

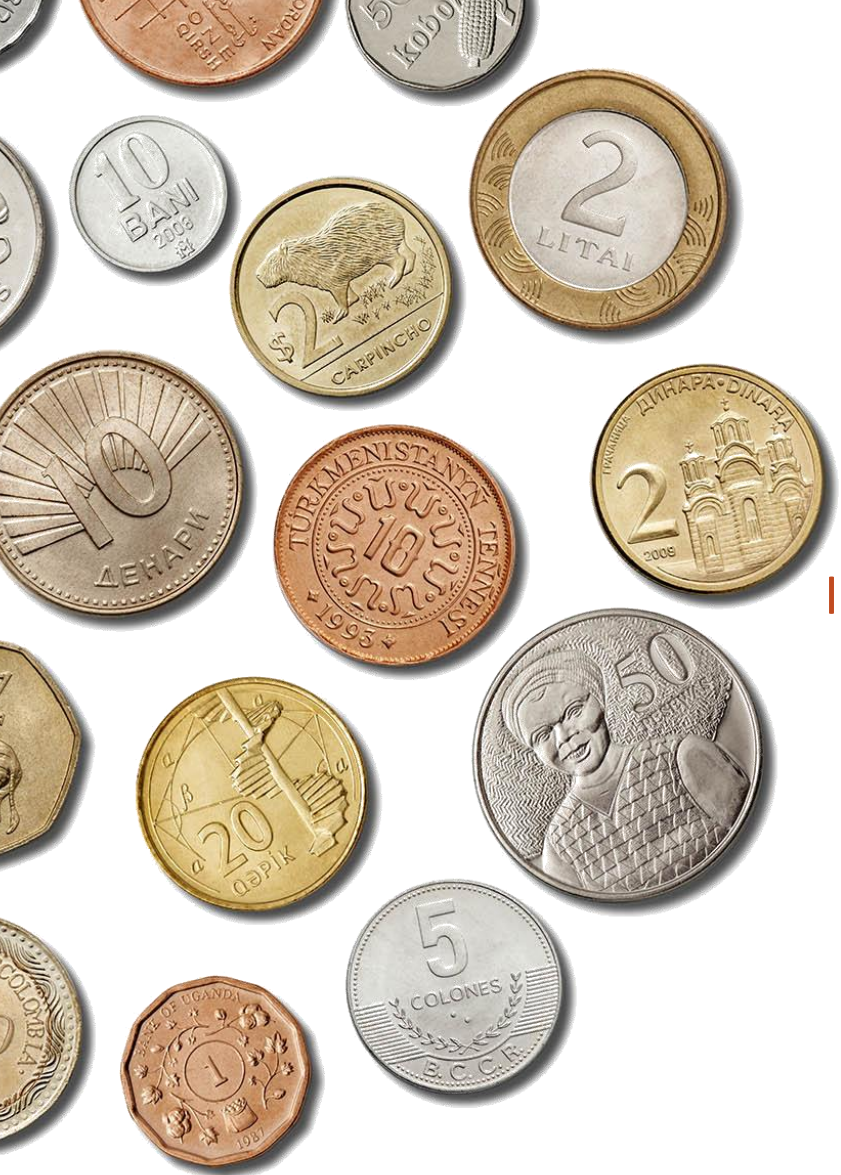


LOCAL CURRENCY FINANCING FX RISKS & HEDGING SOLUTIONS

MFC, SARAJEVO - MAY 2017

hedging frontier currencies

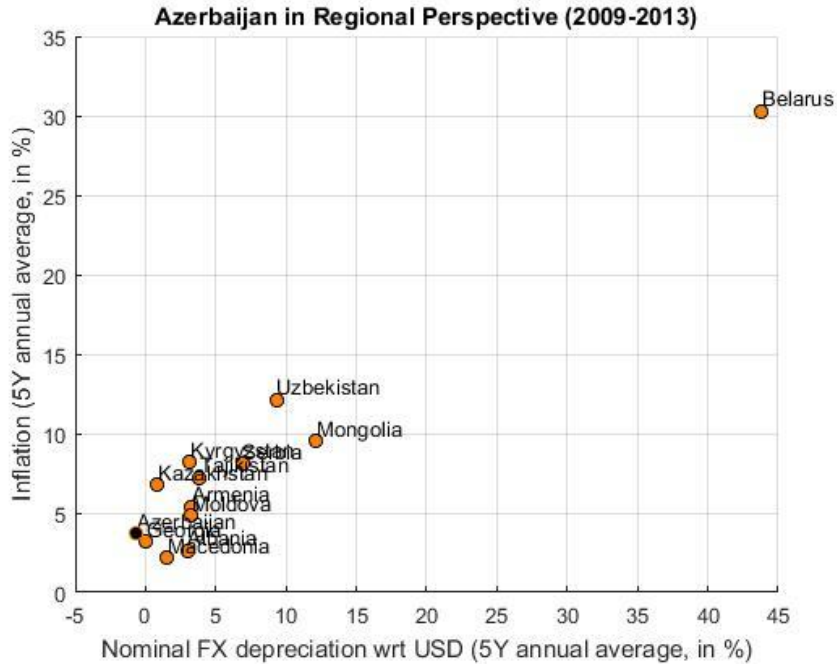
TCX
the currency exchange fund



- I. Local Currency & Country Fundamentals
- II. Azerbaijan Case Study
- III. Investors' strategy: Blue Orchard
- IV. Hedging the risk through TCX

AZERBAIJAN SNAPSHOT - 2013

If you were to assess Azerbaijan's macroeconomic situation in 2013...



Source: TCX, Bloomberg, IMF WEO

✓ Currency pegged to USD for almost a decade

Very low inflation environment
-> Seemingly no threat to the peg

✓ Very strong external position

Large current account surplus and lot of investment

Almost no external debt compared to peers

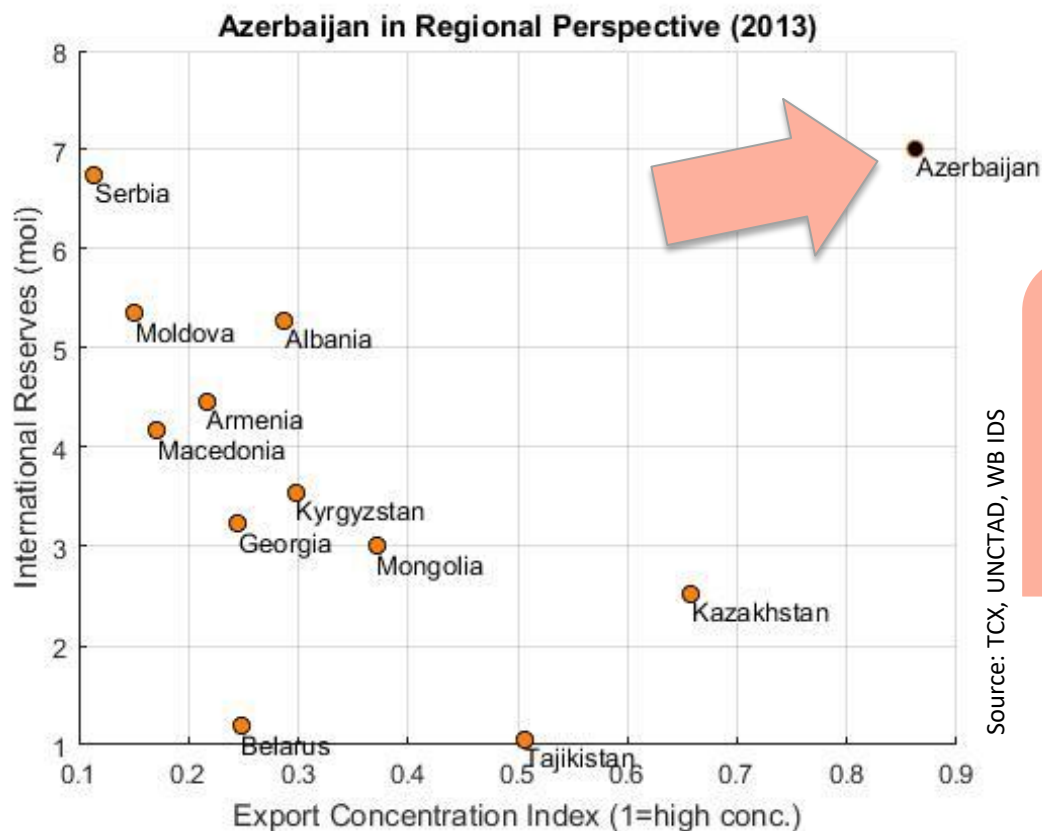


Source: TCX, WB IDS data

AZERBAIJAN SNAPSHOT – 2013 (CONT.)

If you were to assess Azerbaijan's macroeconomic situation in 2013...

