Vanguard

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A guide to swing pricing

When investors buy or sell units or shares in a fund, their activity may create costs for the fund. These costs mainly consist of broker commissions, bid/offer spreads and taxes. If the fund provider does nothing more these costs might be passed along to all investors in that fund – whether they have undertaken any activity or not.

At Vanguard, we believe funds should do all they can to keep costs low and allocate them fairly.

One of the ways we do this is through a process called swing pricing.[1]

[1] Different tools and approaches also work in different jurisdictions. For example, Vanguard "pre-swings" our fixed income funds in certain jurisdictions by pricing them at the bid.

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What is swing pricing?

Swing pricing is a process designed to protect existing investors in a fund from the costs incurred when other investors buy or sell units in that fund.

The process works by adjusting—up or down—the net asset value (NAV) of the fund, which is the price at which investors buy and sell shares in the fund. The adjustment to the NAV is designed to capture the costs incurred as a result of redemptions from, and subscriptions into, the fund.

Swing pricing is designed to pass the trading cost back to those investors who are engaged in the activity of buying or selling shares in the fund, rather than absorbing it into the fund's wider administration costs which are shared among all investors in the fund. This means that those existing investors who are not engaged in trading should not bear the cost of other investors' activity.

Swing pricing can take two forms: full swing pricing and partial swing pricing. Full swing pricing is where the manager swings the price whenever there are any net flows into or out of a fund. Partial swing pricing is where the manager only swings the price when net flows exceed a pre-set threshold.

Vanguard applies partial swing pricing where applicable.

Swing pricing terminology

Dilution

When existing investors bear the costs associated with others buying or selling shares in the fund.

Swing factor

The amount, in basis points, by which a fund's NAV (the price at which investors buy or sell shares in a fund) is adjusted, up or down. The swing factor is pre-determined and applied with consistency.

Full swing pricing

Where the manager swings the price whenever there are any net flows into or out of a fund.

Partial swing pricing

Where the manager only swings the price when net flows exceed a pre-set threshold.

Net cash flow

Cash flows into a fund (net inflows) minus cash flows out of the fund (net ouflows) on a given day. This is the key metric that determines which way a price is swung.

Cash flow thresholds

The level of cash movement in a fund, on any given day, at which the trigger for partial swing pricing is activated.

The key benefits of partial swing pricing

Partial swing pricing brings a number of benefits to investors which we believe can help them to achieve better long-term results:

- It insulates non-transacting investors from the costs associated with those transacting in the fund.
- It provides consistent treatment for all investors transacting on any given dealing day.
- A fund's NAV should swing less frequently when using partial swing pricing than with full swing pricing, resulting in a tighter tracking error, which allows for better reflection of a fund's performance capabilities.

Why we moved from full to partial swing pricing

Since May 2019, Vanguard has employed partial swing pricing. This means that we adjust the price for all transactions in a fund on a given day, up or down, if net cash flows in that fund exceed a pre-set threshold, either positive or negative.

We believe that partial swing pricing benefits all investors—irrespective of size—as those transacting in a fund bear the costs of trading while existing investors are protected from the dilution caused by new subscriptions. For investors transacting in a fund, they pay the same price on a given day, whether they are buying or selling shares in a fund.

In the period between October 2017 and May 2019[2], Vanguard employed full swing pricing for its UK and Ireland-domiciled funds. After analysing the impact of costs arising from investors transacting in our funds, as well as the impact on our funds' performance (in particular with respect to tracking error, which rose), we chose to move to a partial swing-pricing model. Tracking error measures the variability of short-term returns of a fund versus the index over a longer period. In other words, it is a measure of how closely an index fund follows its benchmark index.

While we believe that costs matter, we also understand that it is important for our investors to be able to evaluate our portfolio management capabilities through the performance of our funds. With the introduction of partial swing pricing with cash-flow thresholds, we continue to protect non-transacting investors from dilution, as well as enabling our investors to better assess how well our funds are tracking their respective benchmarks.

How partial swing pricing works

1. We calculate the NAV (the total net asset value) of the fund.
2. We divide this by the number of shares in issue to give us the underlying share price.
3. Next, we assess cash flows in the fund. If the volume of purchases exceeds sales, the fund is in net inflow. If this net inflow is greater than a pre-determined threshold, we swing the underlying price upwards by a pre-set, publicly available, swing factor.
4. If the volume of sales exceeds purchases, the fund is in net outflow. If this net outflow is greater than a pre-determined threshold, we swing the price downwards by a pre-set, publicly available, swing factor.

It is important to Vanguard that in the interests of fairness, all investors pay the same price on a given day, whether they are buying or selling shares in our funds. This price will be one of the following:

- It will be the underlying share price if a threshold level of cash flow has not been breached.
- It will be a price that's been swung up if the fund has net inflows exceeding the threshold level of cash flow.
- It will be a price that's been swung down if the fund has net outflows exceeding the threshold level of cash flow.

