

RESEARCH REPORT

FIXED INCOME

Q1

Q2

Q3

| AFRICA | QUARTERLY AGR Africa Bond Index

Q4

SPECIAL EDITION

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**S&P Dow Jones
Indices**

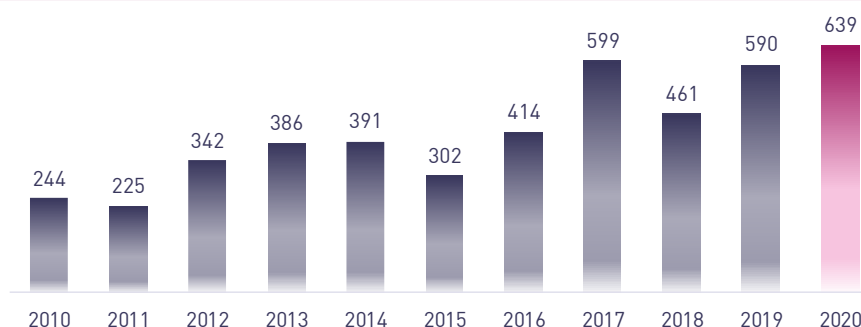
COVID-19 CRISIS: A GROWTH OPPORTUNITY FOR THE EUROBONDS MARKET

Like previous crises, the Covid-19 pandemic has not been completely disadvantageous to the global economy. Indeed, the real economic and financial spheres have experienced various evolutions :

- ⇒ The real global economy has experienced a marked slowdown, or even complete shutdowns, alongside the phases of lockdown put in place to cope with the virus spread. Given the uncertainty of the health situation in the world, the recovery will take time ;
- ⇒ The financial world, for its part, has experienced a significant improvement in activity. The dual Supply/Demand shock required the mobilization of new resources to meet needs from both public and private operators. Moreover, financial markets' volumes have been marked by unprecedented volatility.

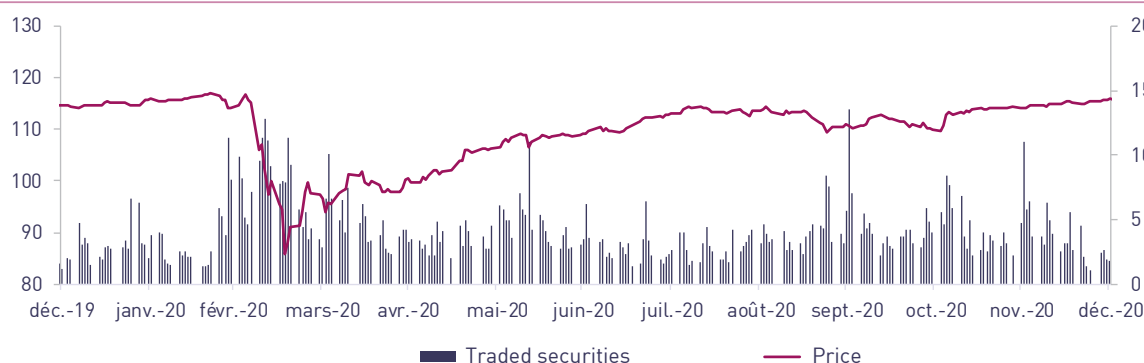
In this context, the primary market for Eurobond issues, already expanding before the Covid-19 crisis, accelerates its growth. It should be noted that the context is favourable. This is evidenced by the abundance of liquidity fuelled by 'sizable' stimulus packages and the search of return given "insufficient" traditional offered yields.

EVOLUTION OF EUROBONDS ISSUES IN EMERGING MARKETS 2010-2020 (BN \$)



Concerning the secondary market of Eurobonds, this compartment has not deviated from the global trend of financial markets where volatility dominates. After panic peaked by the end of Q1-20, indices rebounded at the end of the year, leading to momentary euphoria.

EMB ETF ⁽¹⁾ EVOLUTION VS. QUANTITY OF TRADED SECURITIES (IN MN)



(1) EMB ETF is a listed index fund which aims to track as closely as possible the performance of the Emerging Markets Bond Index (EMBI). The latter covers sovereign and quasi-sovereign loans denominated in US dollars issued by emerging countries.

