投委會
IFEC

Equity-linked Investments

Contents

About the Investor and Financial Education Council

Established in 2012 and supported by four financial regulators and the Education Bureau, the Investor and Financial Education Council (IFEC) is a public organisation dedicated to leading financial literacy in Hong Kong. The IFEC promotes and delivers free and impartial financial education resources and programmes through its consumer education platform, The Chin Family, and leads the Financial Literacy Strategy to create a conducive environment for stakeholders to deliver more quality financial education to various segments of the Hong Kong population.

What are equity-linked investments?

Equity-linked investments (ELIs) are structured investment products embedded with derivatives, the investment returns of which are linked to the performance of the reference assets. The reference assets can be shares in a listed company, units in an exchange-traded fund or equity indices.

Some issuers include one or more additional special features in their ELIs. These features may affect the potential gain or loss of the ELIs in different ways.

To understand how an ELI works, it is important to first note its key dates. Following is an example of the key dates for an ELI:

Offer period

The period when the ELI is available for purchase from your distributor.

However, certain specific terms may only be finalised after you are committed to invest in the ELI.

Trade date

The date on which the ELI purchase order will be executed by the issuer. All terms are finalised and the initial price of the reference asset(s) is determined on this date.

Issue date

The date on which an ELI is issued.

Final valuation date

The closing price of the reference asset(s) on the final valuation date is recorded to determine the settlement of the ELI at maturity.

Maturity date

Depending on the terms of the ELI, you will receive, at maturity, payment in cash or physical delivery of the reference asset(s).

Bull ELI linked to a single stock

When you buy a bull ELI, you will make a pre-determined gain if the closing price of the reference asset on the final valuation date (final price) is at or above a predetermined price (strike price).

You are selling a put option on the reference asset to the issuer. As the seller of a put option, you will be obliged to buy the reference asset from the issuer at the strike price if the final price of the reference asset is below the strike price.

Final valuation date

Is the final price of the reference asset AT or ABOVE the strike price?

No

You will receive on the maturity date a designated number of the reference asset (physical delivery) or, if applicable, its cash equivalent amount (cash delivery) less expenses. You will suffer a loss if the market value of the reference asset is less than your original investment. In the worst case scenario, the reference asset may be worthless.

In case of physical delivery, as the reference asset will only be delivered to you on the maturity date, you will be exposed to changes in its market price as from the final valuation date. Also, if you choose not to sell the reference asset on the maturity date, you will be exposed to the market risk of holding the reference asset.

Yes

You will receive the nominal amount of the ELI in cash. Your maximum potential gain is capped at the difference between the nominal amount and the purchase price of the ELI.

Please note that expenses are not taken into account in the examples used in this booklet.

Example: Bull ELI linked to Stock B	
Nominal amount	$100,000
Purchase price*	$97,799
Investment period	6 months
Initial spot price of Stock B	$50
Strike price	80% of initial spot price (ie $40)
Mode of settlement in case the final price is below the strike price	Physical delivery

Final valuation date

Is the final price of Stock B AT or ABOVE the strike price of $40?

No

Assume the final price of Stock B is $38

Scenario 1

You will receive:

$$\frac{\text{Nominal amount}}{\text{Strike price}} = \frac{\$100{,}000}{\$40} = 2{,}500 \text{ shares of Stock B}$$

Based on the final price of $38, the market value of your shares will be worth less than your original investment, representing a paper loss of: $97,799 - ($38 x 2,500 shares) = $2,799

Yes

Scenario 2

You will receive the nominal amount of $100,000 in cash, a gain of: $100,000 - $97,799 = $2,201

* For some ELIs, the purchase price is equal to the nominal amount of the ELI. If the final price of the reference asset is at or above the strike price, you will receive the sum of nominal amount and coupon amount in cash, or otherwise, physical delivery of the reference asset, which is equal to, depending on the terms of the ELI,

$$\left[\frac{\text{Nominal amount + Coupon amount}}{\text{Strike price}}\right] \text{ or } \left[\frac{\text{Nominal amount}}{\text{Strike price}} + \text{Coupon amount in cash}\right]$$

Bull ELI linked to a basket of stocks

The reference asset(s) of an ELI may be a basket of stocks. You are selling a put option over the stocks in the basket. You will be obliged to buy the worst-performing stock in the basket at its strike price if the final price of the worst-performing stock is below its strike price.