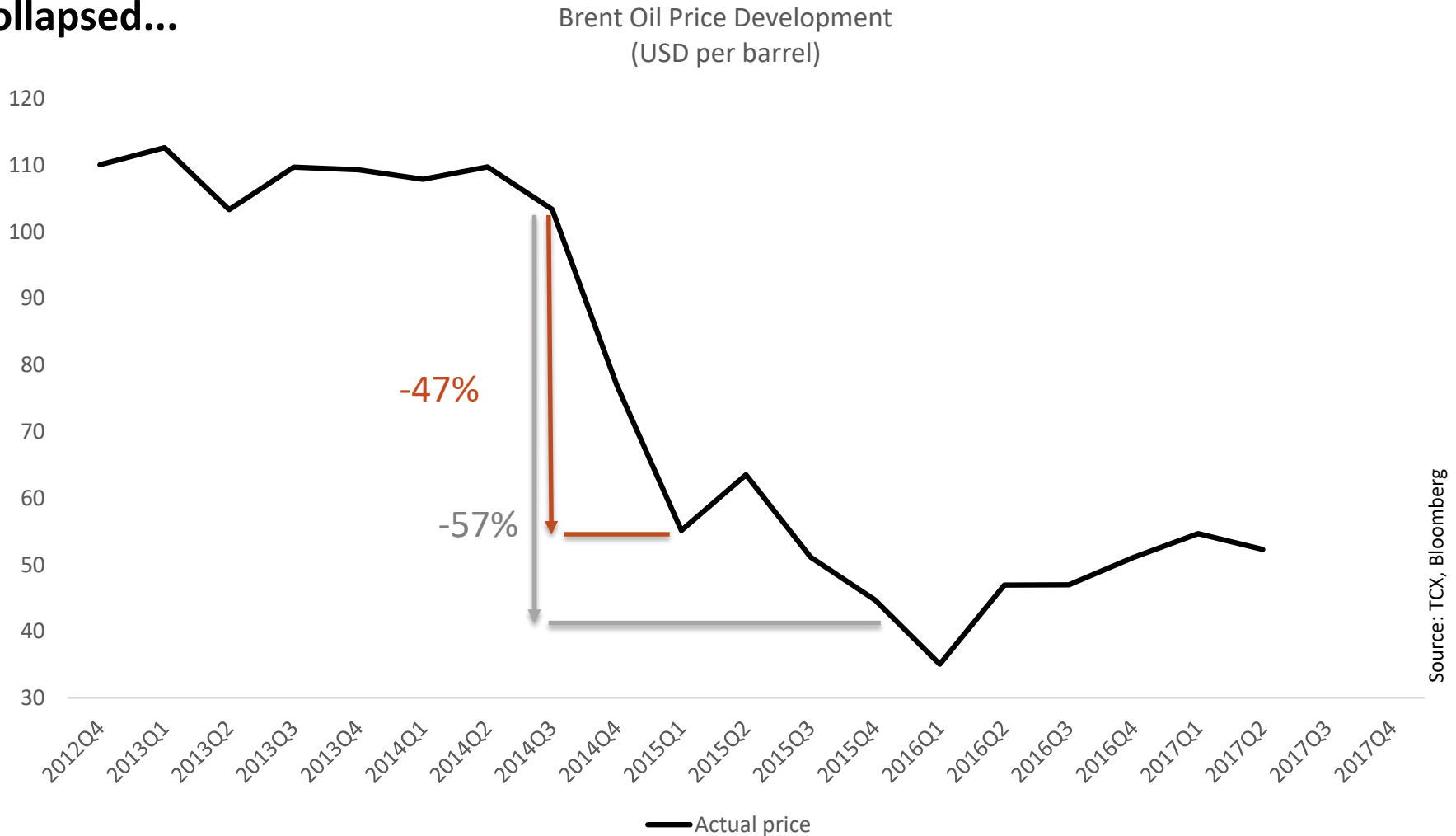
**Very high
international
reserves buffer**



**BUT
Extremely
narrow export
base
Source of risk**

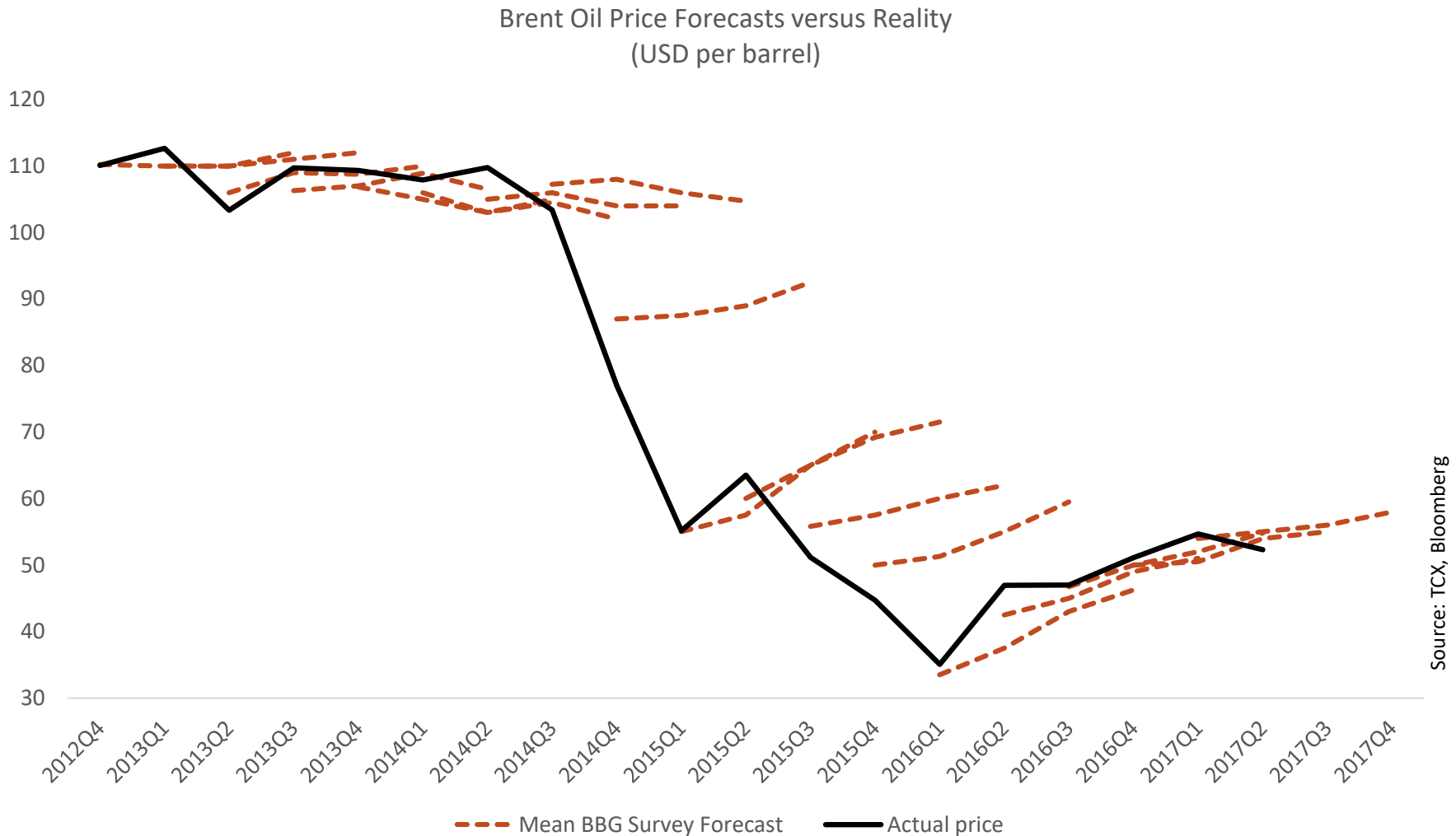
OIL PRICE COLLAPSE IN 2014-2015

The key risk for Azerbaijan's economy materialized in 2014-2015 when the **oil prices collapsed...**



