Turkish Banks

The Great Normalization – Buy private banks

Rating Change

27 November 2023

Equity
Turkey
Banks

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Risk-reward is appealing

'Normalization' is probably the best word to describe the ongoing dynamics in the Turkish banking system. Regulations that have played a key role in growth dynamics, asset allocations and key interest rates over the past two years have been partially simplified. We think recovery in core spreads and an improved fee base will continue to support revenues while we see asset quality risks as manageable. With +30% sustainable RoEs we believe Turkish private banks offer good value. We are buyers of Isbank, Akbank, Garanti and Yapi, and have Underperform ratings for state peers, Halk and Vakif.

Negative real loan growth in 2024E...

We see TRY loan growth averaging slightly above 30% in 2024 (broadly in line with what annualized monthly growth caps suggest) and expect real loan growth to resume in 2025. Despite the high nominal growth rates in recent years, credit penetration and loan to deposit ratios have declined to levels not seen for more than a decade. This does not indicate a secular growth story, under current macro circumstances, but it might indicate a good starting point for the post-tightening period.

...but core revenue margins to remain intact

We believe TRY funding costs will remain elevated driven either by regulations or market dynamics. Regardless, the core spread recovery is likely to be sustained (vs. the current low base) given the level of lending rates. Despite diminishing CPI linkers contribution, normalizing trading gains and absence of various sources of activity-related fee income, we expect core revenue margins to remain resilient in 24E and expand further in 25E.

Asset quality is more resilient than you think

We agree that the current low NPL and CoR levels are unsustainable, and a new cycle is around the corner. However, we are less concerned vs. previous cycles. Turkish private banks have deliberately given away market share, increased coverage, and accumulated capital since 2018. Our stress test shows that they are well-equipped to stomach extreme scenarios without the need for capital or even reporting P&L losses. Additionally, there are several mitigating factors: 1) FX mismatch is no longer a key risk for corporates; 2) household balance sheets have strengthened given gains from FX deposits & equities vs. negative real rates on loans; and 3) the average ticket size of unsecured loans is small and a large portion is distributed to salary clients.

Positive on private banks – Buy ratings across the board

We believe Turkish private banks' RoEs should settle north of 30%. This is higher than our long-term CoE assumptions. With c65% total return in TRY terms or +25% in USD terms, we think valuations are attractive. We have Buy ratings on Akbank (upgraded from Neutral), Isbank (upgraded from Underperform), Garanti and Yapi. We reiterate our Underperform ratings on Halk and Vakif given lower profitability, limited capital buffers and above-sector PB multiples. See Exhibit 1 for a summary of our rating and PO changes.

Exhibit 1: Rating and PO summary

Buy ratings for all private banks

	Rating New	Rating Old	PO New	PO Old	Upside
AKBNK	Buy	Neutral	53.5	39.6	68%
GARAN	Buy	Buy	78.0	71.6	51%
YKBNK	Buy	Buy	28.5	25.7	60%
ISCTR	Buy	U/P	34.5	22.5	62%
HALKB	U/P	U/P	10.0	9.9	-23%
VAKBN	U/P	U/P	14.0	13.2	-6%

Source: BofA Global Research

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Exhibit 2: Key valuation metris

Private banks to deliver +35% RoE in 25E

	P/E		P/BV		ROE	
	24E	25E	24E	25E	24E	25E
AKBNK	2.4	1.5	0.63	0.45	29%	36%
GARAN	2.5	1.6	0.69	0.50	31%	35%
YKBNK	2.2	1.6	0.64	0.47	34%	35%
ISCTR	2.9	1.6	0.70	0.50	27%	36%
HALKB	4.3	2.2	0.63	0.49	16%	25%
VAKBN	4.2	2.2	0.74	0.55	20%	29%

Source: BofA Global Research

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Commonly used acronyms:

CoE: Cost of equity
CoR: Cost of risk
KKM: FX-protected deposits
NIM: Net interest margin
NPL: Non-performing loans
U/P: Underperform

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Timestamp: 27 November 2023 12:15AM EST

Key investor concerns vs. BofA views

Will efforts to unwind the KKM scheme be costly for the banks?

Yes, but it should be manageable. For now, the focus seems to be on converting TRY KKM deposits to standard TRY deposits as the client base is more receptive to high interest rate offerings. The good news is KKM outflows have accelerated without migrating to the FX side. While the current pace of outflows is encouraging, the overall unwinding process is likely to take time. We see this as a margin issue for the banks. TRY funding costs will remain elevated, driven either by regulations or market dynamics. Considering the level of loan rates and easing burden from long-term fixed rate security purchases, we still see substantial NII growth ahead. We also note a large part of the large fee uplift in 2023 was structural, hence we think fees/assets have settled at a new normal supporting the core revenue margins.

NPLs are low and macro is slowing. Should we be worried about asset quality?

A normalization is on the cards, but the private banks are fine. We believe the current level of low NPL is unsustainable, and a new cycle is around the corner (likely in 2H24 given the aging impact). We see bigger risks for unsecured and commercial loans. Yet, the hit to the banks should be smaller than most investors think: **1)** Banks' resilience *(i.e. Texas ratios)* have improved significantly since 2018 given rising provisions and BV growth. **2)** FX mismatch is no longer a key risk for corporates. **3)** Household balance sheets have ironically strengthened given gains from FX deposits and equities vs. negative real rates on loans. **4)** A sharp increase in unemployment is unlikely. **5)** Average ticket size on unsecured loans is small and a large portion is distributed to clients with salary accounts. As we show in our stress test, private banks are well-equipped to stomach extreme stress without needing capital or even reporting P&L losses.

What's a realistic CoE? Can Turkish banks deliver RoEs above the CoE?

It's complicated. We generally use 10-year rates as the risk-free rate and add 5-6% equity risk premium to calculate the CoE in emerging markets. This would currently translate into a c.32-34% CoE for Turkish banks. However, Türkiye's unique macro case requires a more detailed approach. We argue that the discount rate for the initial year's estimates should be higher given current deposit rates and the macro/regulatory uncertainty. By contrast, longer-term discount rates should be materially lower given easing inflation and the rate outlook. We use a separate CoE for each year, starting at 40% in 2024-25, then declining progressively to 26% by 2027. Private banks' B/S dynamics and normalizing macro allow them to deliver RoEs north of CoE in the long-term, according to our estimates.

Should we wait for further TRY weakness before investing in banks' equities?

We see the risk-reward as appealing for private banks. We think this is a two-pronged question. On the operational side, as proven many times over the past decade, Turkish banks have strength to cope with large currency swings. Thanks to past experiences they now operate with substantially lower FX exposure, as well as sizeable hedges and large capital buffers. Additionally, existing / potential forbearance measures in times of stress mitigate the immediate impact, giving banks time to optimize their B/S.

As for the valuation, we think the bare minimum upside in equities to attract an international investor should be around 50% in local currency terms. This translates into +12% return in USD terms, according to our FX forecasts. We see YE24 USDTRY at 40. Our FX forecasts are mainly in line with the forwards and imply 5-10% real appreciation in TRY next year given the tight monetary policy. With +65% total return in TRY terms (including dividends) or +25% in USD terms, we think private bank valuations are attractive now.

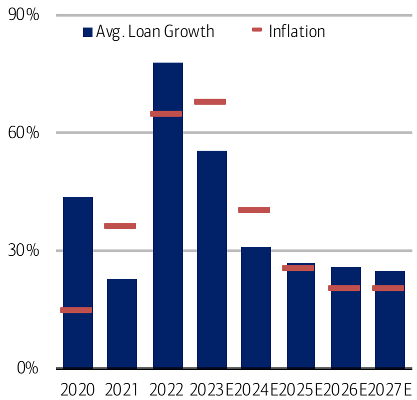
Executive summary

Negative real loan growth in 2024E

We see TRY loan growth averaging slightly above 30% in 2024 (broadly in line with what annualized monthly growth caps suggest) and expect real loan growth to resume in 2025. We also think FX loans will continue deleveraging in 2024 but we expect growth to revive in 2025. Despite the high nominal growth rates in recent years, credit penetration and loan to deposit levels have declined to levels not seen for more than a decade. While this is not an indication of a secular growth story, under current macro circumstances it could potentially indicate a good starting point for the post-tightening period.

Exhibit 3: TRY loan growth outlook and comparison with CPI

We see a revival of real lending growth in 2025



Source: BofA Global Research

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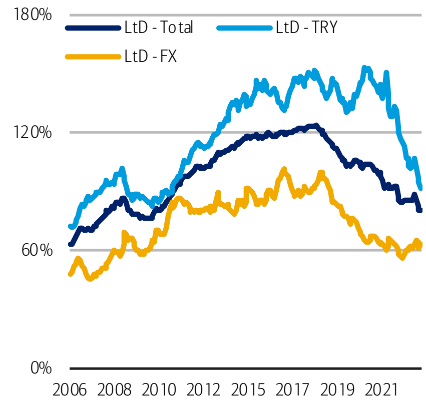
Exhibit 4: Historical progression of Loan to deposit ratios

Back to 2012 levels



Source: BofA Global Research

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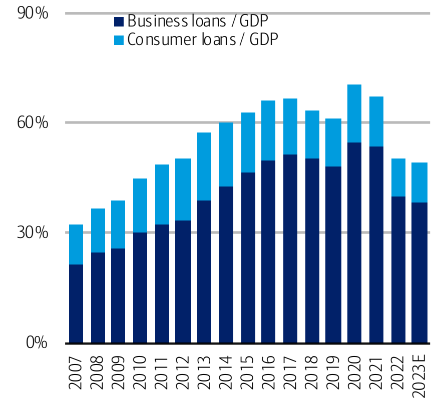
Exhibit 5: Loan penetration progression

Consumer loan penetration at 2007, business loan penetration at 2013 level



Source: BofA Global Research

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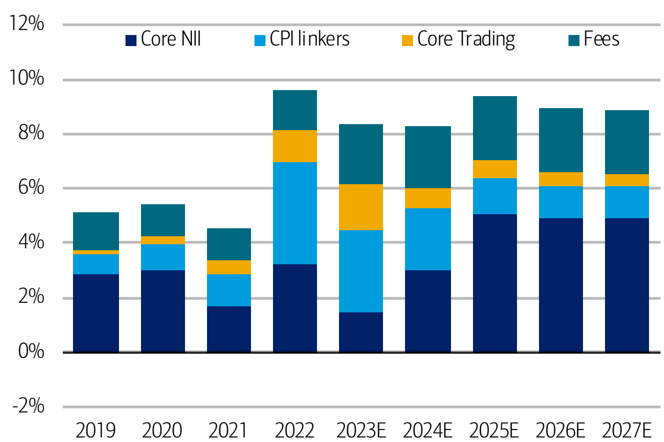
Core revenue margins to remain resilient

We believe TRY funding costs will remain elevated, driven either by regulations or market dynamics. Regardless, the core spread recovery is likely to be sustained (vs. the current low base) given current lending rates. Despite diminishing CPI linker contribution, normalizing trading gains and the absence of various sources of activity-related fee income, we expect core revenue margins to remain resilient in 2024E and expand further in 2025E, with healthy core spreads, an easing regulatory burden and real loan growth.

Exhibit 6: Private banks - breakdown and outlook of core revenue margins

Flattish 2024 to be followed by a recovery



Source: BofA Global Research estimates

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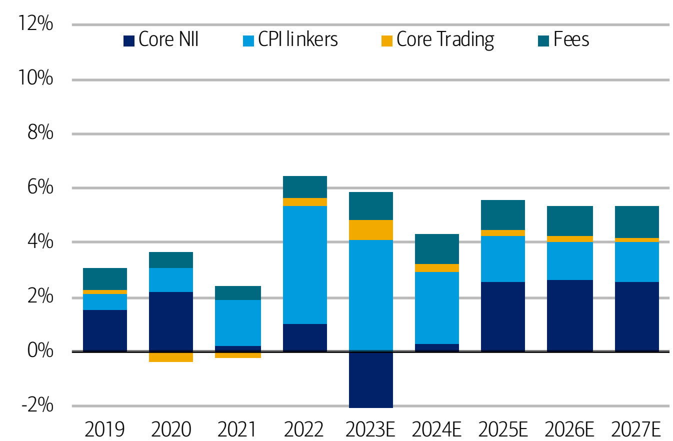
Exhibit 7: State banks - breakdown and outlook of core revenue margins

Likely to remain below private bank levels



Source: BofA Global Research estimates

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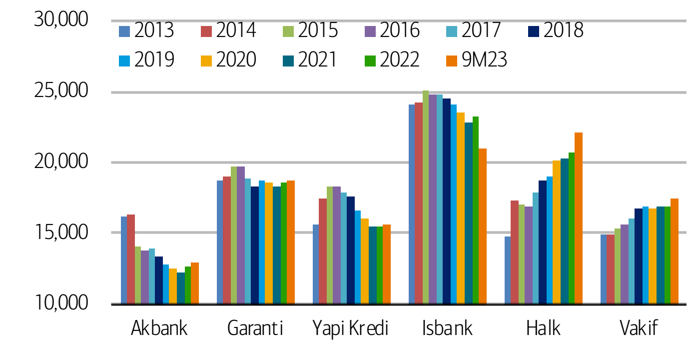
Efficiency remains a priority – Isbank to close the gap

Generally, we assume average employee costs rise broadly in line with average CPI levels (c60% in 2024). The increase in non-HR costs has been relatively higher over the past two years. We think this trend will remain intact. We see an average 65% rise in non-HR costs in 2024. Isbank's branch network optimization has accelerated from 2020 and the number of employees has declined significantly in 2023 thanks mostly to retirement schemes. We think this gives it a relative advantage when it comes to YoY cost progression in 2024-25. We also note that Garanti has been rather strict on non-HR costs over the past year.

Exhibit 8: FTEs progression per bank

Isbank's FTEs down materially in 2023



Source: Company financials, Turkish Banks Association, BofA Global Research

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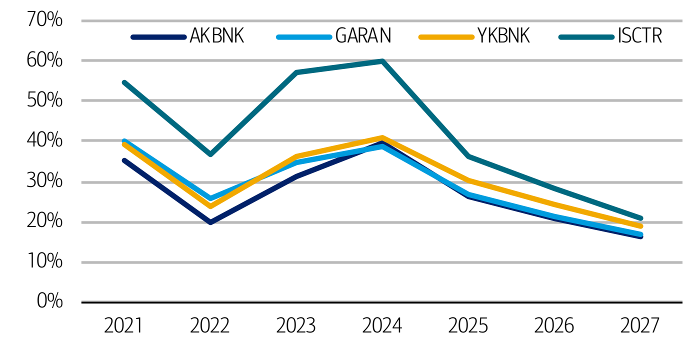
Exhibit 9: Costs / Core Revenue outlook per bank

Isbank to close the gap with peers and Garanti's metrics improving



Source: BofA Global Research

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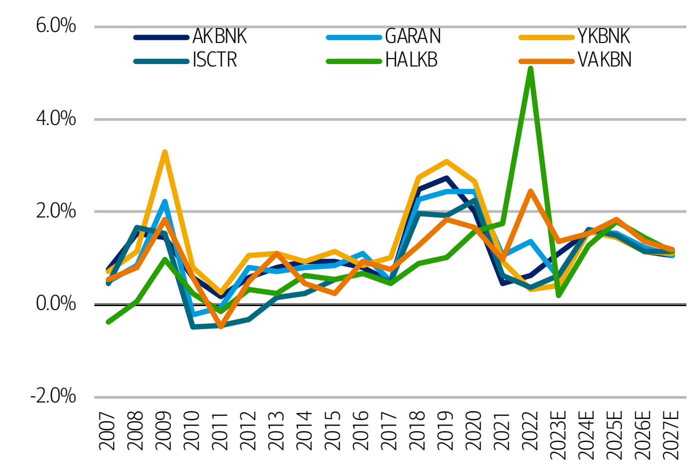
Well-prepared for the approaching asset quality cycle

High inflation has worked in favor of asset quality thanks to deeply negative real interest rates over the past year, ever-increasing asset prices, and sustained volume growth. Accordingly NPL ratios have reached multi-decade lows. This trend is soon to reverse, however, given the rising interest rate spillover to borrowers' refinancing ability and slowing lending growth. While we see particular risks for unsecured lending and SMEs, we are not overly pessimistic given some mitigating factors and the strength that the banks have built up since 2018. As we show in our stress test, we think private banks are well-equipped to stomach extreme stress scenarios without needing capital or even reporting P&L losses.

Exhibit 10: Cost of risk progression per bank

We see the peak at a lower level vs. previous cycles



Source: BofA Global Research

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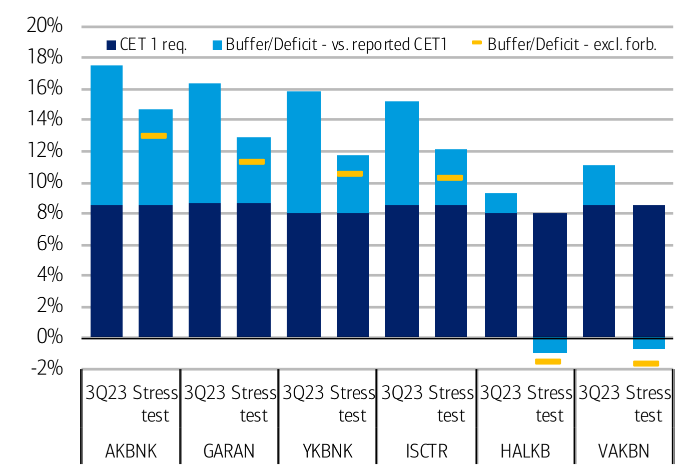
Exhibit 11: CET1 buffers before and after stress test (Static B/S)

Private banks are comfortable



Source: BofA Global Research

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Valuation - RoE vs. CoE discussion

CoE assumptions require a different approach

For emerging market stocks, we generally use the 10-year local sovereign rate as the risk-free rate and add 5-6% equity risk premium to calculate the Cost of Equity, However, inflation in Türkiye is set to normalize, so rates (hence RoEs) are likely to ease from 2023E levels over the medium/long term. We therefore believe longer-term valuation estimates should reflect this transition. As such, we use a separate cost of equity for each year of our forecast period:

- We use 30% as the risk-free rate for 2024 and 2025. We reduce this to 25% in 2026 and 20% in 2027.
- Given current interest rates on deposits (>40%) and uncertainties around the regulatory and macro framework, we add an additional risk premium for 2024-26. In the grand scheme of things, we think the discount rate for the initial valuation year should be close to 40% in this cluster.
- We gradually reduce the additional risk premium after 2025 and remove it completely in 2027. Our longer-term CoE stands at 26%.

Exhibit 12: Cost of equity assumptions
Cost of equity gradually declines

	2024E	2025E	2026E	2027E
RfR assumption	30%	30%	25%	20%
Equity risk premium	6%	6%	6%	6%
Additional risk premium	4%	4%	2%	0%
Beta	1.0	1.0	1.0	1.0
CoE	40%	40%	33%	26%

Source: BofA Global Research

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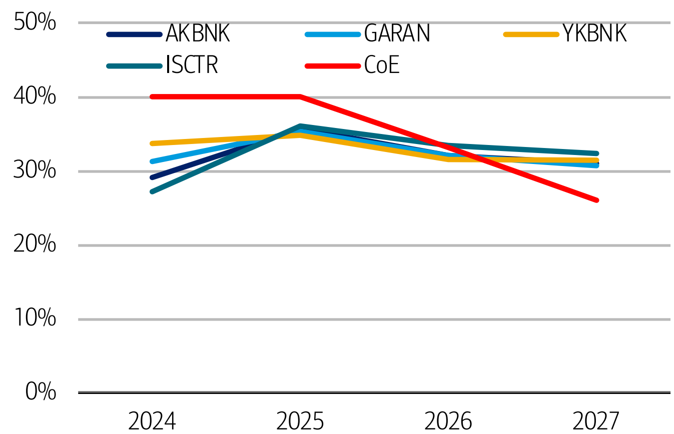
Sustainable long-term RoE is only half of the question

We think the challenge is not estimating Turkish banks' long-term sustainable RoE levels. Indeed, that is only one part of the equation. Long-term RoE is a function of inflation / the interest rate environment and the banks' ability to price and manage risk. Turkish banks have proved their ability to cope with macro volatility numerous times over the past two decades. As we discuss in detail in this report, we think Turkish private banks' B/S dynamics could lead them to deliver RoEs north of CoE in the long-term.

Exhibit 13: Private banks – RoE vs. CoE
RoEs to exceed CoE in 2025 and beyond



Source: BofA Global Research

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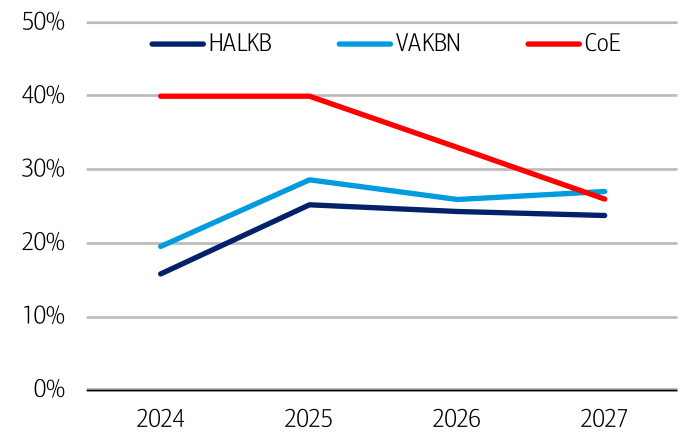
Exhibit 14: State banks – RoE vs. CoE
RoEs to match CoE by 2027



Source: BofA Global Research

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DDM/Gordon Growth framework for setting price objectives

We value Turkish banks using a dividend discount model and a Gordon Growth model, assigning equal weight to each method. Key parameters are as follows:

- In Gordon Growth methodology we use 2025-27 average RoE and CoE assumptions and 2025E BV to calculate the YE2025 value. We then discount it to 12-mo ahead using our 24 CoE assumptions.
- In our dividend discount framework, we assume 15% payout in 2023-24, 20% in 2025 and 25% thereafter for the private banks. For state banks, we assume 10% payout in 2026-27. In this approach, the lion's share of the valuation comes from the terminal value.
- For both methodologies we use a 15% terminal growth rate, which lower than our long-term risk-free rate assumption.
- Given the high inflation and interest rate environment, we think 12-month upside south of 35% justifies an Underperform rating. Note that we see c.33% currency depreciation in YE24E, implying practically no upside in hard currency terms.

We see an average of 65% total return for Buy-rated stocks

Our price objectives imply an average target PE of c.2.5x and PB of 0.77x on 2025 estimates for Buy-rated stocks. Total 12-month return (including dividends) expectation exceeds average at 65% in TRY terms, highest for Akbank at 74%.

Exhibit 15: Turkish Banks – Valuation summary

Implied target 25E PE at 2.5x for Buy-rated banks

	PO	Upside to PO	Rating	P/E				EPS Chg.				P/BV				ROE				Dividend Yield				Target 2025E	
				23E	24E	25E	26E	23E	24E	25E	26E	23E	24E	25E	26E	23E	24E	25E	26E	23E	24E	25E	26E	*P/E*	*P/BV*
AKBNK	53.5	68%	Buy	2.5	2.4	1.5	1.2	11%	2%	65%	21%	0.81	0.63	0.45	0.35	37%	29%	36%	32%	6.0%	6.2%	13.5%	20.4%	*2.5*	*0.76*
GARAN	78.0	51%	Buy	2.7	2.5	1.6	1.4	40%	6%	52%	21%	0.90	0.69	0.50	0.38	42%	31%	35%	32%	5.7%	6.0%	12.2%	18.5%	*2.5*	*0.76*
YKBNK	28.5	60%	Buy	2.4	2.2	1.6	1.3	18%	11%	39%	20%	0.86	0.64	0.47	0.36	41%	34%	35%	32%	6.2%	9.2%	12.8%	19.2%	*2.5*	*0.76*
ISCTR	34.5	62%	Buy	3.3	2.9	1.6	1.3	6%	13%	78%	25%	0.89	0.70	0.50	0.38	30%	27%	36%	33%	4.6%	5.2%	12.3%	19.2%	*2.6*	*0.82*
HALKB	10.0	-23%	U/P	8.1	4.3	2.2	1.8	-22%	88%	97%	24%	0.74	0.63	0.49	0.39	11%	16%	25%	24%	0.0%	0.0%	0.0%	5.6%	*1.7*	*0.38*
VAKBN	14.0	-6%	U/P	5.7	4.2	2.2	1.9	9%	36%	88%	19%	0.90	0.74	0.55	0.43	19%	20%	29%	26%	0.0%	0.0%	0.0%	5.4%	*2.1*	*0.52*
				3.7	2.9	1.7	1.4	14%	20%	67%	22%	0.9	0.7	0.5	0.4	32%	27%	33%	31%	4%	5%	10%	16%		

Source: BofA Global Research

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Stock picks and rating changes

Isbank – Buy (double-upgraded from U/P)

Consistently superior EPS growth ahead

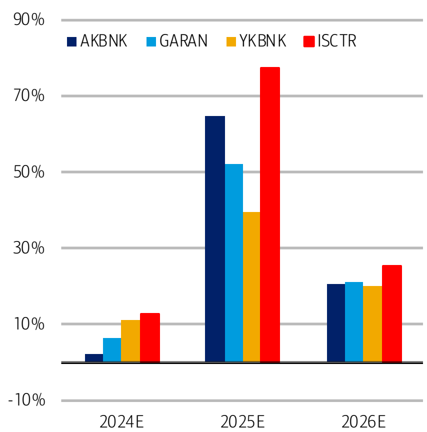
We expect Isbank to consistently deliver the highest EPS growth among private banks in 2024-26E. The key pillars of this superior performance should be: improving CPI linker income, sustained fee momentum and forthcoming efficiency gains. Additionally, we expect the contribution from its subsidiaries to remain intact. For the time being, we are not incorporating any financial gains or synergies regarding the de-merger of subsidiaries, which could potentially indicate further upside.

Isbank takes the 12-mo ahead CPI expectation and the actual CPI print into consideration when calculating linkers income, whereas peers rely on the October CPI print. Isbank's methodology prevents large swings in yields. However, linkers income remained below peer levels in 2022-23E. This trend is set to reverse next year as we expect Isbank to increase CPI linker income YoY in 2024, unlike peers.

We think the bank's ongoing focus on payment systems will continue to support fee growth over the coming years. In terms of efficiency, branch network optimization accelerated from 2020 and the number of employees has declined significantly in 2023, thanks mostly to retirement schemes. We think this gives it a relative advantage when it comes to YoY cost progression in 2024-25.

Isbank's 2024-26E RoE averages 32% with a 2024E PB of 0.7x. Our 12-mo PO of TRY34.5 implies 66% total return. We move our income rating from 8 (same/lower) to 7 (same/higher).

Exhibit 16: Private banks' EPS growth
Consistent above-sector growth at Isbank



Source: BofA Global Research

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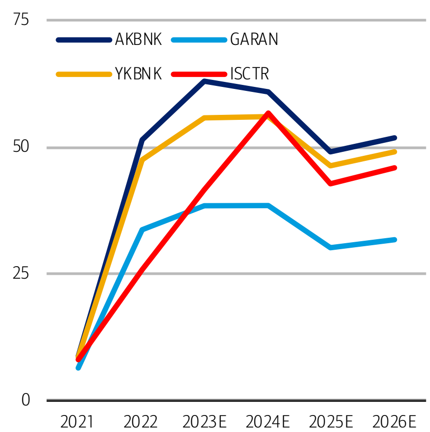
Exhibit 17: CPI linker income (TRYbn)
Higher CPI linker income in 2024E, unlike peers



Source: BofA Global Research

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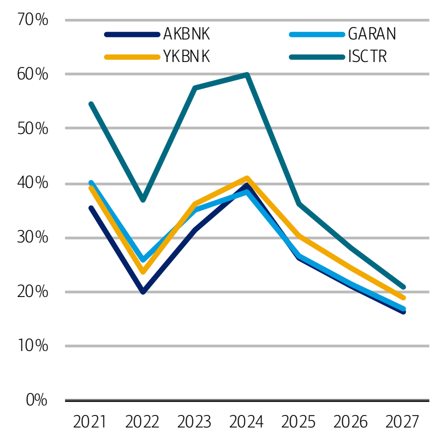
Exhibit 18: Costs/core revenues
Isbank to close the gap with peers



Source: BofA Global Research

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Akbank – Buy (upgraded from Neutral)

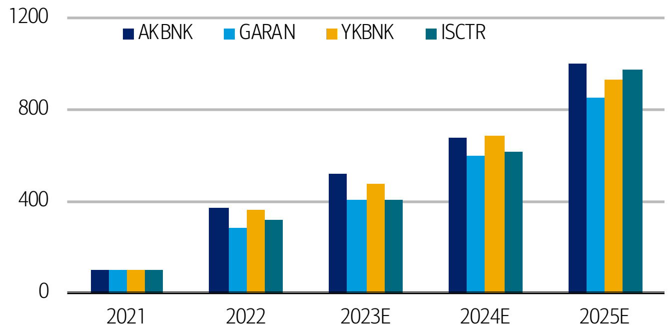
Another strength added to investment case: top-line outperformance

Akbank has long been known for its prudency - i.e. strong capital, efficiency and good risk management. While these characteristics are intact, the bank has added another strength to its investment case: top-line outperformance.