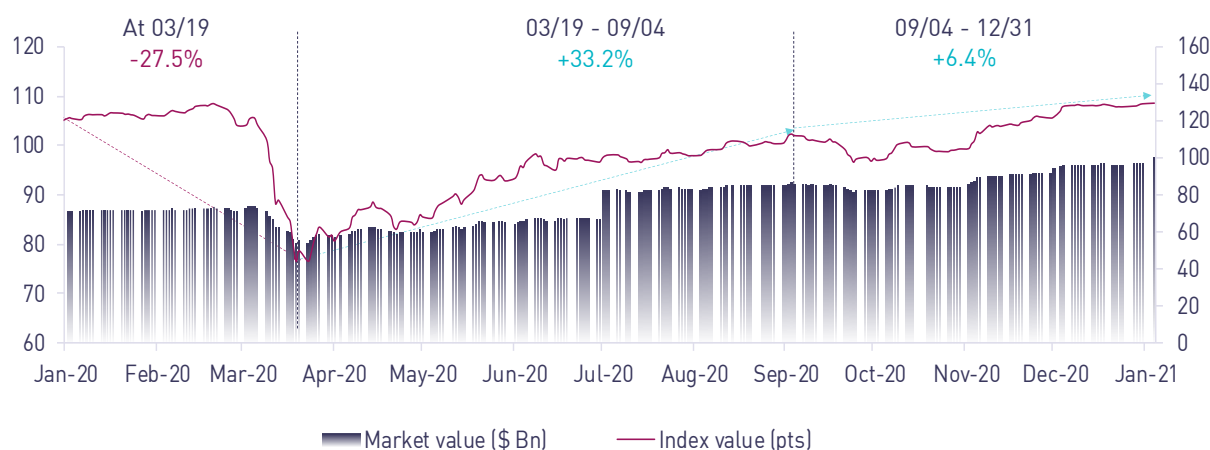
Sources : Bloomberg, AGR Computations

AGR-ABI: AN ATTRACTIVE PATH IN A SHOCK TIME

1. AGR-ABI : An annual performance of 2.8%

For the past year, the index AGR - ABI has encountered a jagged evolution which resulted in an annual performance of 2.8% to 108.5 points. This follows an increase of 14.3% in 2019. For its part, the outstanding amount reached a \$ 100 Bn level , benefiting from the deposit expansion and the overall positive performance of the constituents. In details, the AGR-ABI evolution during 2020 can be subdivided into 3 main phases:

AGR ABI EVOLUTION (PTS) VS. OUTSTANDING AMOUNTS (\$ BN) IN 2020



Phase 1 : from January 1st to March 19th

During the first quarter, the AGR - ABI index has experienced a sharp decline of -27.5% to reach an all-time low of 76.5 points (as of March 19th). At the origin of this underperformance, the sharp rise in investor risk aversion relating to the budgetary difficulties of some issuing countries exposed to commodities' evolution. We cite in particular Kenya, Nigeria and Ghana, whose financial solvency is in dispute due to the drop in oil revenues which are suffering from an imbalance between world Supply and Demand.

Phase 2 : from March 19th to September 4th

Within six months, the AGR - ABI index has erased its losses of Q1-20, showing a cumulative performance of 33.2% to reach 101.9 points. At the same time, the overall deposit outstanding has grown to over \$ 85 Bn against \$ 54 Mn initially. Recall that this improvement could be explained by a renewed appetite for risk in a context marked by an abundance of liquidity on the global financial market coupled with a growing scarcity of attractive yields.

Phase 3 : from September 4th to December 31st

During this period, the AGR-ABI evolution experienced a net deceleration. Thus, the index value reached 108.5 points, the highest score since the index launching in 2004. At the same time, the deposit outstanding has exceeded the psychological threshold of \$ 100 Bn. Interest remains mainly driven by sanitary situation recovery, with the imminent launch of a series of vaccines with promising results. *(This phase will be subject of a more detailed analysis on pages 5 to 7)*

AGR-ABI: AN ATTRACTIVE PATH IN A SHOCK TIME

2. AGR-ABI outstanding: Increased visibility

Along with the index performance, the AGR Africa Bond Index has gained in representativeness. In fact, the constituents number recorded an unprecedented increase in 2020 to reach 74 lines against 57 a year earlier. This change stems from a clear increase in lines meeting the eligibility criteria of the index in terms of size, rating and residual maturity. This is also a consequence of the enthusiasm of many African countries for external financing.