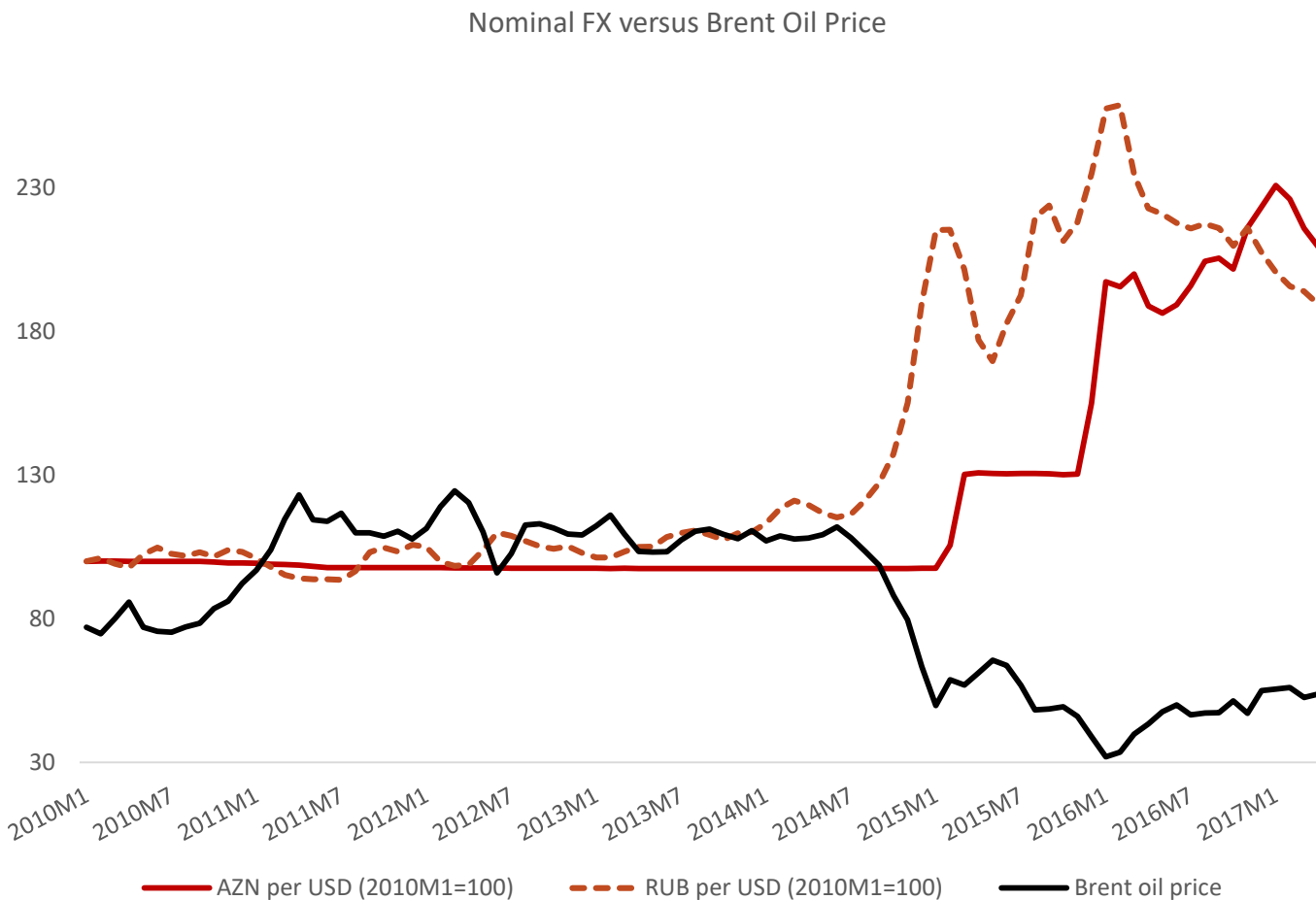
OIL PRICE COLLAPSE IN 2014-2015

Did the market get it right? Not at all, not even the biggest players...



FX DEVALUATION IN OIL EXPORTERS

If the oil price slump came unexpected, so did the FX move for the oil exporting countries...



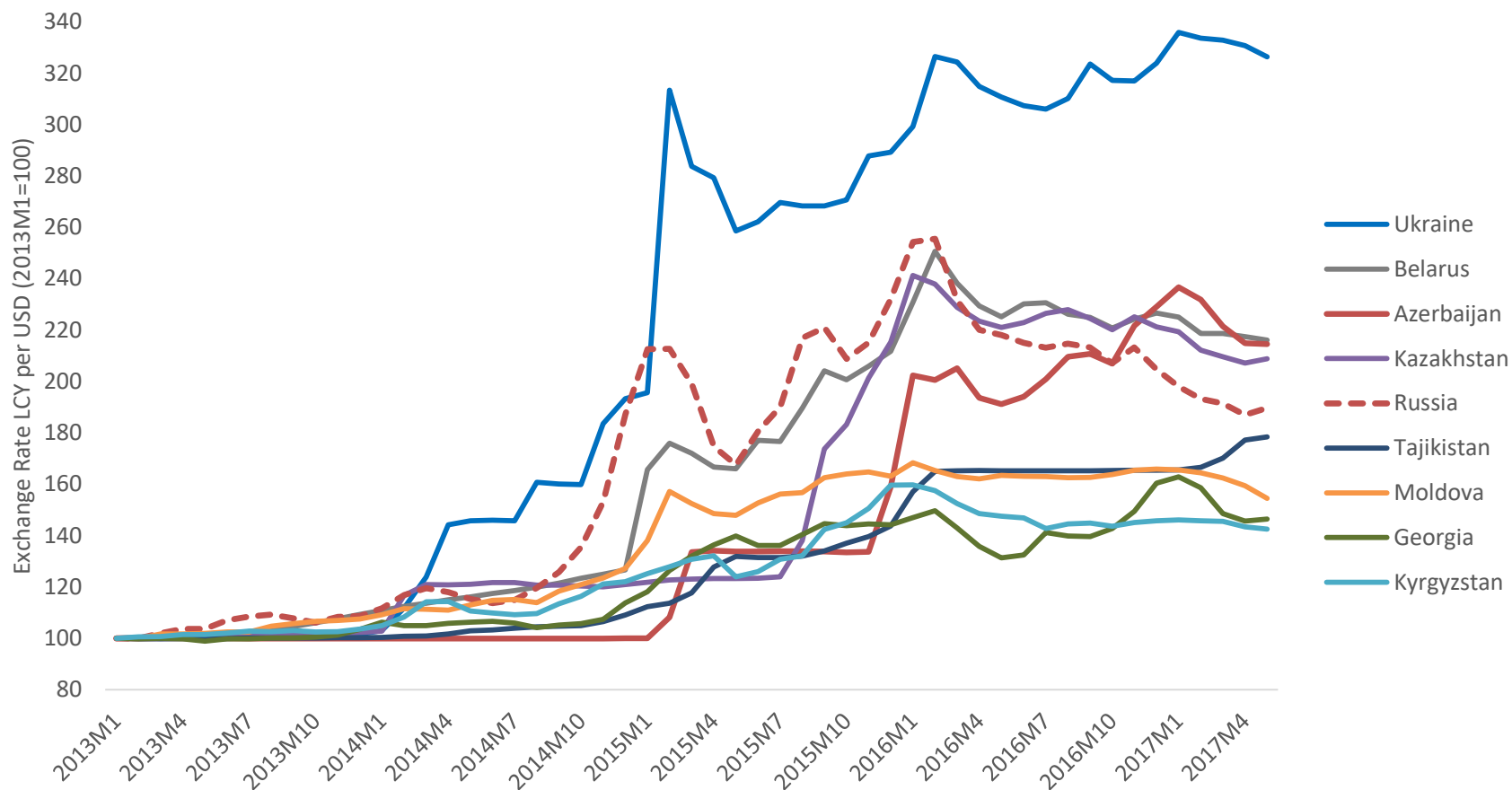
Source: TCX, Bloomberg

FX DEVALUATION IN CIS

Is the FX story of Azerbaijan and Russia only relevant for oil exporters? Not at all...

But why?

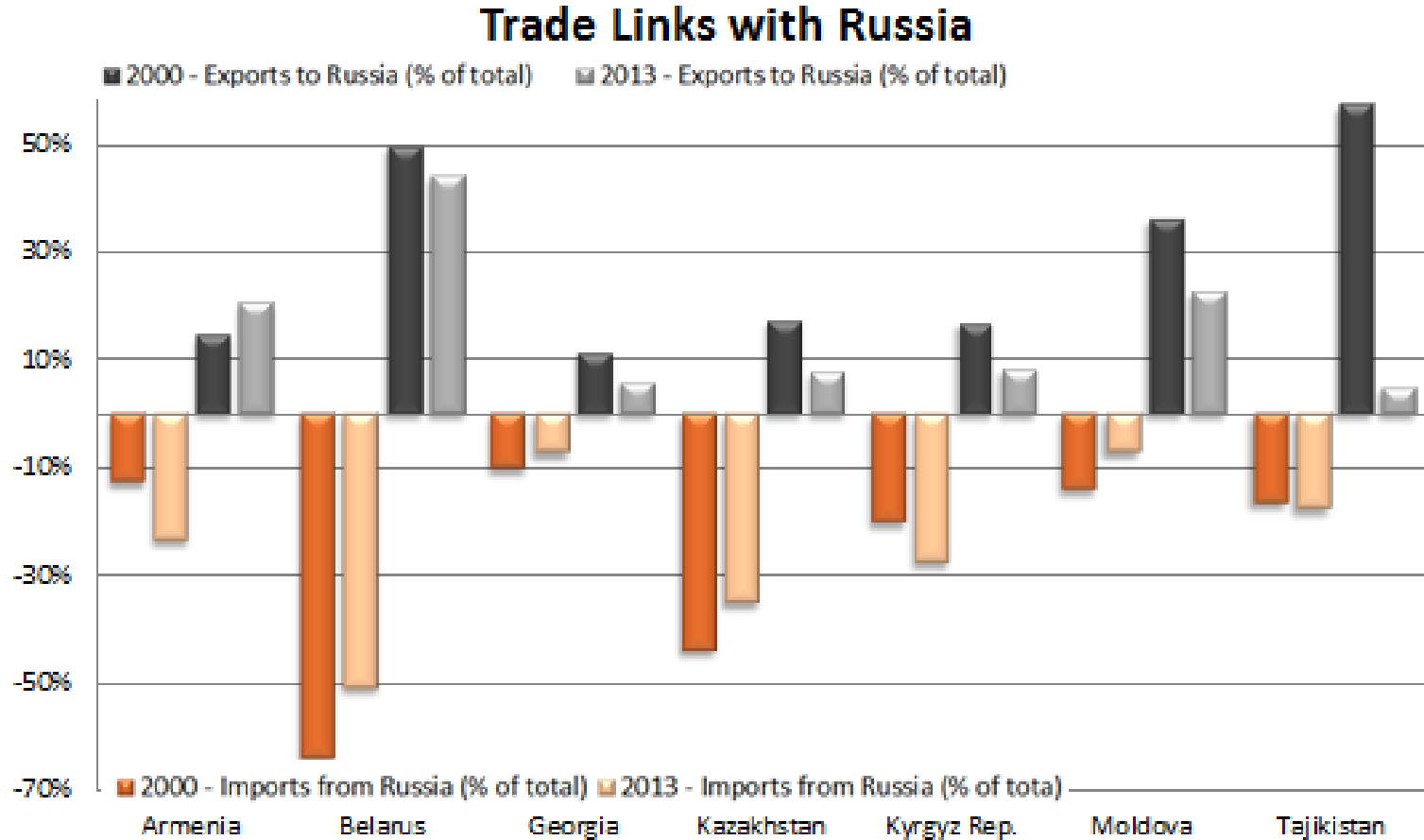
Regional Nominal Exchange Rate Developments
(LCY per USD, depreciation up)



