Higher Education

Central Banks in Higher Education

Michael Dymond
Assistant Vice President, Investment Banker
917.206.3665
michael.dymond@hilltopsecurities.com

Ian Prager
Managing Director, Investment Banker
415.263.1162
ian.prager@hilltopsecurities.com

Introduction

The "central bank" concept has a long history in higher education dating back to the first implementation at Harvard University in the late 1980s. Since then, central banks (also known as internal banks) have been implemented at institutions across the country to enhance capital structures with the aim of generating additional unrestricted net assets. Moreover, central banks have other important benefits including stabilizing an institution's internal cost of capital, broadening the external debt structures institutions can consider, funding strategic initiatives, and, in some cases, serving as a form of liquidity and operating support during challenging times, such as the financial impact of Covid-19.

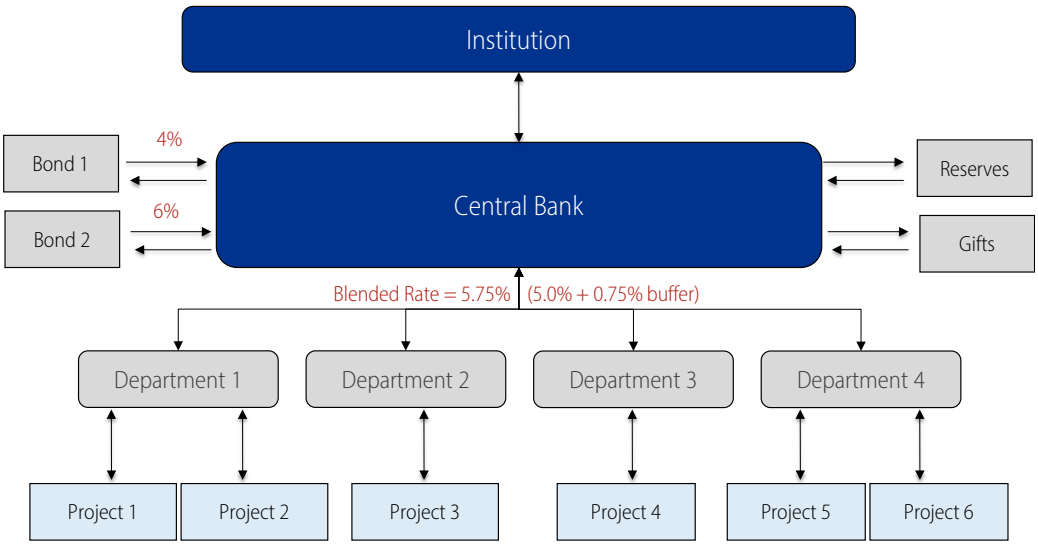
The Foundations of the Central Bank Concept

At its core, a central bank is a virtual entity and set of services used to manage and deploy a corpus of funds available to units, departments and/or campuses in the form of internal loans. While central banks are often found at large, decentralized institutions such as research universities with Responsibility Center Management budget models, they have also been successfully implemented at smaller, centralized institutions, such as liberal arts colleges, with central budgeting and significantly leaner support staff.

At its core, a central bank is a virtual entity and set of services used to manage and deploy a corpus of funds available to units, departments and/or campuses in the form of internal loans.

The most recognized and common approach to finance an institutional project is to access the public debt markets or seek out bank financing on an as-needed basis. Institutions that issue less frequently may lean on "vanilla" debt structures such as fixed rate, level amortizing debt while more frequent issuers may have alternative structures, modes, and strategies as part of their overall approach to debt management.

Central Bank Structure



Source: HilltopSecurities.

Please see disclosure starting on page 6.

A central bank employs a comprehensive and strategic 'portfolio-based' approach to external financing and as such requires forward capital planning on an institutional level to guide the amount, timing, and cadence of debt issuance. This strategy has advantages, both relative to accessing external debt markets on an as-needed basis and for the long-term evolution of an institution.

A central bank employs a comprehensive and strategic 'portfolio-based' approach to external financing and as such requires forward capital planning on an institutional level to guide the amount, timing, and cadence of debt issuance.

Owing to its internal, long-term nature, a central bank offers institutions opportunities including:

- A mechanism for net asset growth and diversification of revenue by using debt as a strategic resource;
- The ability to manage debt on a portfolio basis and, in some cases, to broaden the set of debt structures an institution may consider versus those it has historically employed;
- A stabilized, predictable, and equitable cost of capital for internal borrowers;
- Additional flexibility such as the ability to set amortization schedules as desired and potential avoidance of restrictive bond covenants during tighter markets (applicable for lower-grade credits); and
- Potential development of internal backup liquidity, for use in challenging times.