Example: Bull basket ELI linked to Stock B and Stock C	
Nominal amount	$12,000
Purchase price	$11,640
Investment period	6 months
Initial spot price of Stock B and Stock C	$50
Strike price	80% of initial spot price (ie $40) for both stocks
Reference asset	Worst-performing stock (ie the stock that has the lowest performance* among the basket of stocks)
Mode of settlement in case the final price is below the strike price	Physical delivery

No

Final valuation date

Is the final price of the worst-performing stock AT or ABOVE its strike price?

Yes

Assume the final price of Stock B is $30, and the final price of Stock C is $45.

Scenario 1

*Performance of a stock is determined as:

$$\frac{\text{Closing price on final valuation day}}{\text{Initial spot price}} \times 100\%$$

Performance of Stock B: $\frac{\$30}{\$50} = 60\%$

Performance of Stock C: $\frac{\$45}{\$50} = 90\%$

Stock B is the worst-performing stock.

You will receive Stock B:

$$\frac{\text{Nominal amount}}{\text{Strike price of Stock B}} = \frac{\$12,000}{\$40} = 300 \text{ shares}$$

Based on the final price, the market value of your shares will be worth less than your original investment, representing a paper loss of:
$11,640 - ($30 x 300 shares) = $2,640

Scenario 2

You will receive the nominal amount of $12,000 in cash, a gain of:
$12,000 - $11,640 = $360

Airbag

An airbag, also known as knock-in, is a special feature often used by issuers. It is a precondition for the put option to become exercisable by the issuer.