We also use the swung price to calculate fund performance and tracking error as this is the price investors actually pay/receive when they are buying or selling shares in our funds.

Please note, our Ireland-domiciled fixed income funds are generally valued using bid prices to reflect real-world liquidation costs, should sales of securities be required.

As a result:

- The sell swing factor for net outflows is generally zero (meaning the NAV would not swing) as the price is already the sell price.
- The buy swing factor for net inflows above the threshold would cover the entire bid/ask spread and the NAV would swing up by this amount.

As a result, all transaction costs are paid on subscription, with none on redemption.

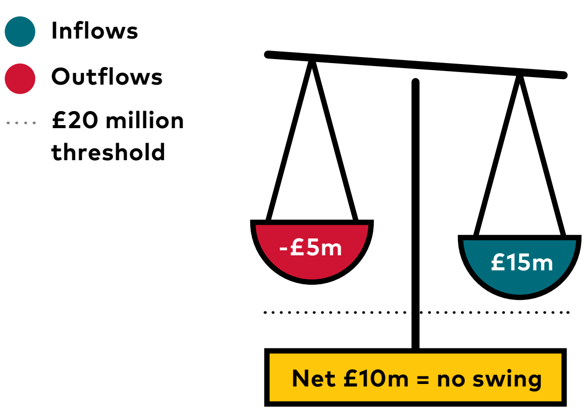
[2] 20 May 2019.

Swing pricing in action

Scenario A

Net inflows = no swing

In Scenario A, the fund has inflows totalling £15m and outflows totalling £5m, so it has a positive net cash flow of £10m. **In this scenario, the cash flow does not exceed the cash flow threshold so we would not swing the fund's price.**

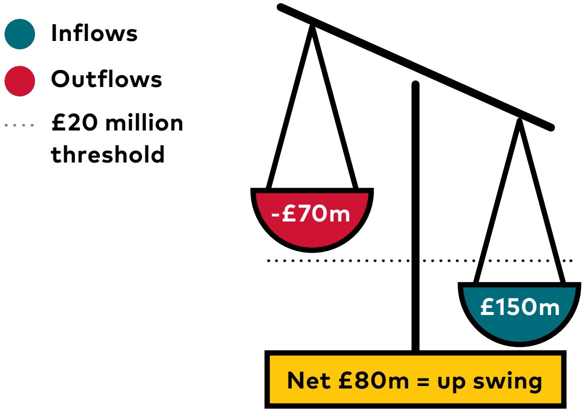


Net cash flow does not exceed threshold so price does not swing

Scenario B

Net inflows = price swing up

In Scenario B, the fund has inflows totalling £150m and outflows totalling £70m, so it has a positive net cash flow of £80m. **In this scenario, the cashflow exceeds the cash flow threshold so we would swing the fund's price upwards by the pre-determined swing factor.**

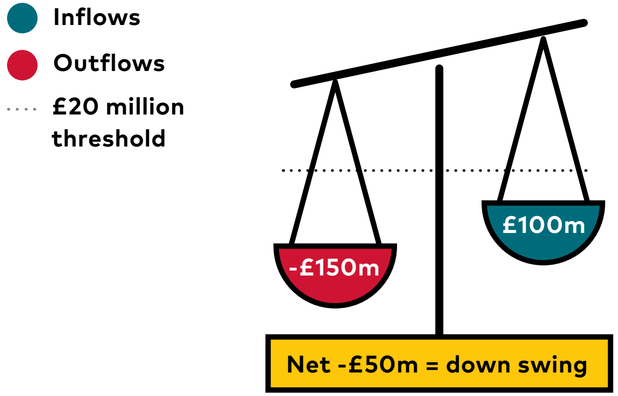


Positive net cash flow exceeding the threshold, so price swung upwards

Scenario C

Net outflows = price swing down

In Scenario C, the fund has inflows of £100m and outflows of £150m, resulting in a net outflow of £50m. **In this scenario, the cash flow exceeds the cash flow threshold we would swing the fund's price down by the pre-determined swing factor.**



Negative net cash flow exceeding the threshold, so price swung downwards

We monitor cash flows on all of our funds every day and will automatically apply the appropriate swing factor to each fund. Please note that scenarios A, B and C are a guide for illustration purposes only and the actual cash thresholds used in these scenarios do not reflect the actual levels of cash flow thresholds that would apply to Vanguard funds.

Please note that swing pricing currently only applies to UK- and Ireland-domiciled funds but NOT ETFs. For the Ireland-domiciled ETFs, note that these products charge creation and redemption fees to the authorised participants (APs) who buy and sell with Vanguard as an anti-dilution mechanism.

Investment risk information

The value of investments, and the income from them, may fall or rise and investors may get back less than they invested.

Important information

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