

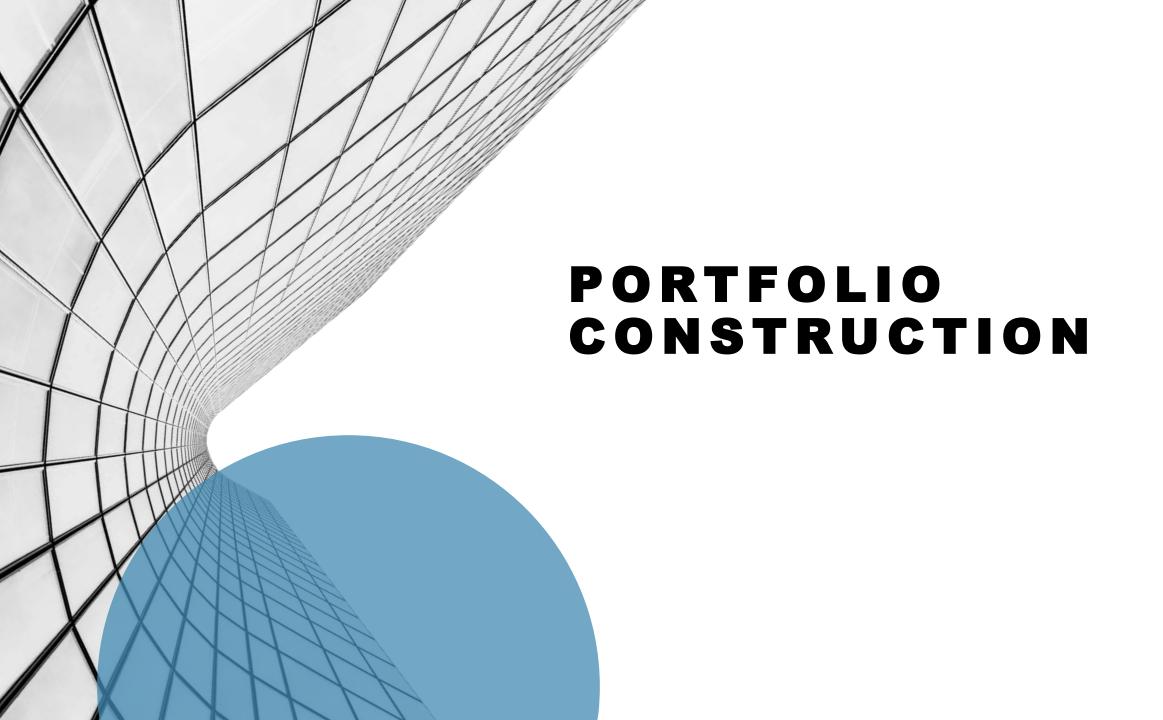
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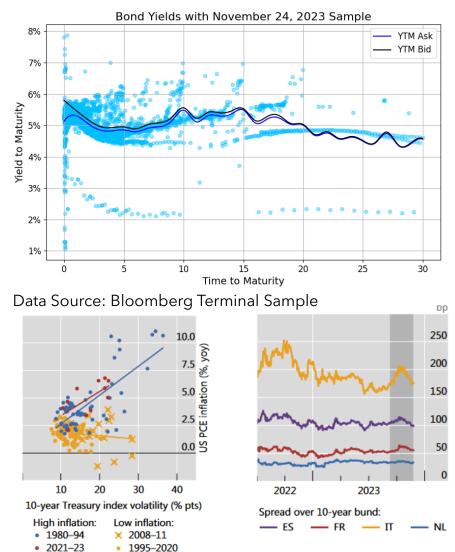
- Laddering
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- Interest Rate Risk
- Inflation Risk
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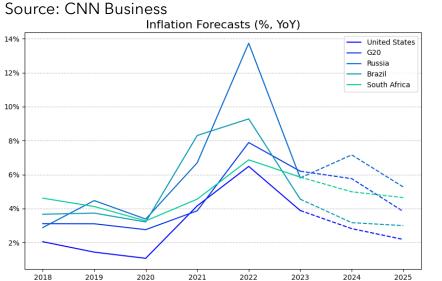
GLOBAL MARKET OUTLOOK

- Inflation ↓ ↔ Investor Sentiment ↑ ↔ Interest Rates ↓
- Political agenda: Red Sea conflict, Taiwan elections, Russia-Ukraine War...