Accelerated momentum in customer acquisition (particularly in consumer loans) has already resulted in above-sector fee growth and back-book loan yields. Additionally, sizeable CPI linkers at positive real rates and a relatively high-yielding TRY security portfolio will continue to support revenues. We acknowledge that the superb trading performance of 2023 is unlikely to be repeated, but argue that its track record suggests that Akbank will continue delivering above-sector trading gains.

We expect Akbank to generate c34% RoE in 2025-26E. At 0.6x 2024E PB, we find the valuation appealing. Our 12-mo PO of TRY53.5 implies +70% total return, which leads us to a Buy rating.

Exhibit 19: Core revenue growth (indexed)
Akbank has outperformed and will continue to do so



Source: BofA Global Research

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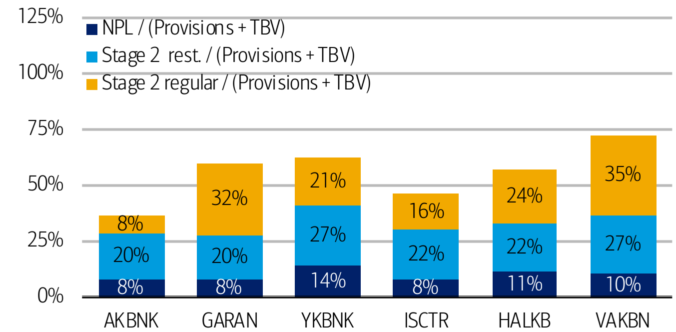
Exhibit 20: Comparison of adjusted Texas ratios
Akbank has the best (lowest) ratio by a wide margin



Source: BofA Global Research

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Garanti – Buy (maintained)

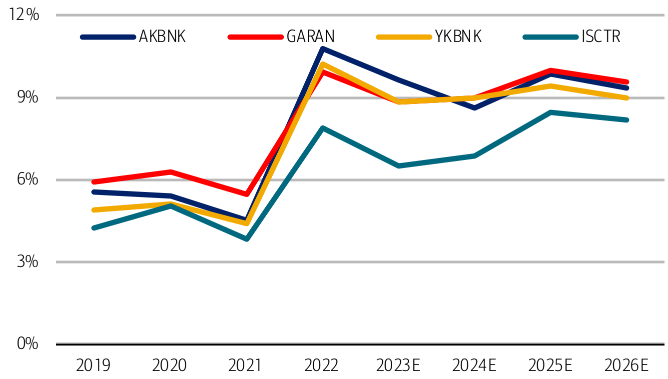
Superior margins to resume & cost savings to pay off

The bank's lower exposure to high-yielding CPI linkers has been a drag on core-revenue margins in 2022-23. Regardless, it has mostly mitigated this relative disadvantage via strong core NIMs. With gradual normalization of the CPI linkers' contribution in the sector, Garanti's superior margins should return.

Furthermore, Garanti strongly improved efficiency in this period with a limited increase in costs/assets vs. counterparts. This should be a good base for 2024E. With sustained asset quality performance (CoR in line with private peers), we expect its RoE to remain in excess of 30% on a sustainable basis.

Our new PO of TRY78 indicates a target 2025E PB of 0.7x and implies +57% total return. Buy rating maintained.

Exhibit 21: Core revenues/assets
Margin underperformance of 2022-23 to come to an end for Garanti



Source: BofA Global Research

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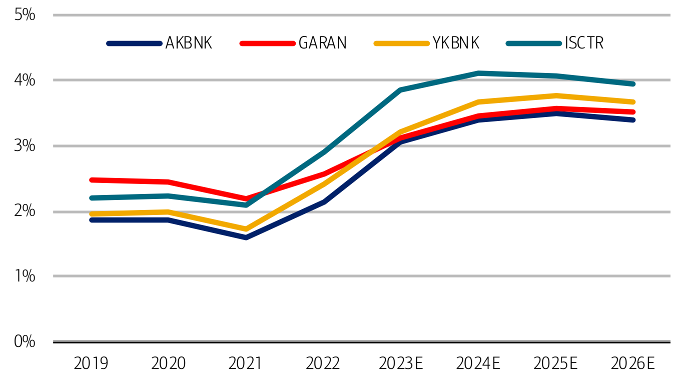
Exhibit 22: Costs/assets
Limited increase in costs/assets vs. peers in 2022-23



Source: BofA Global Research

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Yapi – Buy (maintained)

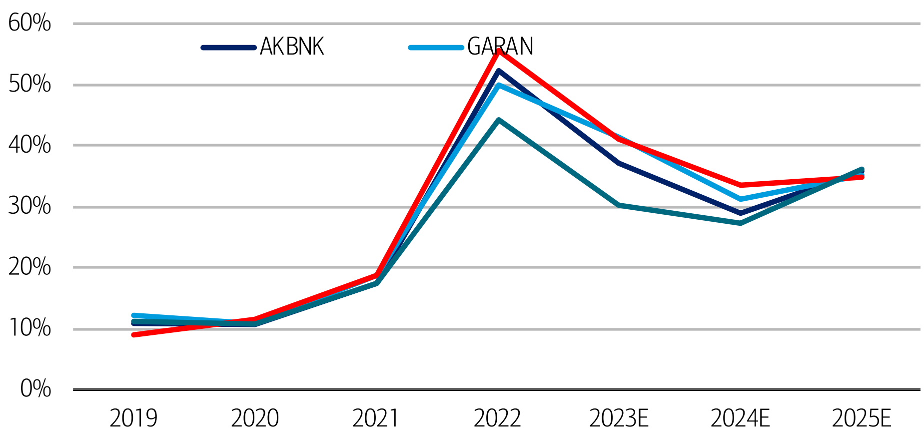
Above-sector RoE to be maintained

Following the successful implementation of the new business model, Yapi has been delivering above-sector RoE since 2020. We expect this trend to remain intact in 2024E.

Above-sector loan yields, a high level of demand deposits and well-managed – high yielding security portfolio were among the main reasons behind the NII outperformance. Additionally, the bank's robust fee generation ability (strong position in cards & payments) should continue to support top-line growth in 2024. We think the uplift in fee growth in 2023 was mostly structural for Yapi.

Yapi remains a Buy. Our revised PO of TRY28.5 suggests more than 65% total return.

Exhibit 23: Private banks – RoE comparison
Yapi's RoE to remain above-sector in 2024E as well



Source: BofA Global Research

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Halk – Underperform (maintained)

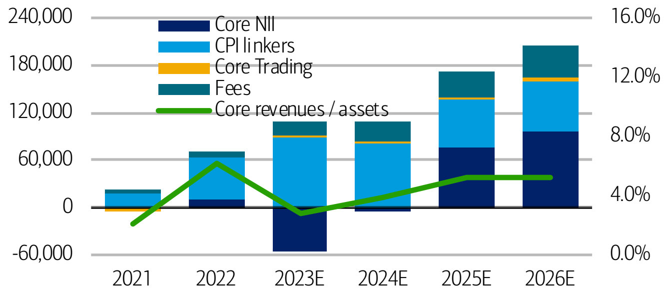
Lower revenues and limited capital buffer

Halkbank's net interest income, excluding CPI linker income, has been negative in 2023E. While the trend is likely to improve in 2024 on loan repricing, we think the pace of recovery will be slow and core revenue margins will settle below peer levels.

Additionally, Halk's consolidated capital buffer (including forbearance measures) at 1.2pp remains well below peer levels. This incorporates two forbearance measures: fixing MtM losses of securities and using the YE22 FX rate for the RWA calculation (USDTRY at c.18.7 vs. c.28.8 currently). These measures inflated the reported CET1 ratios of private peers by an average of 2pp and Vakif's by 1.3pp. The FX adjustments for the RWA forbearance formula are likely to switch from YE22 to YE23E (BofAe USDTRY at 30) with 1Q24 financials and could erode the capital further.

Our revised PO of TRY10 indicates c20% downside potential for Halk. We maintain our Underperform rating.

Exhibit 24: Halk – breakdown & outlook for core revenues
Core NII to recover in 2024E



Source: BofA Global Research

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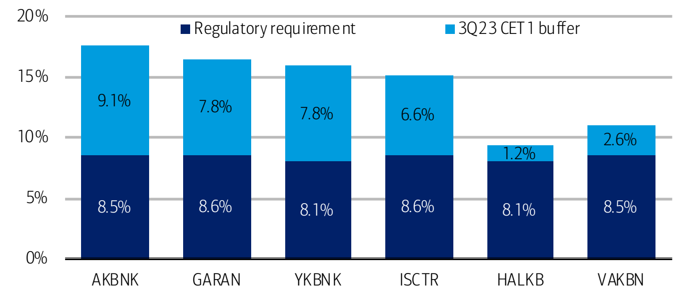
Exhibit 25: CET1 buffers to reported capital ratio (with forbearance)
Lower capital buffer



Source: BofA Global Research

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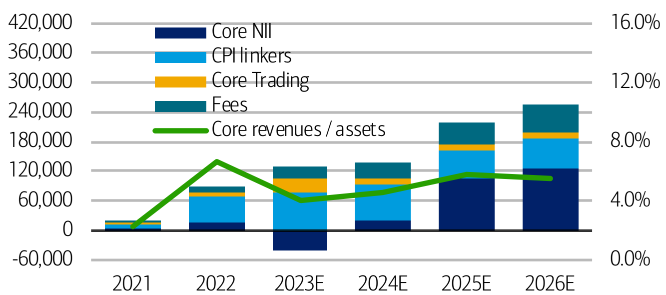
Vakif – Underperform (maintained)

RoE to recover but capital buffer limited & valuation is not attractive

We expect Vakif's core net interest income to switch to positive territory in 2024 with a recovery in loan-deposit spreads. Given the low base of 2023, we see a slight improvement in RoE in 2024, unlike for private peers. However, believe its profitability is likely to settle at a lower level. Vakif's capital buffers remain below private peers'. However, its sizeable free provisions could be reversed (50bp impact), if needed.

Despite lower profitability, the bank trades at the highest 2023E PB at 0.9x. Our revised PO of TRY 14 indicates 6% downside potential.

Exhibit 26: Vakif – breakdown & outlook for core revenues
Recovery in 2024E but a large jump in 2025E



Source: BofA Global Research

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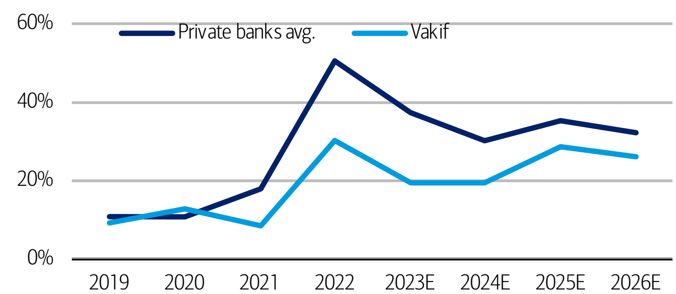
Exhibit 27: RoE progression – Vakif vs. private banks
The gap to narrow



Source: BofA Global Research

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Changes to estimates

We revise up our 2024-25E EPS estimates by an average of 30% thanks mainly to our better core-revenue margin assumptions (mostly driven by NIMs). Our PO revisions reflect the EPS upgrades and the change in our valuation methodology.

As we highlight in earlier sections of this note, we now value Turkish banks using a dividend discount model and a Gordon Growth model, assigning equal weight to each method. We use a separate CoE for each year, starting at 40% in 2024-25, then declining to 33% in 2026 and to 26% in 2027. Our terminal growth rate stands at 15%. Our previous valuation methodology was based on Gordon Growth model using the 2025E RoEs and 2024E book values incorporating 29% CoE (33% for Vakif, 35% for Halk) and 12% terminal growth rate.

Exhibit 28: Changes to EPS
2024-25 EPS up by 30% on average

		New			Old	
	23E	**24E**	**25E**	**23E**	**24E**	**25E**
AKBNK	12.9	13.1	21.6	13.2	10.5	14.4
GARAN	19.4	20.7	31.4	19.6	17.3	24.3
YKBNK	7.3	8.2	11.4	8.1	6.3	8.8
ISCTR	6.5	7.3	13.0	7.3	5.4	8.2
HALKB	1.6	3.0	5.9	1.3	2.2	5.3
VAKBN	2.6	3.6	6.7	3.0	3.8	6.1

Source: BofA Global Research

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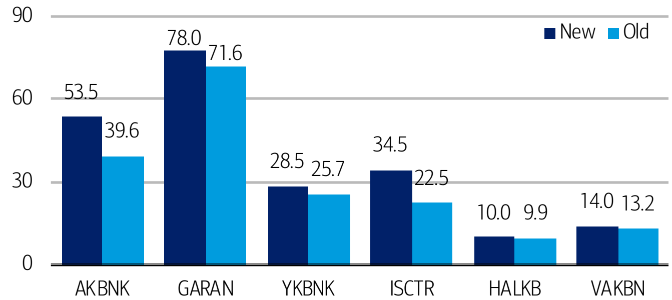
Exhibit 29: Changes to POs
Bigger PO changes at Akbank and Isbank



Source: BofA Global Research

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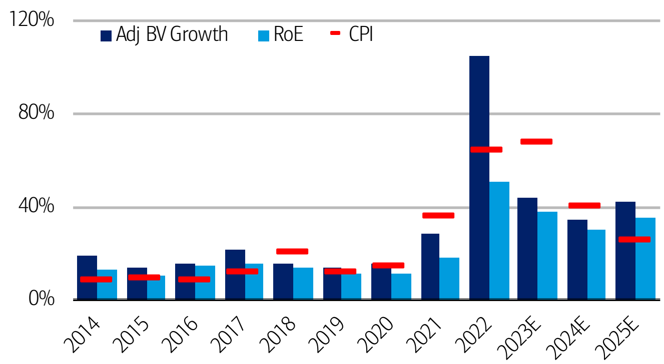
Focus on BV growth

As banks analysts we tend to focus on growth, NIMs, NPLs and efficiency metrics to estimate RoEs. However, even RoE comparisons could be a misleading way to evaluate banks' operating performance as the dividend caps reduce managements' control over their equity base and/or mark-to-market moves under equity could make book value growth materially different from net income dynamics.

In this section, we analyse Turkish banks' book value growth. However, we adjust the growth for cash dividends (add back dividend payments to BV) and rights issues (deduct cash injections from BV) to reach operational book value growth.

Private banks' adjusted BV growth has generally been higher versus RoEs and inflation. However, the growth over 2018-21 was lower or in line with inflation. 2022 was a remarkable year as high CPI linker income and MtM gains on real estate portfolios boosted book values. This growth has more than offset the negative real BV growth in 2023E in cumulative terms. We expect private banks' adjusted BV growth to remain slightly below inflation in 2024E but outpace it from 2025E onwards.

Exhibit 30: Private banks – adjusted BV growth vs. RoE and CPI
Adj BV growth to outpace inflation in 2025E



Source: BofA Global Research

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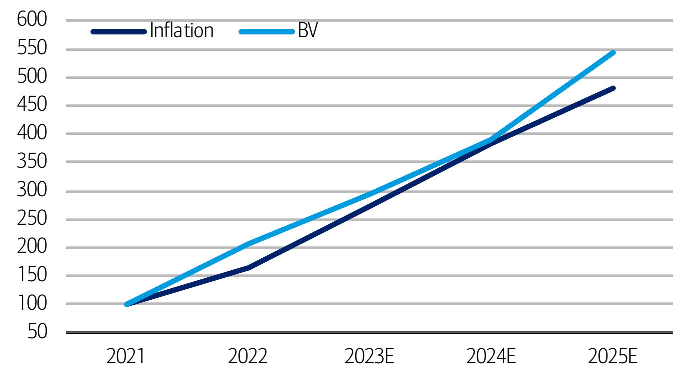
Exhibit 31: Private banks – cumulative inflation vs. adj BV growth
Adj BV growth outpaces the inflation in the long-term



Source: BofA Global Research

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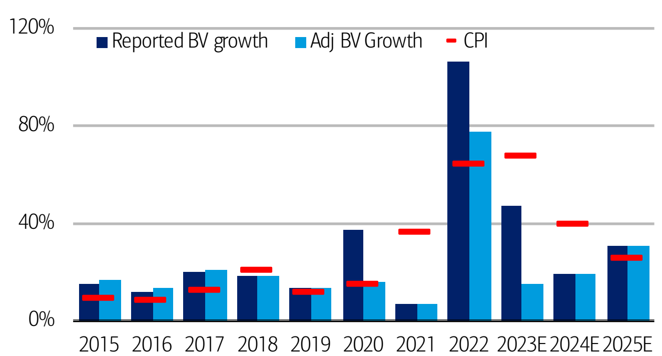
State banks' book value growth over the past several years has been supported by capital injections. Hence, adj BV growth has been lower than reported levels, unlike for the private banks. We believe 2024E will continue to be a year of deep negative real growth in adjusted BV.

Exhibit 32: State banks – adjusted BV growth vs. RoE and CPI
Deep negative in 2024E but recovers in 2025E



Source: BofA Global Research

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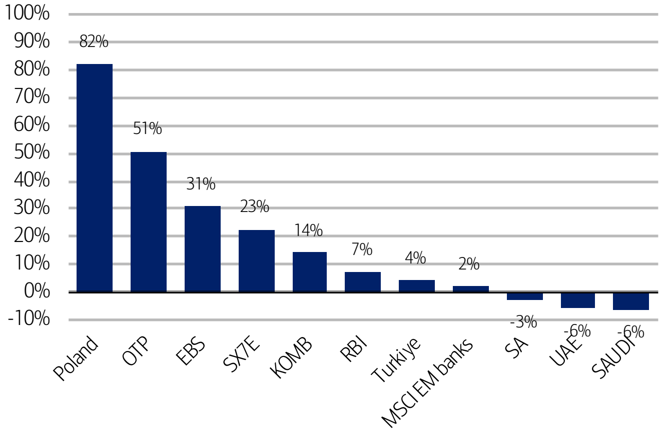
Performance and comparison vs. peers

Turkish private banks' share prices have risen by more than 60% YtD in local currency terms, while USD performances were broadly in line with MSCI EM Banks. Within the Turkish banks universe, Yapi has been an underperformer among private peers and state banks' returns were negative in USD terms.

Exhibit 33: EEMEA banks – YtD performance comparison (USD terms)
Turkish banks' YtD performance was below average in USD terms



Source: Bloomberg, BofA Global Research

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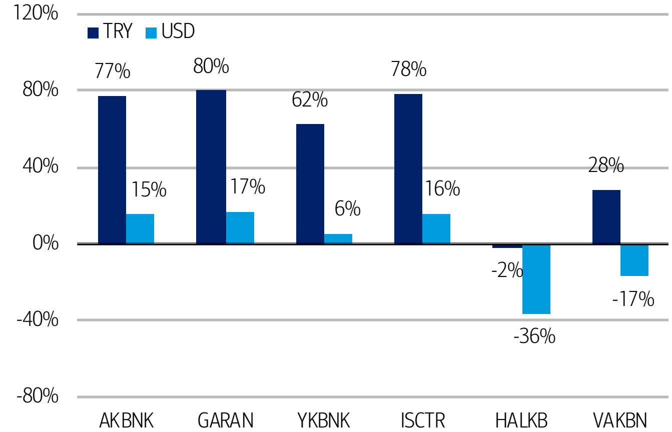
Exhibit 34: Turkish banks' YtD performance comparison (TRY and USD)
State banks down in USD terms; Yapi underperformed private peers



Source: Bloomberg, BofA Global Research

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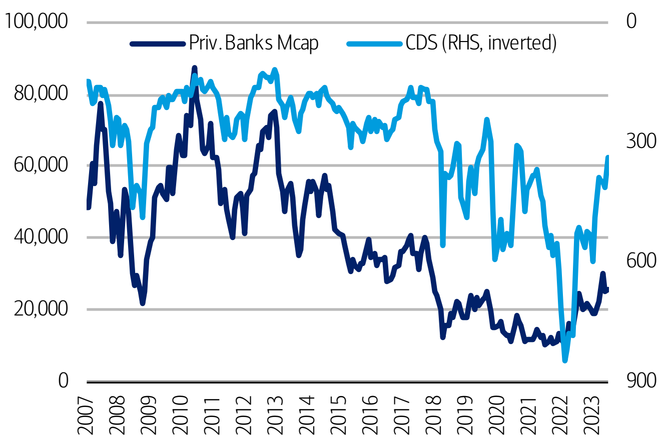
On a longer-term approach, Turkish private banks' aggregate USD-based market caps hover around 35% below long-term average or 70% below the peak.

5-year CDS has historically been an accurate barometer of foreign investor appetite for Turkish assets, particularly on banks' equities performance. The recent improvement in CDS, if it proves to be sticky, could trigger a re-rating in banks' shares via lower implied CoE. We also note that Turkish banks' correlation with Emerging Market peers diminished in 2013-15 and almost disappeared after 2016, as proved by the continuous underperformance since then.

Exhibit 35: Private banks' Mcap vs. CDS
5-year CDS has historically been an accurate barometer of investor appetite



Source: Bloomberg, BofA Global Research

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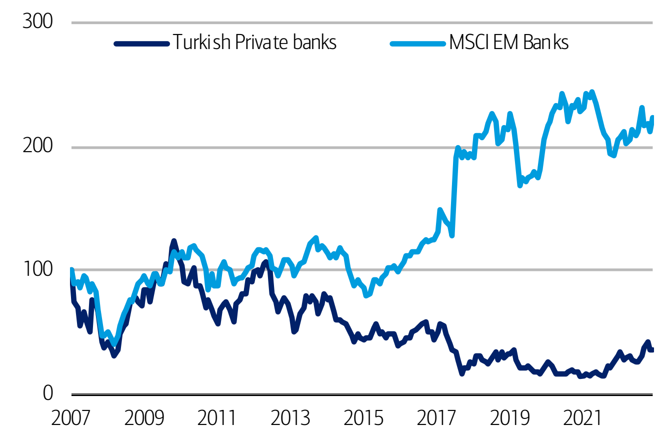
Exhibit 36: Turkish private banks' total Mcap vs. MSCI EM banks
Turkish banks have long been underperforming EM banks



Source: Bloomberg, BofA Global Research

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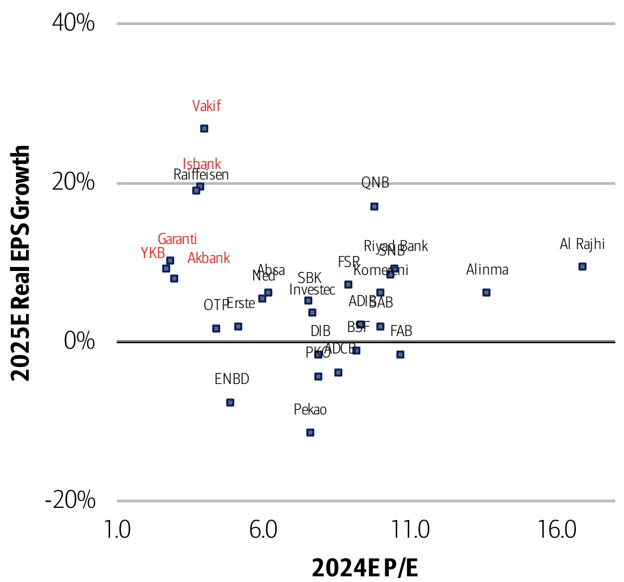
In the charts below, we compare EEMEA and GEM banks' 2024E PE multiples with inflation-adjusted 2025E EPS growth. Turkish banks appear in the 'attractive' category as they offer low PE multiples with high real EPS growth, according to our estimates.

Exhibit 37: EEMEA banks – 2024 PE vs. 2025E real EPS growth
Turkish banks offer higher 'real' EPS growth at low PE



Source: Bloomberg, BofA Global Research *Halk's real EPS growth is +80% given its low 2024 base

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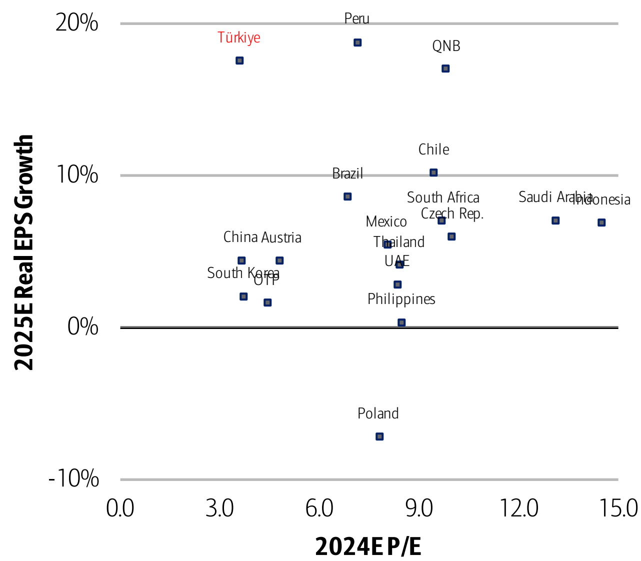
Exhibit 38: GEM banks – 2024 PE vs. 2025E real EPS growth
Turkish banks offer higher 'real' EPS growth at low PE



Source: Bloomberg, BofA Global Research

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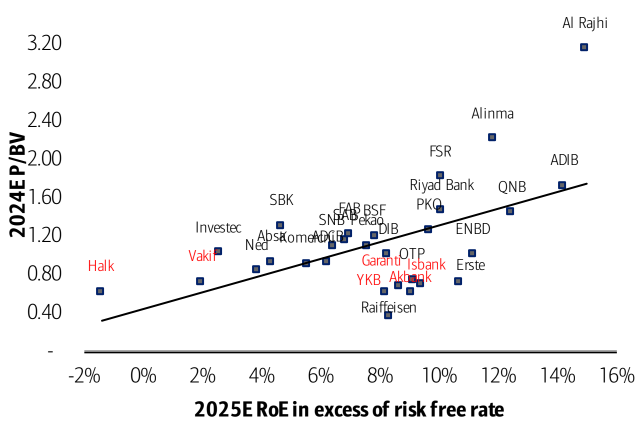
We also compare the 2024E P/BV multiples with 2025E RoEs in excess of current 10-year sovereign rates (proxy for the risk-free rate). Similarly, Turkish private banks appear in the 'attractive' zone (below the trend line) with low multiples and decent real returns.