Source: TCX, Bloomberg

CIS TRADE LINK TO RUSSIA

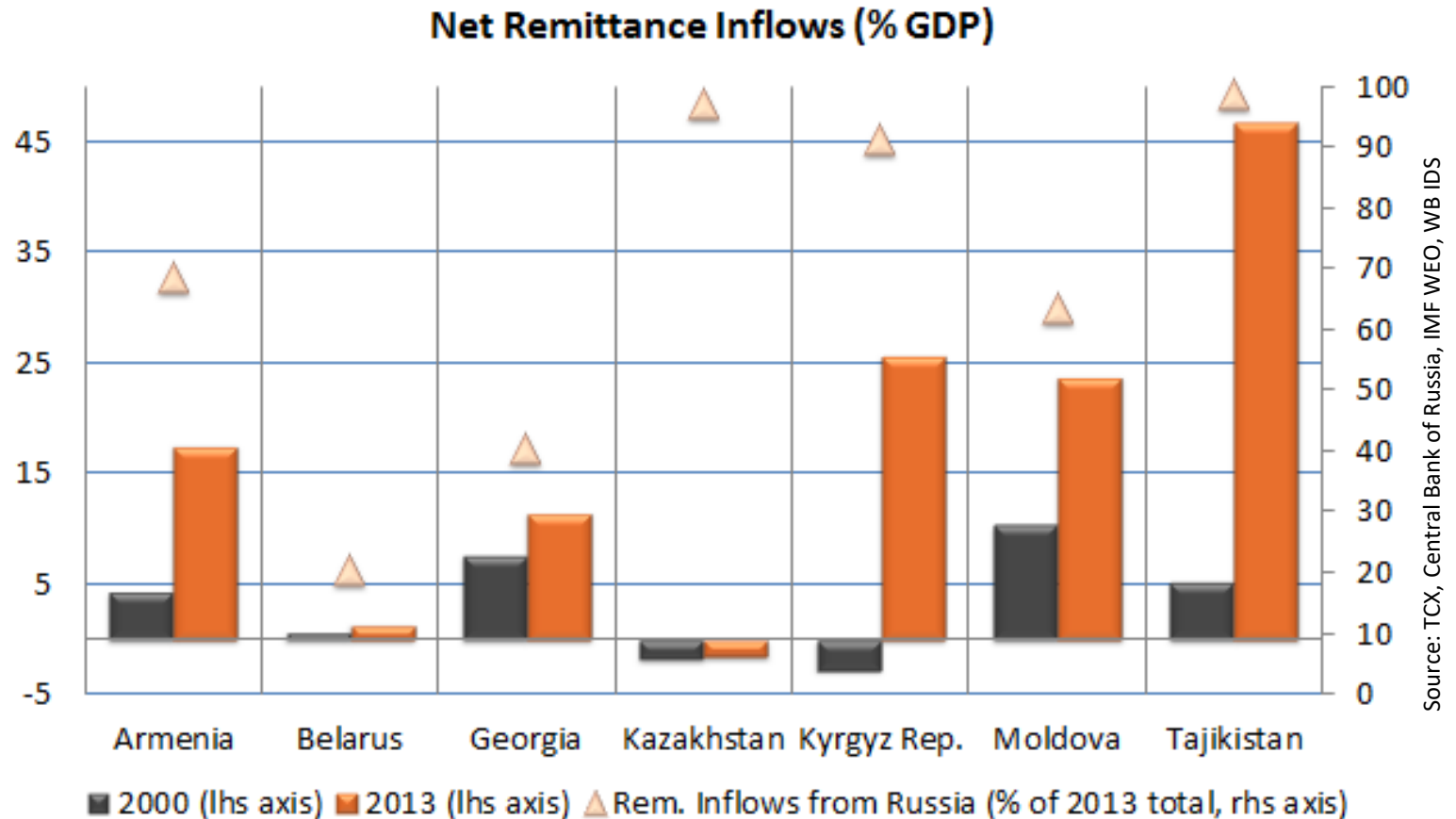
Direct trade link to Russia has been actually becoming regionally weaker... Another driver of the FX depreciations across CIS' oil importers?



Source: TCX, MIT OEC

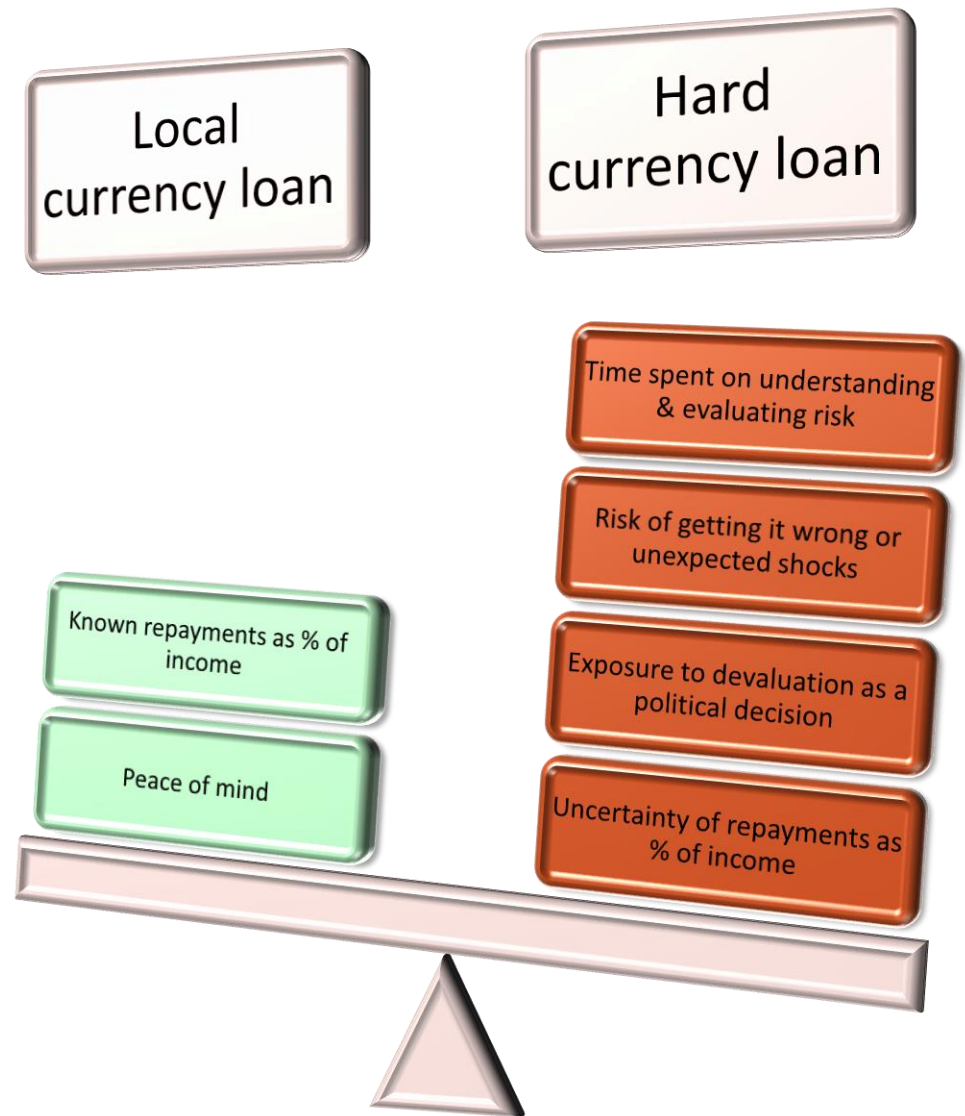
CIS REMITTANCES LINK TO RUSSIA

Remittance flows from Russia became a crucial source of hard currency inflows and driver for domestic consumption -> large pressure on regional economies with the downturn in Russia.



SUMMARY

- ✓ You might understand your local economy but can you predict external shocks and fully understand the linkages?
- ✓ Even the big market players don't get it right...