While the notion of a corpus of funds for internal loan generation may seem like a significant shift in approach, central banks look similar in many respects to an endowment. In both vehicles, a pool of funds is invested at targeted returns with funds added to the corpus at regular intervals. Importantly, best practice dictates that both structures include internal restrictions and governance through Board-level policies and administrative procedures.

While the notion of a corpus of funds for internal loan generation may seem like a significant shift in approach, central banks look similar in many respects to an endowment.

Capitalizing a Central Bank

Not dissimilar from an endowment, a central bank requires seed funding, which often – but not always – comes in the form of bond proceeds. A central bank can be capitalized with gifts, reserves, taxable or tax-exempt bond proceeds, or some combination thereof. While there is no minimum initial capitalization requirement, in our experience an ideal starting point varies with institutional size and goals. The larger and more holistic the bank, (e.g., the more of an institution's debt and capital portfolio included in bank cashflows), the greater the ability to support institutional objectives.

The use of taxable bond proceeds to fund a central bank works similarly to the use of non-debt sources, such as gifts and reserves, due to the absence of restrictions as to the usage of and earnings on taxable proceeds. Of course, in certain markets taxable debt comes at a higher cost than tax-exempt debt. Capitalizing with tax-exempt debt is advantageous due to the attractive rates but comes with complexities of IRS rules (restricting the use of proceeds to tax-exempt qualifying projects and restricting investment earnings on proceeds to the 'arbitrage yield').

The use of taxable bond proceeds to fund a central bank works similarly to the use of non-debt sources, such as gifts and reserves, due to the absence of restrictions as to the usage of and earnings on taxable proceeds.

Funding a bank, at least in part, with cash, appropriations, gifts and/or reserves is an emerging best practice for internal banks. These funding sources are valuable as they carry few if any restrictions (gifts may be restricted by donor contracts and/or require donor consent and management). Large gifts are often received over time which provides the opportunity for institutions to think critically about their funding approach

for a project. If funds are available, an institution can provide bridge financing directly through its bank or decide to retain bank resources for future investment and utilize external bridge financing.

For institutions without issuance plans and/or full debt portfolios, existing debt can alternatively be used as seed funding for an internal bank. While the mechanism will vary based on the objectives of the bank and the environment in which it operates, institutions can choose to restructure internal loans to generate net assets to fund the bank or can use a 'pass-through' approach where net asset generation occurs as an institution restructures its external debt (while keeping the old amortization constant for internal borrowers).

For institutions without issuance plans and/or full debt portfolios, existing debt can alternatively be used as seed funding for an internal bank.

Structuring the Economic Terms of a Central Bank

Once funding is identified and the overall objectives of the central bank are determined, implementing an internal bank requires designing economic terms for internal loans as well as governance policies and administrative procedures. Institutions can outline terms to match their institutional identity and preferences, though certain structures will, generally, produce higher levels of net asset growth.

Once funding is identified and the overall objectives of the central bank are determined, implementing an internal bank requires designing economic terms for internal loans as well as governance policies and administrative procedures.

Central Bank Structuring: Economic Terms

Internal Interest Rate	❑ Weighted average cost of capital of an institution's debt portfolio ❑ Inclusive of a spread (typically 75 - 100 bps)
Amortization Schedule	❑ Longer external average life as compared to internal loans average life provides a mechanism to generate additional net assets for reinvestment and re-lending
Investment Strategy	❑ Long-term funds – not needed for short-term liquidity or immediate deployment – are available for investment alongside the endowment ❑ Asset allocations may differ from the endowment; often shorter duration, more liquid assets
Restructuring Flexibility	❑ Though rare, institutions should design policies for loan restructuring in the event of extended challenging markets and/or projected central bank insolvency

Source: HilltopSecurities.

1. Internal Interest Rate

The internal loan rate is the interest rate charged to units and departments. Institutions typically utilize the weighted average cost of capital of their debt portfolio as the starting point to begin determining their internal loan rate, plus a spread to cover administrative costs to run the bank as well as a buffer to absorb both debt and equity market fluctuations. As such, the additional spread is largely a function of the institution's risk tolerance profile. Some institutions may have different rates for different internal loan durations (e.g., internal loans used to fund equipment leases may carry a different rate than those used to fund a building).

Institutions typically utilize the weighted average cost of capital of their debt portfolio as the starting point to begin determining their internal loan rate, plus a spread to cover administrative costs to run the bank as well as a buffer to absorb both debt and equity market fluctuations.

2. Amortization (Principal Repayment) Schedule

An optimized internal bank issues internal loans with durations shorter than the external debt used to capitalize the bank or finance the project. Shorter internal loan durations result in faster repayment relative to external debt service. This offers a powerful mechanism to grow the net assets of the bank, given the ability to reinvest and re-lend unused bank balances.

An optimized internal bank issues internal loans with durations shorter than the external debt used to capitalize the bank or finance the project.