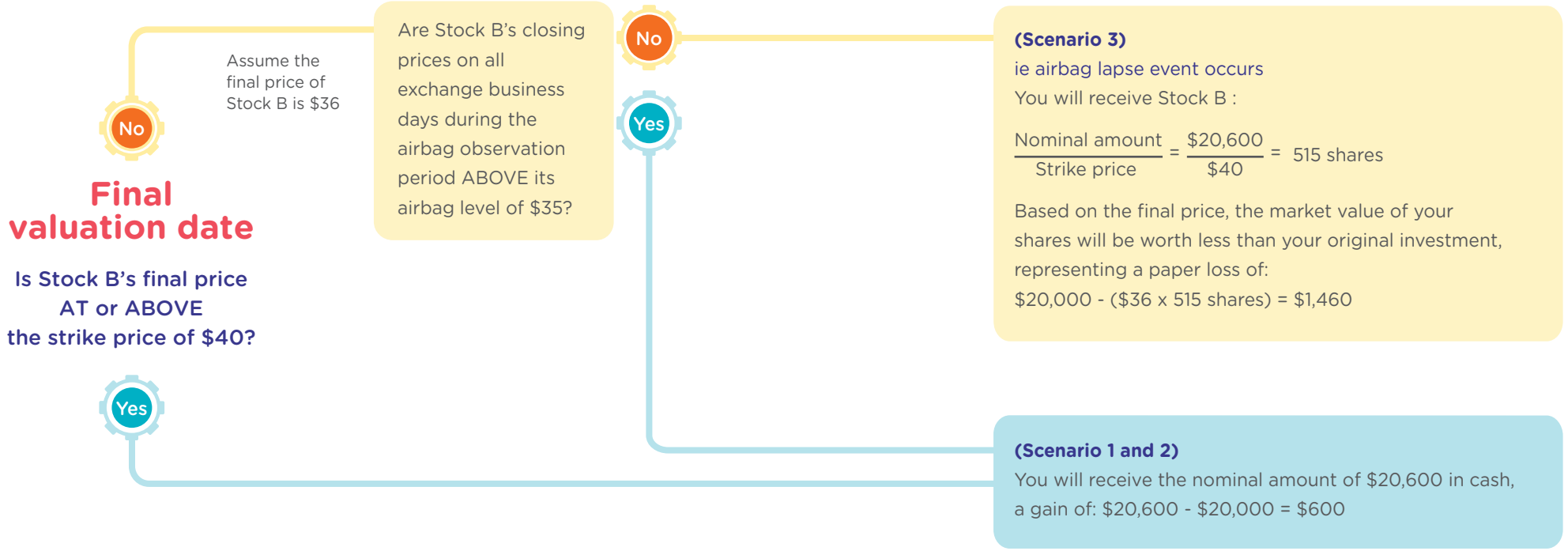
Jargon buster

Airbag level for a reference stock is usually expressed as a percentage of its initial spot price. It is set at a level lower than the strike price (eg 70% of the initial spot price).

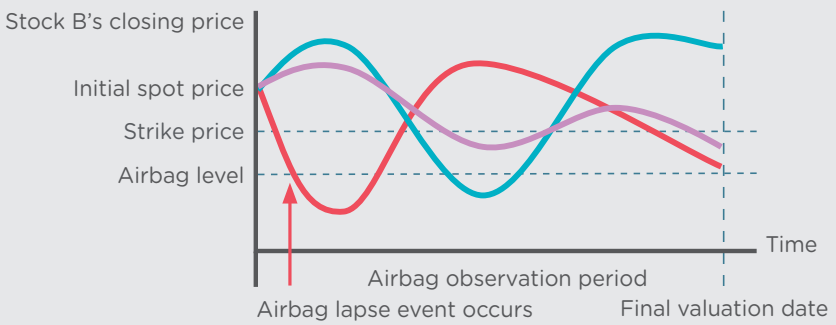
Airbag observation period can be set as each exchange business day or certain periodic dates (eg monthly, quarterly) during the investment period or the final valuation date.

Airbag lapse event occurs when the closing price of the reference stock on any exchange business day during the airbag observation period is at or below its airbag level.

Example: Bull ELI linked to Stock B with an airbag feature	
Nominal amount	$20,600
Purchase price	$20,000
Initial spot price of Stock B	$50
Strike price	80% of initial spot price (ie $40)
Airbag level	70% of initial spot price (ie $35)
Issue date	1 January
Final valuation date	30 June
Maturity date	2 July
Investment period	6 months
Airbag observation period	Each exchange business day from 2 January to 30 June
Mode of settlement in case the final price is below the strike price	Physical delivery



Price movement of Stock B under different scenarios:

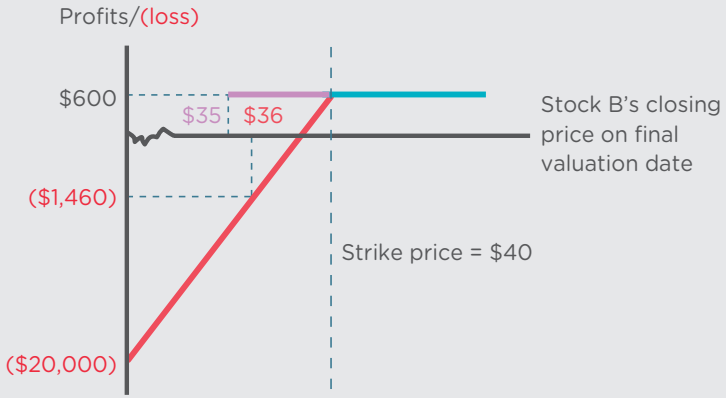


Scenario 1 : final price is AT or ABOVE the strike price.

Scenario 2 : final price is BELOW the strike price BUT airbag lapse event has NOT occurred.

Scenario 3 : final price is BELOW the strike price AND airbag lapse event has occurred.

Payoffs for different scenarios in graph:



Scenario 1 : final price is AT or ABOVE the strike price.

Scenario 2 : final price is BELOW the strike price BUT airbag lapse event has NOT occurred.

Scenario 3 : final price is BELOW the strike price AND airbag lapse event has occurred.

