndt Q3 earnings call)

"All in all, I'm personally not so much worried about development loans"

(Andreas Arndt Q3 earnings call)

Notes: (1) http://www.deal-magazin.com/news/45173/pbb-finanziert-Hamburger-Immobilienprojekt-fuer-ueber-100-Mio-Euro; (2) https://www.gerchgroup.com/de/presse-und-events/presse/gerchgroup-deutsche-pfandbriefbank-finanziert-entwicklung-auf-dem-deutz-areal; (3) https://en.prob.is/projects/alte-akademie-munchen.

Source: Company filings, Earnings call transcript, Petrus Advisers analysis

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III Overly active usage of management overlay

pbb management has actively used management overlay to build and use earnings buffers – but now all overlay is eaten up

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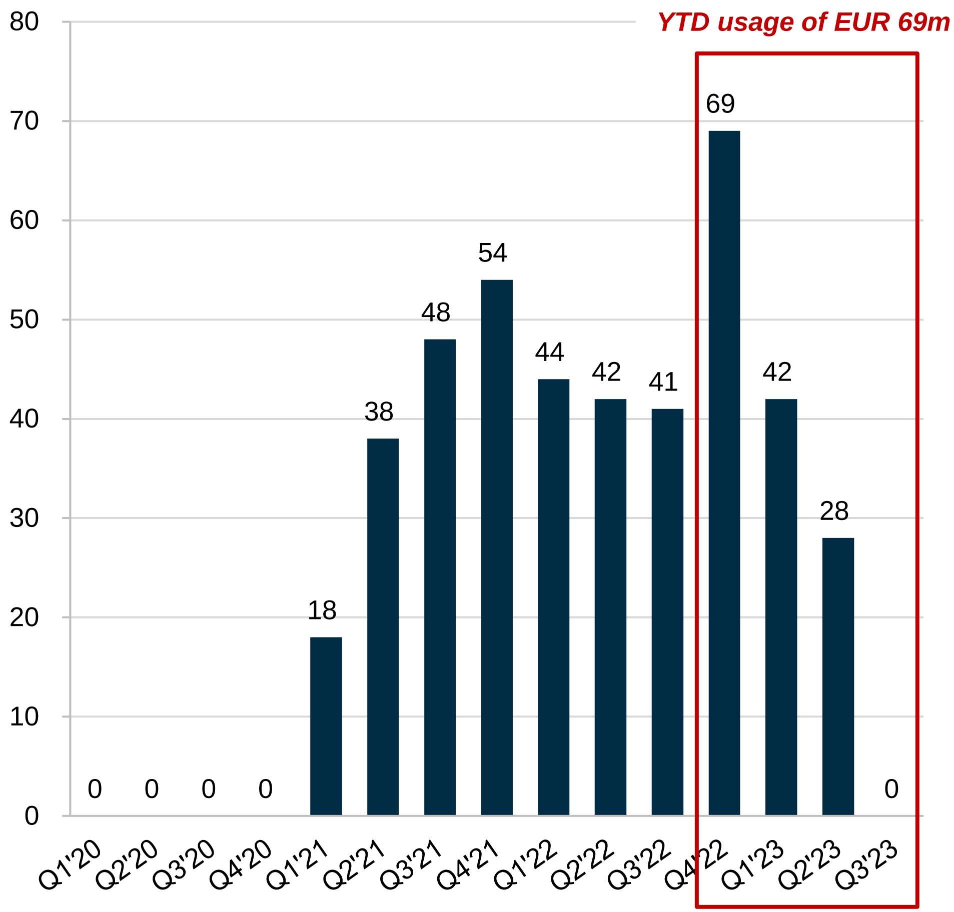
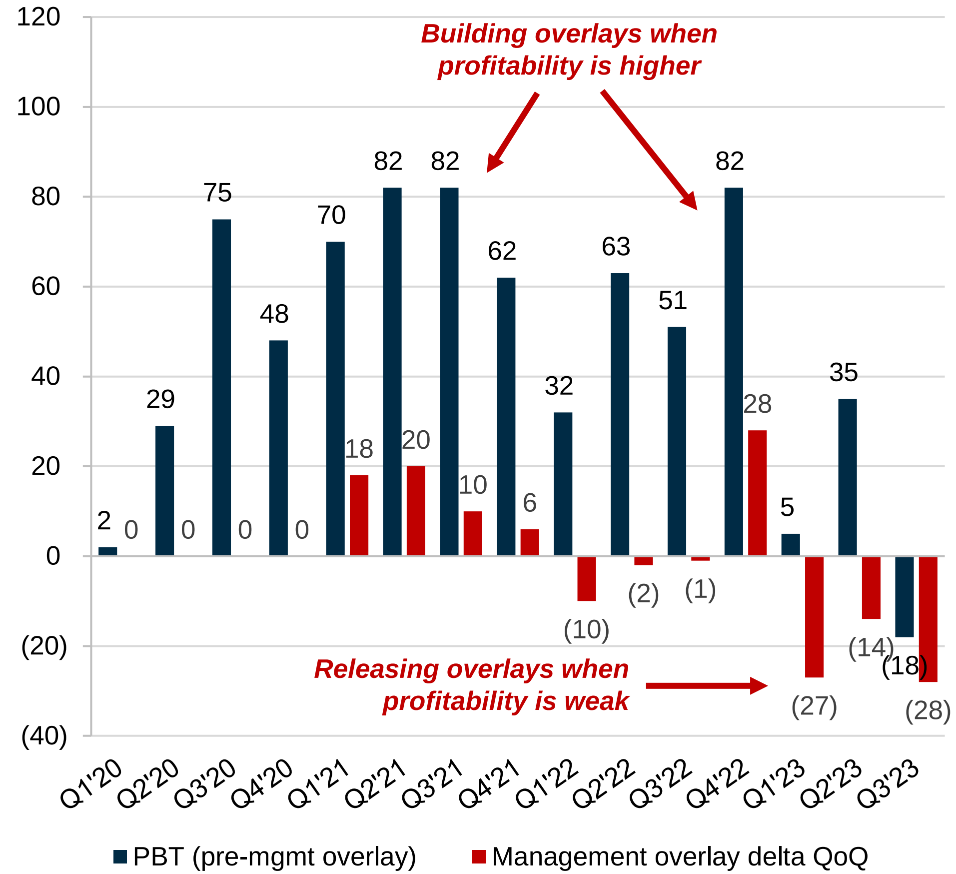
pbb management overlay balance (EURm)