In more detail, a series of 20 new bond lines joined the AGR - ABI during 2020, for an overall fundraising exceeding \$ 13 Bn. At the same time, we have seen the withdrawal of 3 bond lines. The table below illustrates the characteristics of the main bond lines that joined the AGR - ABI index during 2020.

Country	Issue Date	Issue amount (\$ Mn)	Maturity (years)	Coupon (%)	Subscription rate
Ghana	February 2020	1 250	7	6.375	5.0x
		1 000	15	7.875	
		750	41	8.750	
Egypt	May 2020	1 250	4	5.750	4.0x
		1 750	12	7.625	
		2 000	30	8.875	
Morocco ¹⁾	September 2020	500	5.5	1.375	2.5x
		500	10	2.0	
Morocco	December 2020	750	7	2.375	4.0x
		1 000	12	3.0	
		1 250	30	4.0	

It is clear that the expansion of the index remains confined to a limited number of countries. Size and rating criteria remain limiting factors for AGR-ABI eligibility.

[1] Eurobond émis en Euro

RESULTS' SUMMARY FOR Q4-20

In this 8th edition, we analyzed the AGR Africa Bond Index evolution during Q4-20. During this period, the index has experienced a significant growth in terms of value and outstanding:

- Currently, the value of the AGR - ABI index stands at an all-time high of 108.5 pts against 97.3 pts in the last edition, i.e. a significant recovery of 11.5% ;
- Similarly, the deposit outstanding amount improved from \$ 82 Bn to more than \$ 100 Bn. This results from the increase in the number of lines meeting the criteria of our index, going from 66 in Q3-20 to 74 in Q4-20. This change results from a scope effect with the inclusion of 8 Eurobond lines in the index. In more details:
 - ⇒ On the one hand, there were two Eurobond issues from Egypt: the first is composed of two lines for an aggregate amount of \$ 2.64 Bn, the issue date of which is prior to Q3-20 (November 2016) and which has just met the eligibility criteria of the AGR ABI index in terms of S&P rating. The second Egyptian issue, realized in October 2020, consists of one line amounting \$ 750 Mn ;
 - ⇒ The other two Eurobond issues concern Morocco: two lines issued in September 2020 for an aggregate amount of € 1.0 Bn and three other lines issued in December 2020 for a record amount of \$ 3.0 Bn ;
- The AGR Africa Bond Index is still represented by 6 African countries like the previous edition. Indeed, the latter is composed of Egypt, South Africa and Nigeria which are largely representative in this benchmark. These 3 countries monopolize nearly 58% of the capitalization while Ghana, Morocco and Kenya share the remaining 42% ;
- The observation of the current index breakdown by S&P rating agency shows the strong contribution of B rated bonds which monopolize 37% of AGR ABI. Furthermore, this latter is composed for 80% of residual maturities superior to 5 years.

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Sources : Bloomberg, AGR Computations

RESULTS' DETAIL FOR Q4-20

Since our last report related to Q3-20, the scope changed following the three rebalancing of the AGR Africa Bond Index which occurred at the end of October, November and December 2020. Since then, 4 new Eurobond issued by two countries have been included in the deposit. These are two Eurobond from Egypt and two others relating to Morocco. The results of this new scope are as follows:

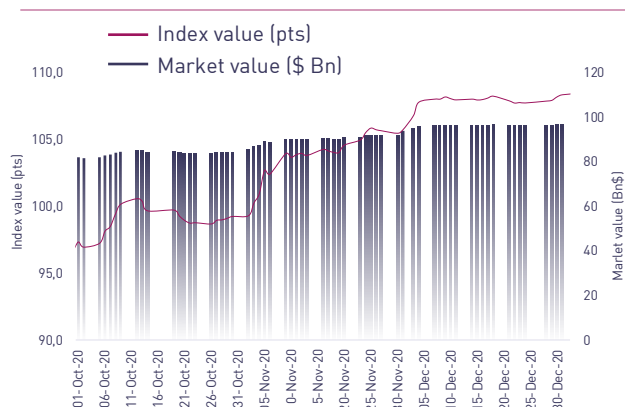
- **Improvement of AGR ABI value**

The AGR Africa Bond Index has evolved on an uptrend since late September 2020, propelling it to its highest level since its creation, i.e. 108.5 points. This positive evolution was accompanied by a significant increase in the number of constituents of the AGR Africa Bond Index, which represent now 74 bond lines at the end of Q4-20 against 66 a quarter earlier. This has contributed to a significant improvement in the total size of the index deposit which exceeds actually \$ 100 Bn.

