

White Paper Series: Swing Pricing

Swing Pricing protects long-term investors from the impact of transaction costs resulting from subscription and redemption activity into funds. Swing Pricing is implemented in a clear and systematic fashion.

What is Investor Dilution?

Whenever a fund buys or sells an asset, it has to pay certain costs to execute the transaction. For example, the purchase price of an asset (offer price) and sale price of an asset (bid price) often differ. This difference is termed the 'bid/offer spread'. Other transaction costs may include dealing fees, commissions and taxes. These trading costs reflect a loss of value to the fund, and therefore the more a fund trades, the more the value of an investor's position is reduced or diluted. When an investor subscribes or redeems a significant proportion of a fund's Net Asset Value (NAV¹), a large number of transactions will need to be executed within that fund—to either invest that subscription into eligible portfolio assets, or to sell portfolio assets to raise cash to meet that redemption. In the absence of anti-dilution measures, the trading costs incurred by subscribing or redeeming investors are borne proportionally by all investors in a given fund. This means that the value of all existing investor's holdings decreases due to the actions of other investors, and is called "Investor Dilution".

Barings has implemented processes which prevent existing investors from being significantly affected by trading costs caused by other investors entering or leaving a portfolio. One method Barings uses is Swing Pricing.

What is Swing Pricing?

"Swing Pricing" is a mechanism designed to manage Investor Dilution. Swing Pricing aims to allocate trading costs to just the subscribing or redeeming investors that are responsible for activity, rather than to all existing investors in the fund.

How does Swing Pricing work?

Swing Pricing works by adjusting the NAV of a fund to exclude the estimated impact of Investor Dilution. When swing pricing is implemented, the NAV of the fund is adjusted up or down by a set amount (the "Swing Factor"). On any day when there are net subscriptions into the fund, the Swing Factor increases the NAV price so that transacting investors are charged a higher unit price to compensate for the trading costs that would otherwise cause Investor Dilution. Likewise, on any day where there are net redemptions, the Swing Factor reduces the NAV price so that transacting investors transact at a lower unit price to mitigate Investor Dilution.

Full vs Partial Swing Pricing

"Full Swing Pricing" occurs on every day there are net subscriptions or net redemptions in a fund, regardless of the size of the net amount. Similar to many other managers, Barings implements "Partial Swing Pricing" and not Full Swing Pricing. Partial Swing Pricing works in exactly the same way as Full Swing Pricing, except that swing pricing only occurs on days when net subscriptions or net redemptions are greater than a pre-determined threshold (the "Swing Threshold"). We consider Partial Swing Pricing more appropriate than Full Swing Pricing, as net subscriptions or net redemptions under the Swing Threshold would not trigger material Investor Dilution (i.e. below the Swing Threshold, the fund manager may not trade any material amount of the portfolio of assets to meet net subscriptions or net redemptions).

Determining the Swing Factor and Swing Threshold

Swing Factors and Swing Thresholds vary per fund and may vary over time. For example, bid/offer spreads on portfolio assets may change over time according to general market conditions. Lower weighted-average bid/offer spreads would imply a lower Swing Factor. The Barings Pricing Committee is responsible for the ongoing monitoring and approval of Swing Factors and Swing Thresholds. Typically, these values are calculated and approved by this committee at least once per quarter. The continuous review of trading costs will ensure that the Swing Factors and Swing Thresholds are set at appropriate levels.

- Swing Factors and Swing Thresholds apply to all investors equally.
- Swing Factors may be different for net subscriptions or net redemptions (i.e. transaction taxes, such as stamp duty, may only be payable on purchase or sale of assets).
- Swing Factors may be provided to investors on request. For further information, please contact your Barings representative.
- Swing Thresholds are not provided to investors, as doing so may enable the investor to 'game' the swing pricing mechanism (i.e. subscribe or redeem at a value just below the Swing Threshold). Such practices could materially disadvantage other investors.

1. NAV is the market value of one share (or unit) of a fund. This amount is derived by dividing the total value of all the assets in the fund's portfolio (less any liabilities) by the number of fund shares (or units) outstanding.

Impact on Investors

See the table below for the impact on subscribing, redeeming and non-dealing investors who remain in a fund.

