Zambia's debt relief deal with bilateral creditors, initial analysis

Zambia Civil Society Debt Alliance and Debt Justice, July 2023

Key points:

- The deal makes significant savings on debt payments in the 2020s and early 2030s, at the expense of high debt payments in the late 2030s and early 2040s
- If Zambia's government revenue grows at the historical rate, the deal effectively cuts the relative size of Zambia's bilateral debt payments by 40%
- However, if Zambia is hit by further shocks, and its revenue does not grow at this rate, there is no mechanism in the deal to reduce Zambia's payments
- In contrast, if the IMF and World Bank judge that Zambia's debt carrying capacity increases by a tiny amount, then the payments to bilateral creditors increase significantly, reducing the effective amount of debt relief to just 18%
- Zambia's private creditors lent at higher interest rates than bilateral creditors. For them to reduce their terms to the same level as bilateral creditors requires at least a 50% cut in the relative size of their debt
- In reality, private creditors should give more than 50% debt relief because they lent at higher interest rates, so in return for potentially getting larger returns than bilateral creditors if things had gone well, they should get worse terms than bilateral creditors after Zambia has been hit by a succession of economic shocks.
- If Zambia's bondholders do agree a 50% Net Present Value reduction in their claims, and Zambia then makes the restructured debt payments in full, bondholders would still make-up to 50% profit, compared to if they had lent the money to the US government instead

1. Summary

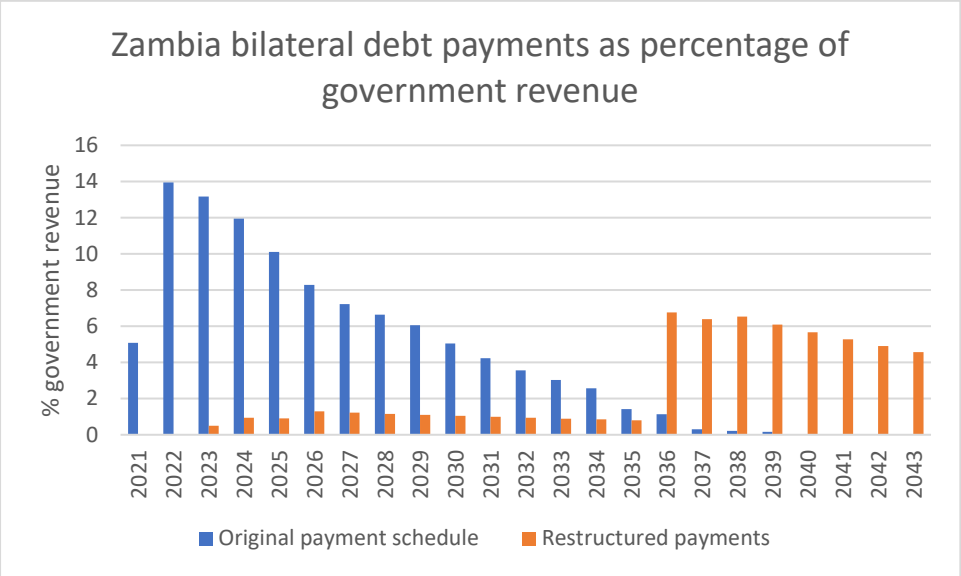
Zambia has reached an in-principle debt restructuring deal with bilateral creditors, covering $6.3 billion of debt owed. There is a further approximately $6.5 billion of debt to private creditors for which restructuring negotiations are still ongoing.

The exact terms of the restructuring have not been made publicly available. Neither has exactly which creditors and debts are covered. In this briefing we try to estimate what the deal means for Zambia's debt payments, and what it should mean for the amount of debt relief from private creditors.

In the baseline restructuring scenario, the interest rate is reduced to 1%-2.5%, and principal payments are moved largely to the late 2030s and early 2040s. While no debt principal is cancelled, it is estimated that this reduces the net present value of the bilateral debt by 40%. The net present value is a calculation which takes into account the interest rate on the debt, and when payments are made, and counts

payments as costing less the further into the future they are made.

One way of making this clearer to understand is by looking at the debt payments as a proportion of government revenue. Assuming Zambia's government nominal $ revenue grows by an average of 5% a year (slightly less than the average for the last decade) then the deal cuts Zambia's bilateral debt payments from an average of 4.5% of government revenue a year from 2021-2043 under the original terms of the loans, to 2.6% under the new terms, a 40% cut (see graph below).