Profitability vs. change in management overlay (EURm)



Source: Company filings, Petrus Advisers analysis

Facing Q4 2023 and 2024 with no management overlay reflects a very aggressive approach compared to peers

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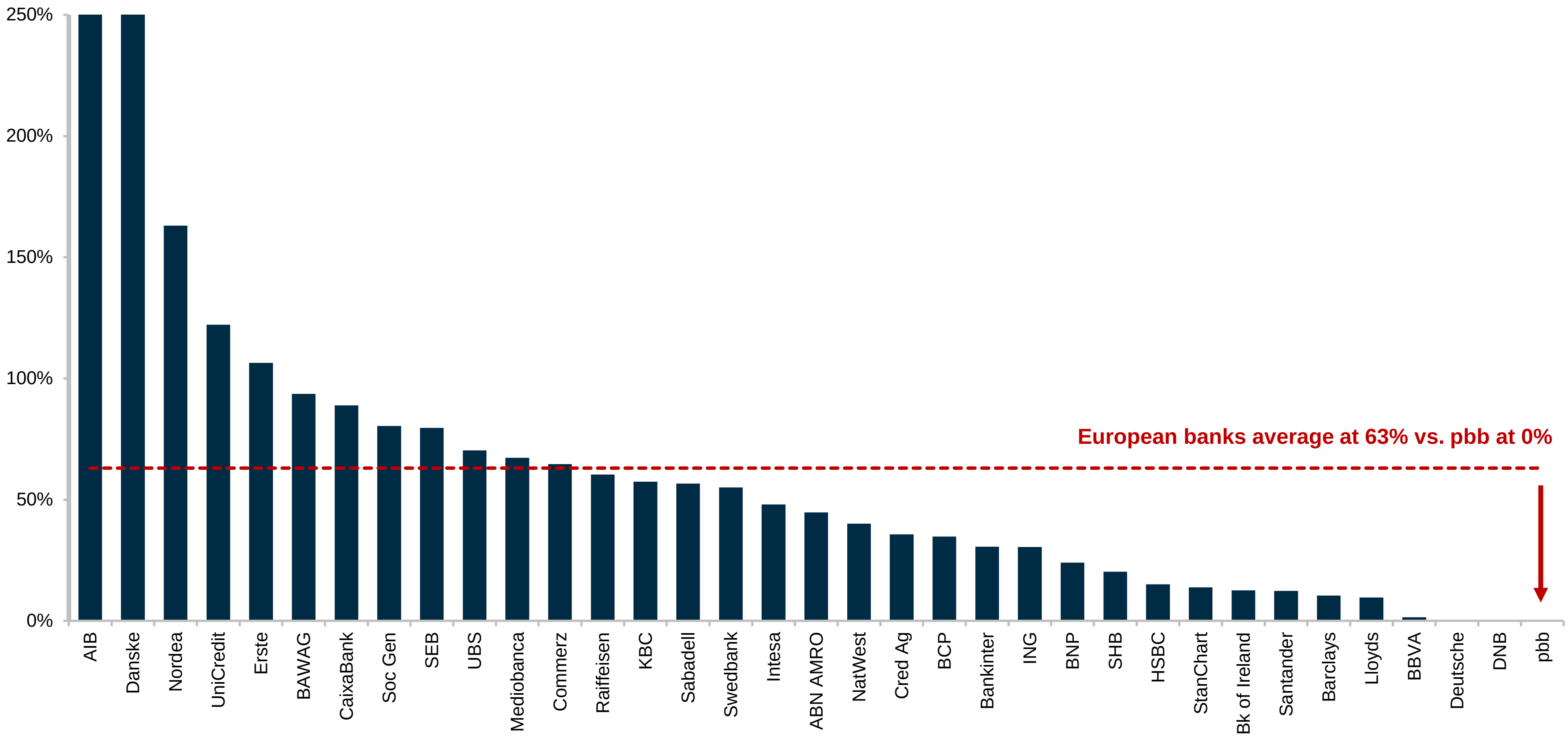
Q3 management overlay as % of run-rate cost of risk