Exhibit 39: EEMEA banks – 2025 RoE in excess of 10Y rates vs. 2024E PB
Private banks appear in the attractive zone (below the trend line)



Source: Bloomberg, BofA Global Research

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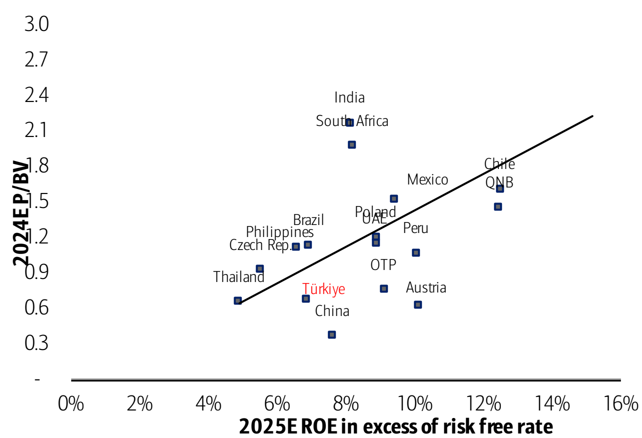
Exhibit 40: GEM banks – 2025 RoE in excess of 10Y rates vs. 2024E PB
Türkiye is in the attractive zone



Source: Bloomberg, BofA Global Research

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EEMEA Banks valuation comparison

Exhibit 41: EEMEA Banks valuation comparison
Turkish banks are at a discount to EEMEA and GEM banks

	P/E			P/BV			RoE		
	2023E	2024E	2025E	2023E	2024E	2025E	2023E	2024E	2025E
Erste Bank	5.1	5.2	5.0	0.84	0.73	0.64	18.5%	15.3%	13.9%
Raiffeisen Bank	3.3	3.8	3.1	0.40	0.37	0.34	11.0%	10.3%	11.5%
Austria	4.6	4.8	4.5	0.73	0.64	0.56	16.6%	14.0%	13.3%
Komercni Banka	8.0	10.0	9.3	1.02	0.93	0.90	13.0%	9.7%	9.9%
Czech Republic	8.0	10.0	9.3	1.02	0.93	0.90	13.0%	9.7%	9.9%
OTP Bank	3.4	4.4	4.2	0.88	0.76	0.67	28.7%	18.4%	16.8%
Hungary	3.4	4.4	4.2	0.88	0.76	0.67	28.7%	18.4%	16.8%
Pekao S.A.	7.3	7.6	8.3	1.30	1.11	1.09	19.5%	15.7%	13.2%
PKO BP	11.7	7.9	8.0	1.43	1.27	1.17	13.1%	17.0%	15.3%
Poland	10.0	7.8	8.1	1.38	1.21	1.14	15.6%	16.5%	14.5%
Absa	6.4	6.3	5.7	1.02	0.95	0.88	16.7%	15.7%	16.1%
Capitec Bank	23.0	19.2	15.5	5.53	4.88	4.30	25.1%	26.8%	29.4%
FirstRand	9.9	9.0	8.0	1.99	1.83	1.69	21.0%	21.3%	21.9%
Investec	8.0	7.7	7.1	1.08	1.04	1.01	14.5%	13.6%	14.4%
Nedbank	6.7	6.0	5.5	0.91	0.85	0.81	14.4%	15.0%	15.6%
Standard Bank	7.9	7.6	6.9	1.40	1.32	1.25	16.3%	15.9%	16.5%
South Africa	10.8	9.7	8.5	2.18	1.98	1.81	18.9%	19.0%	20.0%
Akbank	2.5	2.4	1.5	0.81	0.63	0.45	37.2%	29.1%	35.7%
Garanti Bank	2.7	2.5	1.6	0.90	0.69	0.50	41.5%	31.3%	35.3%
Halkbank	8.1	4.3	2.2	0.74	0.63	0.49	10.7%	15.8%	25.2%
Isbank	3.3	2.9	1.6	0.89	0.70	0.50	30.3%	27.2%	36.0%
Vakif Bank	5.7	4.2	2.2	0.90	0.74	0.55	19.2%	19.5%	28.6%
Yapi Kredi Bank	2.4	2.2	1.6	0.86	0.64	0.47	41.1%	33.6%	34.8%
Türkiye	3.7	2.9	1.7	0.86	0.68	0.50	32.1%	27.2%	33.5%
Alinma	15.1	13.7	12.6	2.44	2.22	2.03	17.0%	17.0%	16.8%
Al Rajhi	18.6	16.9	15.2	3.44	3.17	2.90	19.3%	19.5%	19.9%
BSF	10.2	9.3	9.2	1.30	1.21	1.14	13.1%	13.5%	12.8%
SNB	10.6	10.4	9.4	1.20	1.11	1.03	12.1%	11.1%	11.4%
Riyad Bank	10.5	10.5	9.5	1.58	1.48	1.37	15.7%	14.5%	15.0%
SAB	10.3	10.0	9.6	1.24	1.17	1.11	12.3%	12.0%	11.8%
Saudi Arabia	14.0	13.2	12.0	2.23	2.06	1.90	15.8%	15.5%	15.7%
ADCB	8.3	8.6	8.8	0.99	0.94	0.89	12.6%	11.2%	10.4%
ADIB	8.5	9.4	9.0	1.88	1.74	1.59	23.6%	19.3%	18.4%
DIB	6.9	8.0	7.9	1.10	1.02	0.96	16.6%	13.3%	12.5%
ENBD	4.3	5.0	5.3	1.13	1.02	0.91	23.0%	15.1%	15.4%
FAB	9.8	10.7	10.7	1.32	1.24	1.17	14.0%	11.9%	11.2%
UAE	7.6	8.4	8.4	1.25	1.16	1.07	17.5%	13.5%	13.1%
NBK	12.4	13.0	13.6	1.79	1.76	1.75	14.9%	13.9%	13.2%
Kuwait	12.4	13.0	13.6	1.79	1.76	1.75	14.9%	13.9%	13.2%
QNB	10.2	9.8	8.2	1.61	1.46	1.31	16.3%	15.6%	16.7%
Qatar	10.2	9.8	8.2	1.61	1.46	1.31	16.3%	15.6%	16.7%
EEMEA	10.7	10.3	9.5	1.78	1.64	1.50	18.0%	16.0%	16.4%
Latin America	8.6	7.6	6.6	1.40	1.26	1.13	17.5%	17.8%	18.0%
Emerging Asia	8.5	7.8	7.0	1.19	1.08	0.98	13.1%	12.6%	12.6%
GEM	9.0	8.3	7.5	1.33	1.22	1.10	14.5%	13.8%	13.9%

Source: BofA Global Research

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Key macro assumptions

Since June, the new economic team has been taking steps towards normalization. The policy rate has been increased from 8.5% to 40%. We expect one last hike of 250bp to reach 42.5% terminal rate in December. Additional hike in January is less likely as the CBT sees the level of financial tightness adequate, but the door is open.

Regulations are being simplified and the CBT recently ended a security maintenance requirement for banks with regard to selected quantitative measures. Steps have been taken to maintain fiscal discipline in the face of increased spending due to the major earthquake that shook southeast Türkiye in February. The VAT (value added tax) and SCT (special consumption tax) on consumer items and fuel have been raised. The government has also been in talks with international counterparties to secure external financing in the form of FDI and long-term direct lending, as well as to sign new economic cooperation and trade agreements.

Overall, Türkiye is now poised to correct its macroeconomic imbalances in a global environment where major central banks are expected to cut rates. Risks to our view are higher rates for longer in developed markets, geopolitical risks and interruption of normalization.

Exhibit 42: Key macro assumptions

Policy rate peaks at 42.5% & YE24 USDTRY at 40

	2023E	2024E	2025E
Real GDP growth (% yoy)	4.0	3.4	4.6
CPI inflation (% yoy, eop)	67.3	39.8	25.2
CPI inflation (% yoy, avg)	53.7	58.9	29.6
Nominal exchange rate (vs USD, eop)	30.0	40.0	48.0
Nominal exchange rate (vs USD, avg)	25.8	36.0	45.5
Central bank policy rate (%, eop)	42.5	42.5	30.0

Source: BofA Global Research estimates

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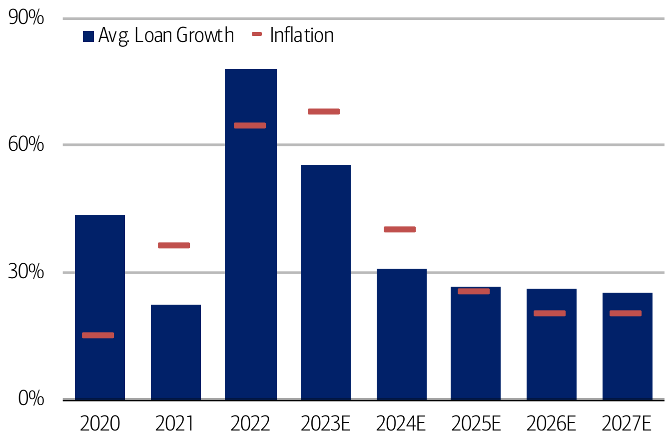
Slower volumes ahead

Negative real loan growth in 2024E

We think regulations and/or high interest rates will keep loan growth below inflation in 2024, when we see TRY loan growth averaging slightly ahead of 30%. This is broadly in line with the regulator's annualized monthly growth caps. Unlike the trend of the past years, we believe private banks' growth should remain a tad above state peers' in the medium term. We also think FX loans will continue deleveraging in 2024 but we expect growth to revive in 2025.

Exhibit 43: TRY loan growth outlook and comparison with CPI

We assume a revival of positive lending growth in 2025



Source: BofA Global Research

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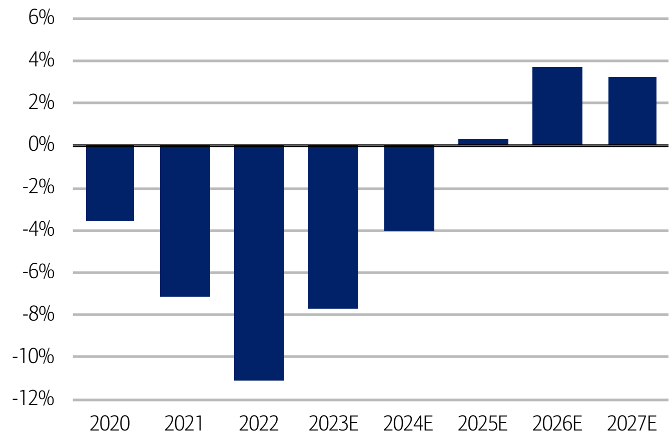
Exhibit 44: FX loan growth outlook (in USD)

We see FX lending growth resuming in 2025 after years of contraction



Source: BofA Global Research

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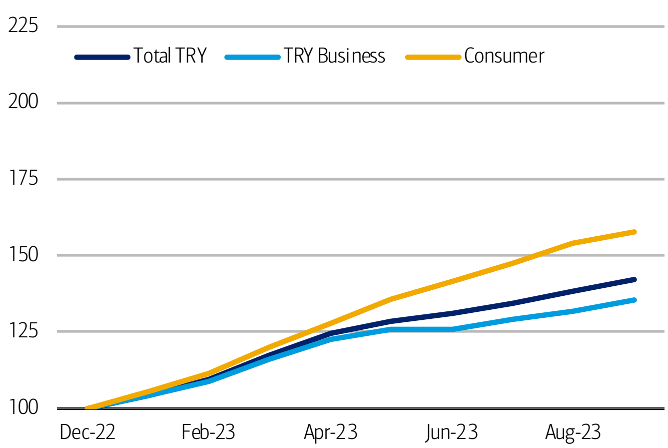
Loan growth in 2023 has been driven mainly by consumer loans, particularly credit cards, and growth in local currency business lending by state banks. Consumer loans faced fewer regulatory restrictions and were more lucrative for most of 2023 but were put in the category of "non-selective loans" at end-May considering macro constraints. More restrictions led to a sharp drop in the growth rate, similar to that in commercial loans.

Exhibit 45: TRY loans – YtD lending growth progression (indexed)

Consumer loan growth has outpaced business loan growth YtD…



Source: BDDK, BofA Global Research

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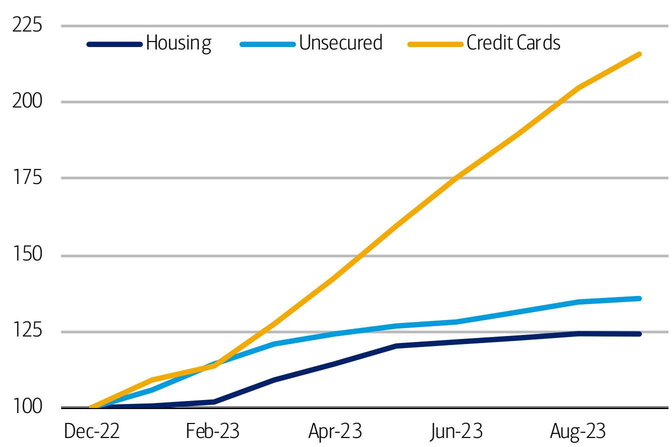
Exhibit 46: Consumer loans – YtD lending growth progression (indexed)

…thanks mostly to rising credit card loans



Source: BDDK, BofA Global Research

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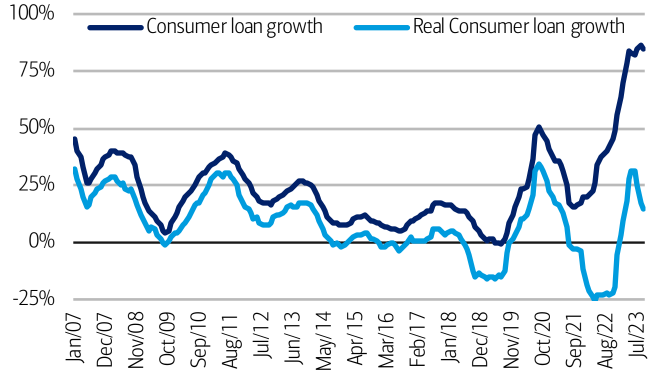
Real YoY growth in TRY business loans has already turned negative and we expect consumer lending to follow suit in light of normalizing credit card dynamics. As might be recalled, consumers took advantage of negative real yields in credit card rates during 1H23. Yet, the advantageous rate environment has disappeared following the rate hikes.

Exhibit 47: Real and nominal loan growth – consumer
Real growth losing pace



Source: BDDK, BofA Global Research

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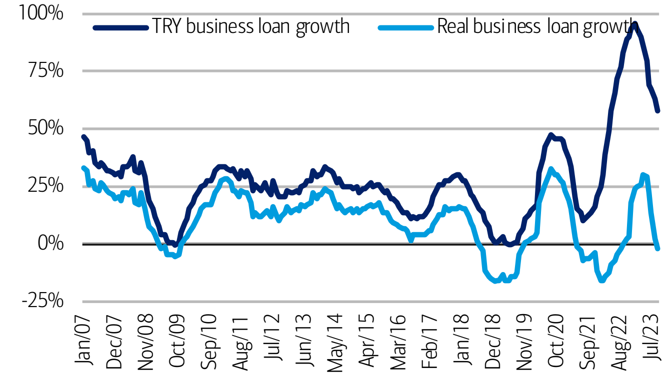
Exhibit 48: Real and nominal loan growth – TRY business
Real growth already in the red



Source: BDDK, BofA Global Research

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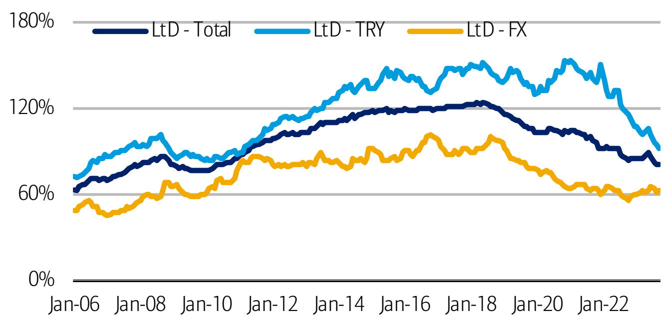
Focusing on the LT trends – a note for the optimist

Despite the high nominal growth rates in recent years, the banking system has deleveraged substantially. As seen in the charts below, credit penetration and loan to deposit ratios have declined back to levels seen over a decade ago.

Exhibit 49: Loan to deposit ratios
Back to 2012 levels



Source: BDDK, BofA Global Research

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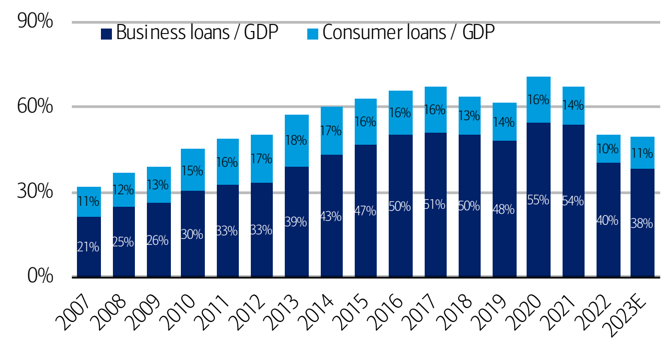
Exhibit 50: Loan penetration progression
Consumer loan penetration at 2007, business loan penetration at 2013 levels



Source: BDDK, CBT, TUIK, BofA Global Research

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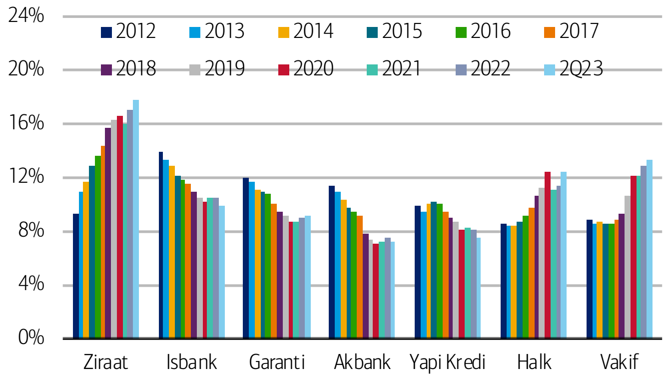
What were the key drivers of the growth years?

The high growth years of the pre-2016 period were attributable to: 1) low loan penetration (39% of GDP in 2009), 2) improved affordability on real GDP growth, and 3) low interest rates. The banks were able to fulfil this demand given their low loan-deposit ratios (76% in 2009), high level of securities in the asset mix and, most importantly, easily available cheap wholesale funding.

External funding dynamics are unlikely to be as benign as in those years. Additionally, past years' security purchases at low interest rates are unlikely to provide similar B/S relief. However, current liquidity and penetration levels could potentially indicate a good starting point for the post-tightening period. This is particularly valid for private banks that have deliberately given away market share over the past decade and have the muscle to grow if/when macro conditions allow.

Exhibit 51: Loan market share progression over the past decade
Private banks under coverage gave away decent market share



Source: Company financials, Turkish banks association

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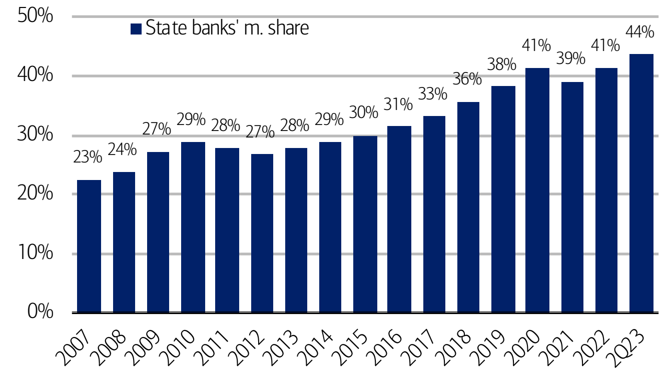
Exhibit 52: State banks aggregate market shares
Nearly doubled



Source: Turkish banks association

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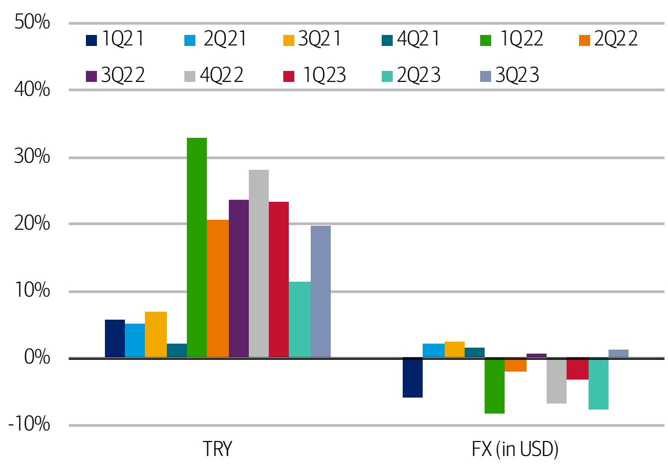
Unwinding FX-protected deposits is likely to take time

Unwinding FX-protected (KKM) deposits without a migration to the FX side remains a key priority for the regulators. For now, the focus seems to be converting TRY KKM deposits to standard TRY deposits as this client base is more receptive to high interest rate offerings. Meanwhile, unwinding FX KKM deposits is likely require further incentives for depositors and/or more clarity on the inflation and FX outlook as the client base is proving to be rather resistant to higher offerings on the TRY side.

Past years' de-dollarization was a result of KKM inflows, which now constitute 19% of total deposits or c32% of TRY deposits.

Exhibit 53: TRY and FX deposit growth rates (QoQ)
Deposits have de-dollarized...



Source: BDDK

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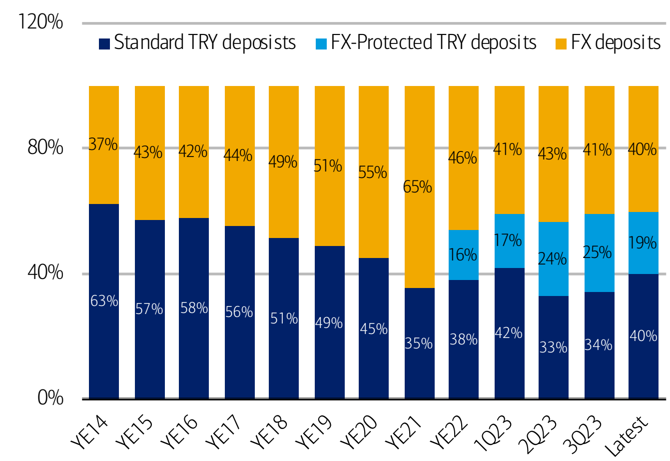
Exhibit 54: Deposits breakdown
...thanks to the migration to FX protected deposits



Source: BDDK

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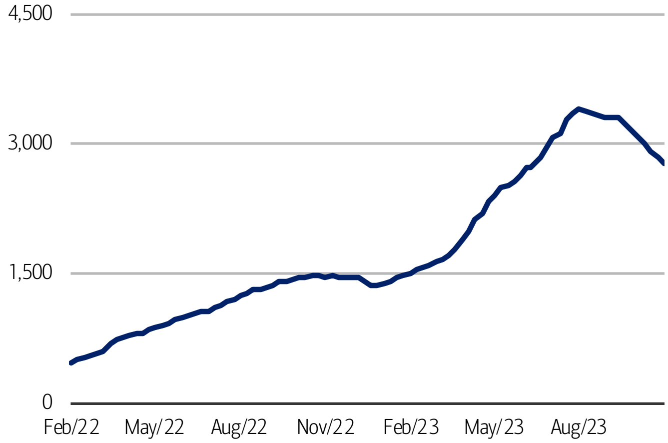
Recent trends have been in the right direction

The regulations incentivize banks to convince depositors to unwind their KKM deposits (see Appendix). As a result, we have seen a declining trend in the total KKM amount over the past few weeks.

Exhibit 55: FX-protected deposits (in TRYbn)
Down by 19% from their peak



Source: BDDK, BofA Global Research

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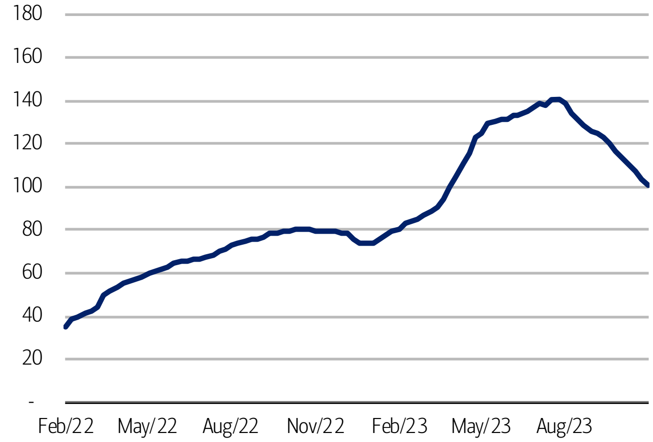
Exhibit 56: FX-protected deposits (in USDbn, using 3-mo avg. FX rate)
Down by 29% (USD40bn) vs. their peak



Source: BDDK, BofA Global Research

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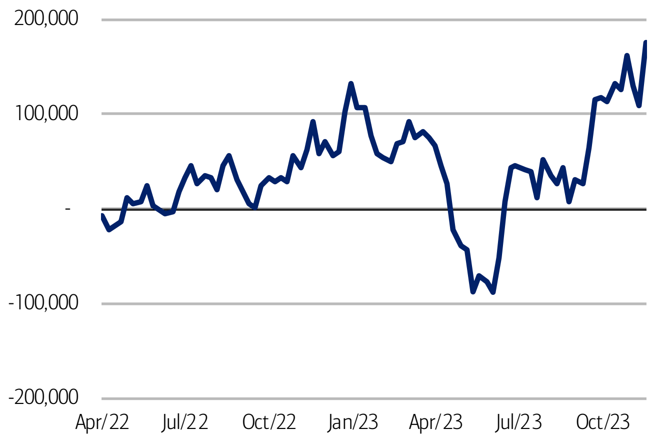
The good news is KKM outflows are not migrating to the FX side given the positive momentum in standard TRY deposits and limited move in FX deposits.

Exhibit 57: Standard TRY deposits – weekly chg. (4-week MA)
Inflows accelerating



Source: BDDK, BofA Global Research

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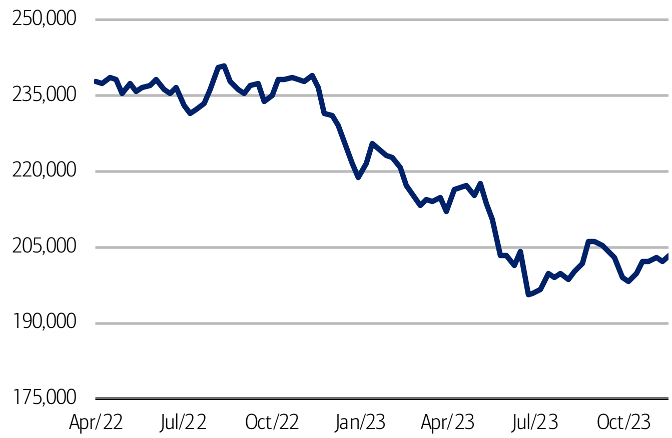
Exhibit 58: FX deposits in USDmn
No material inflows



Source: BDDK, BofA Global Research

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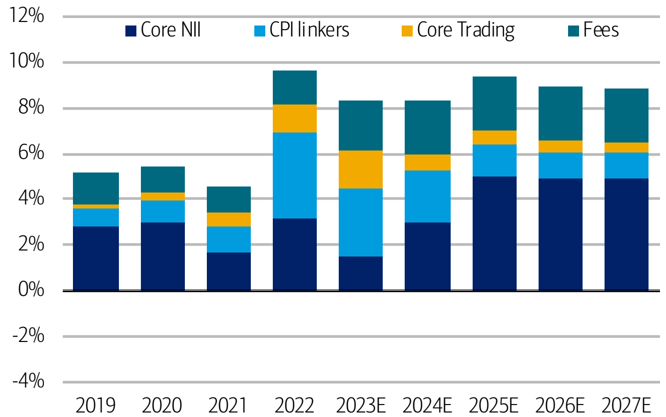
Revenue outlook

Recovering spreads offset lower CPI linker income

We believe TRY funding costs will remain elevated and lending growth will continue to decelerate driven either by regulations or market dynamics. Regardless, the core spread recovery is likely to be sustained (vs. the current low base) given rising lending rates. Despite lower CPI linker contribution, normalizing trading gains and the absence of various sources of activity-related fee income, we expect core revenue margins to remain resilient in 2024E and expand further in 2025E, with healthy core spreads, an easing regulatory burden and real loan growth.

Exhibit 59: Private banks – breakdown and outlook of core revenue margins

Flattish 2024 to be followed by a recovery



Source: BofA Global Research estimates

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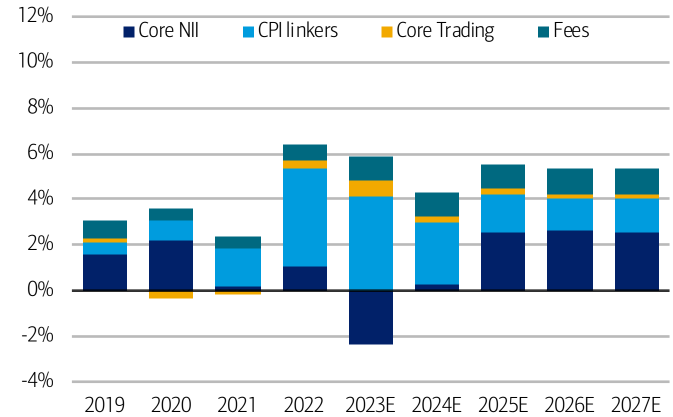
Exhibit 60: State banks – breakdown and outlook of core revenue margins

Likely to remain below private banks' levels



Source: BofA Global Research estimates

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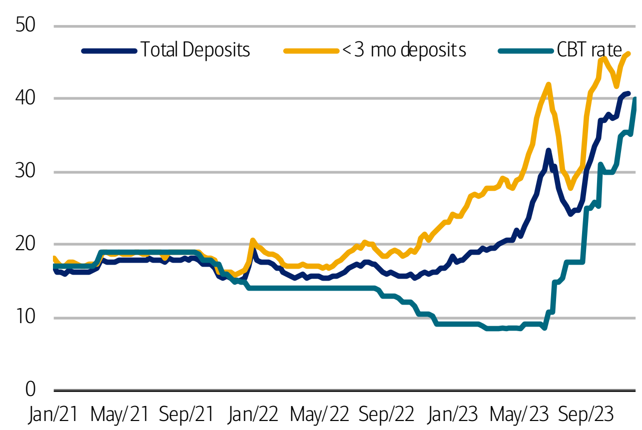
Back-book deposit rates will continue to move up…

The key driver of deposit and lending rates has been regulation rather than policy rate. However, the CBT funding rate has now come closer to market rates following the consecutive hikes. We expect deposit rates to stabilize around +45%. As seen in Exhibit 62, back-book deposit rates tend to reprice rather quickly, and they remain below front-book levels.