However, these 'savings' only happen if Zambian government revenue increases by 5% a year. If it increases by less, then the relative size of the new debt payments will be higher in future. There is no mechanism in the deal to reduce debt payments if Zambia's economic performance is worse than expected.

In contrast, there is a mechanism to increase payments, if Zambia's 'debt carrying capacity' rating from the IMF and World Bank increases. This rating is calculated from a wide range of measures, include the World Bank's view of Zambia's economic management, Zambia's currency reserves, remittances from workers overseas and world economic growth. If Zambia's debt carrying capacity is judged by the IMF and World Bank to increase from the current 2.59 to over 2.69, then it has been reported the interest rate increases to 4% and principal payments are brought forward. We have estimated this could reduce the effective amount of debt relief being given to just 18%.

Negotiations with private creditors are ongoing. To reduce the terms of private creditor debt to the same amount as bilateral creditors would require at least a 50% cut in the net present value of their debt, because they lent on worse terms for Zambia originally.

We argue that because private creditors lent at higher interest rates originally, they should get repaid less than bilateral creditors. In return for potentially getting larger returns than bilateral creditors if things had gone well, they should get worse terms than bilateral creditors after Zambia has been hit by a succession of economic shocks. This means the reduction in the net present value of debt owed to private creditors should be greater than 50%.

Some bondholders have said they would prefer to be paid sooner than bilateral creditors and get a higher interest rate. For this to be the case, and for them to still have a 50% net present value reduction in the debt, requires haircuts (cancellation of debt principal) of at least 40%,[1] alongside a reduction in interest rates, and moving of payments into the medium-term.

If bondholders did agree a 50% reduction in the net present value of the debt, those who bought bonds at issuance would still break even over the life-cycle of the debt. Those who bought bonds in April 2023 would still make 50% profit. Virtually all bondholders will fall somewhere between these parameters, and so make somewhere between 0% and 50% profit, with none making losses.

2. The debt covered by the deal

The Zambian government has said the debt restructuring deal with official creditors covers $6.3 billion. They have said this is all of a previous IMF figure of $8 billion of bilateral debt, minus $1.7 billion of loans to China which has been reclassified as commercial.

From what we can work out, the $6.3 billion includes interest arrears and debt of state-owned enterprises, and is made up of:

- $4.2 billion of debt to Chinese entities
- $0.7 billion of debt to non-Paris club creditors (the largest of which is India, $0.3 billion)
- $1.3 billion of debt to Paris Club creditors (the largest of which is Israel, but the debt to Israel is only mentioned in the IMF's documents, not the Zambian government's published figures)

3. What the deal says

The deal has two scenarios:

1) Zambia remains classified as a 'weak' debt carrying capacity country by the IMF. In this case:

[1] 33% of original principal, 40% including the accrued interest

- Principal payments begin in 2026, but for 2026 to 2035 they are only 0.5% of the total amount[2]
- Interest rates are 1% for 14 years, after which they rise to 2.5%
- The estimated net present value of the debt is 40% less than the original net present value, using a discount rate of 5%
- Final maturity of 2043

2) Zambia moves to 'medium' debt carrying capacity when reviewed by the IMF and World Bank in 2026.[3] If the IMF and World Bank decide Zambia does have medium debt carrying capacity in 2026:

- the final maturity will be brought forward by 5 years to 2038, and principal payments generally will be brought forward
- interest rates rise to a maximum of 4%

Net Present Value

Net present value is a way of calculating debt owed including the interest and principal payment schedule. The concept is based on the idea that the same nominal payments in the future are worth less than now. The reason why future payments are worth less is different depending on whose perspective a deal is looked at, but include inflation, economic growth and where else the money could have been invested. The IMF uses a discount rate of 5%, but for no particular reason.

We think relevant discount rates could be:

- For creditors: 2.5%-3.5% was the yield on US government 10- and 20-year bonds when the bonds to Zambia were first lent (2012-2015), so the rate they could have got if they invested the money in a secure $ asset instead
- Or 4% - this is the current yield on US government 10-30 year bonds, so the rate they could get if they invested the money in a secure $ asset instead
- For Zambia: 5% - this is the average growth in nominal government revenue in $ between 2010 and 2022.

In this briefing to keep things clearer we have generally used a discount rate of 5%, but there are reasons it should be lower, which would reduce the amount of debt relief being given. For calculating potential bondholder profit, we have used the relevant US government bond yield as the discount rate.