Source: Company filings, Autonomous Research, Petrus Advisers analysis

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IV Funding squeeze

pbb's covered bond spreads have become the highest in the sector – signalling high perceived risk…

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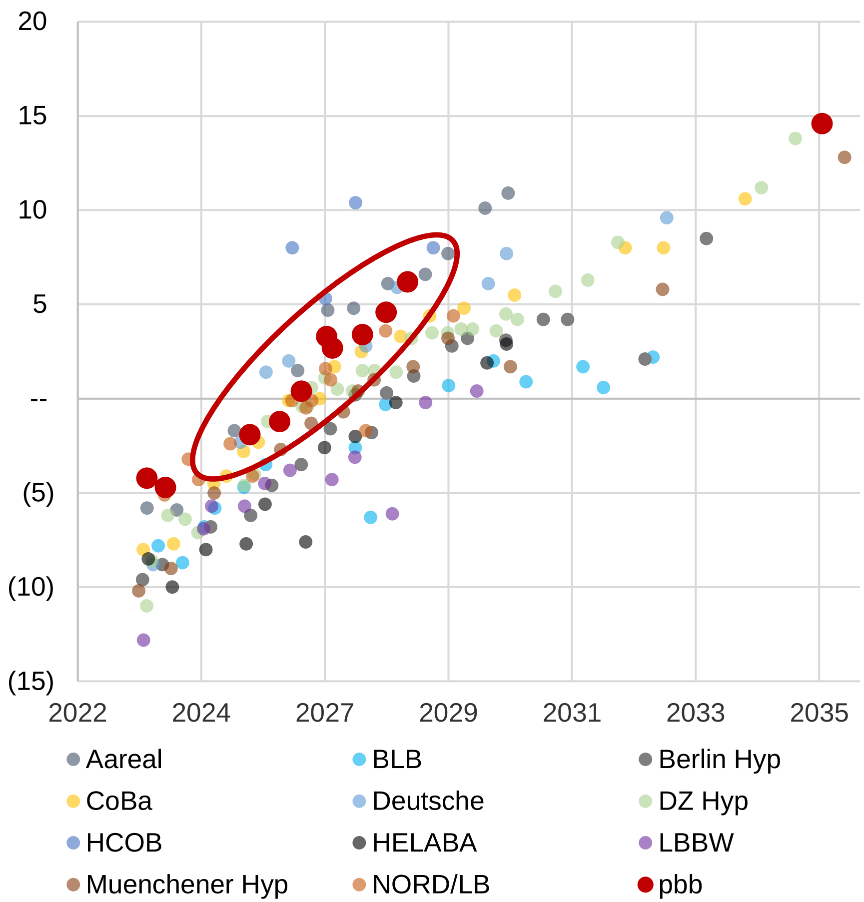
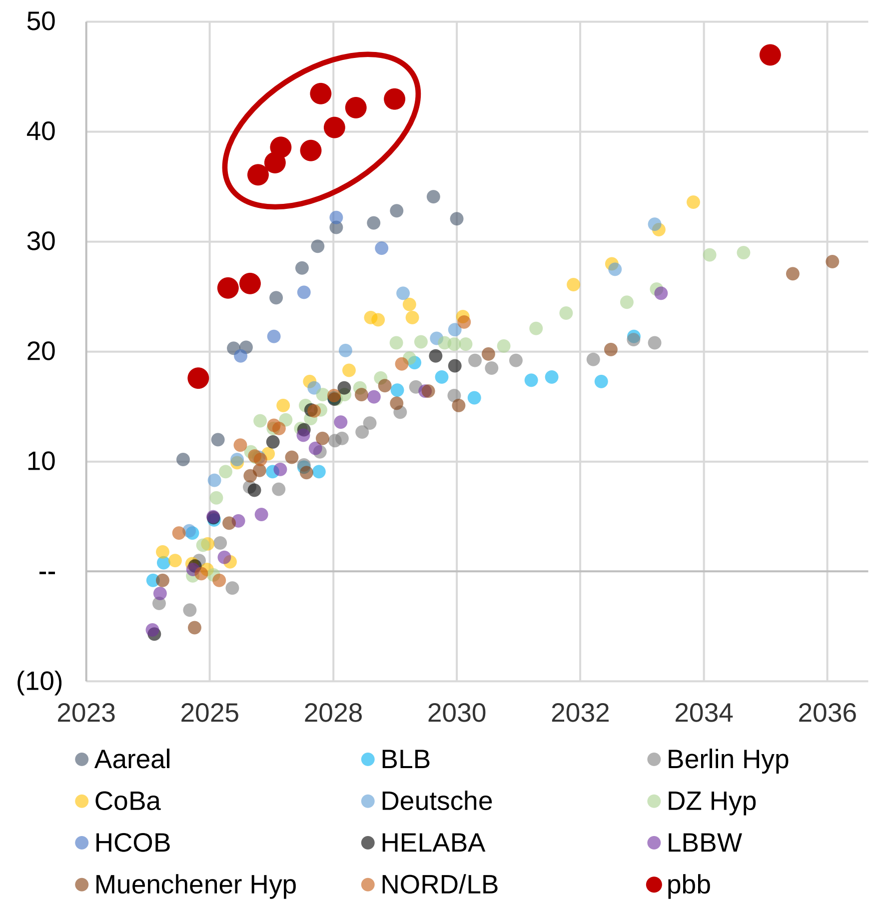
Pfandbrief spreads in bps: <u>1Y ago</u>