CREDIT AND FX : WRONG-WAY RISK

As the relationship between credit spreads and FX embeds large amount of

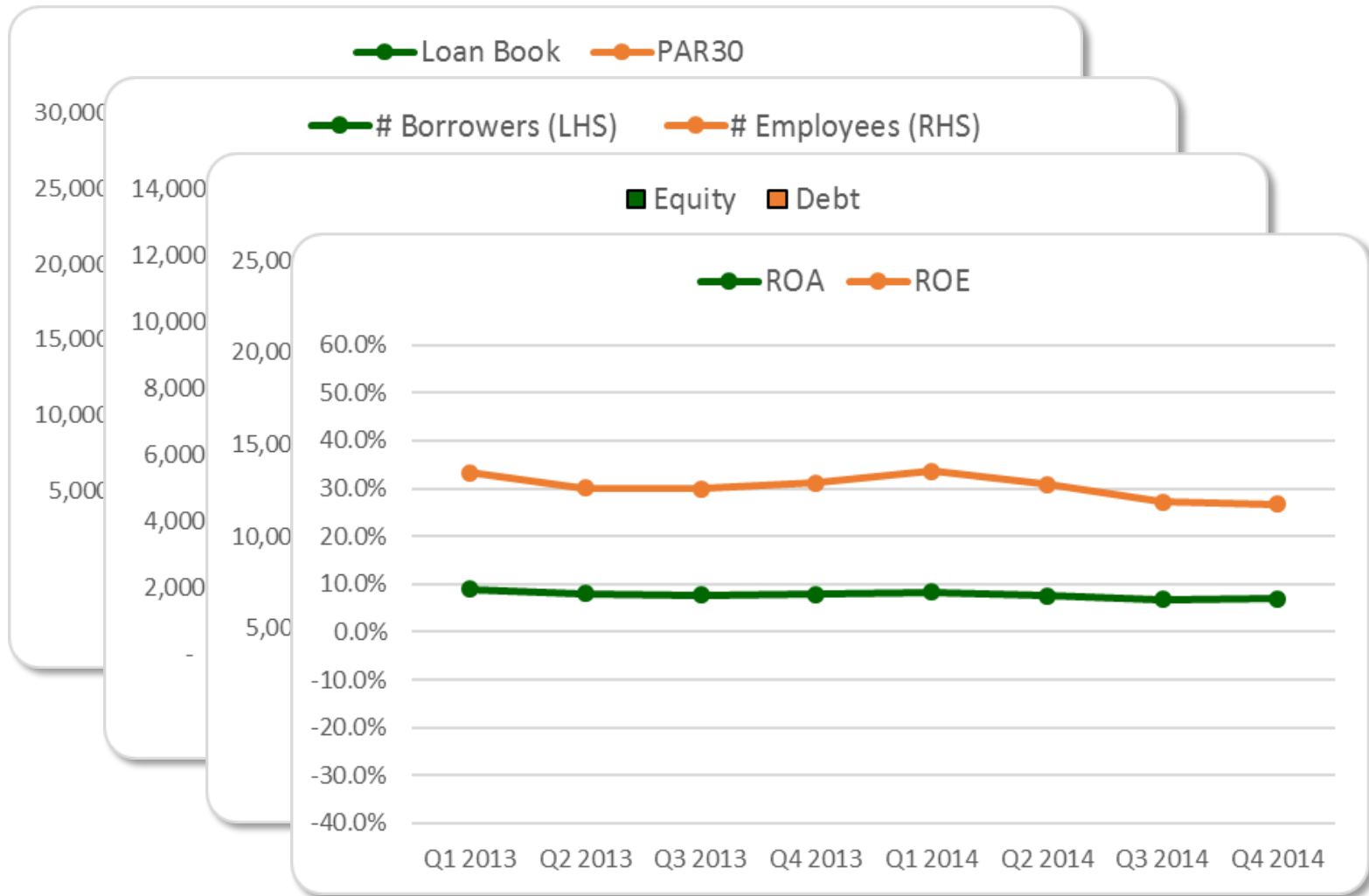
WRONG-WAY RISK

CREDIT RISK increases with **FX DEPRECIATION**

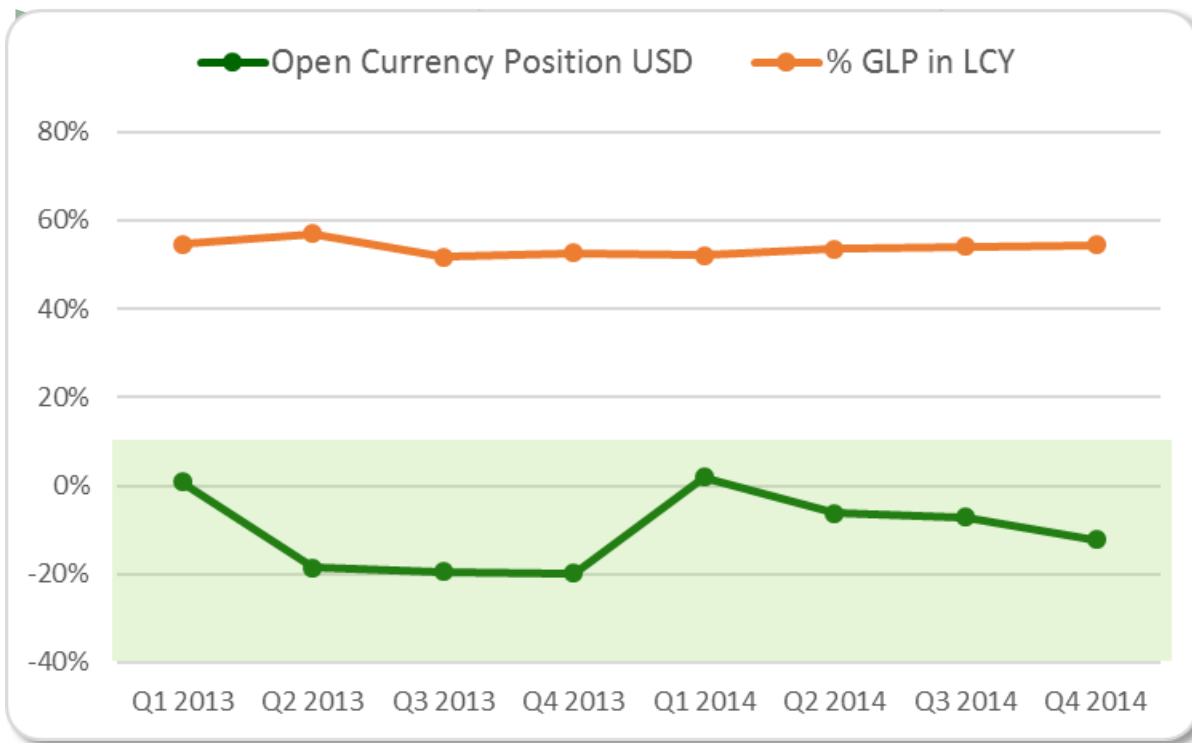
Transferring **CURRENCY RISK** to **BORROWERS** increases probability of default

INCREASE OF UNCERTAINTY ON THE RECOVERY RATE
in period of crisis when the work out process is the most compromised

2012-2014 / MFI IN AZERBAIJAN DOING WELL



MFI FX POSITIONS



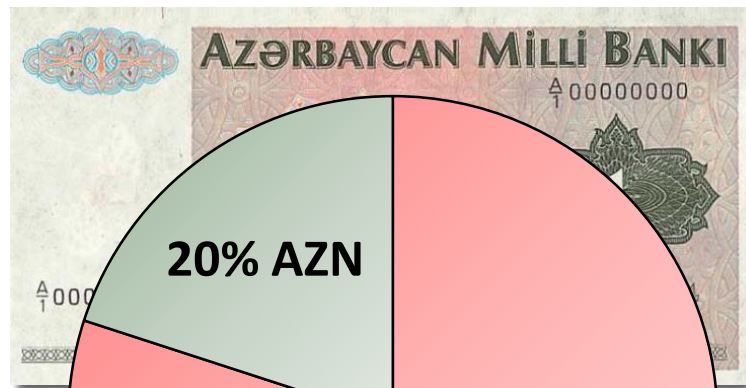
most of in USD

Avg. 53% of loan book in LCY
Keep USD liabilities matched with USD assets (loans to clients)

Small USD short position

2012-2014: INVESTING IN AN AZERBAIJAN MFI

INVEST USD 1M in the MFI



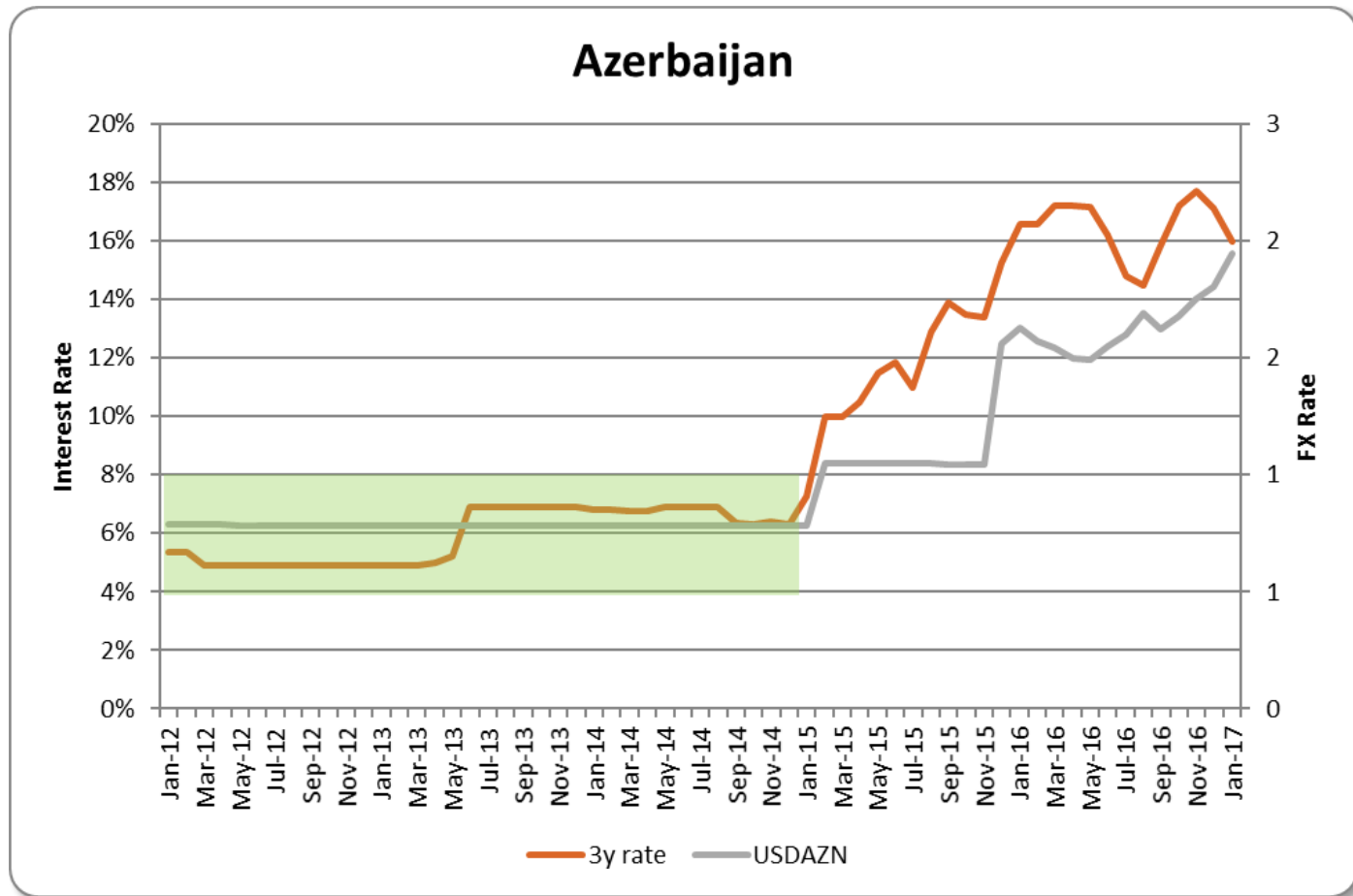
Interest rate fixed
Interest rate 7%
FULLY HELD WITH SWAP
UNHEDGED
WITH TCX