[2] https://uk.finance.yahoo.com/news/zambia-pay-1-interest-mission-145726422.html And https://twitter.com/TheoMaret/status/1673697387758362626/photo/1

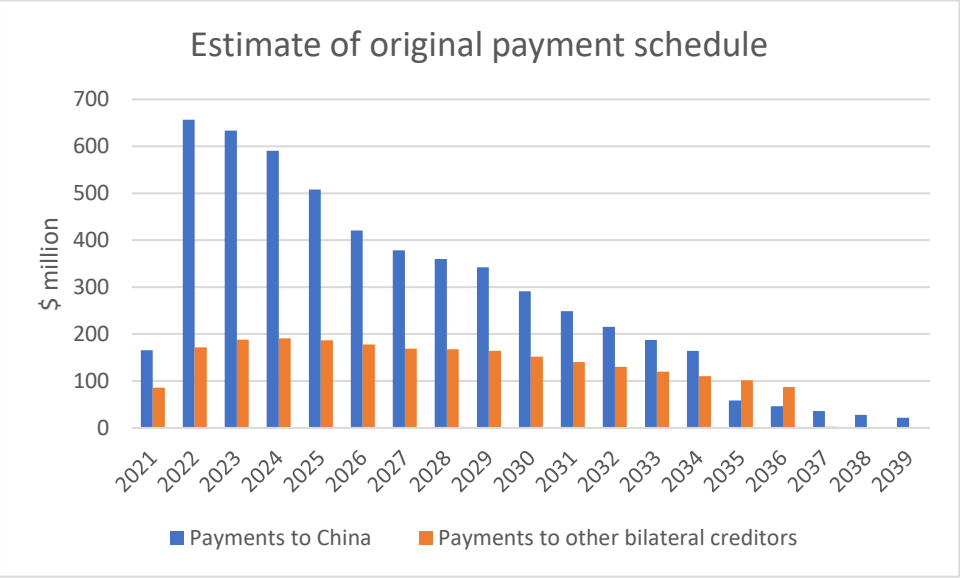
[3] https://twitter.com/TheoMaret/status/1673697387758362626/photo/1

4. The amount of debt relief

To understand how much debt relief is being given, we first need to understand what the original payment schedules were. We do not know the exact payment schedule for any creditor other than Eurobonds. However, below we estimate the original payment schedules, as of end-2020, for:

- Chinese creditors included in the deal
- Other bilateral creditors

These estimates are based primarily on the World Bank International Debt Statistics database schedule of debt payments, but also include data on Chinese loans from AidData, and estimates of interest rates based on the interest arrears revealed by the Zambian government.

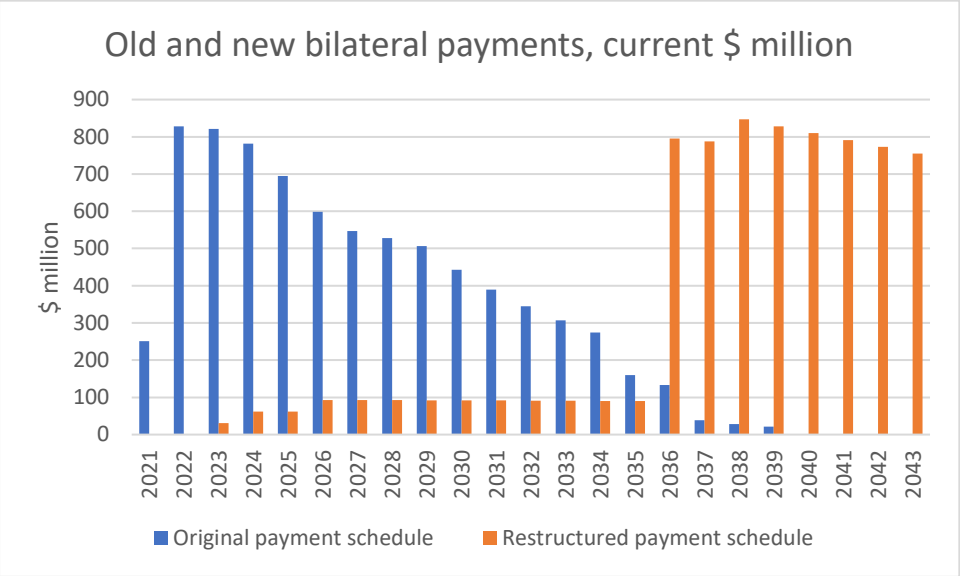


Creditor group	Estimate of Net Present Value of debt at end-2020, 5% discount rate	Estimate of nominal value of debt at end-2020[4]	Estimate of Net Present Value / Nominal value	Estimate of average interest rate
China	$3.6 billion	$3.9 billion	94%	3.85%
Other bilateral	$1.6 billion	$1.9 billion	86%	2.80%

Our estimate of the net present value divided by the nominal value shows the relative generosity of the terms of loans. In this case, other bilateral loans were originally on more generous terms than Chinese loans, also seen in our estimated average interest rate being lower.