Pfandbrief spreads in bps: <u>now</u>



Notes: Covered bond = "Pfandbrief".

Source: Verein deutscher Pfandbriefbanken (data per 11-Dec-2023), Petrus Advisers analysis

…and reduces competitiveness in a business model based on net interest margins of some 100 to 120 bps(1)

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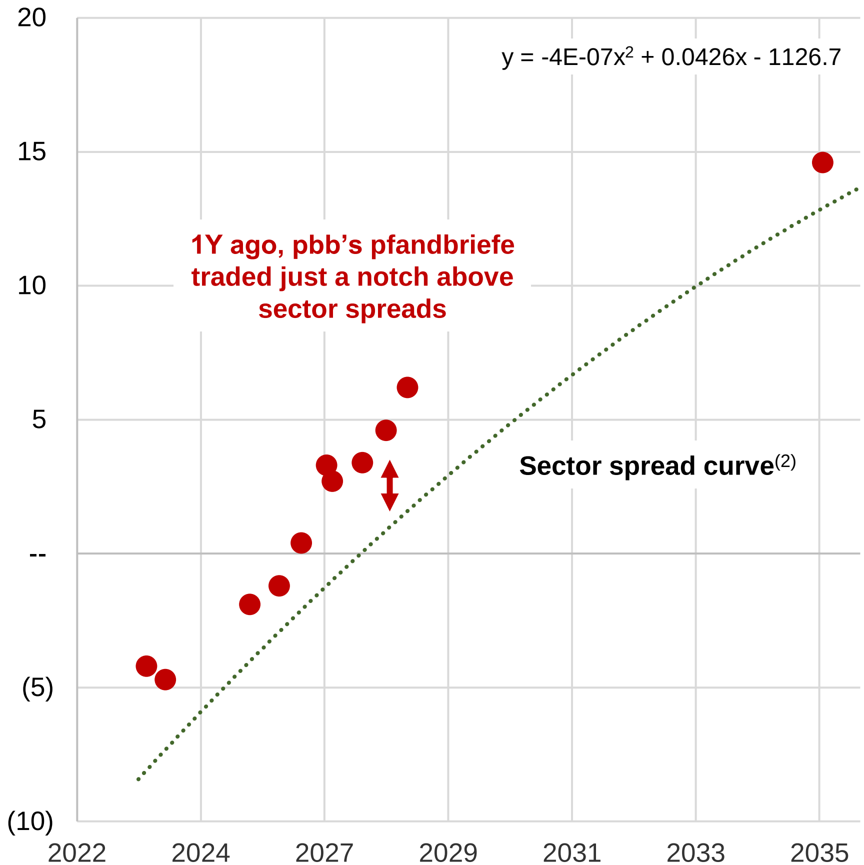
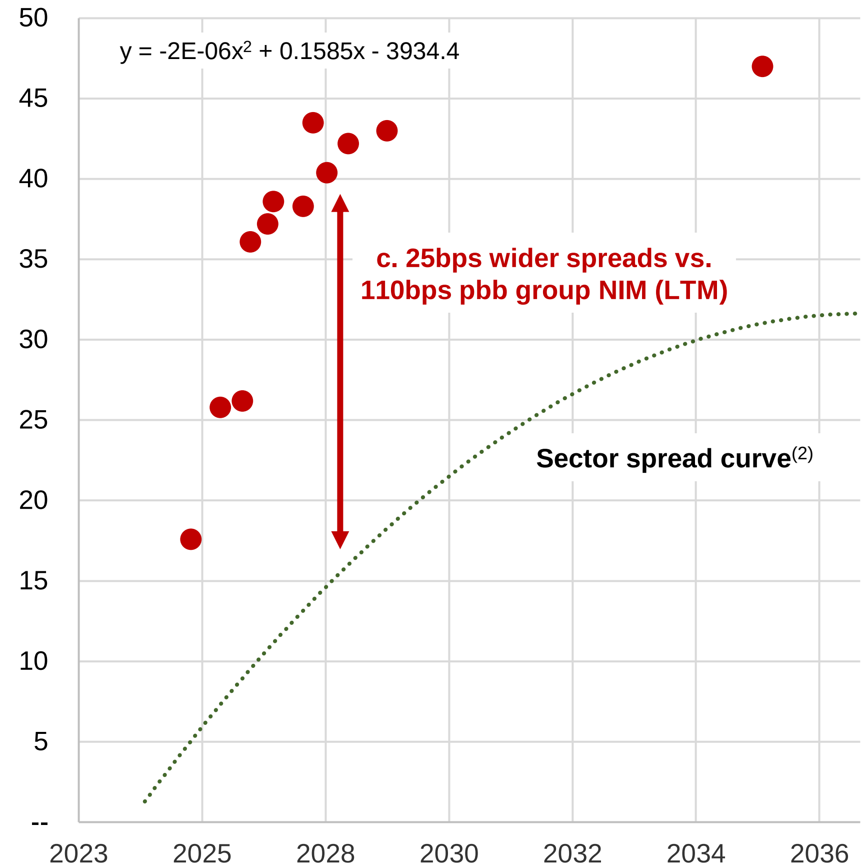
pbb vs. sector pfandbrief spreads in bps: 1Y ago