Exhibit 61: Interest rates on deposits vs. CBT funding rates

We expect policy rates to catch up with deposit rates



Source: BDDK, CBT, BofA Global Research

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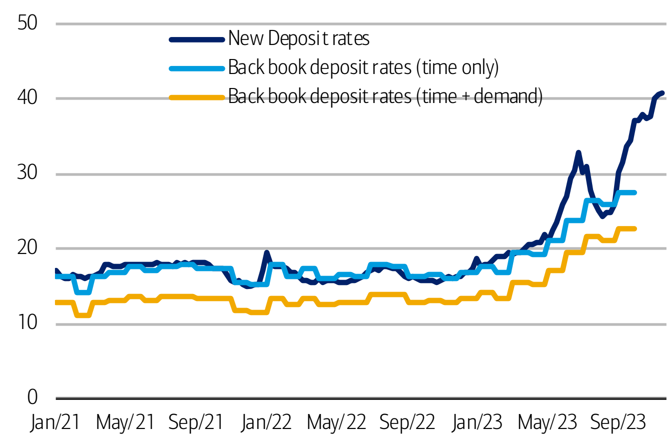
Exhibit 62: Back-book vs. new deposit rates

Back-book deposit rates will increase over the coming quarters



Source: BDDK, CBT, BofA Global Research

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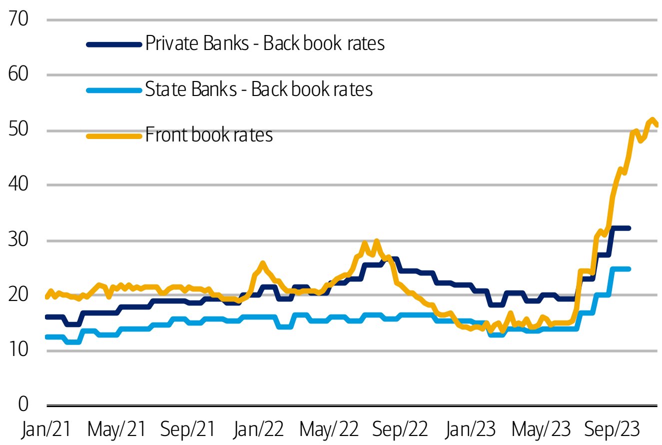
... but there is much more upside on the lending side

The good news is the uplift has been much larger in loan yields than in deposit costs. Front-book spreads are already at double-digit levels. While back-book loan repricing, particularly in consumer loans, is a tad slower vs. deposits, we expect back-book margins to increase meaningfully in 2024.

Exhibit 63: Business loan rates – front book vs. back book

Back book loan repricing to accelerate over the coming quarters



Source: BDDK, CBT, BofA Global Research

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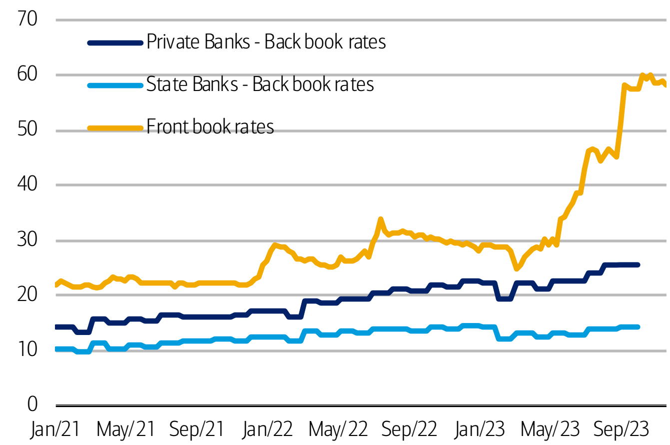
Exhibit 64: Consumer loan rates – front book vs. back book

Consumer loan back book repricing is a bit slower



Source: BDDK, CBT, BofA Global Research

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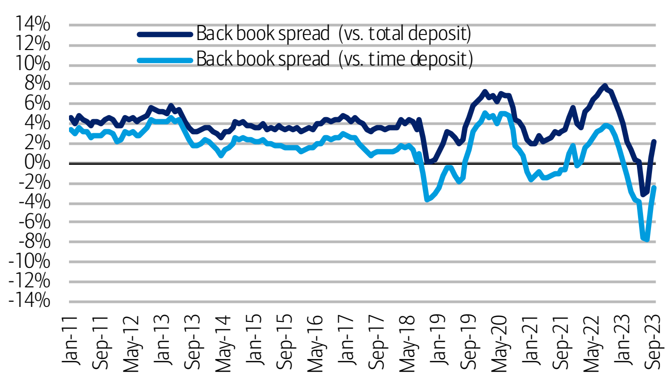
Spread recovery has already kicked off; the trend will continue

Back-book core spreads remain below their historical levels – even in negative territory when calculated vs. time deposits. However, the above-mentioned dynamics have already kicked off a recovery trend in recent months. This is likely to continue.

Exhibit 65: Private banks – back book loan-deposit spreads

Spreads recovered off their lows



Source: BDDK, CBT, BofA Global Research

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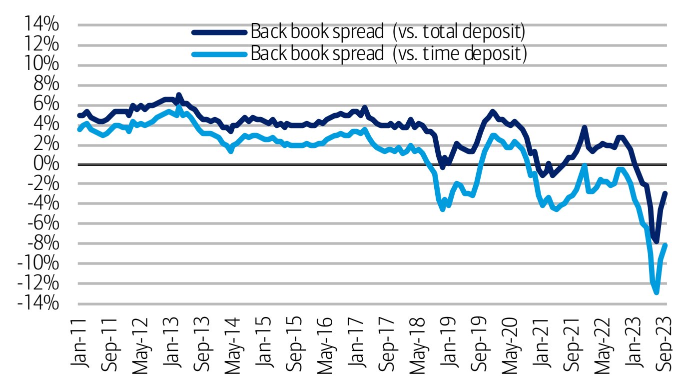
Exhibit 66: State banks – back book loan-deposit spreads

Still in negative territory



Source: BDDK, CBT, BofA Global Research

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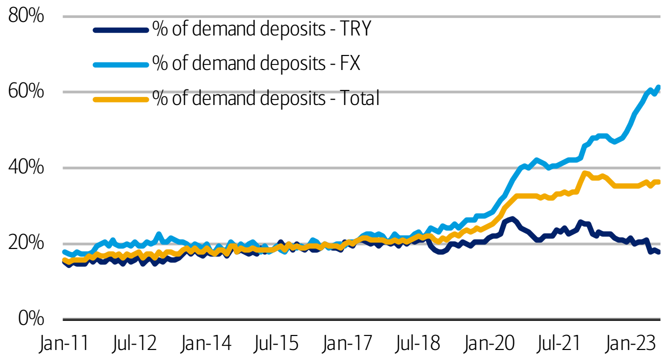
TRY demand deposits are gold – Yapi and Garanti have more

A large portion FX deposits consists of nil-paid demand deposits as the low interest rates on these accounts do not encourage depositors to lock-in their savings. However, TRY demand deposits are a rare commodity, and it makes a big difference for the core spreads given +40% rates on time deposits. Given the increased opportunity cost as well as higher cost of living, the percentage of TRY demand deposits has declined to 17%, which is the lowest level since 2013.

Exhibit 67: Progression of demand deposits
% TRY demand deposits have been declining



Source: BDDK, BofA Global Research

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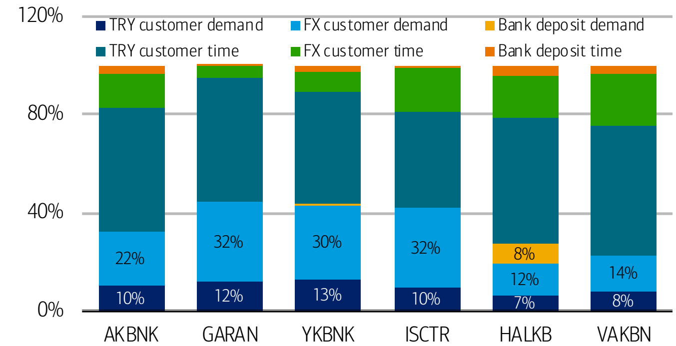
Exhibit 68: 3Q23 deposit breakdown per bank
Yapi and Garanti have higher TRY customer demand deposits



Source: Company financials, BofA Global Research

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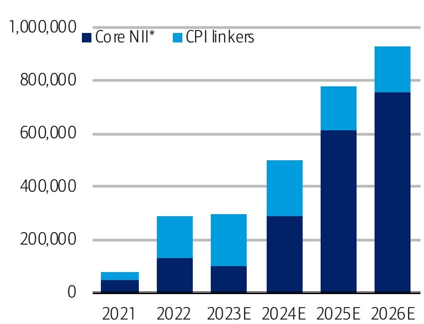
Core loan-deposit spreads used to be the key indicator of Turkish banks' NIM outlook (excl CPI linkers). However, as we discuss in the Appendix, their relevance has been diluted following regulatory adjustments, including higher reserve requirements, commission payments and long-term security maintenance requirements, which dent the NII outlook via other P&L lines. Regardless, we deem the existing core spread outlook positive.

CPI linker contributions to normalize down; Isbank to remain a positive outlier

CPI linkers have been a good hedge supporting revenues at times of poor loan-deposit spreads and escalating cost growth. This has been particularly valid for state banks as their swap-adjusted NII excluding CPI linkers remain in the red in 2023E.

We expect CPI linker income to stay sizeable in nominal terms. However, we think its contribution will decline from 2024E onwards with lower headline CPI and diminishing real rates. We expect Isbank to be an outlier (higher CPI linker income in 2024E) given its different accounting methodology vs. peers.

Exhibit 69: Private banks – NII outlook & breakdown
Core NII to be the main driver of growth



Source: Company financials, BofA Global Research estimates

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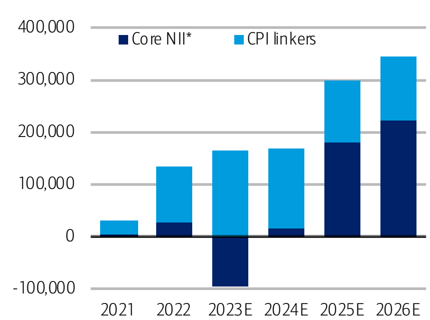
Exhibit 70: State banks – NII outlook & breakdown
Growth a tad slower vs. private banks in 24E



Source: Company financials, BofA Global Research estimates

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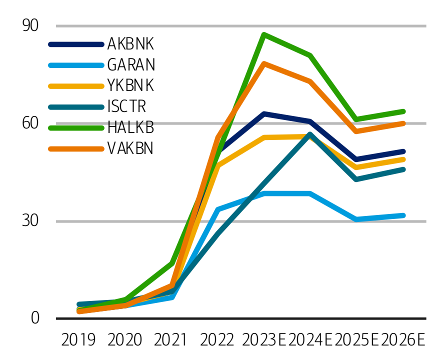
Exhibit 71: Outlook for CPI linker income
Isbank to be a positive outlier in 24E



Source: Company financials, BofA Global Research estimates

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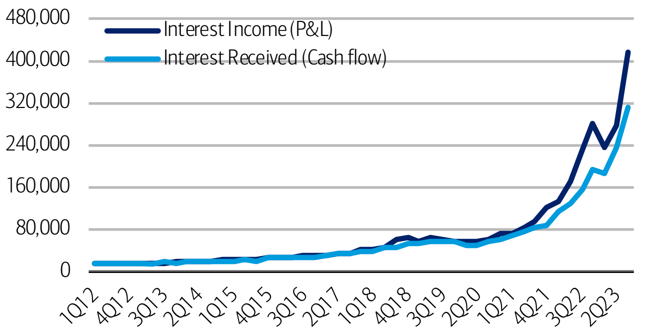
Higher CPI linker income widens the gap between P&L and cash flow

While we do not see it as a risk factor, it is worth mentioning the increased gap between cash flow and P&L interest income. This is due to the bigger contribution of CPI linkers. Note that only the coupon payments increase by the inflation amount in these securities. The difference between the coupon rate and accrued income is passed over to the principal that is received at maturity. As seen in the charts below, in periods of high CPI linker gains, the gap between cash flow and P&L interest income widens. This is likely to normalize over the coming years as past years' big-ticket CPI linkers mature.

Exhibit 72: Cash flow vs. P&L interest income – quarterly progression

The gap between P&L and cash flow interest income has been increasing...



Source: Company financials, BofA Global Research

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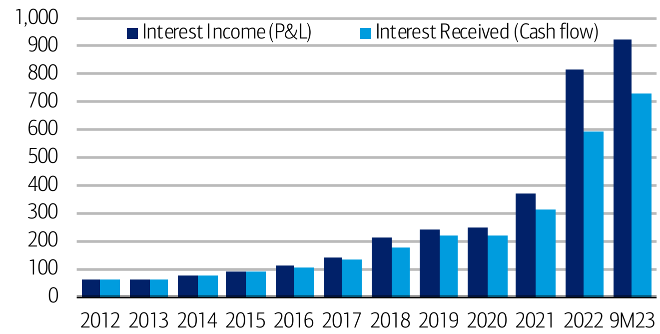
Exhibit 73: Cash flow vs. P&L interest income – annual progression

...due mainly to CPI linkers' increased contribution



Source: Company financials, BofA Global Research

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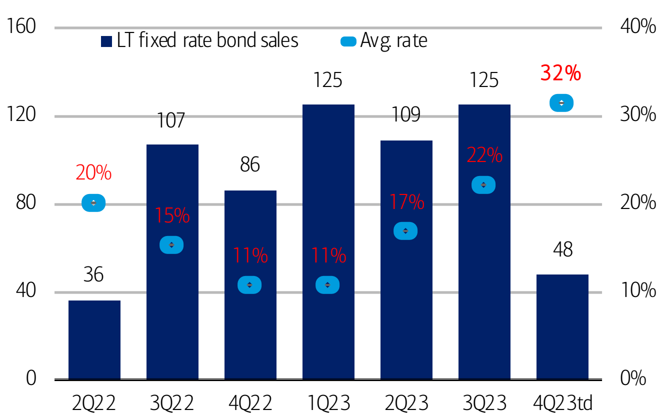
LT TRY security purchases is more of a margin discussion

The value of long-term fixed-rate TRY government bonds issued between 2Q22 and 3Q23 at low rates adds up to TRY590bn with an average yield of 16%, according to our calculations. We do not take the issuances since the beginning of 4Q23 into consideration as their yields were relatively high at above 30%. These low-rate long-term bonds constitute c.3% of banks' assets or c30% of equity.

For most banks, 90-100% of these bonds are accounted for as HTM and there are hedges are in place for the available-for-sale parts. Hence, the negative impact on capital in a rising rate environment is likely to remain limited.

Exhibit 74: LT fixed-rate TRY bond issuances since 2Q22

High issuances at low rates in 2Q22 to 3Q23. Yields better in 4Q23



Source: Treasury, BofA Global Research

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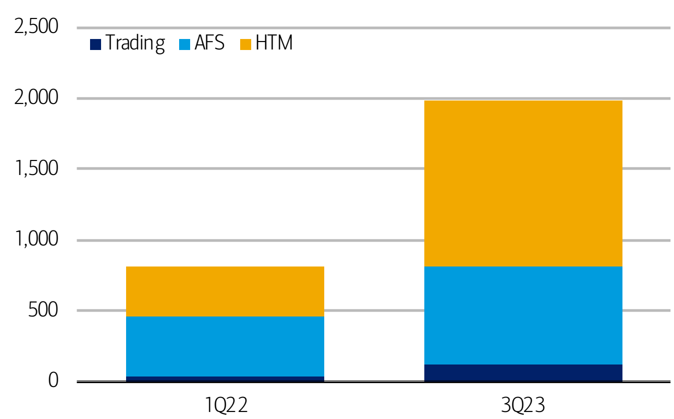
Exhibit 75: Breakdown of TRY securities categorization

New security purchases mostly categorized as HtM to limit the capital hit



Source: BDDK, BofA Global Research

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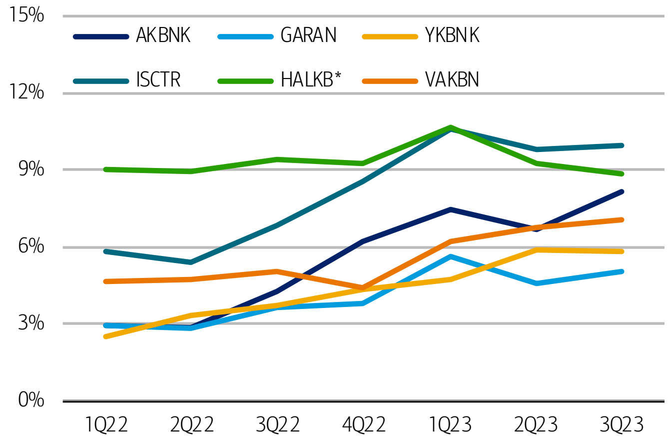
We see these assets more as a drag on the NIM outlook rather than a material capital constraint. The back-book yields of TRY securities excluding CPI linkers already partly recovered in 3Q23. However, the overall repricing pace of the portfolio is likely to be slower vs. the rest of the earnings assets.

Exhibit 76: % of TRY securities excl CPI linkers/earnings assets

We focus more into the increase until 2Q23



Source: Company financials, BofA Global Research

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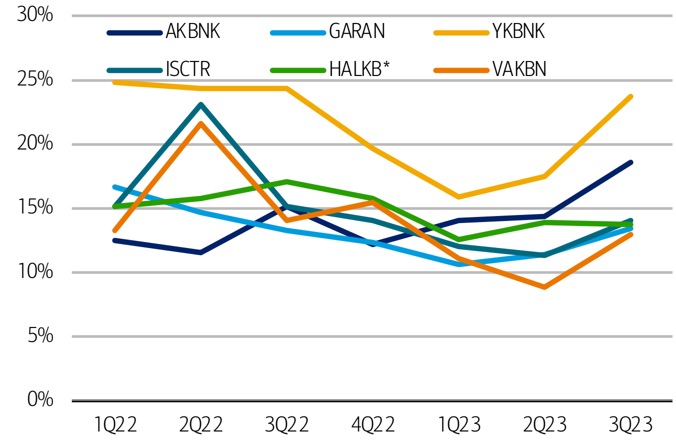
Exhibit 77: Yield on TRY securities excl CPI linkers

As expected, yields declined during 2Q22-2Q23. Faster recovery in 3Q23 at Yapi and Akbank and Vakif (off a low base)



Source: Company financials, BofA Global Research *Excluding the borrowed funds at Halk

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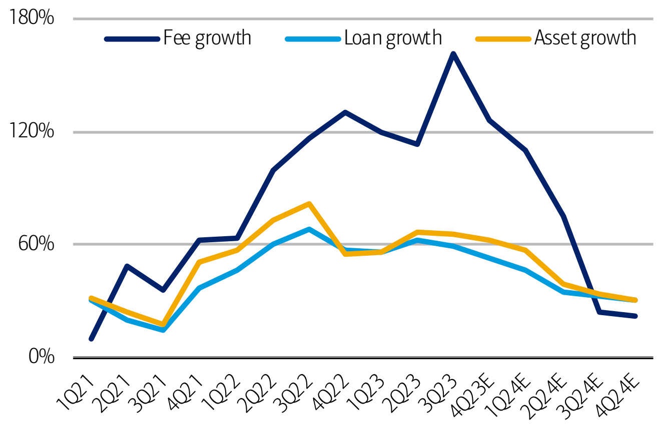
Non-interest income boost in 2023 was *partly* transitional

Fees likely to have reached a new (higher) normal

Turkish banks' income streams between net interest income vs. fees and trading have become more fluid over the past year. Given the cap on interest rates, we believe part of the lost revenue stream on the NII front was transferred to the fee line. Additionally, a large uplift in cards & payment fees (inflation & rate adjustments), shortening loan maturities (rise in lending-related fees with more rollovers) and the IPO wave in the Turkish stock market as well as decent stock market performance also contributed positively to fee growth over the past year. Growth in fees was more than double that of loans and assets in this period.

We believe part of this positive trend was specific to the unique market dynamics of the period and is likely to normalize. However, a large part of the uplift was structural; hence, we think fees/assets have settled at a new normal.

Exhibit 78: Fee growth vs. asset and loan growth (YoY)
Fee growth to decelerate in 2024E



Source: BofA Global Research

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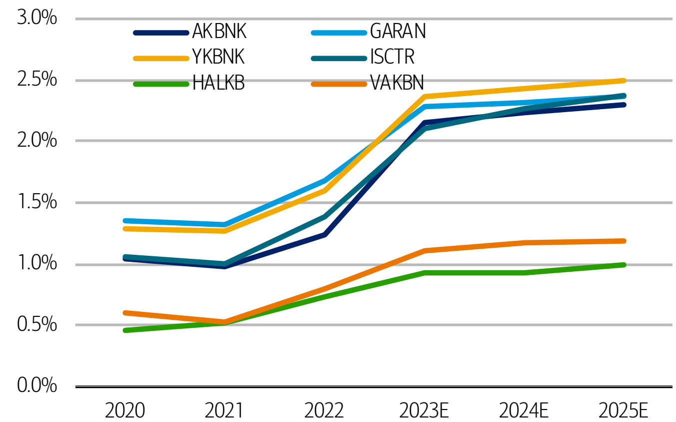
Exhibit 79: Fees/assets comparison per bank
Fees/assets have nearly doubled their 2020 levels



Source: BofA Global Research

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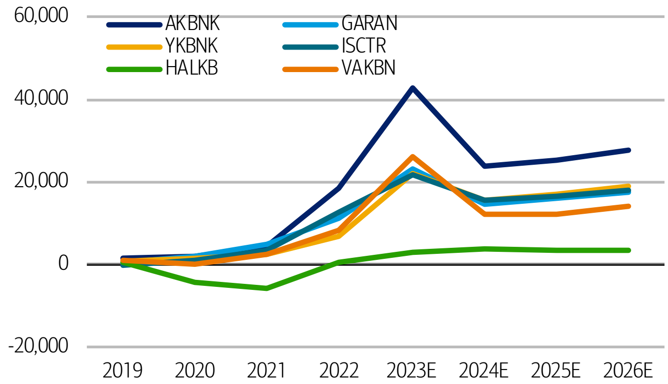
Trading income to ease off from its peak

Trading income is seasonal, market-dependent, and usually relies on key employees. Additionally, it is the most unpredictable revenue line. Hence, bank investors usually perceive it as low-quality income.

Although we do call it 'trading' income, for Turkish banks it is more reflective of what's being managed in the business than anything happening in the trading room. We tend to adjust their trading income for SWAP costs (include in our NII calculation) and currency hedges for loan losses (include in our net cost of risk calculation). That being said, 2023 was a remarkable year for adjusted trading profits considering the market volatility, increased bid-ask spreads in the FX market around the election period and marked-to-market gains on IRS positions. These market- and activity-related gains are likely to ease going forward as macro conditions normalize.

We also note that trading income trends have not been equal across all private banks. While they have all consistently delivered decent returns, we think Akbank stands out. Its recurring above-sector trading income in recent years reflects the firm's greater emphasis on the trading room compared with peers, in our view. We assume Akbank's superior trading income performance continues.

Exhibit 80: Net trading income (in TRY)
Trading gains skyrocketed in 2023 expect for Halk



Source: BofA Global Research

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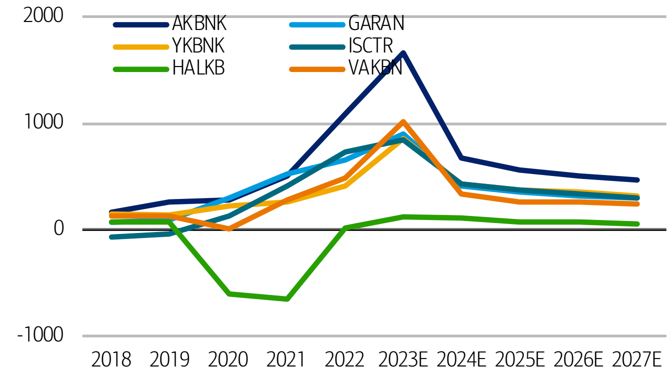
Exhibit 81: Net trading income (in USD)
We see gains normalizing in USD terms



Source: BofA Global Research

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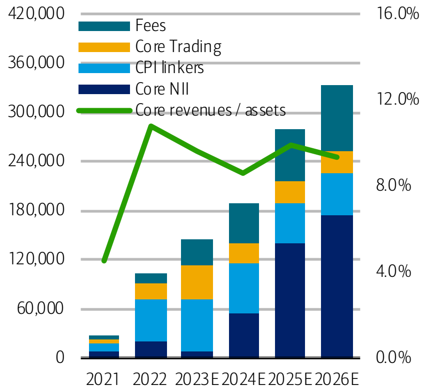
Comparison of core revenue outlook per bank

Exhibit 82: Akbank – Core revenue outlook
Lower trading to be offset by core NII in 24E



Source: BofA Global Research

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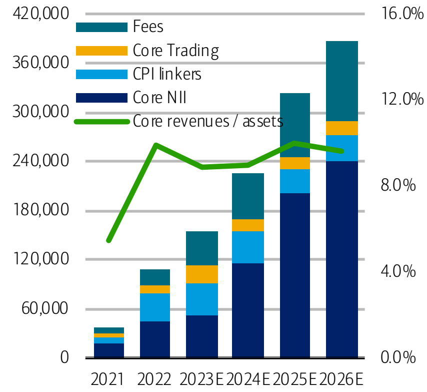
Exhibit 83: Garanti – Core revenue outlook
Core revenue margin up slightly in 24E



Source: BofA Global Research

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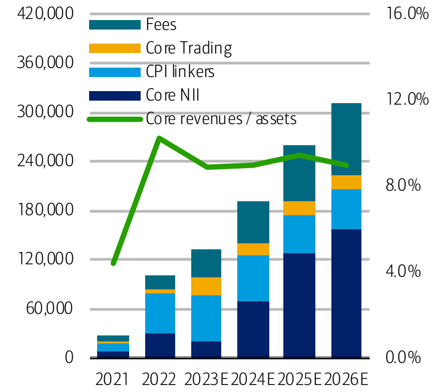
Exhibit 84: Yapi – Core revenue outlook
Core revenue margin up slightly in 24E



Source: BofA Global Research

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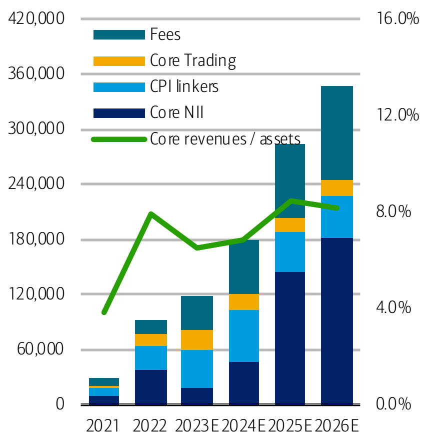
Exhibit 85: Isbank – Core revenue outlook
Higher CPI linker income is supportive in 24E



Source: BofA Global Research

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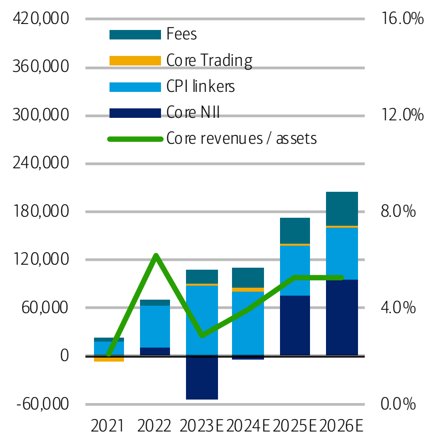
Exhibit 86: Halk – Core revenue outlook
Recovery likely but the pace is slow



Source: BofA Global Research

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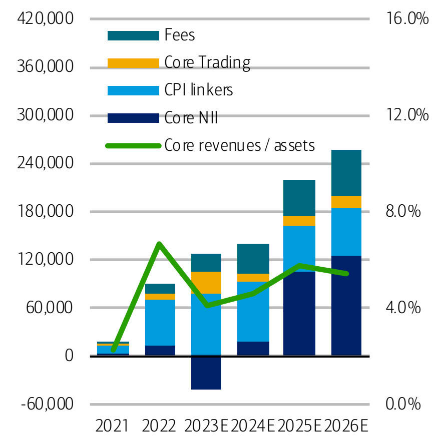
Exhibit 87: Vakif – Core revenue outlook
Gradual recovery on the horizon



Source: BofA Global Research

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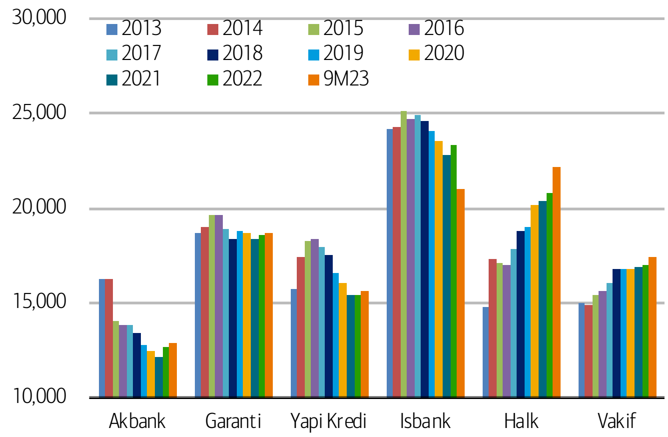
Efficiency in focus

Isbank is the new efficiency-gain story

Private banks have been focusing on FTE and branch optimization for almost a decade. We think Akbank and Yapi have already completed the bulk of the transition given their accomplishments prior to 2021. On the other hand, Isbank's branch network optimization has accelerated from 2020 and the number of employees has declined significantly in 2023 thanks mostly to retirement schemes. We think this gives it a relative advantage when it comes to YoY cost progression vs. peers in 2024-25. We also note that Garanti has been rather strict on non-HR costs over the past year. As for state banks, the number of employees has been increasing and the branch network has been relatively stable, most likely due to their above-sector growth in recent years.