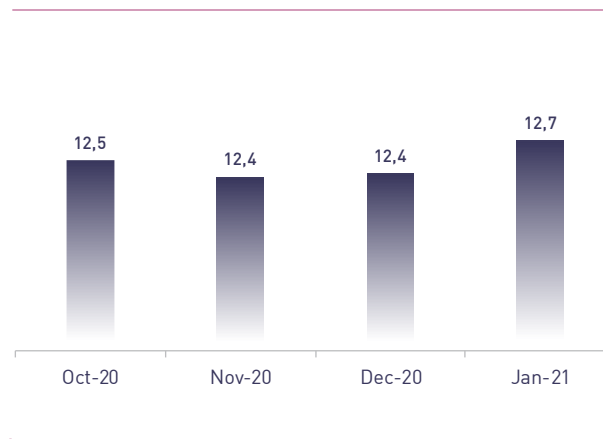
- **An increase in residual maturity**

The weighted residual maturity of the AGR Africa Bond Index stood at 12.7 years after the last rebalancing. This is slightly up from the level observed at the end of Q3-20, i.e. 12.5 years. Indeed, it should be noted that the maturities of the latest Eurobond issuances added to the index during Q4-20, are relatively long. For example, Morocco which issued a record size bond of \$ 3.0 Mn, among which \$ 1.25 Bn is labelled 30-year maturity.

AGR ABI EVOLUTION (PTS) VS. OUTSTANDING AMOUNTS (\$ Bn)



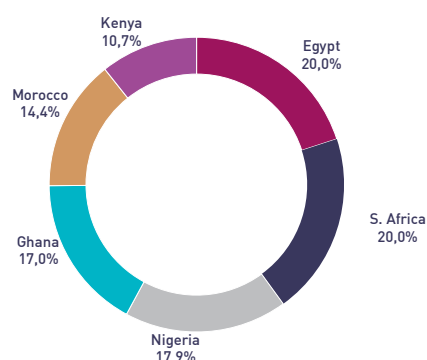
EVOLUTION OF THE RESIDUAL MATURITY (YEARS)



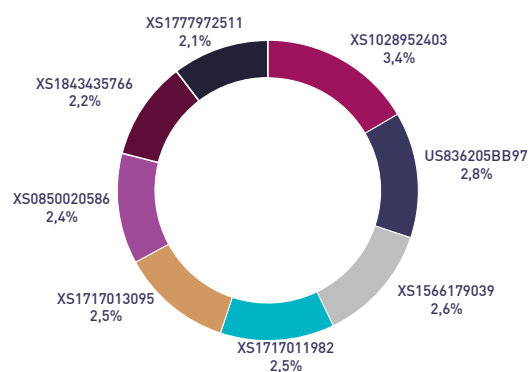
The AGR Africa Bond Index is dominated by Egypt, South Africa and Nigeria which preserved a high representativeness in this benchmark. Indeed, these 3 countries represent nearly 58% of the capitalization while Ghana, Morocco and Kenya share the remaining 42%.

In terms of issuances' number, among the current 74 constituents of the AGR ABI, the former three countries together account for 50 bond issuances, i.e. nearly 68% of our index.

AGR ABI : BREAKDOWN BY COUNTRY



AGR ABI : ISIN OF THE 8 MAIN ISSUANCES ⁽¹⁾



(1) Representing 20.5% of AGR ABI

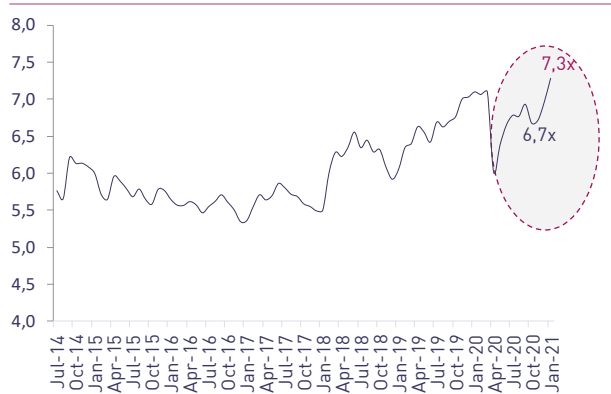
Sources : S&P Dow Jones Indices, AGR Computations