[4] These amounts are lower than the amounts stated as owed now as it is our understanding that the amount owed now includes interest arrears from the last two years of default.

Based on the reported terms of the deal, below we estimate what the new payment schedule will be, under scenario 1. This includes an assumption that no debt payments were made in 2021 and 2022, but that interest payments will resume in 2023.



The Zambian government have said the deal will mean Zambia will only pay $750 million to bilateral creditors over the next ten years.[5] Our estimate matches this – total payments are expected to be $710 million by 2031 and $800 million by 2032. This of course all comes at the cost of many of those payments being moved into the future, from 2036 onwards.

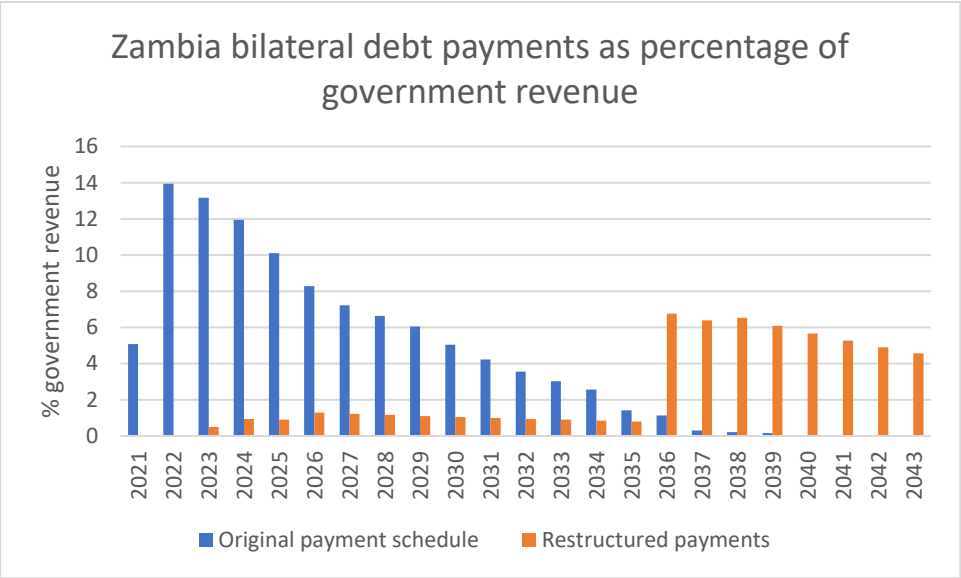
The net present value is one way to look at how real the savings are from moving payments into the future. Media reports have said the deal cuts the net present value of the debt by 40%, at a discount rate of 5%. Our estimated figures show the net present value being cut by the same amount – 40% - at a 5% discount rate.

Creditor group	Net present value of original claims, 5% discount rate	Net present value of restructured claims, 5% discount rate	Percentage reduction in net present value	New net present value / original nominal
All bilateral creditors	$5.3 billion	$3.2 billion	40%	55%

Another way to look at it from Zambia's perspective is what bilateral debt payments were going to be, and now will be, as a proportion of government revenue. For this we have taken the IMF's figures for Zambia's government revenue from 2021 and 2022, then assumed it grows by 5% a year in nominal $ terms from 2023 on.

[5] https://www.znbc.co.zm/news/musokotwane-unpacks-debt-restructuring-deal/

Between 2010 and 2022, Zambia's nominal $ revenues increased by an average of 5.5% a year.[6]



Under this assumption of 5% nominal revenue growth, bilateral debt payments will be less than 2% of government revenue until 2035, then increase to a maximum of 7%. Across 2021 to 2043, bilateral debt payments would have averaged 4.5% of government revenue under the original terms of the loans. Under the restructuring deal they will average 2.6% of revenue (the same 40% cut as the cut in Net Present Value with a 5% discount rate).

What this means for private creditors

Under the G20s Common Framework, private creditors are meant to give 'comparable treatment' to bilateral creditors through a debt restructuring. However, there is no technical agreement on what this means.

