Sinking fund

A **sinking fund** is a fund established by an economic entity by setting aside revenue over a period of time to fund a future capital expense, or repayment of a long-term debt.

In North America and elsewhere where it is common for public and private corporations to raise funds through the issue of bonds, the term is normally used in this context. However, in the United Kingdom[1] and elsewhere[2] where the issue of bonds (other than government bonds) is unusual, and where long-term leasehold tenancies are common, the term is only normally used in the context of replacement or renewal of capital assets, particularly the common parts of buildings.

Historical context[edit]

The sinking fund was first used in Great Britain in the 18th century to reduce national debt. While used by Robert Walpole in 1716 and effectively in the 1720s and early 1730s, it originated in the commercial tax syndicates of the Italian peninsula of the 14th century, where its function was to retire redeemable public debt of those cities.

The fund received whatever surplus occurred in the national Budget each year. However, the problem was that the fund was rarely given any priority in Government strategy. The result of this was that the funds were often raided by the Treasury when they needed funds quickly.

In 1772, the nonconformist minister Richard Price published a pamphlet on methods of reducing the national debt. The pamphlet caught the interest of William Pitt the Younger, who drafted a proposal to reform the *Sinking Fund* in 1786. Lord North recommended "the Creation of a Fund, to be appropriated, and invariably applied, under proper Direction, in the gradual Diminution of the Debt". Pitt's way of securing "proper Direction" was to introduce legislation that prevented ministers from raiding the fund in crises. He also increased taxes to ensure that a £1 million surplus could be used to reduce the national debt. The legislation also placed administration of the fund in the hands of "Commissioners for the Reduction of the National Debt".

The scheme worked well between 1786 and 1793 with the Commissioners receiving £8 million and reinvesting it to reduce the debt by more than £10 million. However, the event of war with France in 1793 "destroyed the rationale of the Sinking Fund" (Eric Evans). The fund was abandoned by Lord Liverpool's government only in the 1820s.

Sinking funds were also seen commonly in investment in the 1800s in the United States, especially with highly invested markets like railroads. An example would be the Central Pacific Railroad Company, which challenged the constitutionality of mandatory sinking funds for companies in the case *In re Sinking Funds Cases* in 1878.[3]

Modern context – bond repayment[edit]

In modern finance, a sinking fund is a method by which an organization sets aside money over time to retire its indebtedness. More specifically, it is a fund into which money can be deposited, so that over time preferred stock, debentures or stocks can be retired.

In some US states, Michigan for example, school districts may ask the voters to approve a taxation for the purpose of establishing a sinking fund. The State Treasury Department has strict guidelines for expenditure of fund dollars with the penalty for misuse being an eternal ban on ever seeking the tax levy again. See also **sinking fund**provision in bonds.

Types[edit]

A sinking fund may operate in one or more of the following ways:

1. The firm may repurchase a fraction of the outstanding bonds in the open market each year.
2. The firm may repurchase a fraction of outstanding bonds at a special call price associated with the sinking fund provision (they are callable bonds).
3. The firm has the option to repurchase the bonds at either the market price or the sinking fund price, whichever is lower. To allocate the burden of the sinking fund call fairly among bondholders, the bonds chosen for the call are selected at random based on serial number. The firm can only repurchase a limited fraction of the bond issue at the sinking fund price. At best

some indentures allow firms to use a *doubling option*, which allows repurchase of double the required number of bonds at the sinking fund price.

4. A less common provision is to call for periodic payments to a trustee, with the payments invested so that the accumulated sum can be used for retirement of the entire issue at maturity: instead of the debt amortizing over the life, the debt remains outstanding and a matching asset accrues. Thus the balance sheet consists of Asset = Sinking fund, Liability = Bonds..

Benefits and drawbacks[edit]

For the organization retiring debt, it has the benefit that the principal of the debt or at least part of it, will be available when due. For the creditors, the fund reduces the risk the organization will default when the principal is due: it reduces credit risk.

However, if the bonds are callable, this comes at a cost to creditors, because the organization has an option on the bonds:

- The firm will choose to buy back discount bonds (selling below par) at their market price,
- while exercising its option to buy back premium bonds (selling above par) at par.

Therefore, if interest rates fall and bond prices rise, a firm will benefit from the sinking fund provision that enables it to repurchase its bonds at below-market prices. In this case, the firm's gain is the bondholder's loss – thus callable bonds will typically be issued at a higher coupon rate, reflecting the value of the option.

Modern context – capital expenditure[edit]

Sinking funds can also be used to set aside money for purposes of replacing capital equipment as it becomes obsolete, or major maintenance or renewal of elements of a fixed asset, typically a building. Such a fund is also commonly called a reserve fund, however the distinguishing feature of a sinking fund is that the payments into it are calculated to amortize a forecast future expenditure whereas a reserve fund is intended to equalise expenditure in respect of regularly recurring service items to avoid fluctuations in the amount of service charge payable each year.[4]