pbb vs. sector pfandbrief spreads in bps: now



Notes: (1) Refers to pbb group NIM; (2) Includes Aareal Bank, Bayern LB, Berlin Hyp, Commerzbank, Deutsche Bank, DZ Hyp, HCOB, HELABA, LBBW, Münchner Hyp, Nord/LB.
Source: Verein deutscher Pfandbriefbanken (data per 11-Dec-2023), Petrus Advisers analysis

Wholesale funding cost has increased very substantially over the past quarters

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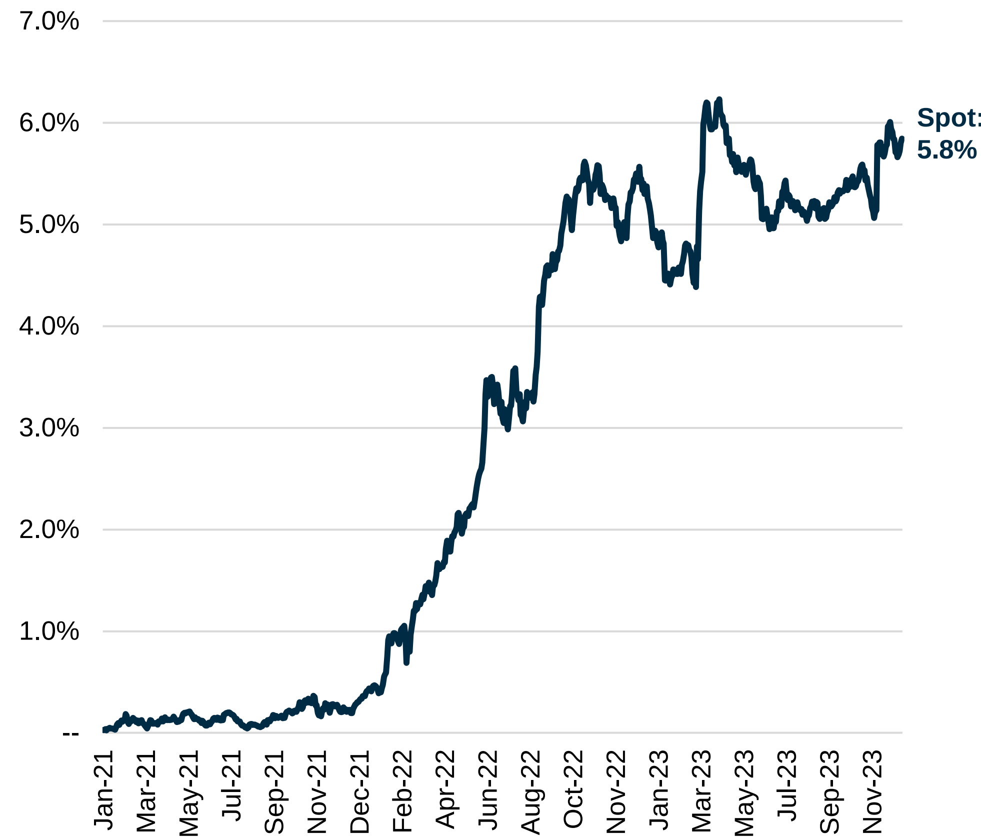
pbb AT1 yield evolution (%)[1]

pbb Senior Preferred yield evolution (%)[2]



Notes: (1) Refers to YTM of pbb AT1; (2) Refers to YTM of PBBGR 0.1 02/2026.