	Net subscriptions above Swing Threshold <i>NAV price swings upward</i>	Net subscriptions/redemptions below Swing Threshold <i>NAV price not adjusted</i>	Net redemptions above Swing Threshold <i>NAV price swings downward</i>
Investor subscribing	Subscribing investor pays estimated transaction costs via subscribing in at a higher swung NAV (example below).	Transaction costs deemed immaterial. No additional costs passed on to subscribing investor.	Subscribing investor (on a day where there are net redemptions) benefits from subscribing at a lower swung NAV.
Investor redeeming	Redeeming investor (on a day when there are net subscriptions) benefits from redeeming at a higher swung NAV (example below).	Transaction costs deemed immaterial. No additional costs passed on to redeeming investor.	Redeeming investor pays estimated transaction costs via redeeming out at a lower swung NAV.
Investors remaining in the fund	Estimated transaction costs borne by dealing investors. No material impact on remaining investors.	Transaction costs deemed immaterial. No material impact on remaining investors.	Estimated transaction costs borne by dealing investors. No material impact on remaining investors.

Funds that apply Swing Pricing

Typically Swing Pricing applies for a significant number of Barings' open-ended comingled fund products. However there are some funds to which Swing Pricing does not apply. For questions on whether or not Swing Pricing applies for a particular fund, please contact your Barings representative.

Does Swing Pricing apply to switching/exchange trades?

Yes. Where fund documents allow switching between funds, investors should be aware that Swing Pricing may apply, if one or both of the funds' NAVs are swung on that particular day. This should be considered no different to any subscription or redemption, as the investment manager on the exiting or entry fund will still have to incur costs in the case of material inflows/outflows. Switching intra-fund (i.e. remaining fully invested in the same fund, but switching from one share class to another) may be done at a swung price. However, there will be no net effect to the dealing investor if that investor remains fully invested in the same fund—as Swing Pricing is applied for all share classes in a fund, not at an individual share class level.

EXAMPLE APPLICATION OF SWING PRICING

Pre-dilution-adjustment NAV per share	100.00 USD
Total fund AUM [A]	100,000,000 USD
Swing Factor ¹	0.50%
Swing Threshold ² (%) [B]	5.00%
Swing Threshold (\$) [A*B]	5,000,000 USD

Investor Flows

Investor 1—Subscription ³	1,000,000 USD
Investor 2—Subscription	40,000,000 USD
Investor 3—Redemption ⁴	-20,000,000 USD
Net Subscription/(Redemption)	21,000,000 USD

Determine whether or not to apply Swing Pricing

Net Subscription (21 million USD) is greater than Swing Threshold (5 million USD). Therefore, **apply Swing Pricing**.

Determine post-dilution-adjustment NAV per share

Net subscriptions, therefore Swung NAV = pre-dilution-adjustment NAV per share multiplied by (1 + Swing Factor)
= 100 USD * (1 + 0.5%) = **100.50 USD**.

Hence, Investors 1, 2 and 3 subscribe/redeem at a NAV price of 100.50 USD.

(If there were net redemptions above the Swing Threshold, Swung NAV = pre-dilution-adjustment NAV per share x (1 - Swing Factor) = 99.50 USD)

- Swing Factor of 0.5% is illustrative only and may not represent actual Swing Factors, which vary per fund and may vary over time. Please contact your Barings representative to obtain a current Swing Factor.
- Swing Threshold of 5.0% is illustrative only. Swing Thresholds are not provided to investors to prevent 'gaming'. 5.0% is not—and therefore should not be considered by investors as—a typical Swing Threshold. Actual Swing Thresholds may be considerably larger or smaller than 5.0%.
- Even though this individual subscription is below the Swing Threshold, aggregate net subscriptions for the day are greater than the Swing Threshold. Hence, Investor 1 subscribes into the fund at the swung NAV, despite the relative size of Investor 1's subscription trade.
- Suppose this redemption was -40 million USD and not -20 million USD. Under this scenario, net subscriptions would be 1 million USD (= 1 million + 40 million - 40 million), which would be below the Swing Threshold of 5 million USD. In this amended scenario, swing pricing would not apply.

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