RESULTS' DETAIL FOR Q4-20

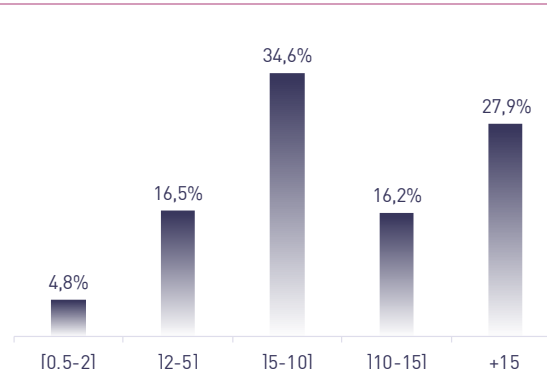
The modified duration* of the AGR ABI increased significantly from its level observed during the last quarter due to two factors. On the one hand, the increase in the residual maturity and the on other hand, the rise in the valuation of bond lines following the decline in risk premiums. In this context, the index shows a modified duration's level of 7.3x against 6.7x in last October.

The bond securities eligible for this index can be subdivided into five categories associated with five intervals of residual maturities (0.5-2 years, 2-5 years, 5-10 years, 10-15 years and more than 15 years). In this edition, we note that the AGR ABI index is composed for 78.7% of residual maturities superior to 5 years.

AGR ABI : EVOLUTION OF THE MODIFIED DURATION



AGR ABI : BREAKDOWN BY MATURITIES⁽²⁾ (YEARS)



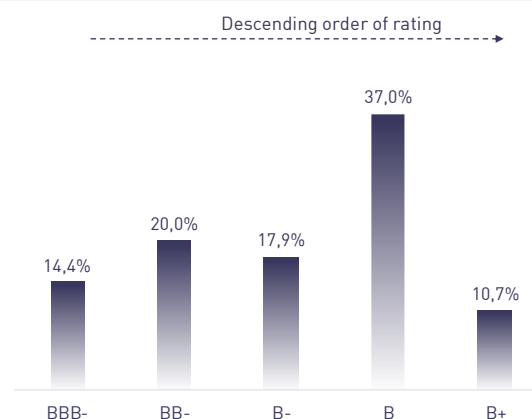
The number of the AGR Africa Bond Index constituents decreased from 66 lines in October 2020 to 74 currently. During the monthly rebalancing of the AGR Africa Bond Index operated during Q4-20, we note:

- The integration of 4 new Eurobond issued by two countries. These are two issuances by Egypt: the first is composed of two lines for an aggregate amount of \$ 2.64 Bn whose issue date is prior to Q3-20 (November 2016) and which have just met the eligibility criteria of the AGR ABI in terms of S&P rating. The second Egyptian issue, achieved in October 2020, consists of one line for an amount of \$ 750 Mn. The other two bond issues concern Morocco: two lines issued in September 2020 for an aggregate amount of € 1.0 Bn and three lines issued in December 2020 for a record amount of \$ 3.0 Bn. Morocco has now 4 Eurobond outstanding lines ;
- The observation of the current index breakdown by S&P's rating shows the strong contribution of bonds B⁺, B and B⁻ rated which concentrate 65.6% of the AGR ABI index. Secondly, we find that the BB⁻ rated sovereign bonds represent 20.0% of the index. Note that Investment Grade issuances (at least BBB⁻) weigh now 14.4% of the index against 9.7% in the previous edition.