Source: Factset as of 11-Dec-2023, Bloomberg as of 11-Dec-2023; Petrus Advisers analysis

Relative to peers, the funding cost increase is threateningly high

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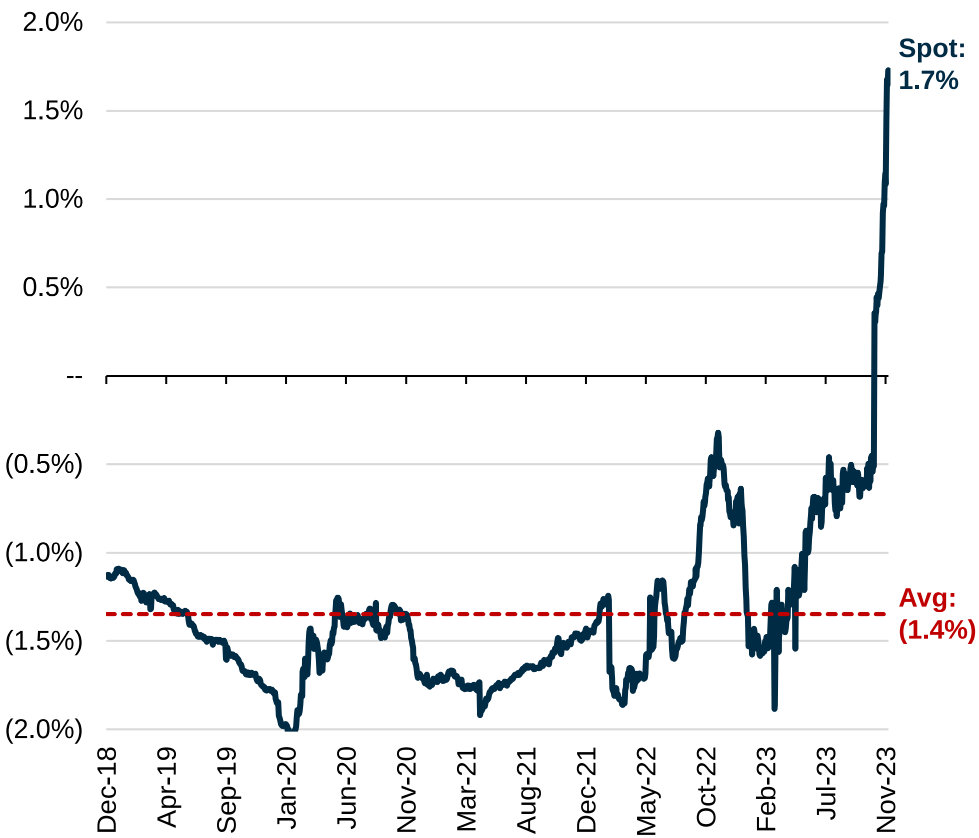
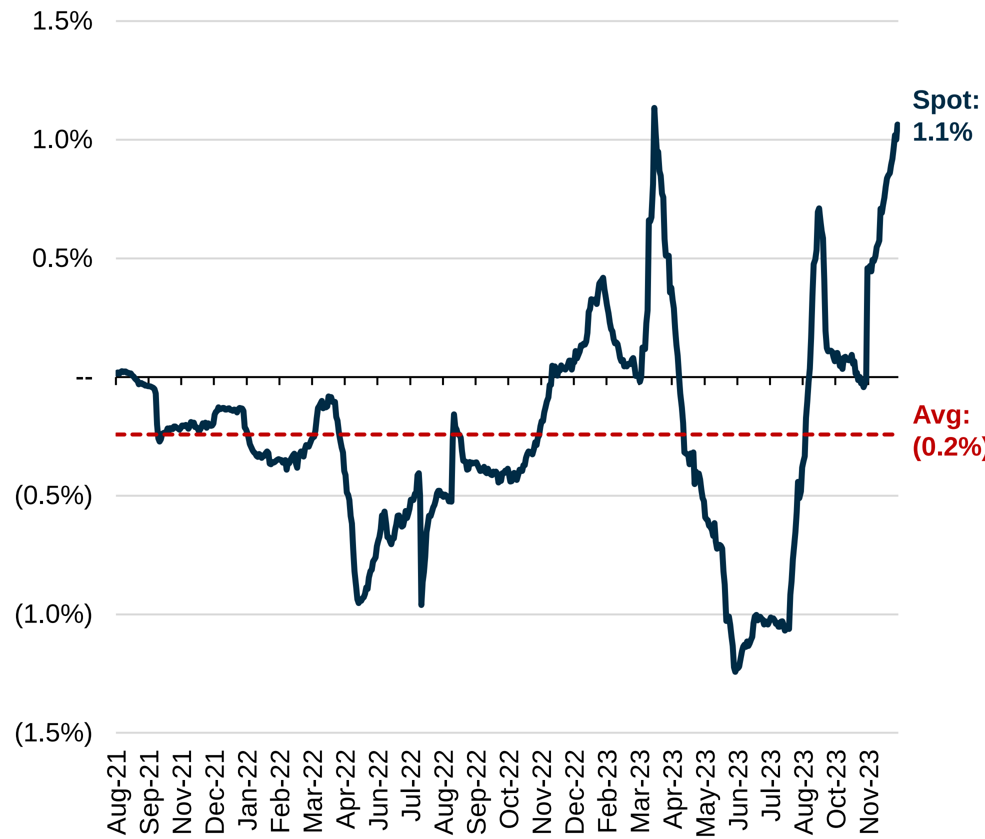
pbb's AT1 and Senior Preferred debt has historically traded at tighter spreads than Aareal – that has sharply reversed with debt investors switching to Aareal credit

AT1 Spread pbb vs. Aareal (%)[1]



Senior Preferred Spread pbb vs. Aareal (%)[2]



Notes: (1) Refers to YTM of pbb AT1 minus YTM of Aareal AT1; (2) Refers to YTM of PBBGR 0.1 02/2026 minus YTM of AARB 0.05 09/02/2026 REGS Corp.