Daily accrual

Daily accrual feature gives you the opportunity to receive a potential distribution amount which is determined by the daily price movements of the reference stock.

For ordinary bull ELIs, the potential distribution amount, if any, is determined only on the final valuation date. However, the potential distribution amount of a bull ELI with a daily accrual feature will be determined by the number of exchange business days on which the closing price of the reference stock is at or above the coupon accrual price within a calculation period.

It is possible that you will not receive any potential distribution amount for the entire investment period.

If a bull ELI is linked to a basket of stocks, the potential distribution amount on a particular exchange business day during the calculation period will be determined by:

- which linked stock has become the reference stock (ie the worst-performing stock) on that day; and
- whether its closing price is at or above its coupon accrual price.

Jargon buster

Total number of days is the total number of exchange business days during the calculation period.

Calculation period can be set as each exchange business day or certain periodic dates (eg monthly, quarterly) during the investment period.

Coupon rate is predefined by the issuer and is used to determine the potential distribution amount for each calculation period (eg 4% of the nominal amount).

Accrued days is the total number of exchange business days on which the closing price of the reference stock is at or above its coupon accrual price within the relevant calculation period.

Coupon accrual price of the reference stock is predefined by the issuer and is set at a specified percentage of its initial spot price (eg 70% of the initial spot price). It is the benchmark for determining whether potential coupon amount will be accrued on a particular exchange business day.

Final valuation date

Is Stock B's final price AT or ABOVE the strike price of $40?

No

Assume the final price of Stock B is $35

You will receive Stock B:

$$\frac{\text{Nominal amount}}{\text{Strike price}} = \frac{\$30,000}{\$40} = 750 \text{ shares}$$

Based on the final price, the market value of your shares will be worth less than your original investment, representing a paper loss of:

$30,000 - ($35 x 750 shares) = $3,750

Yes

You will receive the nominal amount of $30,000 in cash.

Example: Bull ELI on Stock B with a daily accrual feature	
Nominal amount	$30,000
Purchase price	$30,000
Initial spot price of Stock B	$50
Strike price	80% of initial spot price (ie $40)
Issue date	2 January
Final valuation date	29 June
Maturity date	1 July
Investment period	6 months
Calculation period	Each exchange business day from 2 January to 29 June, assuming total number of days equal to 120 days
Coupon accrual price	70% of initial spot price (ie $35)
Accrued days	The number of exchange business days on which Stock B's closing price is at or above $35 (ie coupon accrual price) within the calculation period
Coupon rate	4%
Potential distribution amount	$\text{Nominal amount} \times \text{Coupon rate} \times \frac{\text{Accrued days}}{\text{Total number of days per calculation period}}$
Mode of settlement in case the final price is below the strike price	Physical delivery

Scenario 1

If accrued days = 0

Potential distribution amount = $30,000 x 4% x $\frac{0 \text{ day}}{120 \text{ days}}$ = 0

Scenario 2

If accrued days = 120

Potential distribution amount = $30,000 x 4% x $\frac{120 \text{ days}}{120 \text{ days}}$ = $1,200