At the least, it should mean that private creditors reduce their terms to the same as bilateral creditors. The way to see what this should be is to look at the net present value of the debt divided by the nominal amount – the original amount lent. This shows the generosity of the terms.

Below we estimate the net present value of the original terms of private creditors and compare this to bilateral lenders.

[6] Calculated from IMF World Economic Outlook database.

Creditor group	Estimate of Net Present Value of debt at end-2020, 5% discount rate	Estimate of nominal value of debt at end-2020[7]	Estimate of Net Present Value / Nominal value	Estimate of average interest rate
Bondholders	$3.3 billion	$3 billion	110%	7.9%
Other non-China private creditors	$1.5 billion	$1.5 billion	97%	4.1%
China private creditors not included in restructuring yet	$1.6 billion	$1.6 billion	105%	5.4%
China	$3.6 billion	$3.9 billion	94%	3.85%
Other bilateral	$1.6 billion	$1.9 billion	86%	2.80%
Multilateral	$2.3 billion	$3.3 billion	64%	1%

In contrast, we estimate that the net present value / original nominal value of the restructured bilateral debt is 55%, at the 5% discount rate. For bondholders to reduce their claims to 55% of the original nominal value would be a 50% cut in the net present value of the debt.

Creditor group	Estimate of Net Present Value of debt at end-2020, 5% discount rate	Estimate of nominal value of debt at end-2020[8]	Estimate of Net Present Value / Nominal value	Percentage reduction in Net Present Value to make it 55% of nominal
Bondholders	$3.3 billion	$3 billion	110%	50%
Other non-China private creditors	$1.5 billion	$1.5 billion	97%	43%
China private creditors not included in restructuring yet	$1.6 billion	$1.6 billion	105%	48%

[7] These amounts are lower than the amounts stated as owed now as it is our understanding that the amount owed now includes interest arrears from the last two years of default.
[8] These amounts are lower than the amounts stated as owed now as it is our understanding that the amount owed now includes interest arrears from the last two years of default.

Some private creditors have said that they would prefer higher interest and to be paid sooner, but would be willing to cancel some of the principal. Kevin Daly from Abrdn told Reuters: "We are OK for a principal haircut". The group's other main stipulations are an "acceptable" level of coupon payments on the restructured bonds, a realistic "duration" or repayment timeframe which could be around 10-years and also some step-up in the level of repayments over time.[9]

Just for an example, if a deal with bondholders:

- Reduced the interest rate to 4%
- Paid no principal from 2023 to 2028, then paid 10%, 15%, 20%, 25% and 30% respectively in 2029, 2030, 3031, 2032 and 2033

Then for this to be a 50% reduction in the Net Present Value would require a haircut of 33% on the bonds, from $3 billion to $2 billion,[10] which is a haircut of 44% including the interest arrears from 2021, 2022 and 2023.

This scale of restructuring could still make profit for bondholders. For those who bought the bonds when issued, and have held them since, we have looked at the total cashflow from the bonds:

- The payments that were made until default in 2020
- The lack of payments 2020 to 2023
- The hypothetical new payment schedule from 2023 on

If the new payment schedule was kept to, in total Zambia would have paid $4.1 billion on the original $3 billion lent, between 2012 and 2033. Instead, the bondholders could have put their money into a safe asset – US government bonds. 20 year US government bonds yielded 2.6%, 3.2% and 2.8%[11] respectively when the Zambian bonds were first issued.

Using this, we have calculated the Net Present Value of the total payment schedule on each of the three bonds, discounted by the respective US government bond yields. This gives a Net Present Value of the total cash flow of $2,962 million, 1% less than the $3 billion first lent. So, we estimate that the 50% Net Present Value reduction outlined above would represent a 1% loss for bondholders compared to investing in a safe asset, when including the payments that were made before the default, as well as the restructured payments. This is effectively breaking even.

However, most bondholders will not have bought the bonds when first issued. For those buying in April 2023, the market price of the bonds was 43%-46% of face

[9] https://www.reuters.com/markets/rates-bonds/zambias-bondholders-sees-debt-restructure-deal-coming-weeks-2023-06-27/

[10] Or compared to the principal with accrued interest from $3.6 billion to $1.8 billion, a 50% haircut

[11] We have used the 20 year bond yield for this calculation because the Zambian debt will in the end have been owed over 20 years – 2012 – 2033.

value. We estimate the Net Present Value of the new debt payment schedule from 2023 on is $2,020 million (33% less than the original face value of $3,000 million), using a discount rate of 3.5%, the yield on US 10-year government bonds in April 2023.[12] In contrast, the total paid for this debt at April 2023 market prices would have been $1,345 million. The difference between this and the Net Present Value is $675 million – 50% more than the amount paid for the debt. Bondholders who bought the debt in April 2023 and took a 50% reduction in Net Present Value on the face value of the claims, would still make a 50% profit if paid in full.