USD 1 M = AZN 780k

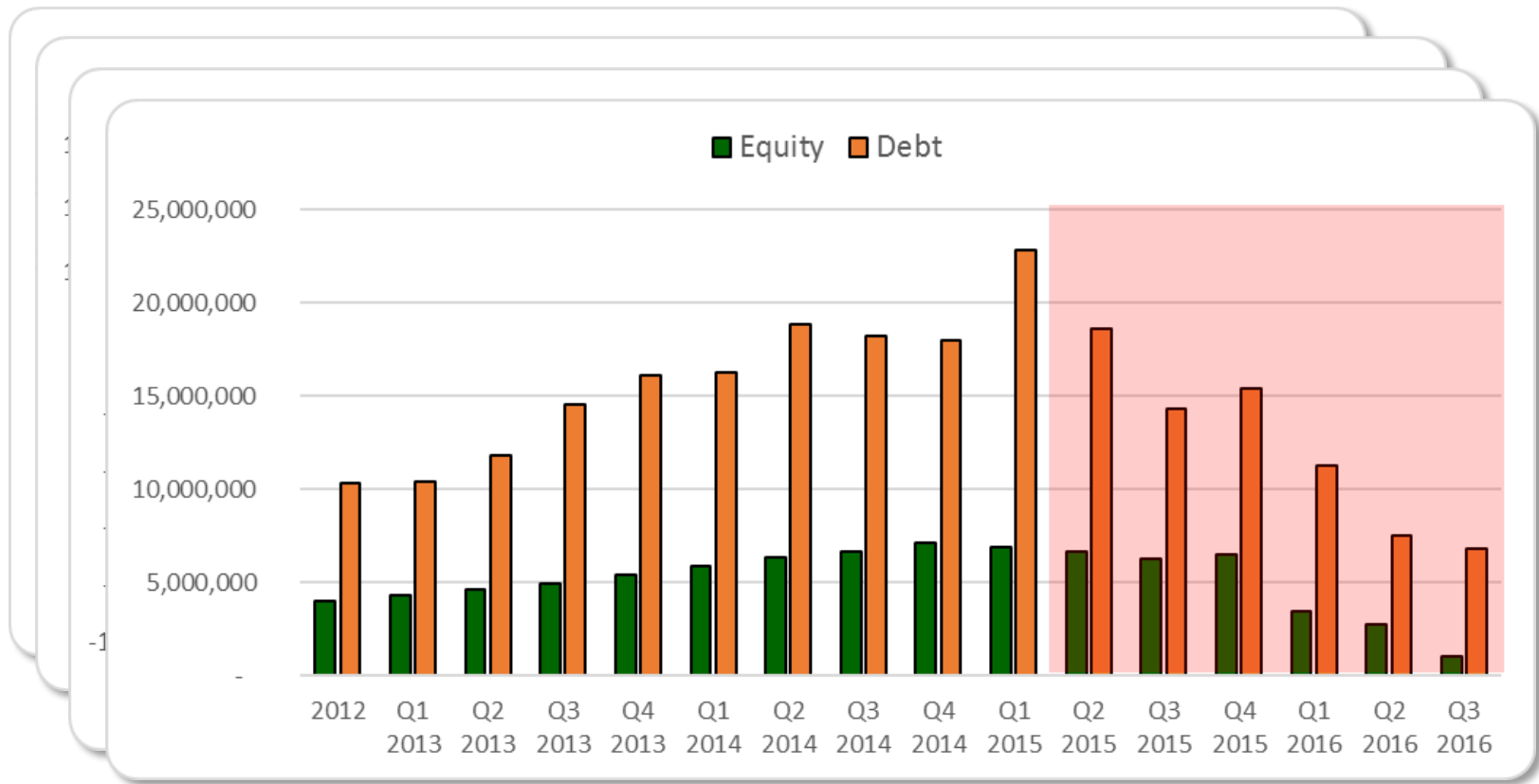
2012-2014: TCX PRICING

For three years 2012-2014, TCX swap rate was average:

Fixed AZN 6% vs. USD LIBOR 6m



2015: THE CRISIS OCCURS & THE MFI STARTS



**Lose 87% Equity
in 20 months**

2015: THE AZ MFI IS NOT DOING WELL ANYMORE

MFI's borrowers were believed to have USD revenues, matching with their USD loans

MFI's Borrowers do not have USD revenues (anymore)

They cannot absorb the cost of the double devaluation (USD +96%)

Borrowers default on USD-payments to the MFI

The MFI cannot repay its lenders/investors (USD-loans mostly)

The MFI is defaulting on its payments (& risking bankruptcy...)

WHERE INVESTORS STAND ?