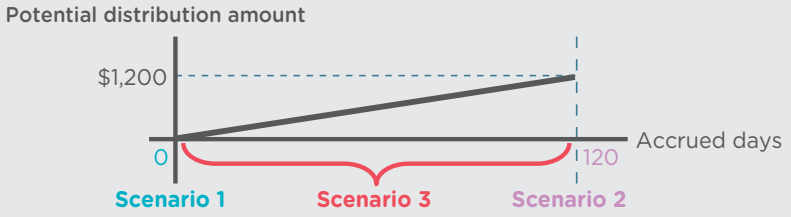
Scenario 3

If 0 < accrued days <120

$0 < potential distribution amount < $1,200

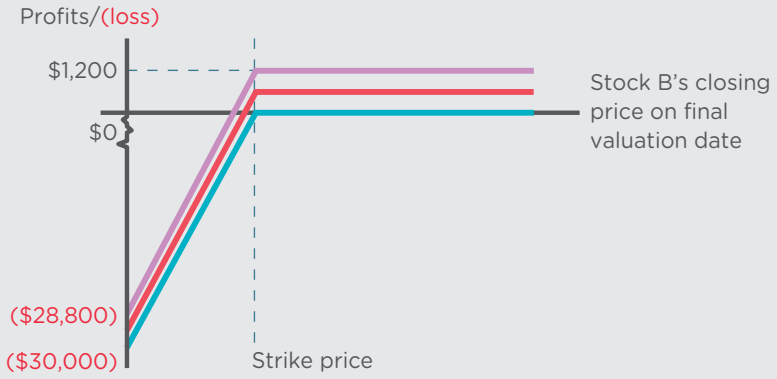
In this example, the potential distribution amount will be paid on the maturity date.

Example in graph: Bull ELI on Stock B with a daily accrual feature



- **Scenario 1** : accrued days = 0
- **Scenario 2** : accrued days = 120
- **Scenario 3** : 0 < accrued days < 120

Payoffs for different scenarios in graph



- **Scenario 1** : accrued days = 0
- **Scenario 2** : accrued days = 120
- **Scenario 3** : 0 < accrued days < 120

Early call

An early call feature allows the issuer to terminate your investment before maturity if certain conditions are met.

A bull ELI with an early call feature will be terminated before its maturity date if the closing price of the reference asset on a call date is at or above the pre-determined call price.

In case of an early call, you will receive on the early settlement date the nominal amount, plus (in case the daily accrual feature is applicable) any potential distribution amount accrued up to the relevant call date. In other words, the potential gain of an ELI with early call feature depends on whether it is terminated before maturity. If the ELI is not called early, the potential gain or loss of the ELI will then depend on whether the final price is at or above the strike price.

The issuer may set multiple call dates, which can be in the form of every exchange business day (daily call feature) or certain periodic dates (eg monthly, quarterly) within the investment period (periodic call feature). Different call prices can also be set for different call dates.

If an ELI is terminated before its maturity date, you will bear the re-investment risk. That is, if an early call occurs, you will not receive any further potential distribution amount. You may not be able to get the same rate of return if you re-invest in another product with similar risk parameters.

Jargon buster

Call date is a date to evaluate if early call conditions are met.

Call price of the reference stock is predefined by the issuer and is set at a specified percentage of its initial spot price.

Early settlement date is usually set at a number of business days following the call date on which the call feature is triggered.

Example: Bull ELI on Stock B with an early call feature and a fixed coupon accrual feature	
Nominal amount	$20,000
Purchase price	$20,000
Issue date	23 January
Initial spot price of Stock B	$50
Strike price	80% of initial spot price (ie $40)
Call price	96% of initial spot price (ie $48)
Quarterly coupon rate	1.5%
Coupon accrual price	92% of initial spot price (ie $46)
Distribution observation date	23 April, 22 July
Call date	23 April
Early settlement date	25 April
Scheduled final valuation date	22 July
Scheduled maturity date	24 July
Scheduled investment period	6 months

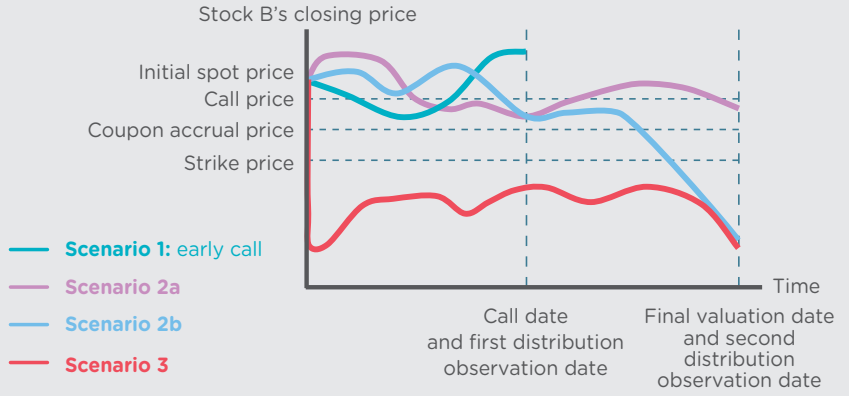
In this example, there is also a fixed coupon accrual feature. If the closing price of Stock B on the distribution observation date for the period is at or above the applicable coupon accrual price, you will receive a fixed coupon amount at the quarterly coupon rate for such period.