Most bondholders will have neither bought and held from issuance, or bought in April 2023, so their profit is likely to be somewhere between the two.[13] These two figures – a 1% loss and 50% profit – are the range of profit bondholders are likely to make, if they accept a 50% reduction in the Net Present Value of the debt, and if Zambia then makes the restructured debt payments in full.

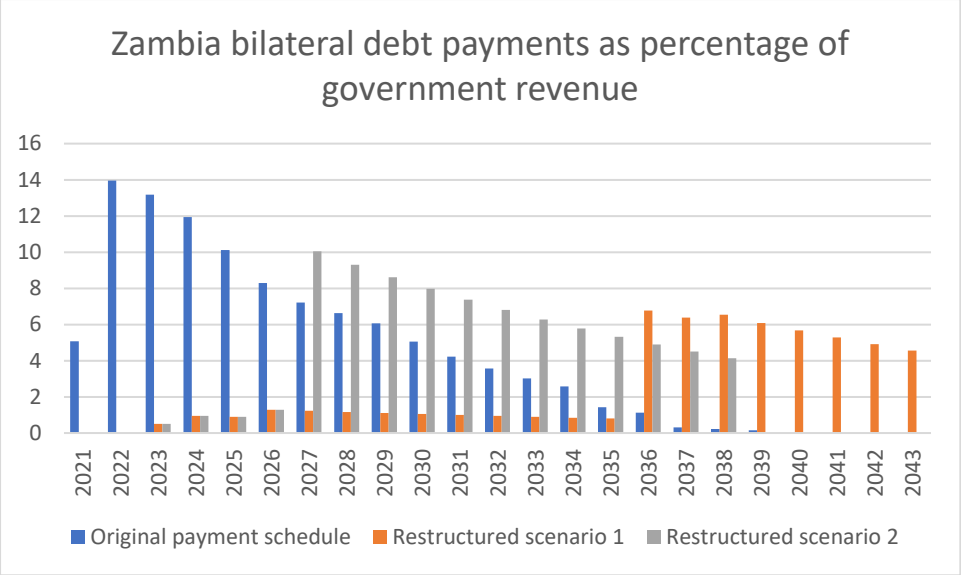
Scenario 2

If the IMF and World Bank decide Zambia does have medium debt carrying capacity in 2026 then:

- the final maturity will be brought forward by 5 years to 2038, and principal payments generally will be brought forward
- interest rates rise to a maximum of 4%

We do not know how far forward the principal payments will be brought, and what the interest rate will be across the board of all the restructured bilateral debt. The worst case based on the figures above is that the principal starts being paid in equal amounts from 2027 on, and the interest rate rises to 4% from 2027 on. In this case, the net present value at a 5% discount rate would rise from $3.2 billion to $4.6 billion. Average bilateral debt payments would increase from 2.6% of government revenue in scenario 1 to 3.7%. This would mean debt relief of just 18%, rather than the 40% under scenario 1.

[12] We have used the 10 year bond yield here because this Zambian debt is owed over 10 years, 2023 to 2033.
[13] Zambia bonds have at times traded cheaper than 43% to 46% of face value, so those buying at less than these amounts are likely to make more than 50% profit.



The debt carrying capacity is calculated by the IMF and World Bank based on:

- The World Bank's Country Policy and Institutional Assessment, which rates a country based on the World Bank's view of the country's economic management, implementation of free market policies, social inclusion policies, and quality of public sector administration
- The real growth rate of a country
- Reserves in percentage of imports
- Remittances in percentage of GDP
- World economic growth

Whether or not Zambia is judged as 'weak' or 'medium' in 2026 creates a huge cliff edge in the scale of repayments. But in the underlying data, there could be very small differences between being weak or medium.

The debt carrying capacity is calculated by the IMF and World Bank from a 'Composite Indicator' based on all the factors above. In September 2022 Zambia's debt carrying capacity was rated as 'weak' based on a Composite Indicator of 2.59. It needs to rise to over 2.69 for Zambia to be judged as 'medium'. This might also create some perverse incentives for Zambia to, for example, not increase its reserves, or not improve some aspect of governance, in order to remain 'weak' and not be penalised with much higher debt payments as a result of being classified as 'medium'.