MARCH 2016 – INVESTOR THAT PROVIDED USD-LOAN



Initial investment: USD 1M loan

100% Investment At-Risk

For the MFI the amount to repay **DOUBLED in terms of local currency**

Before the devaluations: AZN 780k

After the devaluations: AZN 1.54 M

MARCH 2016 – INVESTOR THAT PROVIDED AZN-LOAN

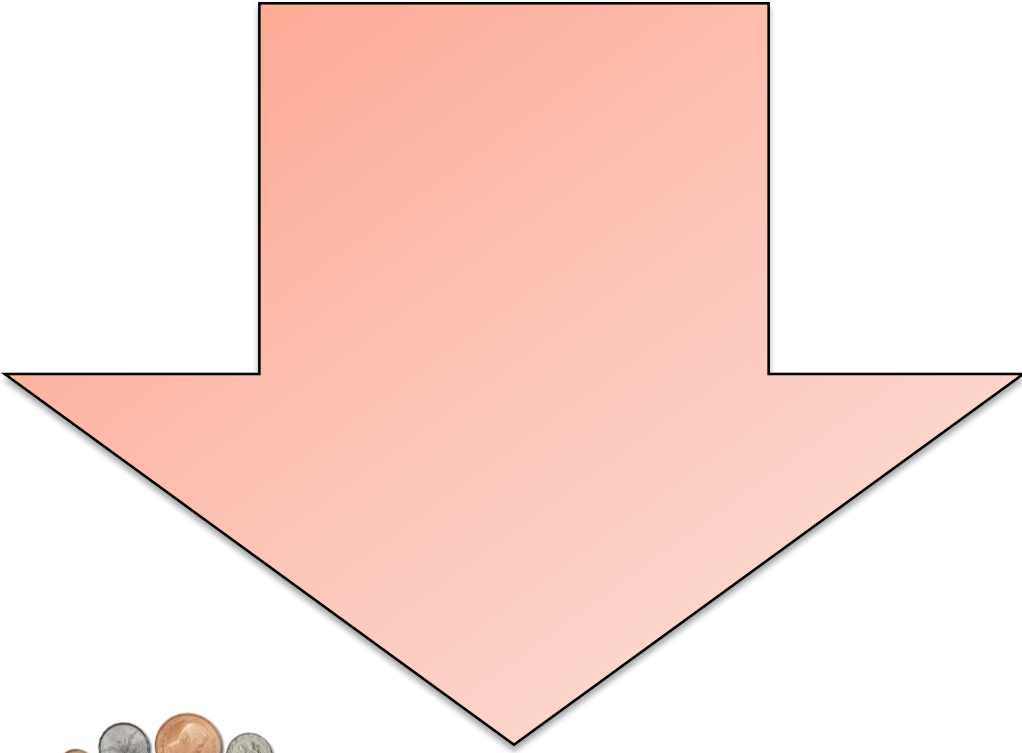


Initial invest

**WHO WILL PAY THE
INVESTOR THE
OTHER USD 500k ?**

...s of local currency

...ill receive AZN 780k = to USD 500k

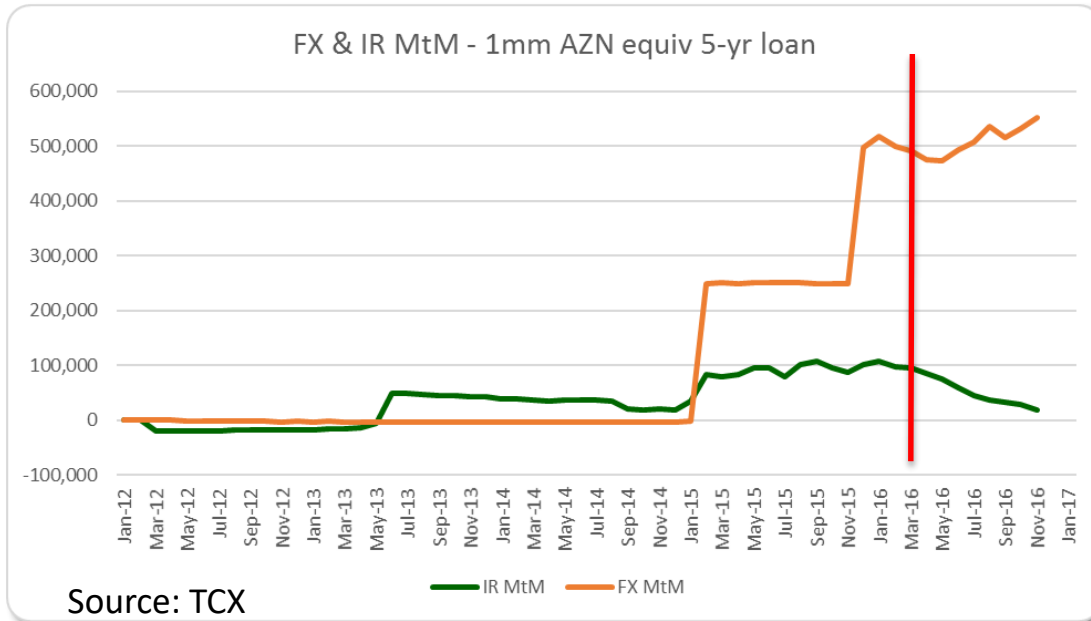


TCX shared commitment to local currency

the currency exchange fund

SWAP MTM DURING AZERBAIJAN 2016 CRISIS

- The Swap the investor has with TCX has a value that changes over time that is represented by the **Mark-to-Market**



TCX pays
the
Investor
USD 575k

50% of
the initial
amount
recovered

✓ **MtM sharply increasing at each devaluation in favor of the investor**

If the underlying loan is no longer performing, TCX does not leave its client with an open FX position

In such situation, closing the position with TCX before the original maturity is allowed. It is referred to as **UNWINDING**

WHY IS BETTER TO HEDGE FX RISK AT ALL TIMES

STRONG SOCIAL IMPACT

The whole chain from investors to end-borrowers is protected from external shocks/depreciations. Stronger financial sector foundations,

IMPROVED CREDIT RISK

Statistically local currency loans have a lower default probability in context of financial crisis in emerging markets

PROTECTION FROM MONETARY CRISIS

In case of sector shocks the swap provides protection and a fast & safe way to recover part of the investment

(in Azerbaijan case 50% of the initial investment immediately recovered)

RECOVERY PROCESS

The process is considerably faster as the investor need to recover just part of the initial investment with the (defaulting) MFI



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BlueOrchard, Azerbaijan and Risk Management



Chuck Olson
Chief Credit Officer

May 2017

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History

History By the Numbers: Global, Regional and Azerbaijan

	2012	2013	2014	2015	2016
BlueOrchard Global Statistics					
# of MFIs	122	134	148	144	160
# of Loans	238	291	344	414	461
Average Loan Size	2,203,076	1,977,400	1,932,832	1,944,561	2,738,231
Total Global Portfolio	524,332,031	575,423,287	664,894,188	805,048,125	1,262,324,359
Growth	-	10%	16%	21%	57%

	2012	2013	2014	2015	2016
Eastern Europe, Caucasus and Central Asia					
# of MFIs	37	42	44	43	39
# of Loans	81	99	110	123	101
Average Loan Size	2,026,636	1,890,578	1,560,269	1,295,221	1,826,011
Total Regional Portfolio	164,157,500	187,167,236	171,629,632	159,312,176	184,427,077
Growth	-	14%	-8%	-7%	16%
% of Global Portfolio	31%	33%	26%	20%	15%

	2012	2013	2014	2015	2016
Azerbaijan					
# of MFIs	3	3	3	2	2
# of Loans	6	8	6	5	4
Average Loan Size	2,750,000	3,125,000	3,508,945	1,304,033	847,420
Total Portfolio in Azerbaijan	16,500,000	25,000,000	21,053,670	6,520,163	3,389,682
Growth	-	52%	-16%	-69%	-48%
% of Global Portfolio	3%	4%	3%	1%	0%
% of Regional Portfolio	10%	13%	12%	4%	2%

Internal BlueOrchard History

- BlueOrchard in its 17-year history has taken very little unhedged local currency risk
 - Vietnam, Indonesia and Myanmar
 - Flagship product not permitted to take unhedged currency risk
 - First default happened in 2009 in Azerbaijan
- 2010-2011 BlueOrchard started to see some challenges from Growth
 - Growth from 2006-2010 averaged 63% per year
 - AUM grew 3.8X
- 2011 BlueOrchard Began Robust Risk Management Overhaul
 - More detailed underwriting and better structuring of loans (fewer bullets, smoothing repayments, etc.)
 - New analytical tools developed including risk rating tool focusing on risk-adjusted pricing
 - Improved reporting and monitoring
 - Enhanced approach towards workouts
 - Risk management culture – internalizing lessons learned from defaults
 - **Actively managing foreign currency risk by lending in local currency where ever practical from a business perspective**

BlueOrchard Approach to Working with MFIs

- Know our clients, understand their needs, and support them during challenges times
 - Due diligence process – thorough, thorough, thorough
 - Monitoring – regular contact
- Take a long-term view on working in emerging markets
 - A turbulent market today can be tomorrows growth opportunity
- Seek to do local currency deals where ever possible. This transfers the FX risk to a third party
- Structure products appropriately with adequate amortizations that permit repayment through cash flow from operations
- Not create further problems for MFIs when problems start by continuing to lend
- And when things go wrong, transparency, transparency, transparency . . .

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Azerbaijan Case

So What Happened for BlueOrchard in Azerbaijan?

- In early 2014, BlueOrchard established a “wait-and-see” attitude for Azerbaijan, curtailing lending activity due to
 - Government attention towards NGOs
 - Finca wire trapped / Azercredit repayment issue in 2014 to BlueOrchard
 - Risk-adjusted return as assessed by internal tools quite low
 - BlueOrchard’s AUM growth double digit, but still slow enough to be selective
- Hedges protected MFIs as well as BlueOrchard managed funds from devaluation
 - We continued to re hedge loans and/or convert to USD after default
- Risk management practices kicked in
 - Amortizing loans gave MFIs opportunity to de-lever institution while not significantly impacting liquidity levels
 - Increased monitoring and reporting on Azerbaijan
 - Active role in workouts with MFIs and other lenders
- In 2015 currency de-peg hit and there were increased political interventions
- Did Other Lenders Suffer from the Winner’s Curse?

Winner's Curse

- Winner's curse is tendency for winning bid in auction to exceed intrinsic value of item purchased. As a result, largest overestimation of value ends up winning the auction.
 - Incomplete information
 - Emotions
 - Difficulty determining item's intrinsic value

- In 1950s when term winner's curse first coined, there was no accurate method to estimate potential value of an offshore oil field.
 - Example: An oil field has actual intrinsic value of \$10 million. Oil companies might guess value to be anywhere from \$5 million to \$20 million. Company who wrongly estimated at \$20 million and placed a bid at that level would win the auction, and later find that it was not worth as much as they bid.

- Did impact investors suffer from the Winner's Curse in Azerbaijan?