3. Investment Strategy

Funds not needed for immediate deployment or external debt service can be invested alongside an institution's endowment, though asset allocations may differ. Institutions typically design policies and strategies for investment of funds prior to inception of the central bank. In our experience, strategies typically include:

- Minimum levels of liquidity to address short-term external bank outflows;
- Determination of the timing of redeployment in the form of internal loans (to determine funds available for longer-term investment); and
- May include some medium-term investments and/or lower risk fixed income assets.

An optimized capital structure is one in which the debt funding a central bank is treated as a perpetual component of an institution's capital structure. As such, once an investment strategy for central bank funds is developed, it only needs to be adjusted with respect to institutional risk tolerance rather than with respect to maturities of underlying debt.

4. Restructuring Flexibility

Albeit rare, institutions should pre-design plans in the event external markets result in projected bank insolvency. An advantage of an internal bank is loan restructuring is easier relative to working with external lenders.

Albeit rare, institutions should pre-design plans in the event external markets result in projected bank insolvency.

The Advantages of Incorporating a Central Bank in Debt Portfolio Strategy

Central bank advantages include offering institutions a stable and equitable cost of capital across units and projects and a mechanism to grow unrestricted net assets and diversify revenue by using debt as a strategic resource.

The 'rate-stabilizing' effect of central banks derives from the fact that internal lending rates are set based on the total cost of the external portfolio (plus a buffer) rather than having rates dictated by market conditions and rate cycles. Internal rates, known in advance, change only over long-term intervals as funds are infused into the institution and the financial health of the bank is tracked. The effect is a stabilization and moderation of the interest rate an institution charges its units for project funding. This mechanism provides visibility into cost of capital for units and offers equitable financing costs across units, given rates are less time variant.

The 'rate-stabilizing' effect of central banks derives from the fact that internal lending rates are set based on the total cost of the external portfolio (plus a buffer) rather than having rates dictated by market conditions and rate cycles.

Mechanisms to Grow Unrestricted Net Assets

Central banks offer multiple levers to grow net assets, allowing institutions to tailor a bank to their environment and still meet their goals.

Spread on Internal Loans	❑ A spread on internal loans offers an opportunity to cover the costs of operating the internal bank and a buffer to absorb debt and equity market fluctuations
Amortization Structures	❑ A shorter average life on the internal loan portfolio relative to external debt (i.e., faster internal repayment) leads to net asset growth ❑ Institutions may explore long-dated bullet maturities to further take advantage of this feature
Investment Growth	❑ Long-term funds – not needed for short-term liquidity or immediate deployment – are available for investment alongside the endowment ❑ Institutions tailor investment strategies and return targets to their goals

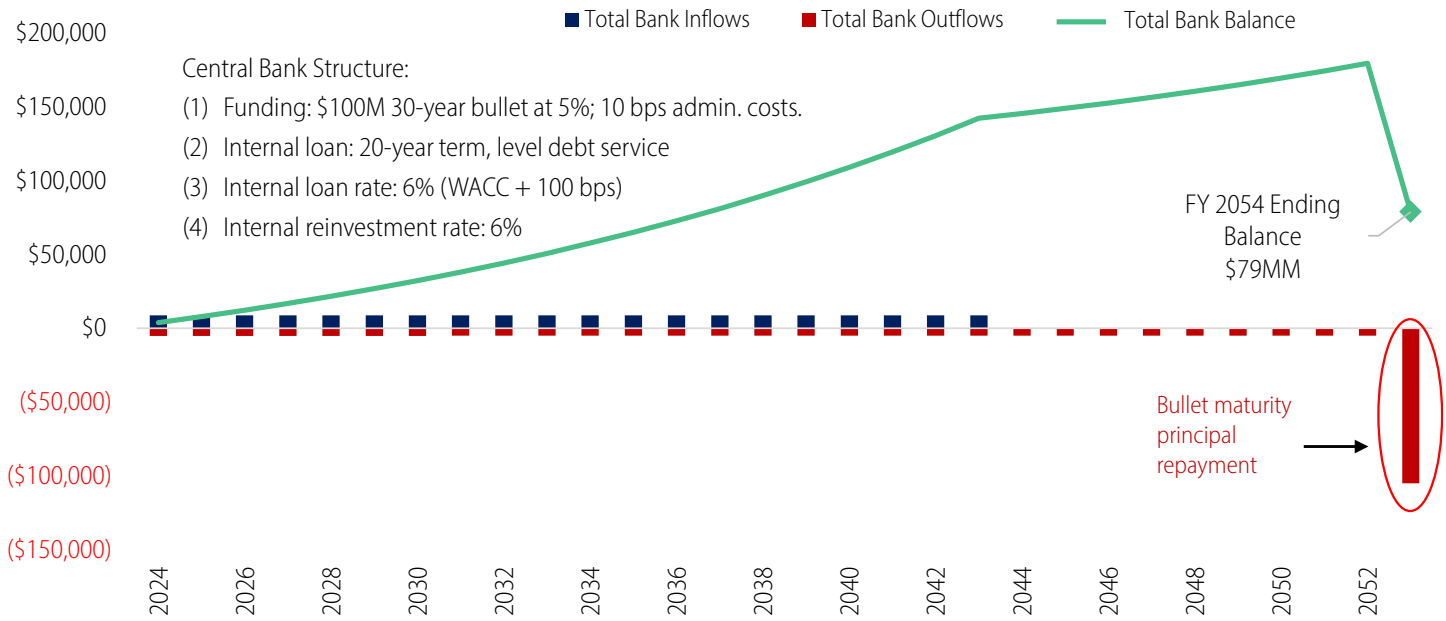
Source: HilltopSecurities.