ENTRIES AND/OR EXITS OF LINES IN THE AGR ABI

Country	Code ISIN	Description	Weight in the index l'indice
Entries			
Egypt	XS2241075014	EGGV 5.250 10/06/25	0.41%
	XS1504948693	EGGV 6.750 11/10/24	0.73%
	XS1504948776	EGGV 7.000 11/10/28	0.75%
Morocco	XS2239829216	MAGV 2.000 09/30/30	0.96%
	XS2239830222	MAGV 1.375 03/30/26	0.95%
	XS2270576619	MAGV 2.375 12/15/27	1.16%
	XS2270576965	MAGV 3.000 12/15/32	1.57%
	XS2270577344	MAGV 4.000 12/15/50	1.99%

INDEX BREAKDOWN BY S&P'S RATING



(1) Modified duration : expressed in multiple (x), represents the change in the price of a bond following a 1% change in the discount rate. This notion takes into account the lines' weight with respect to their market value.

(2) Residual maturity

Sources : S&P Dow Jones Indices, AGR Computations

AGR AFRICA BOND INDEX PRESENTATION

As a part of its mission to represent a high profile Research Center based in Africa and dedicated to African markets, Attijari Global Research has launched in March 2019 a new index called **AGR Africa Bond Index** « Code Bloomberg AGRAFBDT ».

Being the intellectual owner of the index, AGR joins forces with S&P Dow Jones Indices, world leader in indices computations and conception.

AGR Africa Bond Index represents a Total Return Index denominated in USD. Its starting universe is sovereign Eurobonds in Africa. In order to get closer to the economic reality across the continent, a series of eligibility criteria have been selected for the filters, particularly in terms of size, liquidity and rating.

This index aims to follow the outstanding amount of sovereign debts issued by African countries and denominated in foreign currencies. It thus allows to:

Analyze debt behavior in the Continent ;

Track a profitable funding vehicle in full expansion in Africa ;

Present an investment benchmark which could be replicated in respect of investment, size and diversification standards.

Through this new publication, AGR is gradually strengthening its coverage of African markets in a particular context where African economies express a more pronounced appetite for debt issuances, particularly Eurobonds (Cf. «Africa: Eurobonds, an acclaimed tool for an expanding debt » published on March 15th, 2019).

The role of S&P Dow Jones Indices revolves around the index calculation according to international standards and in accordance with criteria defined by AGR. Computed on a daily basis, this index is released on the Bloomberg platform. AGR ensures the edition and the publication of this document on a quarterly basis. This release provides a detailed analysis of the index evolution and its main characteristics.

AGR ABI TECHNICAL SPECIFICATIONS

CHARACTERISTICS

Characteristics :

- **Return type** : Total Return
- **Base date** : 30 juin 2014
- **Index Currency** : US Dollars
- **Base Value** : 100 pts

METHODOLOGY

- **Starting Universe** : All African countries to which we apply selection criteria of S&P AFRICA HARD CURRENCY SOVEREIGN BOND INDEX which leads to 13 countries, including : Botswana • Kenya • Namibia • Tanzania • Zambia • Egypt • Mauritius • Nigeria • Tunisia • Ghana • Morocco • South Africa • Uganda.
- **Weighting** : 20% per country of risk.
- **Selection criteria** :
 - ⇒ Residual maturity is 6 months meaning that a bond is only added into the index only if its residual maturity is strictly inferior to 6 months and is from the index if its residual maturity is superior or equal to 6 months ;
 - ⇒ Only include EUR and USD dominated bonds ;
 - ⇒ Minimum outstanding amount will be set for \$ 500 Mn for USD bonds and € 500 Mn for EUR bonds ;
 - ⇒ Only include fixed coupons bonds ;
 - ⇒ Only include bullet/at maturity type ;
 - ⇒ Only include bond rating superior or equal to B3/B- per S&P rating ;
 - ⇒ Only include 144A* ISIN issues.

- **Custom Index Calculation** :

Follows « S&P Fixed Income Index Mathematics Methodology » and all S&P standardized calculation approaches, precisely interest payments and principle prepayments are kept in cash until next rebalance date and Bids are used as pricing input for the calculation.

- **Rebalance** : The Custom Index is rebalanced on a Monthly basis after the close of the last business day of the month.
- **Rebalance Proforma schedule** : T-3 to T, T being the previous trading day of rebalance effective date.
- **Selection** : S&P will perform the constituent selection and weighting at each rebalance.
- **Calculation frequency** : End of The Day (EOD).
- **Calculation date** : Monday to Friday.
- **History** : since June 30th 2014.

* Reg 144A : regulatory framework of the Securities and Exchange Commission dealing with access conditions of foreign issuers to US financial markets.

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