Exhibit 88: FTEs progression per bank

Isbank's FTEs down materially in 2023



Source: Company financials, Turkish Banks Association

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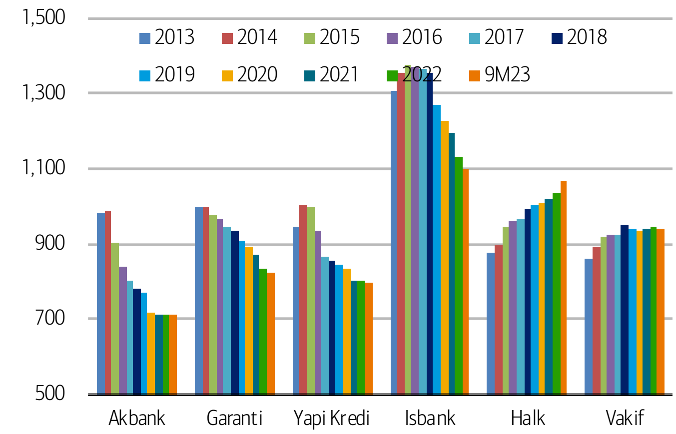
Exhibit 89: Number of branches per bank

Biggest and continued decline at Isbank



Source: Company financials, Turkish Banks Association

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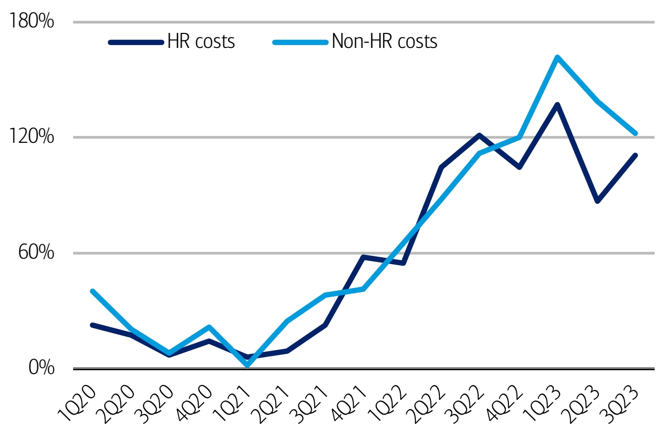
HR costs constitute around c40% of opex for Turkish banks. Non-HR costs have risen the most in 2023 given the immediate impact of inflation and a weaker currency on most expense lines, whereas HR costs are increased periodically via salary adjustments. These usually happen once a year in January or twice a year in January and July. However, over the past two years several banks have made interim salary adjustments to support employees at times of high inflation.

Exhibit 90: YoY growth in HR and non-HR costs

Non-HR costs grew faster



Source: Company financials, BofA Global Research

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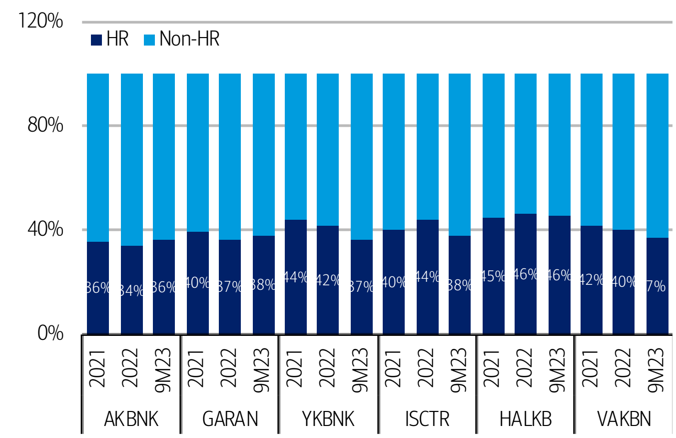
Exhibit 91: Breakdown of HR and non-HR costs

HR costs constitute c.40% of opex



Source: Company financials, BofA Global Research

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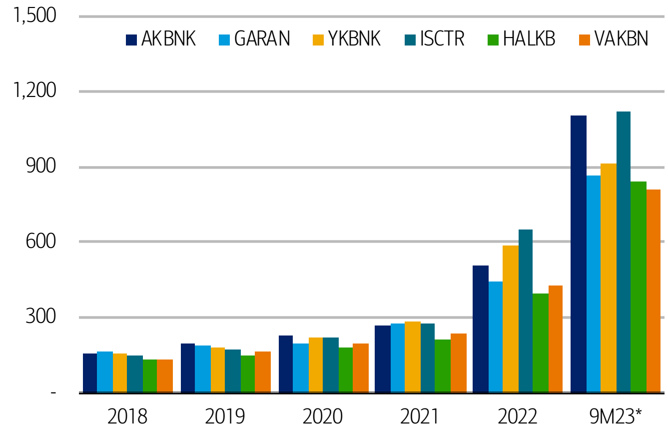
Average employee costs (HR cost/avg. employees) did not deviate significantly among private banks during 2018-21. However, intra-year salary adjustments (vs. YE changes at some banks) resulted in differences in 2022 and annualized 9M23 comparison metrics. We believe these differences are temporary and should diminish over the next few quarters. Generally, we assume average employee costs rise broadly in line with average CPI levels (c60% in 2024).

The increase in non-HR costs (excluding earthquake donations) has been relatively higher. We think this trend is going to remain intact, at least for another year. We see an average 65% rise in non-HR costs in 2024, excluding one-offs.

Exhibit 92: HR costs / avg. employee

Divergences among private banks likely to diminish over the coming quarters



Source: Company financials, BofA Global Research

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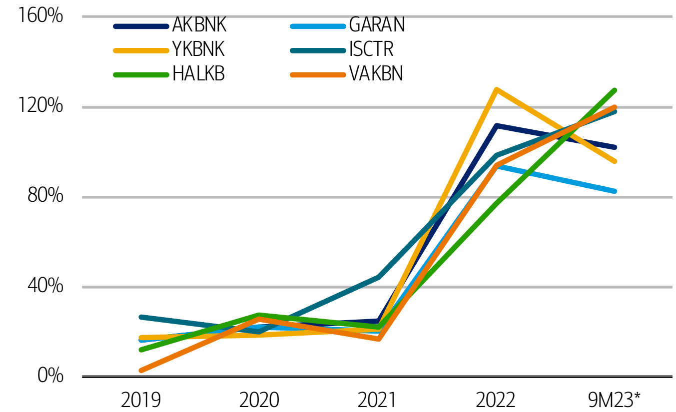
Exhibit 93: Non-HR costs YoY increase

Increase in non-HR costs were lower at Garanti in 9M23



Source: Company financials, 9M23 figures are annualized and exclude the earthquake donations

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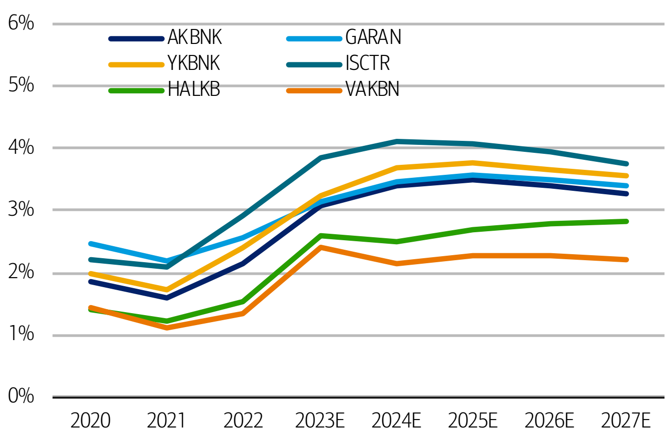
We welcome Garanti's recent efficiency improvements with a smaller uplift in costs/assets than at its private peers. As for the medium term outlook, we are most positive on Isbank given the bank's higher base, management's focus on this category and the lagged impact of recent actions taken. Our efficiency estimates for Isbank are conservative and there is upside risk to our numbers.

Exhibit 94: Costs/assets outlook per bank

Garanti's metrics improved; Isbank to lower the gap with peers



Source: Company financials, BofA Global Research

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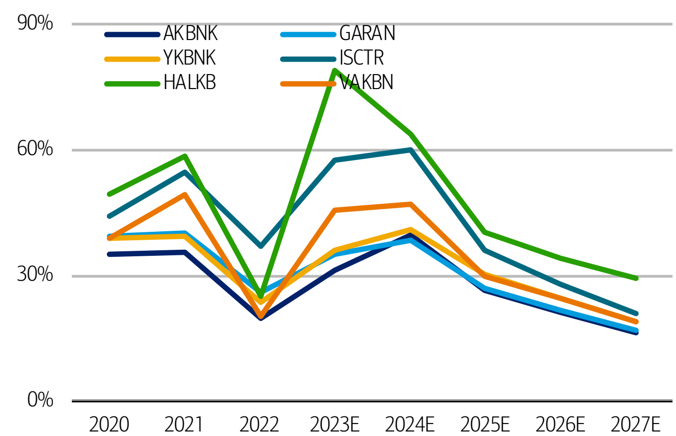
Exhibit 95: Costs/core revenue outlook per bank

Isbank to close the gap in the long term



Source: Company financials, BofA Global Research

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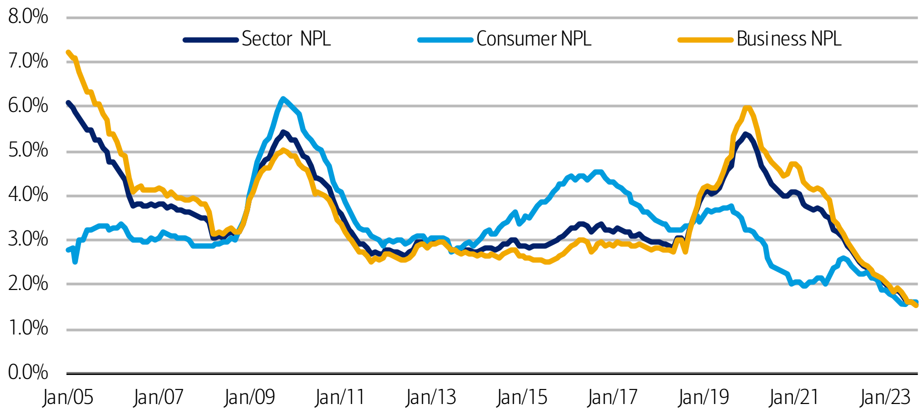
Well-prepared for the approaching asset quality cycle

High inflation has worked in favor of banks' asset quality thanks to deeply negative real interest rates over the past year, ever-increasing asset prices, and sustained volume growth. Accordingly NPL ratios have reached multi-decade lows. This trend is soon to reverse, however, considering the rising interest rate spillover to borrowers' refinancing ability, slowing lending growth and, to a smaller extent, delayed NPLs coming from the earthquake region.

While we see particular risks for unsecured consumer lending and SMEs, we are not overly pessimistic given some mitigating factors and the strength that the banks have built up since 2018. As we show in our stress test, we think private banks are well-equipped to stomach extreme stress scenarios without the need for capital or even reporting P&L losses.

Exhibit 96: Turkish NPL ratios are at all-time lows

Inflation has so far worked in favor of asset quality. The trend is likely to reverse but banks are well-prepared



Source: BDDK, BofA Global Research

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Consumer NPLs to rise given affordability issues

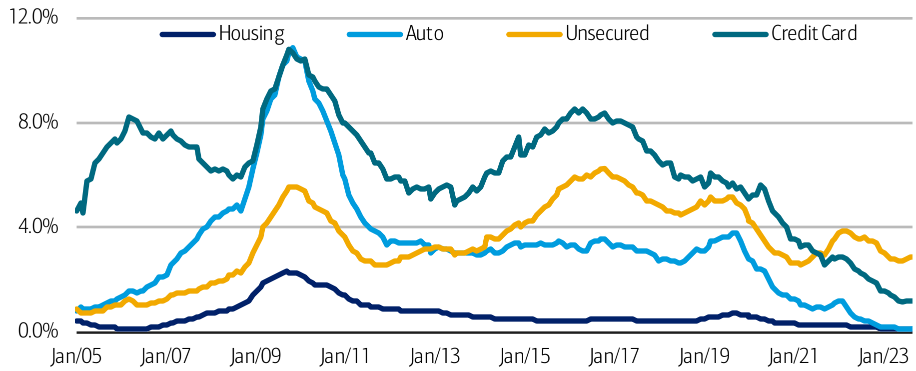
We think loan losses on the consumer side will increase from their below-cycle levels. We are not overly pessimistic considering the mitigating factors: **1)** the average ticket size on unsecured NPLs is rather small (around TRY40k and rarely exceeds TRY75K); **2)** a large portion of unsecured loans has been distributed to salary clients; **3)** we do not expect a sharp increase in the unemployment rate, which has historically been the main driver of consumer NPLs; and **4)** households' balance sheets have strengthened materially over the past two years.

Focus is on credit cards and unsecured loans

The TRY-denominated fixed-rate nature of consumer loans has historically backstopped the negative impact of currency depreciation and rapid rises in interest rates. Given the inflationary impact on asset prices, we are less worried for auto and housing loans, which together constitute 22% of consumer or c5% of total loans. We think the main risk lies in GPLs (unsecured general purpose loans) and credit cards where the asset quality generally relies on borrowers' refinancing ability.

Exhibit 97: Details of consumer NPLs

Lower NPL ratios for auto and housing loans, but we are concerned about unsecured lending & credit cards



Source: BDDK, BofA Global Research

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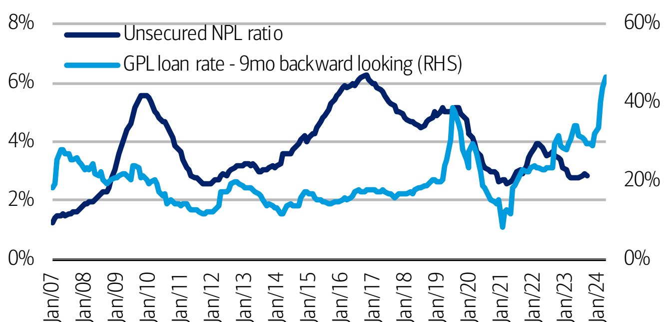
As seen in the chart below, the link between the unsecured NPLs and lending rates was fairly muted before 2019. However, the correlation increased materially after 2019 given declining durations and intensified affordability issues for the lower-income group. While we acknowledge that what matters more is real interest rates not nominal numbers, Turkish consumers have not been tested with +60% rates in recent history. This is likely to weigh on NPL inflows.

Predictably, the unemployment rate has historically been the key determinant of consumer NPLs. Our economists do not expect a sharp rise in unemployment; they see the rate increasing by 1pp to 12% in 2024, which is still below the +13% levels of 2019-20. This should limit the deterioration in asset quality.

Exhibit 98: Unsecured NPLs vs. interest rates

Correlation between NPLs and rates has increased after 2019



Source: BDDK, CBT, BofA Global Research

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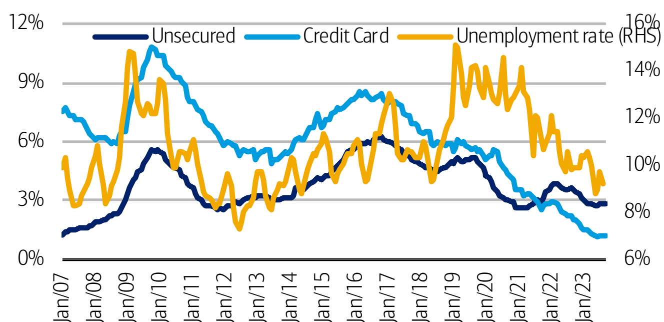
Exhibit 99: Unsecured & credit card NPLs vs. unemployment

Highly correlated



Source: BDDK, CBT, BofA Global Research

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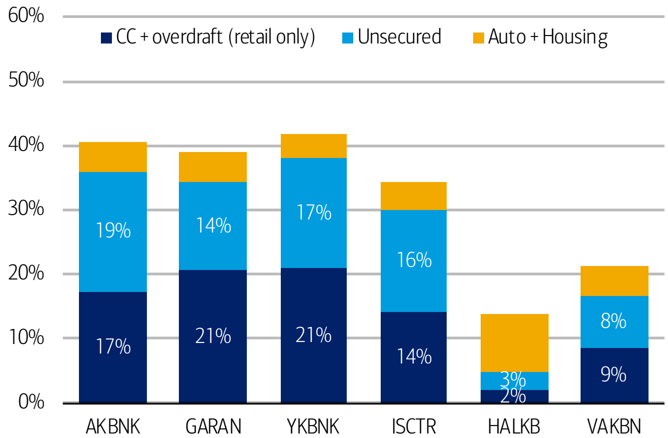
Higher yields on unsecured consumer loans have increased the lending appetite of private banks, leading them to deliver faster growth versus state peers over the past year. Meanwhile, substantial growth in the credit card segment was attributable to customers taking advantage of negative real interest rates in this period. Note that following the recent rate hikes, the advantage of low interest rates on credit cards has disappeared.

Exhibit 100: Consumer loans/total loans
Akbank, Garanti and Yapi have higher exposures to CC and unsecured loans



Source: Company financials, BofA Global Research

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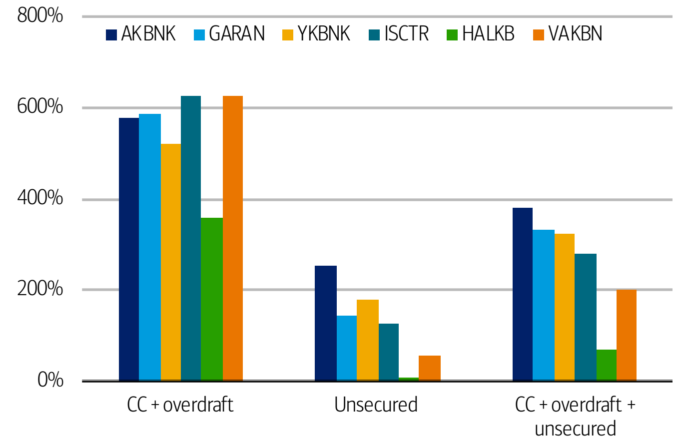
Exhibit 101: Cumulative growth in 2020-3Q23
Isbank and Vakif grew more in CC & overdrafts; Akbank in unsecured lending



Source: Company financials, BofA Global Research

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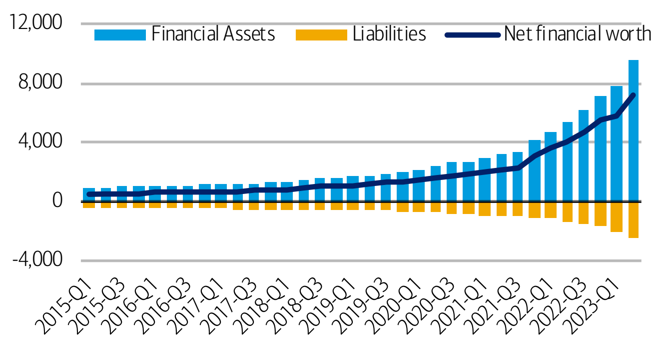
Households' balance sheet has improved

Unlike the trend in high inflation countries, the balance sheet of Turkish households has improved over the past two year thanks to valuation gains from FX & deposits (68% of assets) and equities (c10% of assets) compared with negative real interest rate charges on loans (90%+ of liabilities). Clearly, this shows that the aggregate dataset is, in our view, dominated by high-end earners that have access to credit and better financial literacy. While this is what relevant for banks' asset quality outlooks, it may not necessarily indicate a similar financial strength for mid- to low-end earners. Regardless, it still suggests a good starting point for the approaching asset quality cycle.

Exhibit 102: Progression of households' net financial worth
Has been improving thanks to gains from FX & deposits and equities



Source: CBT

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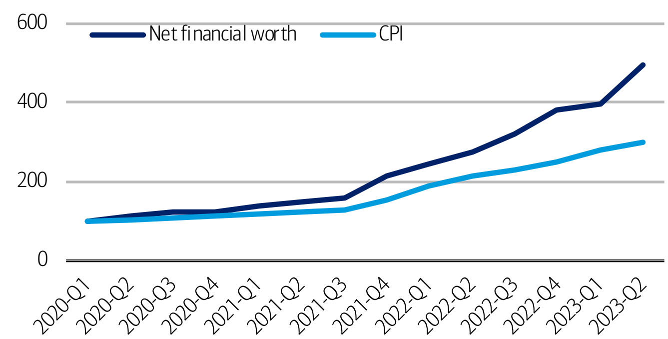
Exhibit 103: Households' net financial worth vs. CPI (indexed)
Increase in net financial worth has been faster than CPI



Source: CBT

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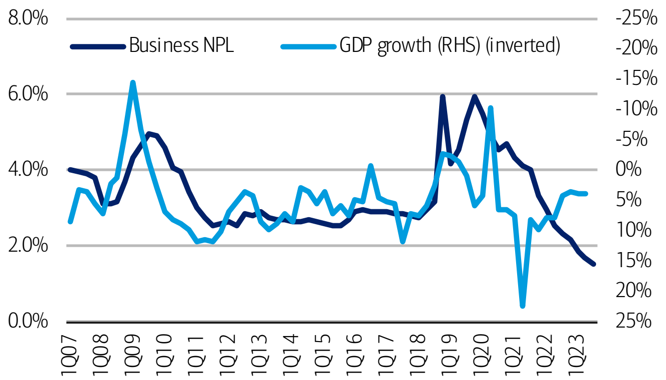
Business NPLs to surface as lending growth decelerates

The key indicators of business NPLs in Türkiye have been GDP growth, interest rates and liquidity provided to the firms (i.e. lending growth). Our economists expect 3.4% GDP growth in 2024 to be followed by 4.6% in 2025. While this is below the run-rate of the past three years, it should be manageable from an asset quality perspective. We believe the key NPL drivers over the upcoming cycle will be high interest rates and the absence of liquidity for various industries. State banks have substantially outgrown private peers in TRY business lending, making them more exposed to asset quality risks in this category

Exhibit 104: Business NPL vs GDP growth (inverted)

Business NPL follows GDP growth with a lag...



Source: BDDK, TUIK, BofA Global Research

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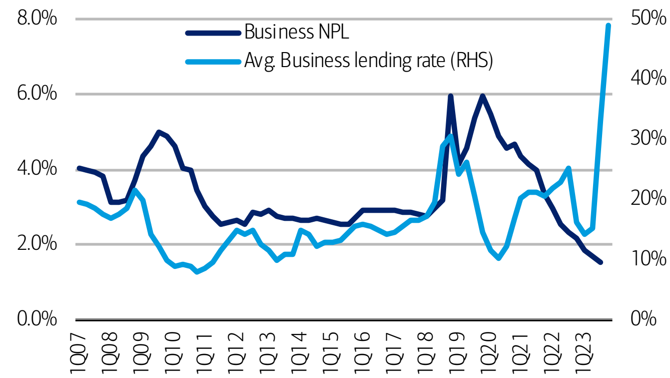
Exhibit 105: Business NPL vs. interest rates

... and changes in interest rates



Source: BDDK, CBT, BofA Global Research

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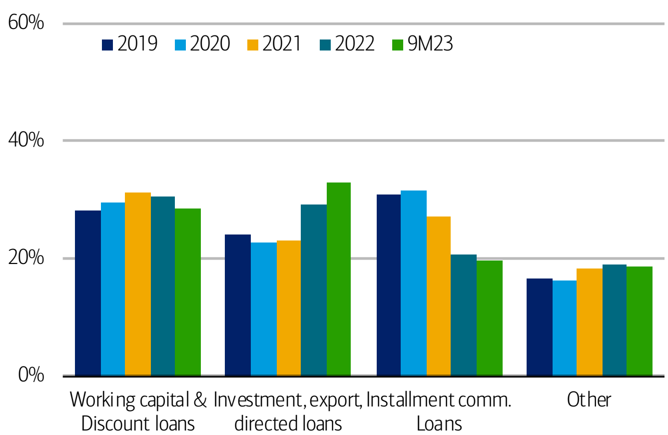
Due mostly to regulations and incentives, the local currency business lending mix has shifted towards investment and export loans from instalment commercial and working capital loans. Given the existing growth caps we would expect this trend to remain intact over the coming year. Within TRY business loans we see higher NPL risks for working capital loans and instalment commercial loans (i.e. SME proxy).

Exhibit 106: Breakdown of TRY business loans

% of investment & export loans on the rise



Source: BDDK, BofA Global Research

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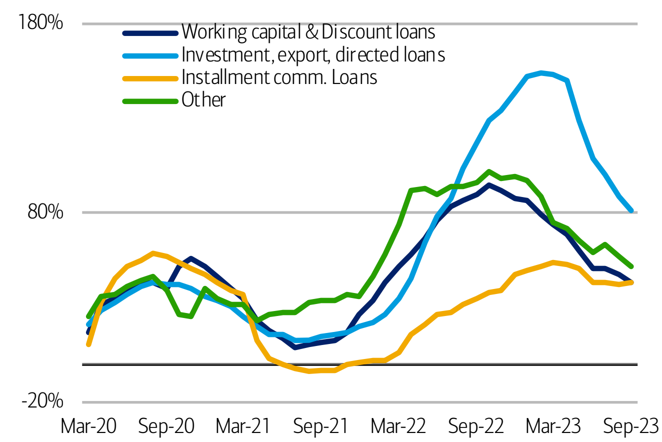
Exhibit 107: TRY loan growth per categories

Targeted segments: Investment & export loans deliver higher growth



Source: BDDK, BofA Global Research

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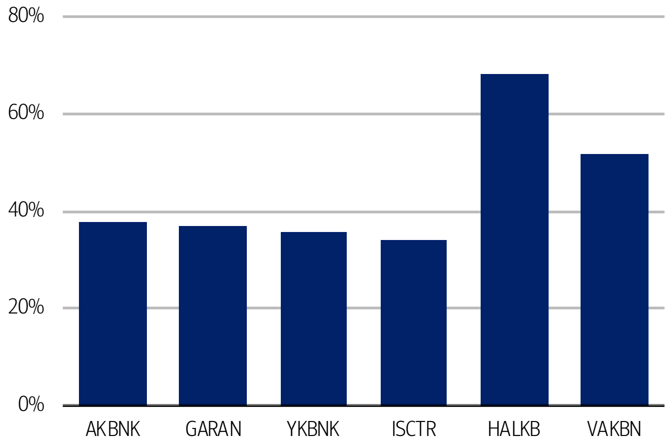
In contrast to the trend in consumer loans, state banks have substantially outgrown private peers in TRY business lending, making them more exposed to asset quality risks in this category.

Exhibit 108: TRY business loans/total loans
State banks have higher exposures



Source: Company financials, BofA Global Research

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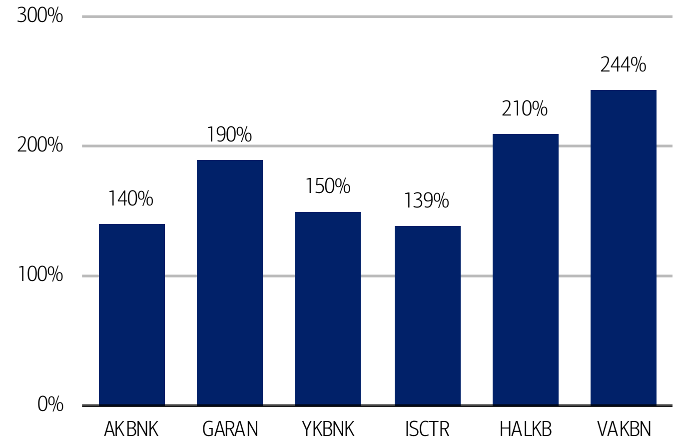
Exhibit 109: Cumulative growth between 2020 and 3Q23
State banks' growth is above private banks'



Source: Company financials, BofA Global Research

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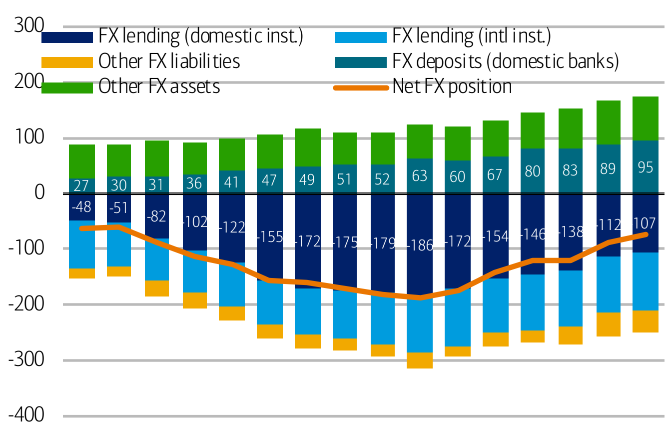
FX lending no longer a key risk

Turkish corporates' FX debt had been a key concern for investors over the past decade as their net short-FX position peaked north of USD180bn, equivalent to +22% of GDP in 2017. However, following the financial turmoil in 2018, corporates deleveraged their FX debt (mostly from domestic banks), which resulted in their net short position declining by more than USD100bn, to less than 8% of GDP by 9M23. While sharp TRY weakness could remain an asset quality risk for some businesses, this is no longer a threat at the system level and is not a key driver of our cost of risk estimates. As might be recalled, all consumer loans in Türkiye are in local currency terms; hence, not exposed to currency risk.