Source: Factset as of 11-Dec-2023, Bloomberg as of 11-Dec-2023; Petrus Advisers analysis

Appendix

pbb's yield is very underwhelming vs. the European banking sector

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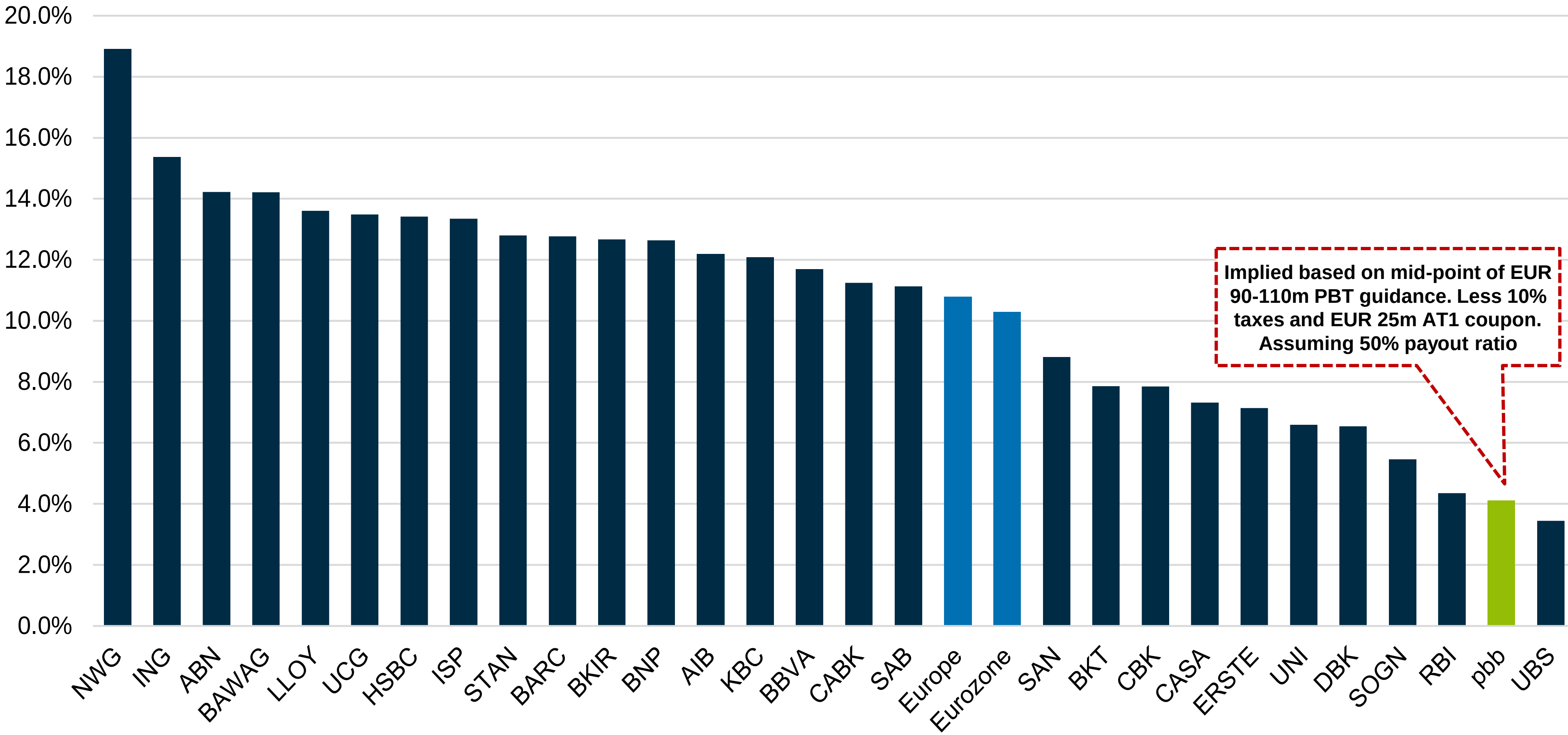
Dividend + Share buyback (2023) / market cap

Broker consensus (Factset)