Source: Bank of International Settlements (BIS)



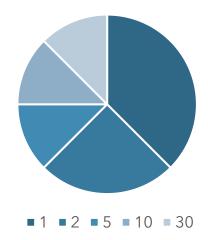


Data Source: OECD Economic Outlook, November 2023

PORTFOLIO DISTRIBUTION

	YTM	Price	Maturity	Cpn	Rating
Bond 1			1		AAA
Bond 2			1		AA
Bond 3			1		AA
Bond 4			2		BBB
Bond 5			2		AAA
Bond 6			5		AA
Bond 7			10		BBB
Bond 8			30		BBB

Maturity Distribution



Bond Selection Criteria:

- Geographical Diversification
- Laddering for Risk Aversion
- High Cpn Rate

Summary:

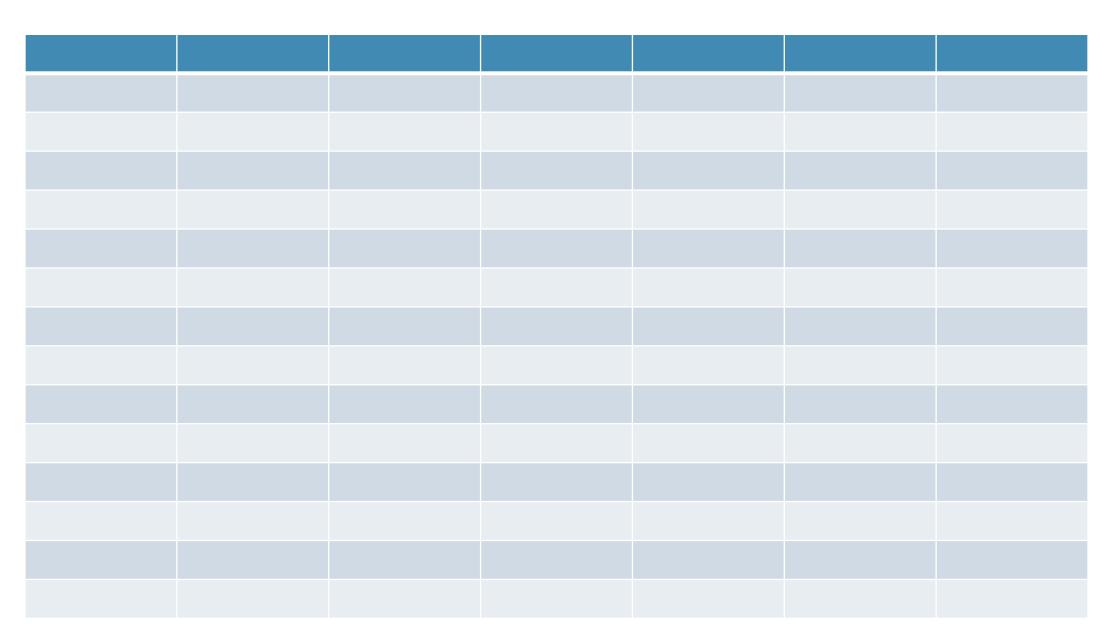
- 60% US Treasuries
- Rating Distribution:

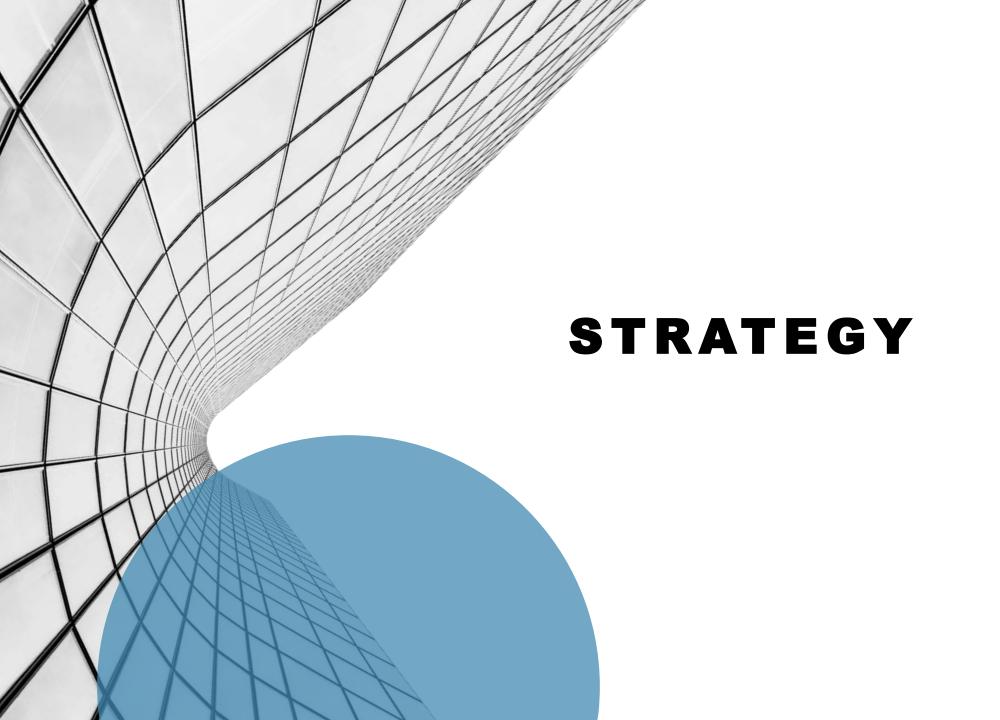
AAA : 40%

BA : 30%

- Portfolio Duration:
- DV01:

... A MORE COMPLETE PICTURE





STRATEGY

- No "callable" and "putable" bonds
 - Anticipating interest rate cuts after 2024Q2
 - "callable": cheaper re-financing for issuers → increasing reinvestment risk
 - "putable": declining rates → less value of put option
- **Yield curve** starts steepening, but not fast → "riding the yield curve" with 2yrs

STRATEGY

- "Key interest rates are likely to fall significantly in 2024. However, this does not necessarily mean that yields will fall and prices on the bond markets will rise."
 - Börse Frankfurt (on German bonds)
- The baseline view is for the **2yr to get to 3% and for the 10yr to get to 4%,** with the risk of an overshoot to the downside, as a call for 2024. The 30yr likely tracks the 10yr to a point, but is unlikely to get much below 4%, resulting in net 10/30yr steepening, likely targeting 30-50bp."
 - Padhraic Garvey, CFA (ING Think)

COMPARISON

Bond Fund	YTM	Weighted Price	Weighted Coupon	Avg Credit Rating (surveyed)	Modified Duration	Effective Maturity
JPMorgan Government Bond I	5.08	88.79	2.90	AAA	-	7.41
iShares Core Total USD Bond ETF	4.80	92.16	3.43	A+	6.11	8.35
Vanguard Total Bond Market Index	5.00	92.85	3.21	AA	-	8.70
Schwab Short-Term US Treasury ETF	5.10	96.88	2.48	AA	1.88	1.97
PIMCO Diversified Inc Instl	7.87	87.06	4.96	BBB+	5.07	8.43
TankX Bond Portfolio Proposal	5.70	95.55	3.30	AA		

Data Source: Morningstar

NEGATIVE BASIS TRADES

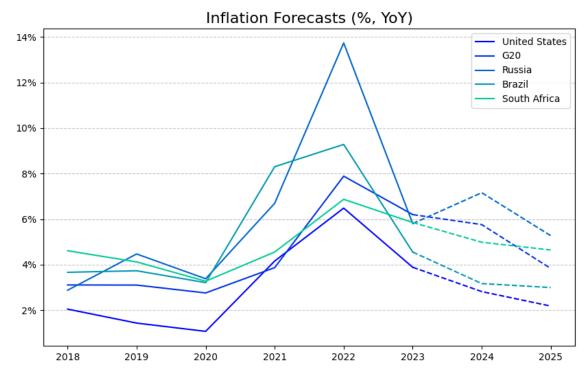


INFLATION AND INTEREST RATE RISK

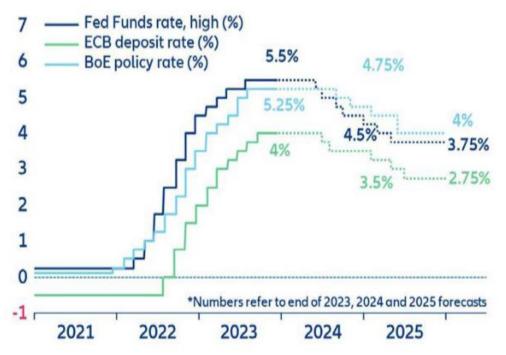
- Even though risks persist, inflation started to cool down
- Following 2024Q2, interest rate cuts may start
- Dollar Duration:

Convexity:

DV01:



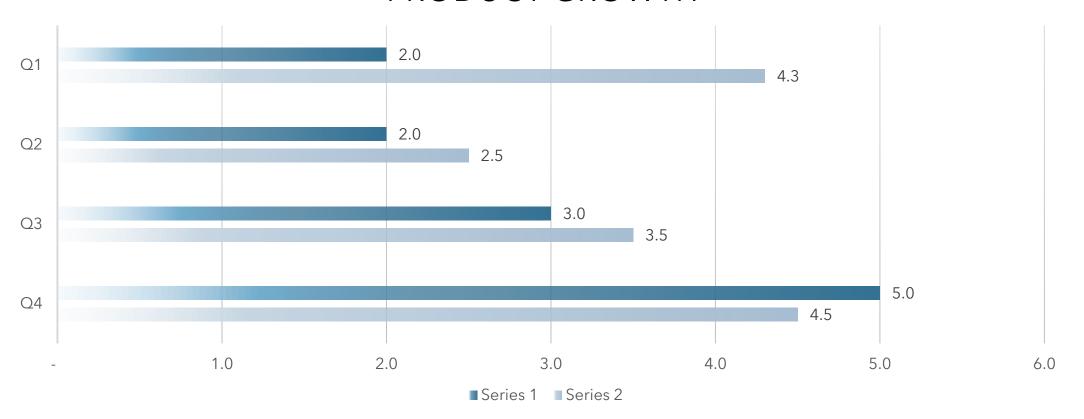
Data Source: OECD Economic Outlook, November 2023



Source: Allianz SE, Global Economic Outlook 2023-25

LIQUIDITY RISK

PRODUCT GROWTH



LIQUDITY RISK MEASURES

- Given the cross-sectional nature of data, the liquidity proxy is: Bid-Ask Price Difference
- If high-frequency time series data is available:
 - Roundtrip (Feldhütter (2012))

$$RT = \frac{2*(P_{\text{max}} - P_{\text{min}})}{(P_{\text{max}} + P_{\text{min}})/2}$$

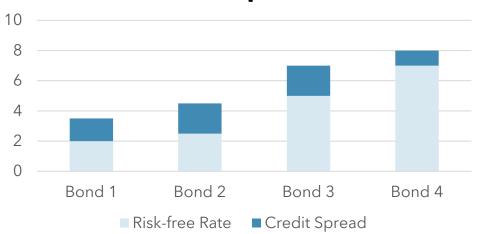
Inter-Quartile Range (Han and Zhou (2007))

$$B_{-}IQR = \frac{P_t^{75th} - P_t^{25th}}{\overline{P_t}}.$$

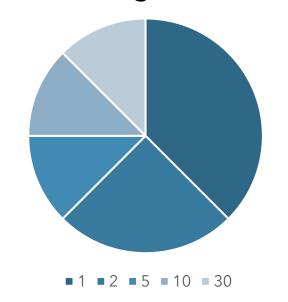
Roll (Friewald, Jankowitsch, and Subrahmanyam (2012))

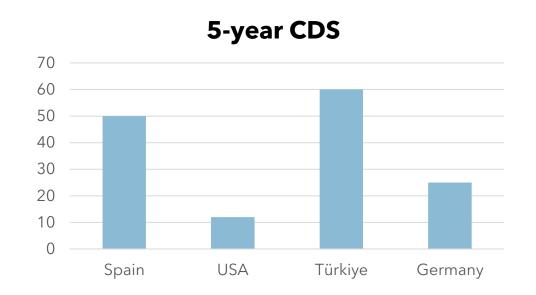
CREDIT RISK

Credit Spreads



Credit Rating Distribution





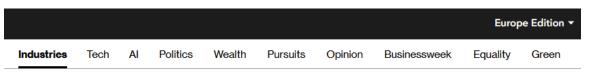
GEOPOLITICAL RISK

- Avoid Chinese and Middle East Region bonds
- Rising political and military tensions may eventually lead economic downturn and declining markets

Europe Edit



Bloomberg



Volvo Car Joins Plant Halts on Red Sea Crisis