Exhibit 110: Breakdown and progression of corporates' short FX position
Deleveraging stemmed from domestic bank lending



Source: CBT

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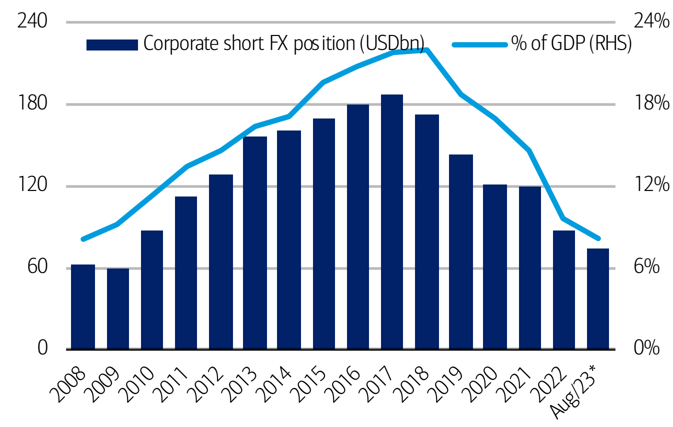
Exhibit 111: Corporates' short FX position as a % of GDP
Short FX position around 8% of GDP vs. +20% in 2016-18



Source: CBT , BofA Global Research

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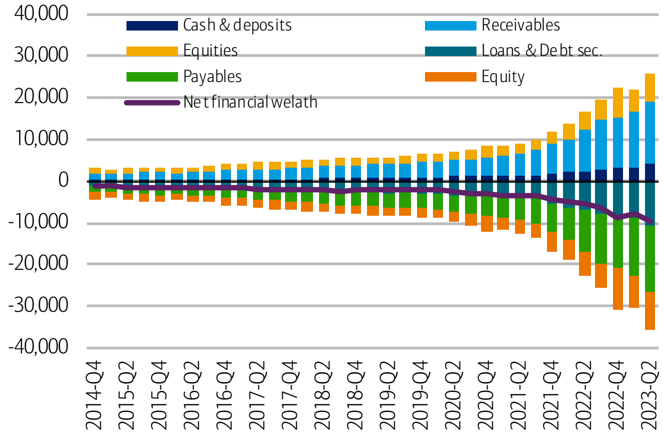
The financial net worth of corporates has been gradually declining given the limited valuation gain on their assets (cash & deposits and equities constitute a smaller percentage of assets vs. households) Regardless, the percentage of debt over total financial assets remains around 40%, which is below the 2018-20 average.

Exhibit 112: Financial net worth of non-financial corporations
Gradually declining



Source: CBT

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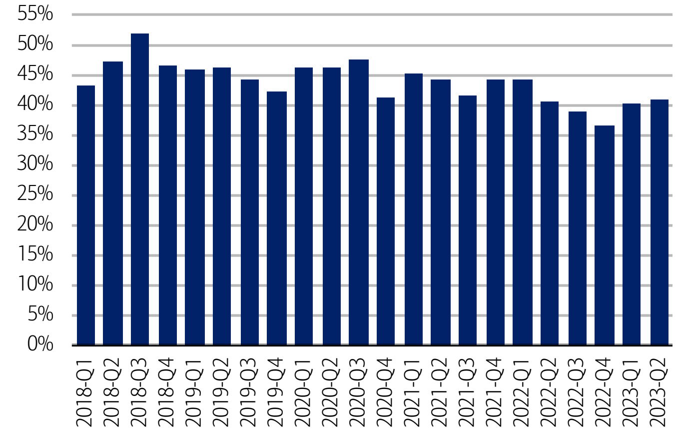
Exhibit 113: Non-financial corporations – debt/total financial assets
Below 2018-20 average at around 40%



Source: CBT *Debts: loans + debt securities

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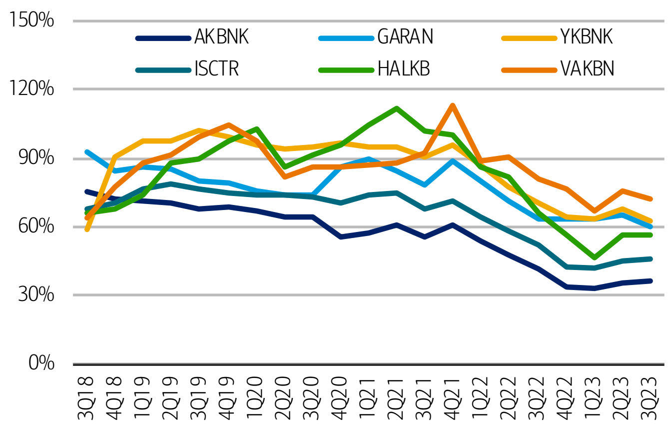
Bank-specific comparisons – focus on adjusted Texas ratios

We think analysing Turkish banks' asset quality resilience solely on coverage ratios would be misleading as it underestimates the substantial book value growth and capital built up over the past two years. In geographies with relatively higher asset quality issues, investors tend to focus on the 'Texas ratio', which measures potential asset quality implications for capital. The traditional Texas ratio compares NPLs with tangible BV + loan loss reserves. A lower ratio means better resilience and one above 100% is usually a red flag. We conservatively add the Stage 2 loans to the equation. Yet, ratios remain well below 100% for all banks.

Exhibit 114: Progression of adjusted Texas ratios
Adjusted Texas ratios have been on a downward trend



Source: Company financials, BofA Global Research * Based on consolidated financials

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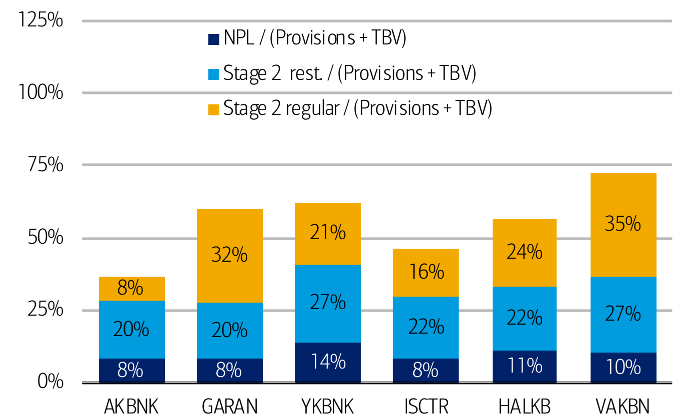
Exhibit 115: Comparison and breakdown of 3Q23 adjusted Texas ratios
Texas ratios better at Akbank and Isbank



Source: Company financials, BofA Global Research * Based on consolidated financials

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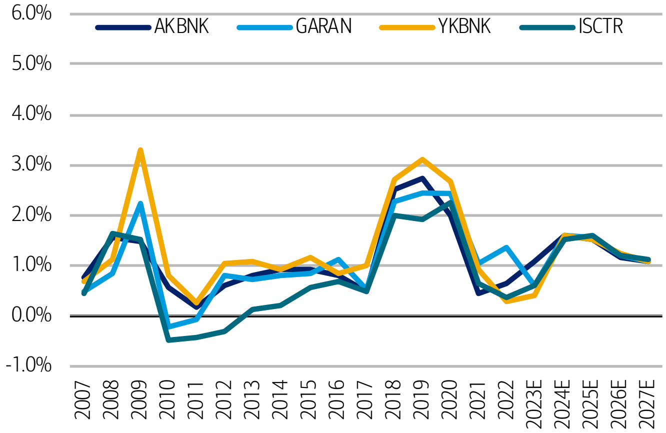
State and private banks are likely in different stages of the cycle

We expect private banks' net cost of risk levels (adjusted for recoveries and hedged currency impact) to remain in a 150-170bp range in 2024-25 before gradually declining to 1-1.1pp by 2027. State banks consistently delivered lower cost of risk vs. private peers from 2007 to 2020 but their run rates have been higher since then. While we are less concerned on the consumer side (state banks tend to have higher salary accounts vs. private banks), we think business NPLs should be higher than at private banks given the higher growth rate into the slowdown and end of negative real interest rate trends.

Exhibit 116: Private banks – cost of risk progression
150-170bp in 2024-25 before gradually declining to 1-1.1pp



Source: Company financials, BofA Global Research

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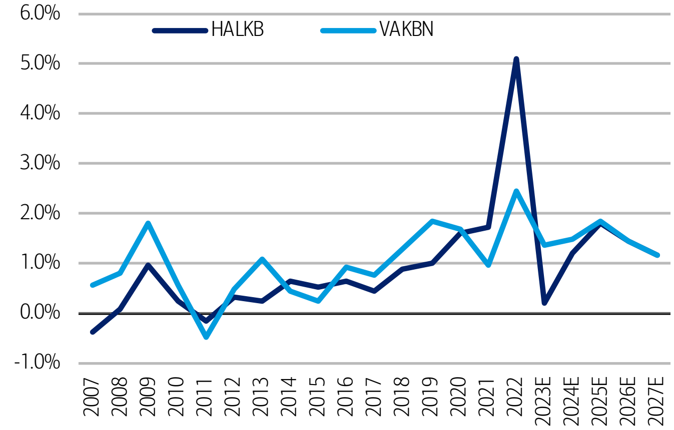
Exhibit 117: State banks – cost of risk progression
CoR to remain slightly above private banks



Source: Company financials, BofA Global Research

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Private banks pass the stress test with top marks

We run an extreme stress test to assess the impact of an asset quality shock on Turkish banks' capital. Our analyses are based on both a static and dynamic B/S approach. Our assumptions are as follows (detailed analysis in the appendix):

- **Avg. NPL ratio to exceed 10% vs. 2% in 3Q23:** 1) 100% of Stage 2 restructured loans to migrate to NPLs, 2) 50% of Stage 2 regular loans to migrate to NPLs, 3) additional 2pp NPL inflow.

- **Avg. Stage 2 ratio at >7% after NPL migrations:** We further pencil in a 5pp inflow to the Stage 2 category.

- **Coverage per each loan category to be in line with historical levels:** We assume a coverage ratio of 70% for Stage 3 and 15% for Stage 2, and a performing loan coverage ratio at 0.65%. These are in line with the median coverage ratios of covered banks since the start of IFRS accounting in 1Q18.

Exhibit 118: Key stress-test assumptions
NPL ratios above 10% and S2 ratio above 7% on avg.

	3Q23			Stress test	
	NPL	S2 Restructured	S2 Regular	NPL	Total S2
AKBNK	2.0%	5.0%	2.0%	10.0%	6.0%
GARAN	1.9%	4.6%	7.6%	12.3%	8.8%
YKBNK	3.3%	6.3%	4.9%	14.1%	7.5%
ISCTR	2.0%	5.4%	4.0%	11.3%	7.0%
HALKB	1.5%	2.9%	3.2%	8.0%	6.6%
VAKBN	1.5%	4.0%	5.3%	10.2%	7.6%
Average	2.0%	4.6%	4.6%	10.8%	7.3%

Source: Company financials, BofA Global Research

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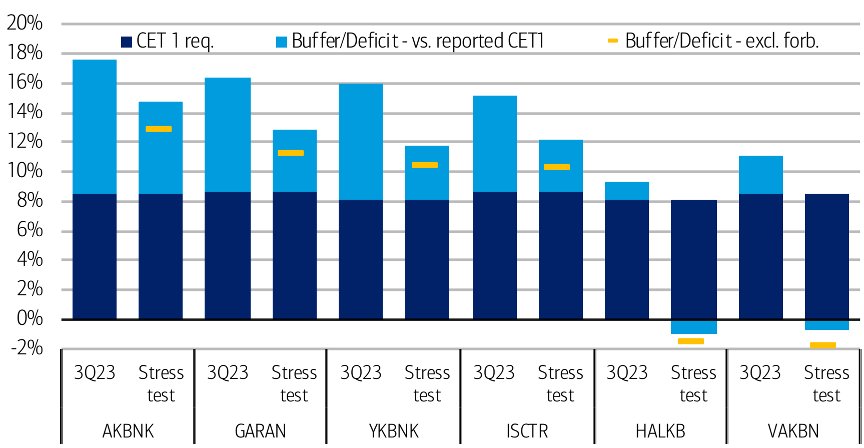
The static B/S approach theoretically assumes the changes happen overnight. Even under these conservative assumptions, private banks' capital ratios remain well above the requirements. Meanwhile, state banks' capital ratios fall below regulatory thresholds.

Exhibit 119: CET1 buffers before and after stress test (Static B/S)
Private banks are comfortable



Source: Company financials, BofA Global Research

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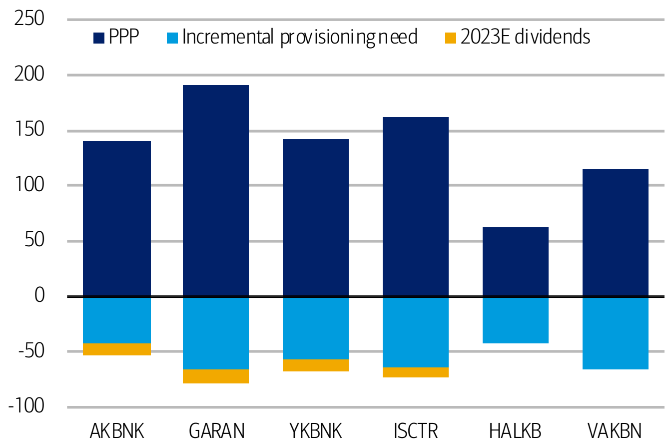
In the dynamic B/S approach we assume these changes happen by YE24. Hence, we also incorporate the RWA growth (with our YE24 USD/TRY estimate of 40) and pre-provision profit (PPP) estimates for the next five quarters as well as 2023E dividends. The capital impact is smaller given the elevated PPP levels, which outpace the incremental provisioning need for private banks.

Exhibit 120: Dynamics B/S approach – breakdown of capital hit

PPPs above the provision needs in stress test



Source: BofA Global Research

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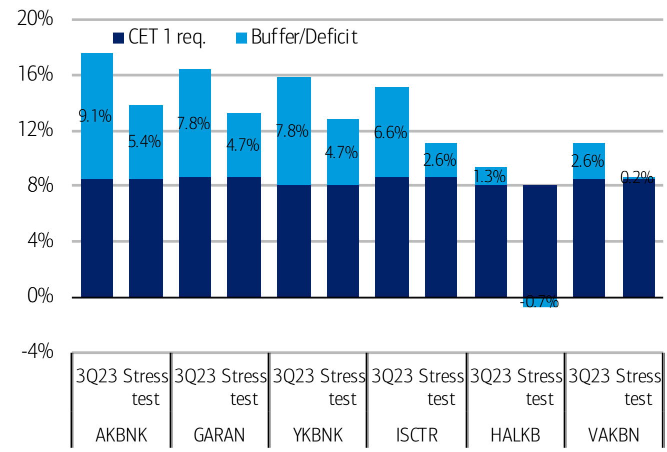
Exhibit 121: CET1 buffers before and after stress test (Dynamic B/S)

Private banks and Vakif remain above thresholds



Source: BofA Global Research

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Capital comfortable at private banks

Turkish banks' reported capital ratios have sizeable buffers to regulatory requirements. However, these incorporate two forbearance measures: fixing MtM losses of securities and using the 2022YE FX rate for RWA calculations (USDTRY around 18.7), which inflated private banks' reported ratios by an average of 2pp and Vakif's ratio by 1.3pp as of 3Q23.

Private banks are operating on the assumption that no capital forbearances are used, but they are available if needed. Their adjusted buffers remain high, whereas state banks' levels are rather close to the thresholds. The FX adjustments for the RWA forbearance formula are likely to switch from YE22 to YE23E (BofAe USDTRY at 30), with 1Q24 financials closing the gap between the two metrics. This is included in our capital estimates.

Exhibit 122: Buffers vs. reported capital (consolidated)
Private banks have more than 5pp buffers

	CET1	Req.	Buffer	T1	Req.	Buffer	CAR	Req.	Buffer
AKBNK	17.6%	8.5%	9.1%	17.6%	10.0%	7.6%	20.7%	12.0%	8.7%
GARAN	16.4%	8.6%	7.8%	16.4%	10.1%	6.3%	18.6%	12.1%	6.4%
YKBNK	15.9%	8.1%	7.8%	17.7%	9.6%	8.2%	19.9%	11.6%	8.4%
ISCTR	15.1%	8.6%	6.5%	15.5%	10.1%	5.4%	18.9%	12.1%	6.9%
HALKB	9.3%	8.1%	1.2%	11.3%	9.6%	1.7%	12.8%	11.6%	1.2%
VAKBN	11.1%	8.5%	2.6%	12.9%	10.0%	2.8%	14.3%	12.0%	2.3%

Source: Company financials, BofA Global Research

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Exhibit 123: Buffers vs. 'real' capital (excl. forb., consolidated)
Private banks have more than 3pp buffers

	CET1	Req.	Buffer	T1	Req.	Buffer	CAR	Req.	Buffer
AKBNK	15.5%	8.5%	7.0%	15.5%	10.0%	5.5%	18.4%	12.0%	6.4%
GARAN	14.4%	8.6%	5.8%	14.4%	10.1%	4.3%	16.5%	12.1%	4.4%
YKBNK	14.2%	8.1%	6.1%	15.8%	9.6%	6.2%	17.8%	11.6%	6.2%
ISCTR	12.8%	8.6%	4.2%	13.1%	10.1%	3.0%	16.3%	12.1%	4.2%
HALKB	n.a.	8.1%	n.a.	n.a.	9.6%	n.a.	n.a.	11.6%	n.a.
VAKBN	9.8%	8.5%	1.2%	11.4%	10.0%	1.3%	12.8%	12.0%	0.8%

Source: Company financials, BofA Global Research

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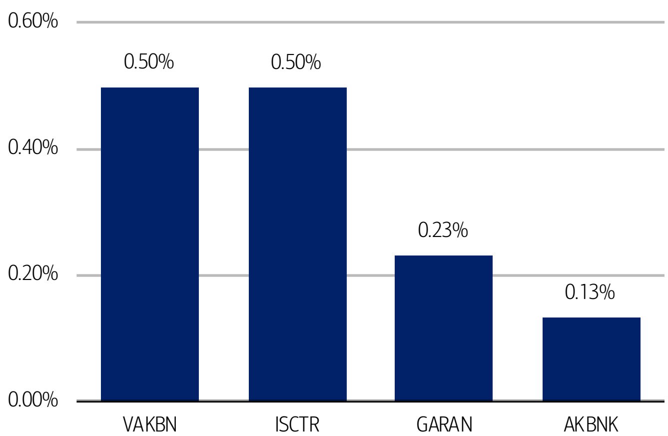
Further mitigating factors

We also note that most of the banks have sizeable free provisions, which could be reversed to support the capital, if needed. The impact could be quite material at 50bp for Isbank and Vakif, and somewhat smaller for Garanti and Akbank. Additionally, already high risk weighting requirements for consumer loans in Türkiye have been raised further in 3Q23 (for new originations) to curb loan growth. In times of stress, regulatory measures could cause the RWA density to come down.

Exhibit 124: Free provisions / RWAs
50bp additional buffer at Vakif and Isbank



Source: BofA Global Research

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Exhibit 125: Comparison of risk weightings
Current regulations are conservative

	Basel req.	Prior to 3Q23	Current (for new originations only)
Credit Cards			
< 6mo	75%	100%	150%
> 6mo	75%	150%	150%
Auto			
All durations	75%	75%	150%
Unsecured consumer			
<12mo	75%	100%	150%
>12mo	75%	150%	150%
Housing loans			
First time buyer	35%	35%	35%
Other	35%	35%	150%

Source: CBT, Banks, BofA Global Research

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In the absence of additional capital injections or state-sponsored lending at lower RWA (not our base case), we would expect state banks' lending growth to remain relatively muted vs. private banks over the next 12 months.

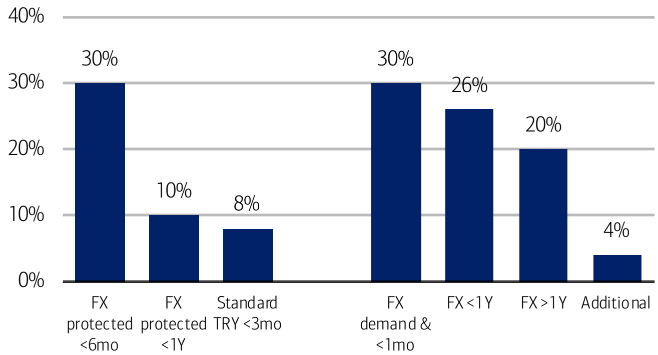
Appendix 1- Regulations

Core loan-deposit spreads used to be the key indicator of Turkish banks' NIM outlook. However, its relevance has been somewhat diluted following continuous regulatory adjustments. NIM-related regulations can be summarized as follows:

Higher reserve requirements

The reserve requirement on FX-protected deposits with less than six months maturity currently stands at 30% vs. 8% for standard TRY deposits. This means a c30% difference in net funding costs between two deposit accounts even if the listed rates were similar. The requirement for FX deposits with less than 1mo maturity also stands at 30% with an additional 4% requirement for all maturities (to be maintained in TRY) for a Deposits/Participation Fund contribution.

Exhibit 126: Reserve requirements on main deposit products
Reserve requirements remain high



Source: CBT, BofA Global Research

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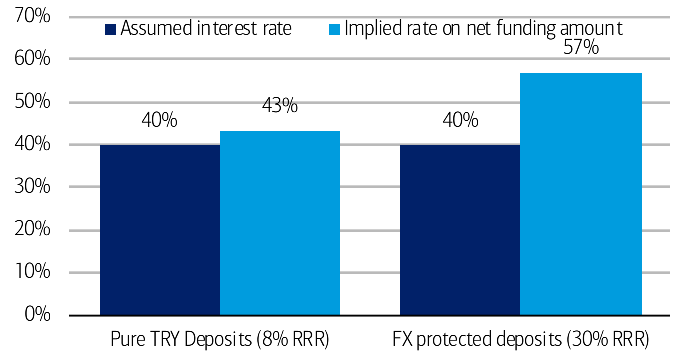
Exhibit 127: Listed rates vs. implied rates on net funding amounts
c30% difference between net funding costs even if rates were similar.



Source: BofA Global Research

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Commissions replace security maintenance requirements on the deposits side

The CBT charges commission on FX deposit reserves with respect to a combination of banks' FX KKM rollovers and conversion of FX KKM to standard TRY deposits. The purpose is to incentivize banks to rollover these FX KKMs or convert them to standard TRY deposits (i.e. prevent migration to FX deposits). The evaluation period is every two weeks.

Banks also pay commission according to the weight of standard TRY deposits within total deposits. Accordingly, banks will pay 2% commission if the weight of standard TRY deposits within retail accounts does not increase by 3.5% every four weeks. As for commercial accounts, they pay 1% commission if the weight decreases.

Banks either pay up to convince the depositors to meet these criteria and/or pay the commissions. Note that commission payments are usually booked under other interest expense lines, hence comparing core spreads on a bank by bank basis could be misleading as it does not capture the entire funding costs.

Long-term TRY security allocation

Existing regulations regarding long-term security allocations consist of interest rate caps, monthly growth caps and conversion from TRY KKM to standard TRY deposits.

Interest rate caps

There are several interest rate cap for loans and banks are required to purchase long-term TRY securities if they exceed these thresholds. The caps are based on the Annual Reference Rate (ARR), which is published monthly by the CBT; it stands at 45.15% for November 2023. The cap on commercial loan rates has been removed recently as the previous 1.8x cap (i.e. >80% rate) was no longer practical. However, the cap on export and investment loan rates stands at 1.4x (implied cap at c.63%) and the one for unsecured consumer lending with a ticket size larger than TRY70k (cUSD2.5k) remains

2.0x (c90%). If a bank's lending rates exceeds the caps, 150% of the loan amount will be allocated as long-term TRY security.

Monthly growth rate limitations

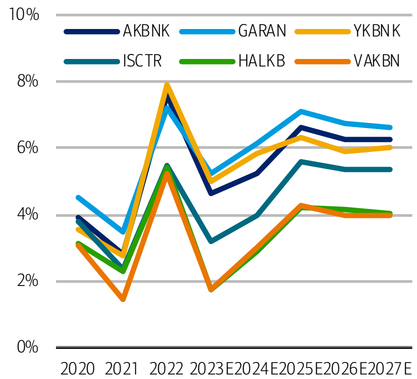
Monthly growth caps for TRY commercial loans (excluding export, investment agriculture, and tradesman loans), auto loans and unsecured consumer lending stand at 2.5%, 2% and 3%, respectively. Banks need to purchase long-term TRY securities equal to the amount exceeding the growth cap.

Conversion from TRY KKM to standard TRY deposits

In each calculation period, 50% of the matured TRY KKM amount must be converted into Standard TRY deposits. If not met then, LT TL security must be allocated for six months with an amount equal to the missing conversion balance.