Source: Factset as of 11-Dec-2023, Petrus Advisers analysis

pbb's organic capital generation is very poor

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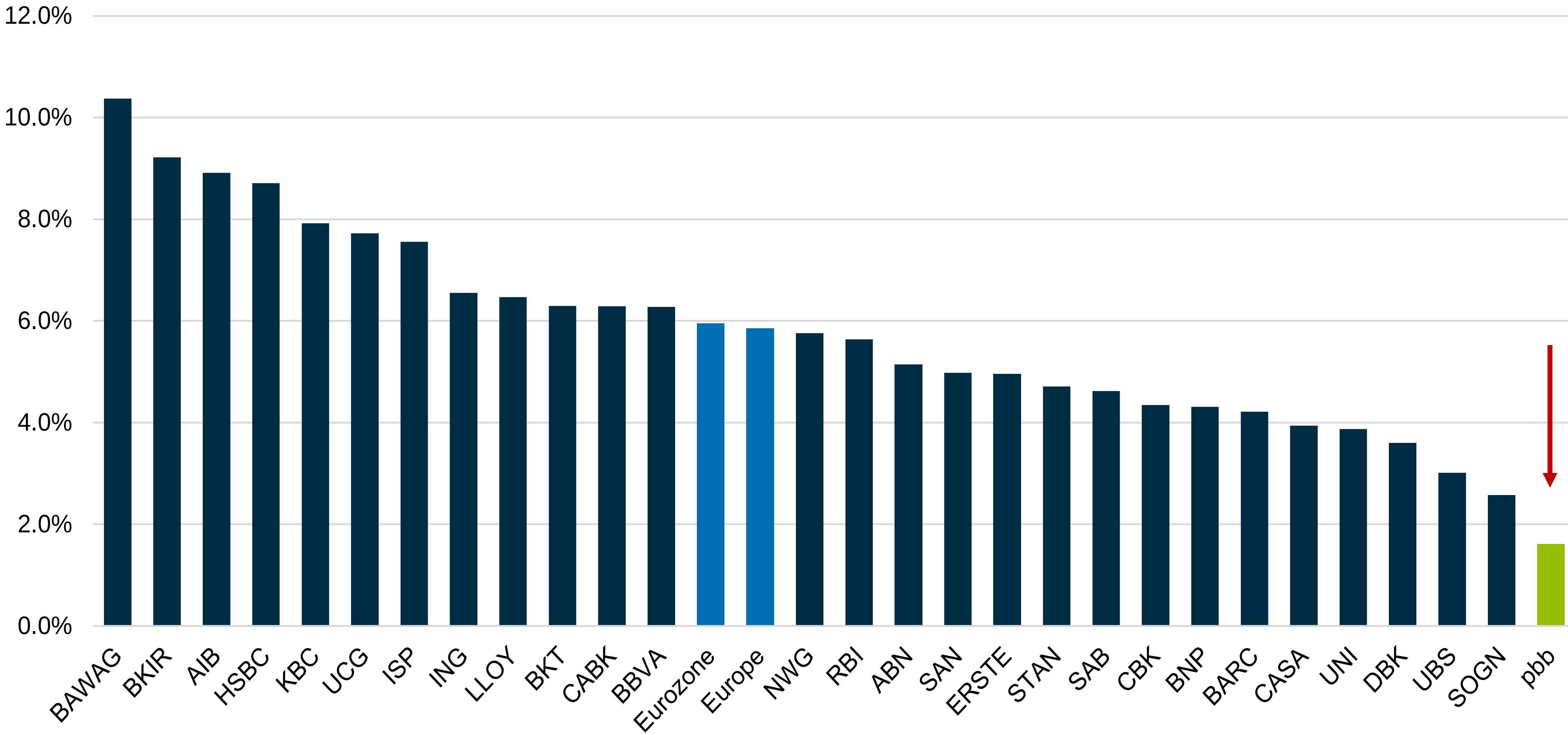
Organic capital generation: Net income (2023-2025) / Avg. RWA

Broker consensus (Factset)



Source: Factset as of 11-Dec-2023, Petrus Advisers analysis

The ECB seems to be worried about pbb's risk profile and approach to managing it

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While Aareal's performance in the 2023 stress test improved, pbb's results deteriorated substantially

		High-level individual results by range adverse scenario, FL		
Institution	Sample	Maximum CET1 ratio (FL) depletion by ranges	Minimum CET1 ratio (FL) by ranges	Minimum Tier 1 leverage ratio (FL) by ranges
Aareal Bank AG 2021	**SSM**	**> 900bps**	**8% ≤ CET1R < 11%**	**4% ≤ LR < 5%**
Aareal Bank AG 2023	**SSM**	**600 to 899 bps**	**11% ≤ CET1R < 14%**	**4% ≤ LR < 5%**
Deutsche Pfandbriefbank AG 2021	**SSM**	**300 to 599bps**	**11% ≤ CET1R < 14%**	**5% ≤ LR < 6%**
Deutsche Pfandbriefbank AG 2023	**SSM**	**600 to 899 bps**	**8% ≤ CET1R < 11%**	**4% ≤ LR < 5%**

Source: EBA, https://www.bankingsupervision.europa.eu/ecb/pub/pdf/ssm.2023_Stress_Test_Individual_bank-level_results~a9b8824c65.en.xlsx

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