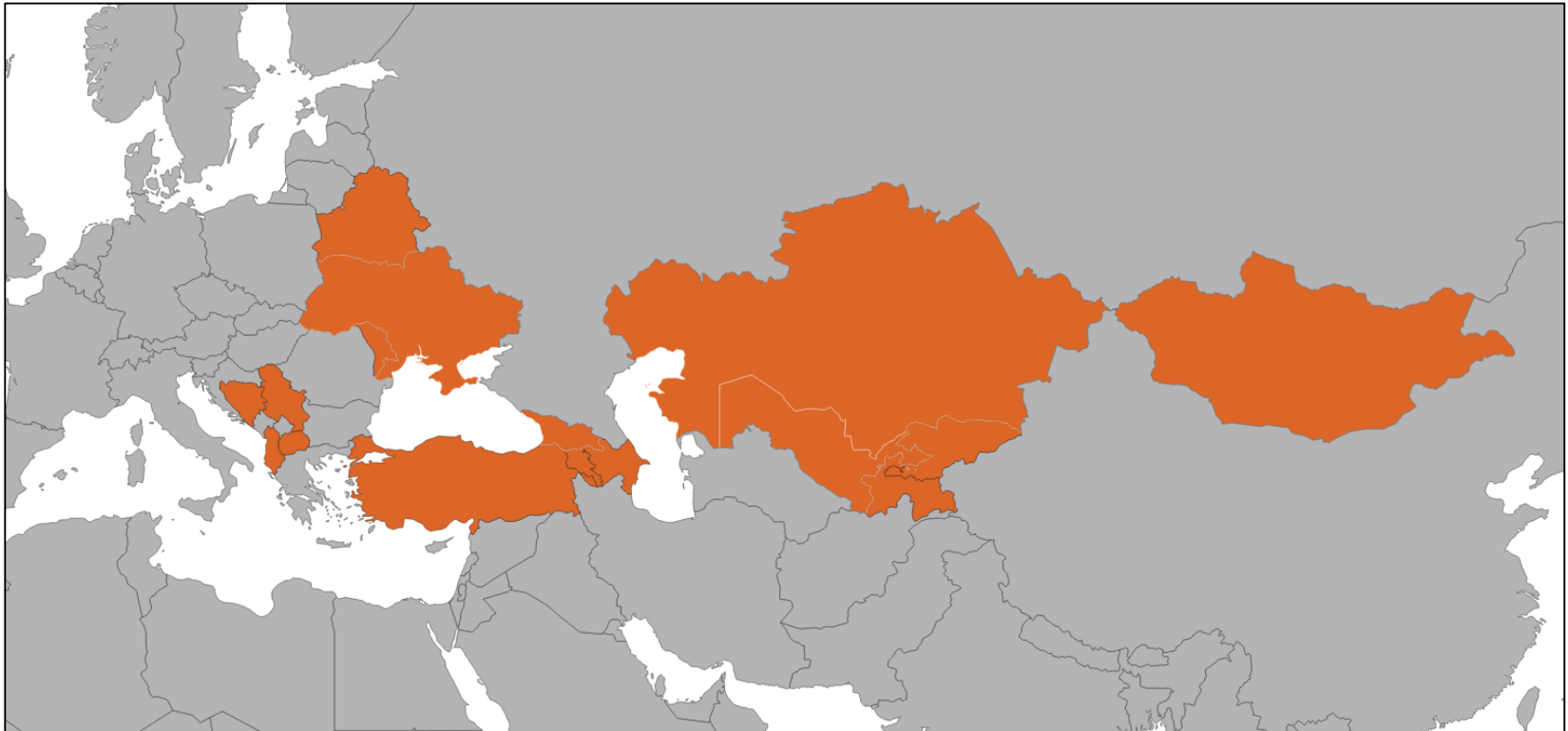
When (not if) Will We Return to Azerbaijan

- Political environment still creates significant uncertainty for international lenders
 - BlueOrchard will need to see less political intervention in the markets
 - Improved regulatory framework would help

- Macro environment stabilizes
 - Reduced pressure on exchange rates
 - Budgetary concerns are reduced

- Fundamentals of the MFIs will need to improve
 - Asset quality will need to improve
 - Capital levels will need to be sufficient
 - Margin levels of profitability / sustainability

TCX MARKETS IN THE REGION



Azerbaijan - AZN

Armenia - AMD

Albania - ALL

Belarus - BYN

Bosnia Herzegovina BAM

Georgia - GEL

Kazakhstan - KZT

Kyrgyz Republic - KGS

Macedonia - MKD

Moldova - MDL

Mongolia - MNT

Serbia - RSD

Tajikistan - TJS

Turkey - TRY

Ukraine - UAH

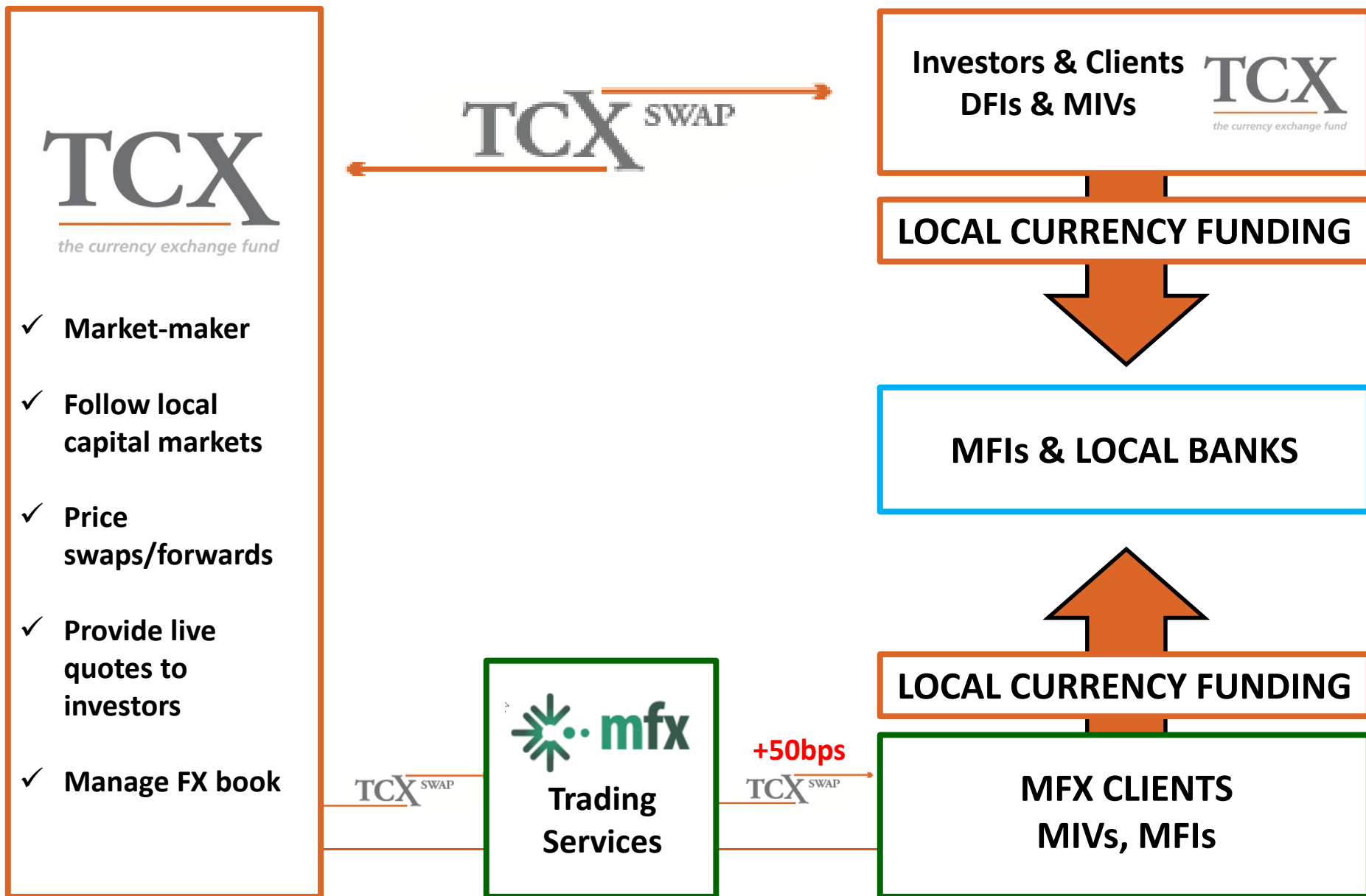
Uzbekistan - UZS

CROSS CURRENCY INTEREST RATE SWAPS & FX FORWARDS

CURRENCY	MAX. TENORS	TYPE Fixed/Floating
Albania - ALL	10Y (*) / 15Y	Fixed & Floating Rates
Armenia - AMD	15Y (*) / 15Y	Fixed & Floating Rates
Azerbaijan - AZN	5Y (*)	Fixed Rates ONLY
Belarus - BYN	5Y (*)	Fixed Rates ONLY
Bosnia Herzegovina BAM	15Y	Fixed Rates ONLY
Georgia - GEL	15Y / 15Y	Fixed & Floating Rates
Kazakhstan - KZT	15Y / 15Y	Fixed & Floating Rates
Kyrgyz Republic - KGS	10.5Y (*) / 15Y	Fixed & Floating Rates
Macedonia - MKD	15Y / 15Y	Fixed & Floating Rates
Moldova - MDL	5Y (*) / 15Y	Fixed & Floating Rates
Mongolia - MNT	5Y (*) / 15Y	Fixed & Floating Rates
Serbia - RSD	15Y / 15Y	Fixed & Floating Rates
Tajikistan - TJS	5Y (*)	Fixed Rates ONLY
Turkey - TRY	On request	Fixed & Floating Rates
Ukraine - UAH	7.5Y (*)	Fixed Rates ONLY
Uzbekistan - UZS	On request	Fixed Rates ONLY

* Can be extended upon request

HOW TO ACCESS THE HEDGING PRODUCT



TCX INVESTORS



MFx CLIENTS



WHAT TO REMEMBER FOR AN MFI ?

Most of the lenders

can offer local currency funding through TCX or MFX

Maturity, Size, Margin

(= final price) are driven by the lender

- TCX can often provide
- both **fixed and floating rate in local currency**

Usually it is also possible for banks/MFI to **trade directly via TCX (or MFX)**

- **Hedging USD after disbursement via TCX/MFX is generally more expensive** than securing a local currency loan right away

- **Take local currency funding in first place to avoid having to hedge is in most cases the easiest and cheapest solution**

shared commitment to local currency



TCX
the currency exchange fund