Appendix 2 – Dupont comparison

Exhibit 128: NII / Assets
Higher at Garanti



Source: BofA Global Research

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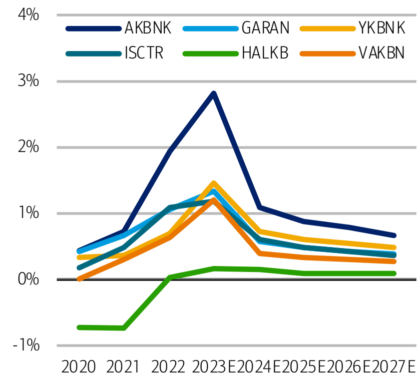
Exhibit 129: Trading / Assets
Higher at Akbank



Source: BofA Global Research

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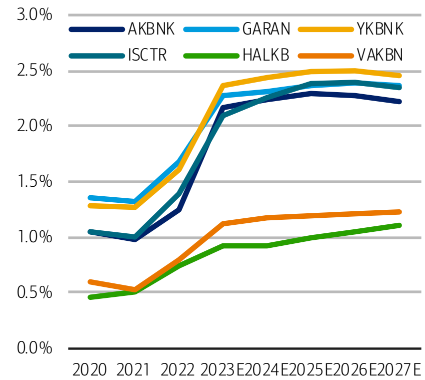
Exhibit 130: Fees / assets
Higher at Yapi



Source: BofA Global Research

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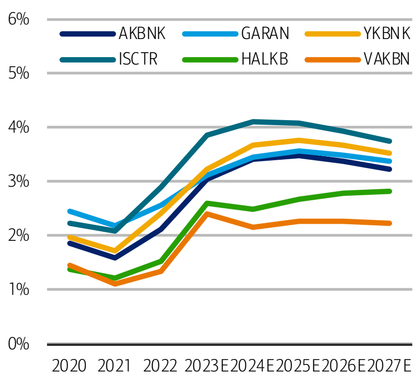
Exhibit 131: Costs / Assets
Higher at Isbank but the gap should be closing



Source: BofA Global Research

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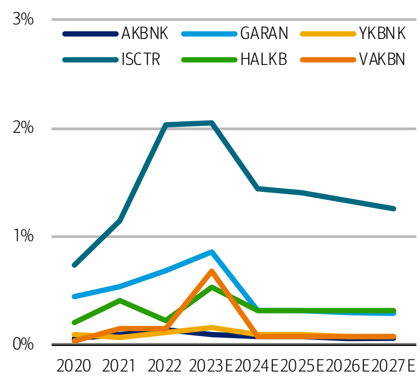
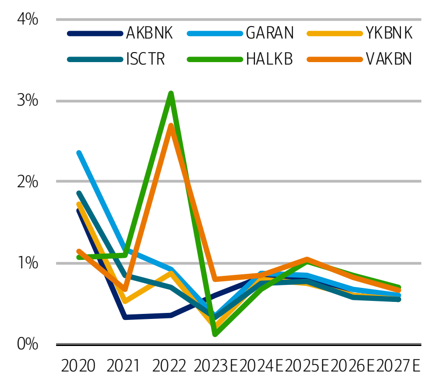
Exhibit 132: Subs + other income / Assets
Isbank is a positive outlier



Source: BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 133: Provisions / Assets
Higher at state banks in 24-27E



Source: BofA Global Research

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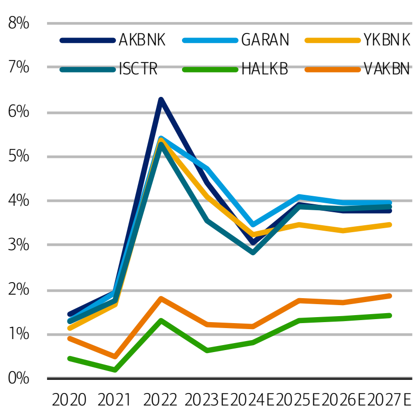
Exhibit 134: Return on assets
Higher at Garanti, Akbank and Isbank



Source: BofA Global Research

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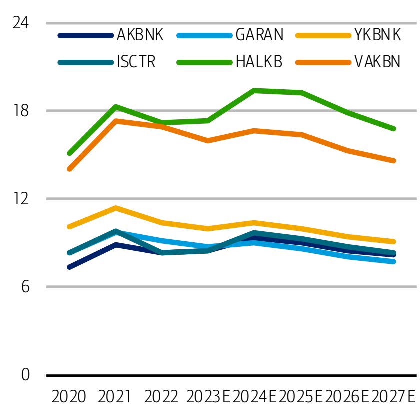
Exhibit 135: Equity multiplier
State banks' leverage levels are high



Source: BofA Global Research

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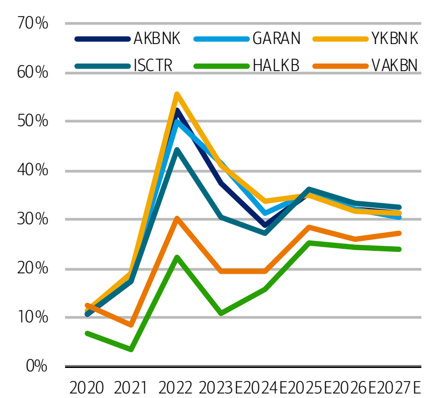
Exhibit 136: Return on equity
Private banks' RoE to remain above 30%



Source: BofA Global Research

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Appendix 3 – Details of the stress test

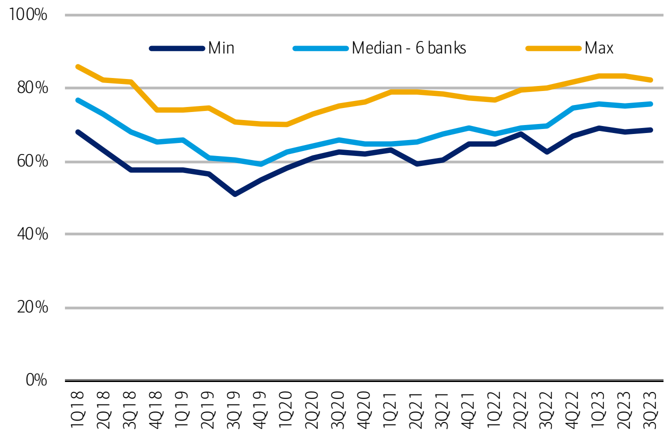
Exhibit 137: Details of the asset quality stress test
Private banks are comfortable, according to our calculations

	AKBNK	GARAN	YKBNK	ISCTR	HALKB	VAKBN
RWA	**1,050,082**	**1,295,402**	**978,177**	**1,498,491**	**1,306,950**	**1,405,401**
CET1	17.6%	16.4%	15.9%	15.1%	9.3%	11.1%
T1	17.6%	16.4%	17.7%	15.5%	11.3%	12.9%
CAR	20.7%	18.6%	19.9%	18.9%	12.8%	14.3%
CET1 requirement	*8.5%*	*8.6%*	*8.1%*	*8.6%*	*8.1%*	*8.5%*
T1 requirement	*10.0%*	*10.1%*	*9.6%*	*10.1%*	*9.6%*	*10.0%*
CAR requirement	*12.0%*	*12.1%*	*11.6%*	*12.1%*	*11.6%*	*12.0%*
Gross Loans	**888,334**	**1,129,267**	**867,725**	**1,201,073**	**1,288,022**	**1,432,841**
NPL	**17,664**	**21,399**	**28,313**	**24,036**	**19,581**	**21,882**
NPL ratio	*2.0%*	*1.9%*	*3.3%*	*2.0%*	*1.5%*	*1.5%*
Stage 2 loans	**61,946**	**137,994**	**97,714**	**111,877**	**78,839**	**133,153**
Stage II Regular	*17,506*	*85,848*	*42,727*	*47,513*	*41,170*	*75,935*
Stage II Restructured	*44,440*	*52,146*	*54,987*	*64,364*	*37,669*	*57,218*
Stage 2 ratio	***7.0%***	***12.2%***	***11.3%***	***9.3%***	***6.1%***	***9.3%***
Stage 2 Regular ratio	*2.0%*	*7.6%*	*4.9%*	*4.0%*	*3.2%*	*5.3%*
Stage 2 Restructured ratio	*5.0%*	*4.6%*	*6.3%*	*5.4%*	*2.9%*	*4.0%*
Total Provisions	**31,304**	**51,223**	**42,011**	**50,543**	**50,676**	**60,158**
Stage I	*6,917*	*5,230*	*6,022*	*5,630*	*11,574*	*13,876*
Stage II	*10,548*	*28,104*	*16,557*	*19,061*	*23,441*	*21,396*
Stage III	*12,439*	*14,889*	*19,432*	*19,377*	*15,662*	*18,137*
Free provisions	*1,400*	*3,000*	*0*	*6,475*	*0*	*6,750*
Stress Test						
NPL ratio – (3Q23 NPLs + 100% of S2 rest. + 50% of S2 regular + 2pp additional inflow)	***10.0%***	***12.3%***	***14.1%***	***11.3%***	***8.0%***	***10.2%***
Assumed Stage 3 coverage	*70%*	*70%*	*70%*	*70%*	*70%*	*70%*
Stage 2 ratio (5pp additional inflows after S3 migrations)	***6.0%***	***8.8%***	***7.5%***	***7.0%***	***6.6%***	***7.6%***
Assumed Stage 2 coverage	*15%*	*15%*	*15%*	*15%*	*15%*	*15%*
Performing loans	***84%***	***79%***	***78%***	***82%***	***85%***	***82%***
Performing loans coverage	*0.65%*	*0.65%*	*0.65%*	*0.65%*	*0.65%*	*0.65%*
Implied provisioning need	*74,865*	*118,036*	*99,551*	*114,273*	*92,411*	*126,102*
Incremental provisioning need	*42,960*	*65,528*	*57,540*	*63,730*	*41,735*	*65,944*
% of gross loans	*4.8%*	*5.8%*	*6.6%*	*5.3%*	*3.2%*	*4.6%*
Static B/S approach (consolidated)						
Hit on capital	30,072	45,869	40,278	44,611	29,214	46,161
CET1 – implied	14.7%	12.9%	11.8%	12.2%	7.1%	7.8%
T1 – implied	14.7%	12.9%	13.6%	12.5%	9.1%	9.6%
CAR – implied	17.9%	15.0%	15.8%	16.0%	10.5%	11.0%
CET1 – implied – post forbearance	13.0%	11.3%	10.5%	10.3%	6.5%	6.9%
T1 – implied – post forbearance	13.0%	11.3%	12.1%	10.6%	8.4%	8.5%
CAR – implied – post forbearance	15.7%	13.2%	14.1%	13.5%	9.7%	9.7%
Dynamic B/S approach (3Q23 vs. YE24, consolidated)						
RWA growth	66.6%	67.3%	64.1%	71.5%	41.5%	55.1%
Pre-provision profit	140,695	190,819	142,270	162,652	62,209	114,105
Incremental provisioning need	-42,960	-65,528	-57,540	-63,730	-41,735	-65,944
2023E dividends	-10,017	-12,284	-9,332	-9,760	0	0
Implied capital change	58,398	75,420	49,979	59,486	14,332	33,713
CET1 – implied	13.9%	13.3%	12.8%	11.1%	7.4%	8.7%
T1 – implied	13.9%	13.3%	13.9%	11.3%	8.8%	9.9%
CAR – implied	15.8%	14.6%	15.2%	13.4%	9.8%	10.8%

Source: BofA Global Research

BofA GLOBAL RESEARCH

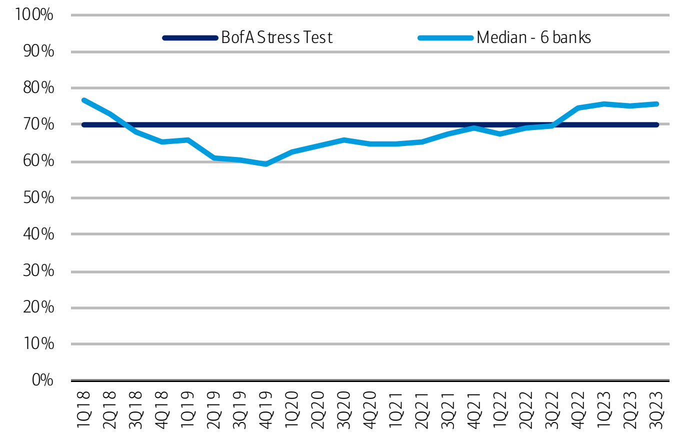
Exhibit 138: Historical progression of Stage 3 coverage ratios
Median coverage averaged at 68%



Source: Company financials, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 139: S3 coverage –Median vs. BofA stress test assumption
We assume 70% coverage in our stress test



Source: Company financials, BofA Global Research

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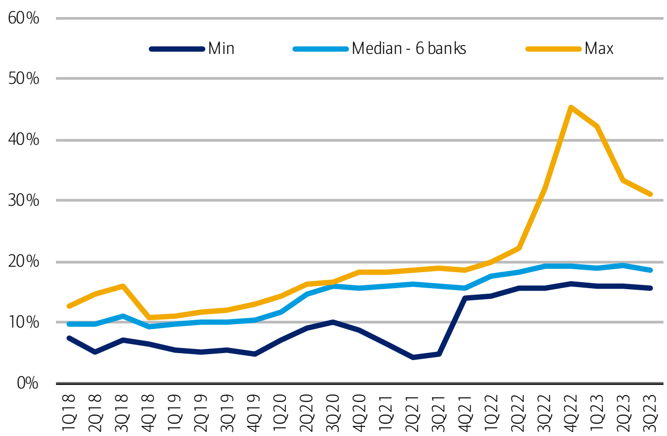
Exhibit 140: Historical progression of Stage 2 coverage ratios
Median coverage averaged at 14.5%



Source: Company financials, BofA Global Research

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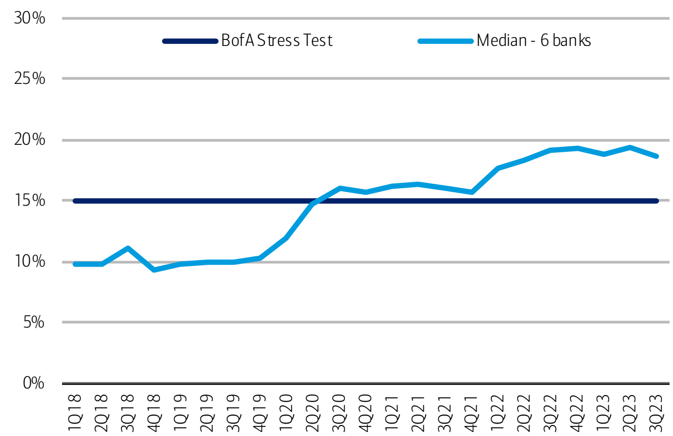
Exhibit 141: S2 coverage –Median vs. BofA stress test assumption
We assume 15% coverage in our stress test



Source: Company financials, BofA Global Research

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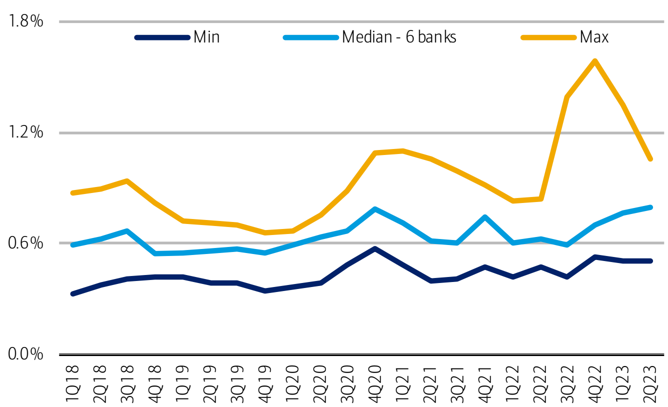
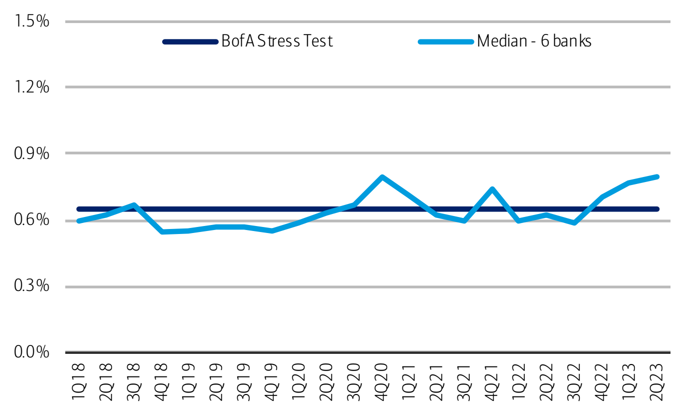
Exhibit 142: Historical progression of Stage 1 coverage ratios
Median coverage averaged at 0.65%



Source: Company financials, BofA Global Research

BofA GLOBAL RESEARCH

Exhibit 143: S1 coverage –Median vs. BofA stress test assumption
We assume 0.65% coverage in our stress test



Source: Company financials, BofA Global Research

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Appendix 4 – Company models

iQprofile SM Akbank

Key Income Statement Data (Dec)	2021A	2022A	2023E	2024E	2025E
(TRY Millions)	**Other GAAP**	**Other GAAP**	**Other GAAP**	**Other GAAP**	**Other GAAP**
Net Interest Income	**24,348**	**79,084**	**69,936**	**117,859**	**192,438**
Net Fee Income	6,079	11,888	32,786	48,991	65,158
Securities Gains / (Losses)	NA	NA	NA	NA	NA
Other Income	7,376	18,016	46,767	24,567	25,209
Total Non-Interest Income	**13,455**	**29,904**	**79,553**	**73,558**	**90,367**
Total Operating Income	**37,803**	**108,988**	**149,489**	**191,417**	**282,805**
Operating Expenses	(9,906)	(20,426)	(46,549)	(74,767)	(99,046)
Pre-Provision Profit	**27,897**	**88,562**	**102,940**	**116,650**	**183,759**
Provisions Expense	(11,270)	(8,383)	(11,522)	(19,365)	(23,573)
Operating Profit	**16,627**	**80,179**	**91,418**	**97,285**	**160,186**
Non-Operating Items	13.2	91.6	115	120	126
Pre-Tax Income	**16,640**	**80,271**	**91,532**	**97,405**	**160,313**
Net Income to sh/holders	12,127	60,026	66,830	68,184	112,219
Adjusted Cash Earnings	**12,127**	**60,026**	**66,830**	**68,184**	**112,219**
Key Balance Sheet Data					
Total Assets	762,798	1,147,294	1,887,979	2,496,230	3,170,212
Average Interest Earning Assets	570,102	878,417	1,411,128	2,057,561	2,691,342
Risk Weighted Assets	**475,307**	**742,373**	**1,145,209**	**1,749,112**	**2,221,373**
Total Gross Customer Loans	390,382	588,100	929,661	1,226,096	1,613,784
Total Customer Deposits	453,551	721,562	1,257,302	1,658,958	2,106,877
Tier 1 Capital	**76,872**	**149,574**	**199,980**	**258,148**	**360,149**
Tangible Equity	75,959	153,606	205,400	263,567	365,568
Common Shareholders' Equity	**75,959**	**153,606**	**205,400**	**263,567**	**365,568**
Key Metrics					
Net Interest Margin	4.27%	9.00%	4.96%	5.73%	7.15%
Tier 1 Ratio	**16.2%**	**20.1%**	**17.5%**	**14.8%**	**16.2%**
Effective Tax Rate	27.1%	25.2%	27.0%	30.0%	30.0%
Loan / Assets Ratio	49.5%	51.8%	48.5%	48.5%	48.3%
Loan / Deposit Ratio	**83.3%**	**82.3%**	**72.8%**	**72.9%**	**72.6%**
Oper Leverage (Inc Growth - Cost Growth)	30.0%	82.1%	-90.7%	-32.6%	15.3%
Gearing (Assets / Equity)	10.0x	7.47x	9.19x	9.47x	8.67x
Tangible Equity / Assets	9.96%	13.4%	10.9%	10.6%	11.5%
Tangible Equity / RWAs	16.0%	20.7%	17.9%	15.1%	16.5%
Business Performance					
Revenue Growth	52.2%	188%	37.2%	28.0%	47.7%
Operating Expense Growth	22.2%	106%	128%	60.6%	32.5%
Provisions Expense Growth	33.4%	-25.6%	37.5%	68.1%	21.7%
Operating Revenue / Average Assets	2.68%	8.40%	6.02%	4.44%	5.65%
Operating Expenses / Average Assets	-1.60%	-2.14%	-3.07%	-3.41%	-3.50%
Pre-Provision ROA	**4.50%**	**9.27%**	**6.78%**	**5.32%**	**6.49%**
ROA	1.95%	6.29%	4.40%	3.11%	3.96%
Pre-Provision ROE	**40.2%**	**77.2%**	**57.3%**	**49.7%**	**58.4%**
ROE	17.5%	52.3%	37.2%	29.1%	35.7%
RoTE	17.5%	52.3%	37.2%	29.1%	35.7%
RoRWAs	2.92%	9.86%	7.08%	4.71%	5.65%
Dividend Payout Ratio	9.99%	15.0%	15.0%	15.0%	20.0%
Efficiency Ratio (Cost / Income Ratio)	**26.2%**	**18.7%**	**31.1%**	**39.1%**	**35.0%**
Quality of Earnings					
Total Non-Interest Inc / Operating Inc	**35.6%**	**27.4%**	**53.2%**	**38.4%**	**32.0%**
Market-Related Revenue / Total Revenues	0%	0%	0%	0%	0%
Provisioning Burden as % of PPP	40.4%	9.47%	11.2%	16.6%	12.8%
NPLs plus Foreclosed Real Estate / Loans	4.83%	2.96%	2.03%	2.80%	3.12%
Loan Loss Reserves / NPLs	**69.5%**	**-32.8%**	**76.6%**	**47.7%**	**176%**
Loan Loss Reserves / Total Loans	3.35%	-0.97%	1.56%	1.34%	5.50%
Provisions Expense / Average Loans	**3.52%**	**1.73%**	**1.53%**	**1.82%**	**1.72%**

iQprofile SM Garanti Bank

Key Income Statement Data (Dec)	2021A	2022A	2023E	2024E	2025E
(TRY Millions)	Other GAAP	Other GAAP	Other GAAP	Other GAAP	Other GAAP
Net Interest Income	**36,064**	**88,093**	**94,042**	**160,424**	**237,260**
Net Fee Income	9,195	18,146	39,485	57,982	76,536
Securities Gains / (Losses)	NA	NA	NA	NA	NA
Other Income	7,878	16,868	44,446	18,946	17,394
Total Non-Interest Income	**17,072**	**35,014**	**83,931**	**76,928**	**93,930**
Total Operating Income	**53,136**	**123,107**	**177,973**	**237,351**	**331,190**
Operating Expenses	(15,240)	(27,567)	(54,223)	(87,143)	(115,442)
Pre-Provision Profit	**37,896**	**95,540**	**123,750**	**150,209**	**215,748**
Provisions Expense	(20,066)	(19,631)	(17,492)	(27,467)	(28,645)
Operating Profit	**17,830**	**75,909**	**106,258**	**122,741**	**187,103**
Non-Operating Items	580	1,079	1,789	2,058	2,572
Pre-Tax Income	**18,410**	**76,988**	**108,047**	**124,799**	**189,676**
Net Income to sh/holders	13,467	58,285	81,578	86,842	131,986
Adjusted Cash Earnings	**13,467**	**58,285**	**81,578**	**86,842**	**131,986**
Key Balance Sheet Data					
Total Assets	850,476	1,303,578	2,159,867	2,860,325	3,604,010
Average Interest Earning Assets	664,439	1,028,588	1,658,076	2,433,610	3,162,912
Risk Weighted Assets	**585,132**	**937,541**	**1,416,847**	**2,167,733**	**2,731,344**
Total Gross Customer Loans	483,904	732,573	1,191,835	1,578,636	1,994,889
Total Customer Deposits	582,833	908,739	1,569,408	2,093,046	2,637,238
Tier 1 Capital	**80,688**	**152,025**	**237,080**	**311,638**	**430,548**
Tangible Equity	80,301	153,124	239,756	314,314	433,224
Common Shareholders' Equity	**80,301**	**153,124**	**239,756**	**314,314**	**433,224**
Key Metrics					
Net Interest Margin	5.43%	8.56%	5.67%	6.59%	7.50%
Tier 1 Ratio	**13.8%**	**16.2%**	**16.7%**	**14.4%**	**15.8%**
Effective Tax Rate	26.2%	24.0%	24.0%	30.0%	30.0%
Loan / Assets Ratio	54.5%	55.3%	52.7%	52.2%	52.0%
Loan / Deposit Ratio	**79.5%**	**79.3%**	**72.5%**	**71.3%**	**71.1%**
Oper Leverage (Inc Growth - Cost Growth)	24.3%	50.8%	-52.1%	-27.3%	7.06%
Gearing (Assets / Equity)	10.6x	8.51x	9.01x	9.10x	8.32x
Tangible Equity / Assets	9.44%	11.7%	11.1%	11.0%	12.0%
Tangible Equity / RWAs	13.7%	16.3%	16.9%	14.5%	15.9%
Business Performance					
Revenue Growth	52.5%	132%	44.6%	33.4%	39.5%
Operating Expense Growth	28.2%	80.9%	96.7%	60.7%	32.5%
Provisions Expense Growth	45.7%	-2.17%	-10.9%	57.0%	4.29%
Operating Revenue / Average Assets	2.56%	7.05%	6.14%	4.89%	5.79%
Operating Expenses / Average Assets	-2.19%	-2.56%	-3.13%	-3.47%	-3.57%
Pre-Provision ROA	**5.45%**	**8.87%**	**7.15%**	**5.98%**	**6.68%**
ROA	1.94%	5.41%	4.71%	3.46%	4.08%
Pre-Provision ROE	**53.1%**	**81.9%**	**63.0%**	**54.2%**	**57.7%**
ROE	18.9%	49.9%	41.5%	31.3%	35.3%
RoTE	18.9%	49.9%	41.5%	31.3%	35.3%
RoRWAs	2.65%	7.66%	6.93%	4.85%	5.39%
Dividend Payout Ratio	9.71%	15.1%	15.1%	15.1%	20.0%
Efficiency Ratio (Cost / Income Ratio)	**28.7%**	**22.4%**	**30.5%**	**36.7%**	**34.9%**
Quality of Earnings					
Total Non-Interest Inc / Operating Inc	**32.1%**	**28.4%**	**47.2%**	**32.4%**	**28.4%**
Market-Related Revenue / Total Revenues	0%	0%	0%	0%	0%
Provisioning Burden as % of PPP	53.0%	20.5%	14.1%	18.3%	13.3%
NPLs plus Foreclosed Real Estate / Loans	3.96%	2.82%	2.06%	2.84%	3.15%
Loan Loss Reserves / NPLs	**113%**	**59.3%**	**231%**	**205%**	**204%**
Loan Loss Reserves / Total Loans	4.49%	1.67%	4.74%	5.82%	6.42%
Provisions Expense / Average Loans	**8.67%**	**3.32%**	**1.88%**	**2.09%**	**1.70%**

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Key Income Statement Data (Dec)	2021A	2022A	2023E	2024E	2025E
(TRY Millions)	**Other GAAP**	**Other GAAP**	**Other GAAP**	**Other GAAP**	**Other GAAP**
Net Interest Income	**25,160**	**68,245**	**45,463**	**78,121**	**160,282**
Net Fee Income	4,088	8,462	17,309	24,571	32,433
Securities Gains / (Losses)	NA	NA	NA	NA	NA
Other Income	(9,713)	(3,810)	(343)	9,750	(10,675)
Total Non-Interest Income	**(5,626)**	**4,652**	**16,966**	**34,321**	**21,758**
Total Operating Income	**19,534**	**72,897**	**62,428**	**112,442**	**182,040**
Operating Expenses	(9,670)	(17,716)	(48,795)	(66,386)	(87,944)
Pre-Provision Profit	**9,864**	**55,181**	**13,634**	**46,056**	**94,096**
Provisions Expense	(8,657)	(35,465)	(2,349)	(18,251)	(33,766)
Operating Profit	**1,207**	**19,716**	**11,284**	**27,805**	**60,330**
Non-Operating Items	193	426	450	540	675
Pre-Tax Income	**1,400**	**20,142**	**11,735**	**28,345**	**61,005**
Net Income to sh/holders	1,502	14,752	11,563	21,684	42,704
Adjusted Cash Earnings	**1,502**	**14,752**	**11,563**	**21,684**	**42,704**

Key Balance Sheet Data					
Total Assets	901,217	1,392,140	2,357,833	2,965,279	3,558,335
Average Interest Earning Assets	765,777	1,118,917	1,836,758	2,615,937	3,223,685
Risk Weighted Assets	**483,026**	**831,963**	**1,298,567**	**1,772,047**	**2,091,016**
Total Gross Customer Loans	539,588	842,618	1,301,145	1,678,972	2,063,391
Total Customer Deposits	625,904	1,060,923	1,959,576	2,556,410	3,118,821
Tier 1 Capital	**58,344**	**106,965**	**150,923**	**172,607**	**215,311**
Tangible Equity	43,500	89,844	126,307	147,991	190,695
Common Shareholders' Equity	**43,500**	**89,844**	**126,307**	**147,991**	**190,695**

Key Metrics					
Net Interest Margin	3.29%	6.10%	2.48%	2.99%	4.97%
Tier 1 Ratio	**12.1%**	**12.9%**	**11.6%**	**9.74%**	**10.3%**
Effective Tax Rate	-7.26%	26.8%	1.46%	23.5%	30.0%
Loan / Assets Ratio	57.4%	56.7%	53.0%	54.0%	54.7%
Loan / Deposit Ratio	**82.6%**	**74.4%**	**63.7%**	**62.7%**	**62.5%**
Oper Leverage (Inc Growth - Cost Growth)	-4.65%	190%	-190%	44.1%	29.4%
Gearing (Assets / Equity)	20.7x	15.5x	18.7x	20.0x	18.7x
Tangible Equity / Assets	4.83%	6.45%	5.36%	4.99%	5.36%
Tangible Equity / RWAs	9.01%	10.8%	9.73%	8.35%	9.12%

Business Performance					
Revenue Growth	16.8%	273%	-14.4%	80.1%	61.9%
Operating Expense Growth	21.5%	83.2%	175%	36.1%	32.5%
Provisions Expense Growth	43.0%	310%	-93.4%	677%	85.0%
Operating Revenue / Average Assets	0.15%	1.72%	0.60%	1.04%	1.85%
Operating Expenses / Average Assets	-1.22%	-1.54%	-2.60%	-2.49%	-2.70%
Pre-Provision ROA	**1.25%**	**4.81%**	**0.73%**	**1.73%**	**2.88%**
ROA	0.19%	1.29%	0.62%	0.81%	1.31%
Pre-Provision ROE	**22.8%**	**82.8%**	**12.6%**	**33.6%**	**55.6%**
ROE	3.47%	22.1%	10.7%	15.8%	25.2%
RoTE	3.47%	22.1%	10.7%	15.8%	25.2%
RoRWAs	0.34%	2.24%	1.09%	1.41%	2.21%
Dividend Payout Ratio	0%	0%	0%	0%	0%
Efficiency Ratio (Cost / Income Ratio)	**49.5%**	**24.3%**	**78.2%**	**59.0%**	**48.3%**

Quality of Earnings					
Total Non-Interest Inc / Operating Inc	**-28.8%**	**6.38%**	**27.2%**	**30.5%**	**12.0%**
Market-Related Revenue / Total Revenues	0%	0%	0%	0%	0%
Provisioning Burden as % of PPP	87.8%	64.3%	17.2%	39.6%	35.9%
NPLs plus Foreclosed Real Estate / Loans	3.15%	2.36%	1.55%	2.16%	2.94%
Loan Loss Reserves / NPLs	**137%**	**287%**	**270%**	**221%**	**201%**
Loan Loss Reserves / Total Loans	4.33%	6.76%	4.18%	4.79%	5.92%
Provisions Expense / Average Loans	**1.82%**	**5.43%**	**0.23%**	**1.28%**	**1.90%**