Your total gain/loss will be determined by the closing price of Stock B on:

- The first distribution observation date
- The call date
- The second distribution observation date (if early call condition is not met); and
- The final valuation date (if early call condition is not met)

In this example, the periodic potential distribution amount, if any, will be determined by the closing price of Stock B on the corresponding distribution observation date.

Price movement of Stock B under different scenarios:



Based on the assumed price movement of Stock B under different scenarios as shown in the above diagram, you can expect the following results:

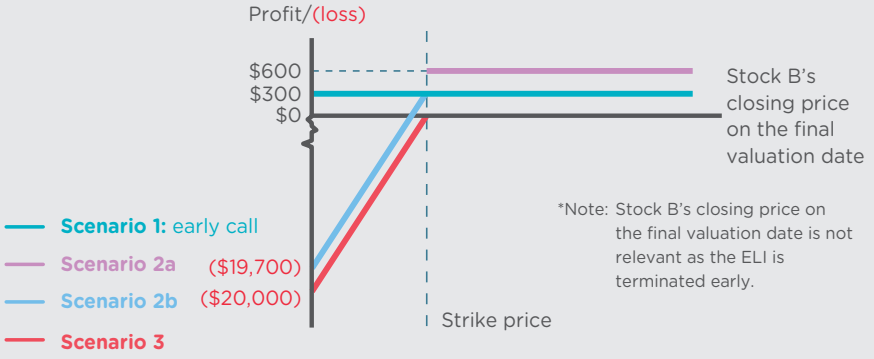
Scenario 1: You will receive the nominal amount and the first potential distribution amount. An investment gain of: $20,000 + $300 - $20,000 = $300

Scenario 2a (best case): You will receive the nominal amount and the first and second potential distribution amounts. An investment gain of:
$20,000 +$300 + $300 - $20,000 = $600

Scenario 2b (loss case): You will receive 500 shares of Stock B and the first potential distribution amount. A paper loss of: $17,500 + $300 - $20,000 = ($2,200)

Scenario 3 (loss case): You will receive 500 shares of Stock B and no potential distribution amount. A paper loss of: $17,500 - $20,000 = ($2,500)

Payoffs for different scenarios in graph:



As always, before you invest, make sure you fully understand the product's features and risks. Some of the key risks of ELIs you should watch out for include:

- **Not principal protected:** ELIs are not principal protected. You may suffer a loss if the price(s) of the reference asset(s) of an ELI go against your view. In extreme cases, you could lose your entire investment.
- **Limited potential gain:** The potential gain on your ELI may be capped at a predetermined level specified by the issuer.
- **Credit risk of the issuer:** When you purchase an ELI, you rely on the credit-worthiness of the issuer. In case of default or insolvency of the issuer, you will have to rely on your distributor to take action on your behalf to claim as an unsecured creditor of the issuer regardless of the performance of the reference asset(s).
- **No collateral:** ELIs are not secured on any assets or collateral.
- **Limited market making:** Issuers may provide limited market making arrangement for their ELIs. However, if you try to terminate an ELI before maturity under the market making arrangement provided by the issuer, you may receive an amount which is substantially less than your original investment amount.
- **Investing in an ELI is not the same as investing in the reference asset(s):** During the investment period, you have no rights in the reference asset(s). Changes in the market prices of such reference asset(s) may not lead to a corresponding change in the market value and/or potential payout of the ELI.
- **Conflicts of interest:** Issuer of an ELI may also play different roles, such as the arranger, the market agent and the calculation agent of the ELI. Conflicts of interest may arise from the different roles played by the issuer, its subsidiaries and affiliates in connection with the ELI.

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