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Key Income Statement Data (Dec)	2021A	2022A	2023E	2024E	2025E
(TRY Millions)	Other GAAP	Other GAAP	Other GAAP	Other GAAP	Other GAAP
Net Interest Income	**30,941**	**75,203**	**68,749**	**118,262**	**198,511**
Net Fee Income	7,620	16,147	38,552	59,023	79,682
Securities Gains / (Losses)	NA	NA	NA	NA	NA
Other Income	(4,456)	6,450	22,513	6,776	9,526
Total Non-Interest Income	**3,164**	**22,597**	**61,065**	**65,799**	**89,208**
Total Operating Income	**34,106**	**97,800**	**129,815**	**184,061**	**287,719**
Operating Expenses	(15,912)	(34,029)	(70,750)	(107,218)	(136,813)
Pre-Provision Profit	**18,194**	**63,771**	**59,064**	**76,844**	**150,906**
Provisions Expense	(10,742)	(11,651)	(9,924)	(22,060)	(27,278)
Operating Profit	**7,452**	**52,120**	**49,141**	**54,784**	**123,628**
Non-Operating Items	8,024	21,829	30,666	35,000	43,750
Pre-Tax Income	**15,476**	**73,949**	**79,807**	**89,784**	**167,378**
Net Income to sh/holders	13,468	61,538	65,065	73,349	130,290
Adjusted Cash Earnings	**13,468**	**61,538**	**65,065**	**73,349**	**130,290**
Key Balance Sheet Data					
Total Assets	926,566	1,408,318	2,259,831	2,955,598	3,753,609
Average Interest Earning Assets	693,678	1,051,649	1,649,809	2,368,276	3,086,421
Risk Weighted Assets	**571,357**	**940,288**	**1,414,381**	**2,231,298**	**2,833,748**
Total Gross Customer Loans	506,368	762,324	1,087,496	1,425,482	1,843,407
Total Customer Deposits	595,627	931,074	1,586,978	2,065,214	2,602,170
Tier 1 Capital	**90,162**	**192,858**	**240,627**	**304,216**	**423,504**
Tangible Equity	86,839	191,376	238,290	301,879	421,167
Common Shareholders' Equity	**86,839**	**191,376**	**238,290**	**301,879**	**421,167**
Key Metrics					
Net Interest Margin	4.46%	7.15%	4.17%	4.99%	6.43%
Tier 1 Ratio	**15.8%**	**20.5%**	**17.0%**	**13.6%**	**14.9%**
Effective Tax Rate	13.0%	16.8%	18.5%	18.3%	22.2%
Loan / Assets Ratio	52.4%	53.2%	47.0%	47.1%	46.5%
Loan / Deposit Ratio	**81.6%**	**80.5%**	**66.9%**	**67.4%**	**67.1%**
Oper Leverage (Inc Growth - Cost Growth)	-13.0%	72.9%	-75.2%	-9.76%	28.7%
Gearing (Assets / Equity)	10.7x	7.36x	9.48x	9.79x	8.91x
Tangible Equity / Assets	9.37%	13.6%	10.5%	10.2%	11.2%
Tangible Equity / RWAs	15.2%	20.4%	16.8%	13.5%	14.9%
Business Performance					
Revenue Growth	21.9%	187%	32.7%	41.8%	56.3%
Operating Expense Growth	34.9%	114%	108%	51.5%	27.6%
Provisions Expense Growth	-0.17%	8.46%	-14.8%	122%	23.7%
Operating Revenue / Average Assets	0.98%	4.46%	2.68%	2.10%	3.69%
Operating Expenses / Average Assets	-2.09%	-2.91%	-3.86%	-4.11%	-4.08%
Pre-Provision ROA	**2.39%**	**5.46%**	**3.22%**	**2.95%**	**4.50%**
ROA	1.77%	5.27%	3.55%	2.81%	3.88%
Pre-Provision ROE	**23.5%**	**45.8%**	**27.5%**	**28.5%**	**41.7%**
ROE	17.4%	44.2%	30.3%	27.2%	36.0%
RoTE	17.4%	44.2%	30.3%	27.2%	36.0%
RoRWAs	2.63%	8.14%	5.53%	4.02%	5.14%
Dividend Payout Ratio	22.2%	15.0%	15.0%	15.0%	20.0%
Efficiency Ratio (Cost / Income Ratio)	**46.7%**	**34.8%**	**54.5%**	**58.3%**	**47.6%**
Quality of Earnings					
Total Non-Interest Inc / Operating Inc	**9.28%**	**23.1%**	**47.0%**	**35.7%**	**31.0%**
Market-Related Revenue / Total Revenues	0%	0%	0%	0%	0%
Provisioning Burden as % of PPP	59.0%	18.3%	16.8%	28.7%	18.1%
NPLs plus Foreclosed Real Estate / Loans	4.29%	3.09%	2.02%	2.78%	3.11%
Loan Loss Reserves / NPLs	**98.3%**	**54.2%**	**119%**	**84.9%**	**181%**
Loan Loss Reserves / Total Loans	4.22%	1.67%	2.40%	2.36%	5.61%
Provisions Expense / Average Loans	**2.59%**	**1.89%**	**1.10%**	**1.80%**	**1.74%**

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Key Income Statement Data (Dec)	2021A	2022A	2023E	2024E	2025E
(TRY Millions)	Other GAAP	Other GAAP	Other GAAP	Other GAAP	Other GAAP
Net Interest Income	**19,543**	**73,715**	**43,633**	**94,006**	**174,344**
Net Fee Income	4,501	10,793	24,180	35,567	45,348
Securities Gains / (Losses)	NA	NA	NA	NA	NA
Other Income	(3,585)	6,766	34,704	12,100	2,895
Total Non-Interest Income	**916**	**17,558**	**58,884**	**47,667**	**48,243**
Total Operating Income	**20,459**	**91,274**	**102,517**	**141,673**	**222,587**
Operating Expenses	(9,508)	(17,932)	(52,248)	(65,714)	(87,054)
Pre-Provision Profit	**10,951**	**73,342**	**50,269**	**75,958**	**135,533**
Provisions Expense	(5,776)	(36,247)	(17,171)	(25,994)	(40,421)
Operating Profit	**5,175**	**37,095**	**33,098**	**49,964**	**95,111**
Non-Operating Items	121	149	199	209	262
Pre-Tax Income	**5,296**	**37,244**	**33,297**	**50,174**	**95,373**
Net Income to sh/holders	4,175	24,017	26,090	35,599	66,761
Adjusted Cash Earnings	**4,175**	**24,017**	**26,090**	**35,599**	**66,761**
Key Balance Sheet Data					
Total Assets	1,007,214	1,681,061	2,656,322	3,420,816	4,207,603
Average Interest Earning Assets	817,152	1,292,698	2,094,356	2,963,342	3,761,508
Risk Weighted Assets	**535,633**	**935,978**	**1,463,324**	**2,102,109**	**2,585,594**
Total Gross Customer Loans	592,010	953,725	1,524,365	1,953,595	2,402,922
Total Customer Deposits	590,943	1,127,702	1,845,465	2,405,657	2,958,958
Tier 1 Capital	**69,003**	**126,804**	**190,367**	**225,966**	**292,727**
Tangible Equity	51,953	106,985	164,301	199,899	266,660
Common Shareholders' Equity	**51,953**	**106,985**	**164,301**	**199,899**	**266,660**
Key Metrics					
Net Interest Margin	2.39%	5.70%	2.08%	3.17%	4.63%
Tier 1 Ratio	**12.9%**	**13.5%**	**13.0%**	**10.7%**	**11.3%**
Effective Tax Rate	21.2%	35.5%	21.6%	29.0%	30.0%
Loan / Assets Ratio	56.2%	54.3%	55.2%	54.4%	53.8%
Loan / Deposit Ratio	**95.8%**	**80.9%**	**79.5%**	**77.4%**	**76.5%**
Oper Leverage (Inc Growth - Cost Growth)	-19.2%	258%	-179%	12.4%	24.6%
Gearing (Assets / Equity)	19.4x	15.7x	16.2x	17.1x	15.8x
Tangible Equity / Assets	5.16%	6.36%	6.19%	5.84%	6.34%
Tangible Equity / RWAs	9.70%	11.4%	11.2%	9.51%	10.3%
Business Performance					
Revenue Growth	-1.39%	346%	12.3%	38.2%	57.1%
Operating Expense Growth	17.8%	88.6%	191%	25.8%	32.5%
Provisions Expense Growth	-9.79%	528%	-52.6%	51.4%	55.5%
Operating Revenue / Average Assets	0.61%	2.76%	1.53%	1.64%	2.49%
Operating Expenses / Average Assets	-1.11%	-1.33%	-2.41%	-2.16%	-2.28%
Pre-Provision ROA	**1.28%**	**5.46%**	**2.32%**	**2.50%**	**3.55%**
ROA	0.49%	1.79%	1.20%	1.17%	1.75%
Pre-Provision ROE	**22.2%**	**92.3%**	**37.1%**	**41.7%**	**58.1%**
ROE	8.48%	30.2%	19.2%	19.5%	28.6%
RoTE	8.48%	30.2%	19.2%	19.5%	28.6%
RoRWAs	0.89%	3.26%	2.17%	2.00%	2.85%
Dividend Payout Ratio	0%	0%	0%	0%	0%
Efficiency Ratio (Cost / Income Ratio)	**46.5%**	**19.6%**	**51.0%**	**46.4%**	**39.1%**
Quality of Earnings					
Total Non-Interest Inc / Operating Inc	**4.48%**	**19.2%**	**57.4%**	**33.6%**	**21.7%**
Market-Related Revenue / Total Revenues	0%	0%	0%	0%	0%
Provisioning Burden as % of PPP	52.7%	49.4%	34.2%	34.2%	29.8%
NPLs plus Foreclosed Real Estate / Loans	3.23%	2.22%	1.68%	2.45%	2.48%
Loan Loss Reserves / NPLs	**142%**	**205%**	**236%**	**203%**	**247%**
Loan Loss Reserves / Total Loans	4.58%	4.56%	3.96%	4.98%	6.13%
Provisions Expense / Average Loans	**1.17%**	**4.90%**	**1.44%**	**1.56%**	**1.96%**

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Key Income Statement Data (Dec)	2021A	2022A	2023E	2024E	2025E
(TRY Millions)	**Other GAAP**	**Other GAAP**	**Other GAAP**	**Other GAAP**	**Other GAAP**
Net Interest Income	**23,736**	**79,258**	**74,418**	**126,535**	**178,727**
Net Fee Income	8,046	15,741	35,772	51,836	68,941
Securities Gains / (Losses)	NA	NA	NA	NA	NA
Other Income	1,159	10,892	31,512	19,284	14,041
Total Non-Interest Income	**9,205**	**26,632**	**67,284**	**71,119**	**82,983**
Total Operating Income	**32,940**	**105,891**	**141,701**	**197,654**	**261,710**
Operating Expenses	(10,945)	(23,705)	(48,639)	(78,541)	(104,047)
Pre-Provision Profit	**21,995**	**82,186**	**93,063**	**119,113**	**157,663**
Provisions Expense	(8,257)	(13,317)	(10,579)	(21,851)	(21,654)
Operating Profit	**13,738**	**68,870**	**82,484**	**97,262**	**136,009**
Non-Operating Items	156	324	1,022	1,226	1,288
Pre-Tax Income	**13,894**	**69,194**	**83,506**	**98,488**	**137,296**
Net Income to sh/holders	10,490	52,745	61,990	68,941	96,106
Adjusted Cash Earnings	**10,490**	**52,745**	**61,990**	**68,941**	**96,106**
Key Balance Sheet Data					
Total Assets	780,821	1,184,267	1,831,254	2,438,155	3,084,266
Average Interest Earning Assets	581,874	897,367	1,393,474	1,995,948	2,614,591
Risk Weighted Assets	**452,410**	**734,986**	**1,065,599**	**1,605,620**	**2,031,109**
Total Gross Customer Loans	416,322	596,586	877,330	1,156,185	1,515,555
Total Customer Deposits	419,928	705,495	1,100,337	1,471,453	1,861,388
Tier 1 Capital	**67,329**	**131,779**	**168,850**	**228,459**	**310,777**
Tangible Equity	62,510	125,282	174,541	234,150	316,468
Common Shareholders' Equity	**63,489**	**126,262**	**175,520**	**235,129**	**317,447**
Key Metrics					
Net Interest Margin	4.08%	8.83%	5.34%	6.34%	6.84%
Tier 1 Ratio	**14.9%**	**17.9%**	**15.8%**	**14.2%**	**15.3%**
Effective Tax Rate	24.5%	23.8%	25.8%	30.0%	30.0%
Loan / Assets Ratio	50.2%	49.9%	46.4%	46.1%	45.9%
Loan / Deposit Ratio	**93.4%**	**83.7%**	**77.3%**	**76.4%**	**76.1%**
Oper Leverage (Inc Growth - Cost Growth)	11.8%	105%	-71.4%	-22.0%	-0.07%
Gearing (Assets / Equity)	12.3x	9.38x	10.4x	10.4x	9.72x
Tangible Equity / Assets	8.01%	10.6%	9.53%	9.60%	10.3%
Tangible Equity / RWAs	13.8%	17.0%	16.4%	14.6%	15.6%
Business Performance					
Revenue Growth	34.4%	221%	33.8%	39.5%	32.4%
Operating Expense Growth	22.6%	117%	105%	61.5%	32.5%
Provisions Expense Growth	-7.09%	61.3%	-20.6%	107%	-0.90%
Operating Revenue / Average Assets	2.17%	7.01%	5.47%	4.56%	4.93%
Operating Expenses / Average Assets	-1.73%	-2.41%	-3.23%	-3.68%	-3.77%
Pre-Provision ROA	**3.47%**	**8.36%**	**6.17%**	**5.58%**	**5.71%**
ROA	1.66%	5.37%	4.11%	3.23%	3.48%
Pre-Provision ROE	**39.6%**	**86.6%**	**61.7%**	**58.0%**	**57.1%**
ROE	18.9%	55.6%	41.1%	33.6%	34.8%
RoTE	19.2%	56.2%	41.4%	33.7%	34.9%
RoRWAs	2.57%	8.88%	6.89%	5.16%	5.29%
Dividend Payout Ratio	9.53%	15.1%	15.1%	20.0%	20.0%
Efficiency Ratio (Cost / Income Ratio)	**33.2%**	**22.4%**	**34.3%**	**39.7%**	**39.8%**
Quality of Earnings					
Total Non-Interest Inc / Operating Inc	**27.9%**	**25.2%**	**47.5%**	**36.0%**	**31.7%**
Market-Related Revenue / Total Revenues	0%	0%	0%	0%	0%
Provisioning Burden as % of PPP	37.5%	16.2%	11.4%	18.3%	13.7%
NPLs plus Foreclosed Real Estate / Loans	5.16%	3.77%	3.63%	4.40%	4.42%
Loan Loss Reserves / NPLs	**120%**	**26.2%**	**88.5%**	**63.9%**	**158%**
Loan Loss Reserves / Total Loans	6.18%	0.99%	3.21%	2.81%	6.96%
Provisions Expense / Average Loans	**2.47%**	**2.71%**	**1.47%**	**2.21%**	**1.70%**

Exhibit 144: Companies mentioned in this report

Companies mentioned in this report are as follows:

Name	BofA Ticker	Bloomberg Ticker	Opinion	Q-R-Q	Price (TRY)
(TRY)Akbank	XHRAF	AKBNK TI	1 - Buy	C-1-7	31.46
Garanti Bank	TKGBF	GARAN TI	ar1 - Buy	C-1-7	50.25
Vakif Bank	TKYVF	VAKBN TI	3 - Underperform	C-3-9	15.25
Yapi Kredi Bank	YVKBF	YKBNK TI	1 - Buy	C-1-7	17.59
Isbank	TYIBF	ISCTR TI	1 - Buy	C-1-7	21.14
Halkbank	THBIF	HALKB TI	3 - Underperform	C-3-9	13.07

Source: BofA Global Research

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Investment Rationale

Akbank

Akbank has long been known for its prudency. While this remains intact, the bank has added another strength to its investment case: top-line outperformance.
Accelerated momentum in customer acquisition has already resulted in above-sector fee growth and back-book loan yields. Additionally, sizeable CPI linkers at positive real rates and a relatively high-yielding TRY security portfolio will continue to support revenues. We expect Akbank to generate c34% RoE in 2025-26E.

Garanti Bank

The bank's lower exposure to high-yielding CPI linkers has been a drag on core-revenue margins in 2022-23. With gradual normalization of the CPI linkers' contribution in the sector, Garanti's superior margins should return.
Furthermore, Garanti strongly improved efficiency in this period with a limited increase in costs/assets vs. counterparts. This should be a good base for 2024E. With sustained asset quality performance we expect its RoE to remain in excess of 30% on a sustainable basis.

Isbank

We expect Isbank to consistently deliver the highest EPS growth among private banks in 2024-26E. The key pillars of this superior performance should be: improving CPI linker income, sustained fee momentum and forthcoming efficiency gains. Additionally, we expect the contribution from its subsidiaries to remain intact. For the time being, we are not incorporating any financial gains or synergies regarding the de-merger of subsidiaries, which could potentially indicate further upside.

Vakif Bank

We expect Vakif's core NII to switch to positive territory in 2024 with a recovery in loan-deposit spreads. Given the low base of 2023, we see a slight improvement in RoE in 2024, unlike for private peers. However, believe its profitability is likely to settle at a lower level. Vakif's capital buffers remain below private peers'. However, its sizeable free provisions could be reversed (50bp impact), if needed. Despite lower profitability, the bank trades at the highest PB among peers.

Yapi Kredi Bank

Following the successful implementation of the new business model, Yapi has been delivering above-sector RoE since 2020. We expect this trend to remain intact in 2024E. Above-sector loan yields, a high level of demand deposits and well-managed - high yielding security portfolio were among the main reasons behind the NII outperformance. Additionally, the bank's robust fee generation ability (strong position in cards & payments) should continue to support top-line growth.

Price objective basis & risk

Akbank (XHRAF)

Our TRY53.50 PO values Akbank with BRSA consolidated financial forecasts, using a dividend discount model and a Gordon Growth model, assigning equal weight to each method.

In Gordon Growth methodology we use 2025-27 average RoE and CoE assumptions and 2025E BV to calculate the YE2025 value. We then discount it to 12-mo ahead using our 24 CoE assumptions. In our dividend discount framework, we assume 15% payout in 2023-24, 20% in 2025 and 25% thereafter. For both methodologies we use a 15% terminal growth rate.

We see the following risks to our PO: The bank uses short-term repo markets and external borrowing to fund a part of its balance sheet. As a result, its profitability is impacted by changes in global and local short-term interest rates, as well as by currency volatility. Severe currency volatility, increasing unemployment, and slower GDP growth could potentially lead to higher than expected cost of risk charges.

On the other hand, the bank also carries a sizeable CPI inflation-linked bond portfolio on its balance sheet which would limit the potential negative impact of higher CPI (on funding cost and opex) via increased security yield. Additionally, the bank's valuation is highly sensitive to CoE assumptions hence an improvement in TRY sovereign rates would have a positive impact on our PO

Garanti Bank (TKGBF)
Our TRY78 PO values Garanti with BRSA consolidated financial forecasts, using a dividend discount model and a Gordon Growth model, assigning equal weight to each method.

In Gordon Growth methodology we use 2025-27 average RoE and CoE assumptions and 2025E BV to calculate the YE2025 value. We then discount it to 12-mo ahead using our 24 CoE assumptions. In our dividend discount framework, we assume 15% payout in 2023-24, 20% in 2025 and 25% thereafter. For both methodologies we use a 15% terminal growth rate.

We see the following potential risks to our PO: The bank uses short-term repo markets to fund a part of its balance sheet. As a result, its profitability is impacted by changes in global and local short-term interest rates, as well as by currency volatility. The bank also carries a sizeable CPI inflation-linked bond portfolio on its balance sheet and its net interest revenues can be impacted by changes in inflation dynamics in Türkiye. Severe currency volatility, increasing unemployment, and slower GDP growth could potentially lead to higher than expected cost of risk charges.

Halkbank (THBIF)
Our TRY10 PO values Halkbank with BRSA bank only financial forecasts, using a dividend discount model and a Gordon Growth model, assigning equal weight to each method.

In Gordon Growth methodology we use 2025-27 average RoE and CoE assumptions and 2025E BV to calculate the YE2025 value. We then discount it to 12-mo ahead using our 24 CoE assumptions. In our dividend discount framework, we assume 10% payout in 2026-27. In this approach, the lion's share of the valuation comes from the terminal value. For both methodologies we use a 15% terminal growth rate.

We see the following potential downside risks to our PO. A significant downturn in the economy may lead to a faster deterioration in the bank's asset quality, in absolute terms and also relative to peers.

The bank's NIM progression has been disconnected from peers on a negative basis due to lower lending yields and sustained pressure on the deposit side as a result of declining external borrowing. Therefore, diversification in funding sources and improvement in lending yields would support the revenues and is an upside risk . Additionally, the bank has room for improvement in fee income and efficiency metrics. Any progress at these metrics would support the valuation.

Isbank (TYIBF)
Our TRY34.50 PO values Isbank with BRSA bank only financial forecasts, using a dividend discount model and a Gordon Growth model, assigning equal weight to each method.

In Gordon Growth methodology we use 2025-27 average RoE and CoE assumptions and

2025E BV to calculate the YE2025 value. We then discount it to 12-mo ahead using our 24 CoE assumptions. In our dividend discount framework, we assume 15% payout in 2023-24, 20% in 2025 and 25%. For both methodologies we use a 15% terminal growth rate.

Upside risks for Isbank: Apart from top-down macro upside risks we think Isbank-specific upside risks would be successful implementation of a successful cost-cutting programme, and non-core asset sales.

Downside risks to our PO: If the economy slows down considerably, then Isbank's income from NPL recoveries may decrease substantially, posing a threat to earnings. Isbank also generates a material portion of its bottom line through dividend income from subsidiaries. Any risks regarding the stream of subsidiary income would be negative for the earnings outlook.

Vakif Bank (TKYVF)

Our TRY14 PO values Vakifbank with BRSA bank only financial forecasts, using a dividend discount model and a Gordon Growth model, assigning equal weight to each method.

In Gordon Growth methodology we use 2025-27 average RoE and CoE assumptions and 2025E BV to calculate the YE2025 value. We then discount it to 12-mo ahead using our 24 CoE assumptions. In our dividend discount framework, we assume 10% payout in 2026-27. In this approach, the lion's share of the valuation comes from the terminal value. For both methodologies we use a 15% terminal growth rate.

Upside risks for Vakifbank: Efficicency improvement and faster than expected loan repricing would be a positive contributor to valuation.

Downside risks to our PO: If the economy slows down considerably, then Vakifbank's income from NPL recoveries may decrease substantially, posing a risk to earnings.

Yapi Kredi Bank (YVKBF)

Our TRY28.50 PO values Yapi Kredi with BRSA consolidated financial forecasts, using a dividend discount model and a Gordon Growth model, assigning equal weight to each method.

In Gordon Growth methodology we use 2025-27 average RoE and CoE assumptions and 2025E BV to calculate the YE2025 value. We then discount it to 12-mo ahead using our 24 CoE assumptions. In our dividend discount framework, we assume 15% payout in 2023-24, 20% in 2025 and 25% thereafter for the private banks. For both methodologies we use a 15% terminal growth rate.

Upside risks: The bank carries a sizeable CPI inflation-linked bond portfolio on its balance sheet which would limit the potential negative impact of higher CPI (on funding cost and opex) via increased security yield. Additionally, the bank's valuation is highly sensitive to CoE assumptions, and hence an improvement in TRY sovereign rates would have a positive impact on our PO.

Downside risks to our price objective: The bank utilizes short-term cross-currency swaps, allowing it to effectively swap its foreign-exchange-denominated liabilities into local currency. Also, it uses short-term repo markets (from time to time) to fund part of its balance sheet. As a result, its profitability is impacted by changes in global and local short-term interest rates, as well as currency volatility.

Analyst Certification

I, David Taranto, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject securities and issuers. I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or view expressed in this research report.

EEMEA - Financials Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
BUY				
	Absa Group Ltd	AGRPF	ABG SJ	Bankole Ubogu, CFA
	Abu Dhabi Islamic Bank	XQPVF	ADIB UH	Olga Veselova
	Akbank	XHRAF	AKBNK TI	David Taranto
	Emirates NBD	XHGGF	EMIRATES UH	Olga Veselova
	Garanti Bank	TKGBF	GARAN TI	David Taranto
	Investec	XBZGF	INVP LN	Bankole Ubogu, CFA
	Investec	IVTJF	INP SJ	Bankole Ubogu, CFA
	Isbank	TYIBF	ISCTR TI	David Taranto
	Komercni Banka	KMERF	KOMB CP	Olga Veselova
	Nedbank	NDBKF	NED SJ	Bankole Ubogu, CFA
	Pekao S.A.	BKPKF	PEO PW	Olga Veselova
	Riyad Bank	XRYDF	RIBL AB	Olga Veselova
	Saudi Awwal Bank	XBUAF	SABB AB	Olga Veselova
	Saudi National Bank	XBYNF	SNB AB	Olga Veselova
	Standard Bank	SBGOF	SBK SJ	Bankole Ubogu, CFA
	Yapi Kredi Bank	YVKBF	YKBNK TI	David Taranto
NEUTRAL				
	Al Rajhi Bank	XRHJF	RJHI AB	Olga Veselova
	Alinma	XALBF	ALINMA AB	Olga Veselova
	Dubai Islamic Bank	XUIBF	DIB UH	Olga Veselova
	FirstRand	FANDF	FSR SJ	Bankole Ubogu, CFA
	OTP Bank	OTPBF	OTP HB	Olga Veselova
	PKO BP	PSZKF	PKO PW	Olga Veselova
	Qatar National Bank	XQTNF	QNBK QD	Olga Veselova
UNDERPERFORM				
	Abu Dhabi Commercial Bank	XBUDF	ADCB UH	Olga Veselova
	Banque Saudi Fransi	XRDCF	BSFR AB	Olga Veselova
	Capitec Bank	CKHGF	CPI SJ	Bankole Ubogu, CFA
	First Abu Dhabi Bank	XNBUF	FAB UH	Olga Veselova
	Halkbank	THBIF	HALKB TI	David Taranto
	National Bank of Kuwait	XPOBF	NBK KK	Olga Veselova
	Vakif Bank	TKYVF	VAKBN TI	David Taranto
RVW				
	Moscow Exchange	XMCSF	MOEX RX	Olga Veselova
	Sberbank	AKSJF	SBER RM	Olga Veselova
	Sberbank preferred shares	AGNYF	SBERP RM	Olga Veselova
	TCS Group	XCIXF	TCS LI	Olga Veselova

iQmethod SM Measures Definitions

Business Performance	Numerator	Denominator
Return On Capital Employed	NOPAT = (EBIT + Interest Income) × (1 – Tax Rate) + Goodwill Amortization	Total Assets – Current Liabilities + ST Debt + Accumulated Goodwill Amortization
Return On Equity	Net Income	Shareholders' Equity
Operating Margin	Operating Profit	Sales
Earnings Growth	Expected 5 Year CAGR From Latest Actual	N/A
Free Cash Flow	Cash Flow From Operations – Total Capex	N/A
Quality of Earnings	**Numerator**	**Denominator**
Cash Realization Ratio	Cash Flow From Operations	Net Income
Asset Replacement Ratio	Capex	Depreciation
Tax Rate	Tax Charge	Pre-Tax Income
Net Debt-To-Equity Ratio	Net Debt = Total Debt – Cash & Equivalents	Total Equity
Interest Cover	EBIT	Interest Expense
Valuation Toolkit	**Numerator**	**Denominator**
Price / Earnings Ratio	Current Share Price	Diluted Earnings Per Share (Basis As Specified)
Price / Book Value	Current Share Price	Shareholders' Equity / Current Basic Shares
Dividend Yield	Annualised Declared Cash Dividend	Current Share Price
Free Cash Flow Yield	Cash Flow From Operations – Total Capex	Market Cap = Current Share Price × Current Basic Shares
Enterprise Value / Sales	EV = Current Share Price × Current Shares + Minority Equity + Net Debt + Other LT Liabilities	Sales
EV / EBITDA	Enterprise Value	Basic EBIT + Depreciation + Amortization

iQmethod SM is the set of BofA Global Research standard measures that serve to maintain global consistency under three broad headings: Business Performance, Quality of Earnings, and validations. The key features of iQmethod are: A consistently structured, detailed, and transparent methodology. Guidelines to maximize the effectiveness of the comparative valuation process, and to identify some common pitfalls.

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Disclosures

Important Disclosures

Equity Investment Rating Distribution: Banks Group (as of 30 Sep 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships R1	Count	Percent
Buy	98	50.78%	Buy	81	82.65%
Hold	47	24.35%	Hold	35	74.47%
Sell	48	24.87%	Sell	36	75.00%

Equity Investment Rating Distribution: Global Group (as of 30 Sep 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships R1	Count	Percent
Buy	1869	53.48%	Buy	1046	55.97%
Hold	828	23.69%	Hold	461	55.68%
Sell	798	22.83%	Sell	370	46.37%

R1 Issuers that were investment banking clients of BofA Securities or one of its affiliates within the past 12 months. For purposes of this Investment Rating Distribution, the coverage universe includes only stocks. A stock rated Neutral is included as a Hold, and a stock rated Underperform is included as a Sell.

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Investment rating	Total return expectation (within 12-month period of date of initial rating)	Ratings dispersion guidelines for coverage cluster[R2]
Buy	≥ 10%	≤ 70%
Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

[R2]Ratings dispersions may vary from time to time where BofA Global Research believes it better reflects the investment prospects of stocks in a Coverage Cluster.

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