Central banks offer multiple levers to grow net assets, allowing institutions to tailor a bank to their environment and still meet their goals. As the corpus of funds grows, so does the ability to use the funds for critical projects or as backup liquidity in challenging times.

As the corpus of funds grows, so does the ability to use the funds for critical projects or as backup liquidity in challenging times.

The ensuing chart demonstrates the unrestricted net assets generated under a simplified central bank structure. The bank is funded with a 30-year interest only $100M bullet at 5% and an internal loan structured with level amortizing debt service over 20 years, inclusive of a 100bps spread (6%). Assuming external debt repayment at year 30, the bank generates ~$80M of additional unrestricted net assets.

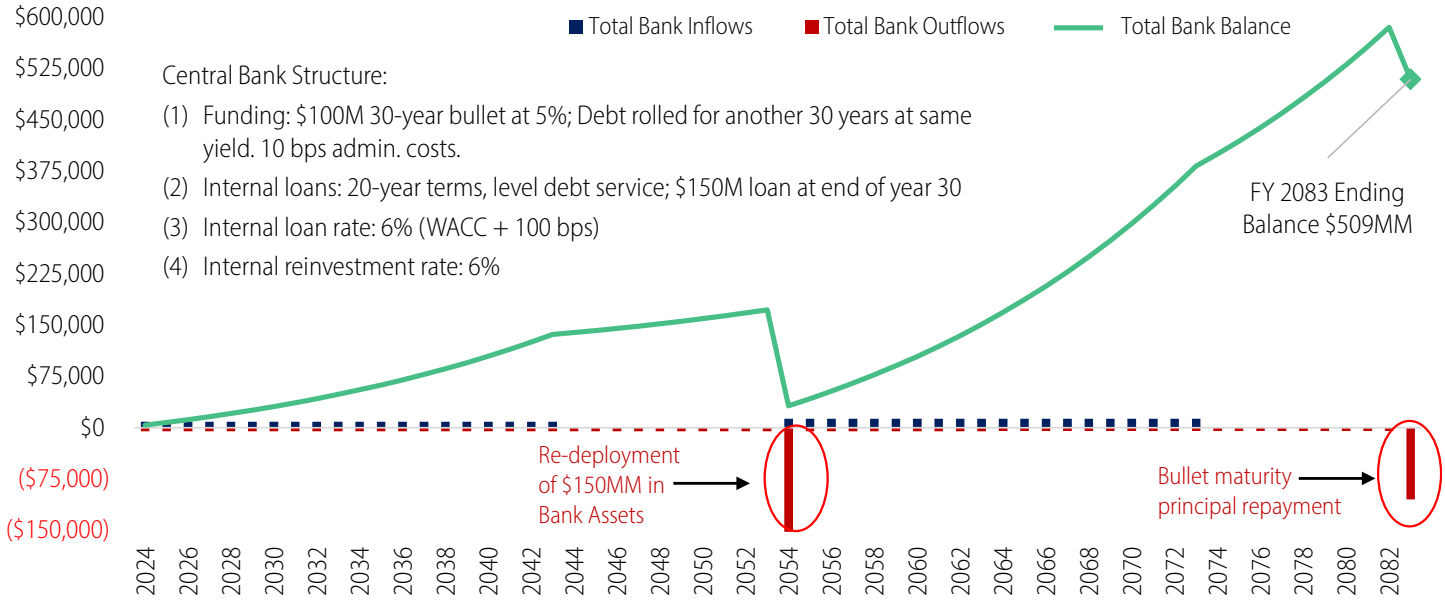
Nominal Internal Bank Projections: 30-Year Look ($ in 000s)



Source: HilltopSecurities.

If the institution views debt as a permanent part of its capital structure, it will reissue (or roll) the $100M at year 30 instead of drawing funds from the bank to repay bondholders. The following chart illustrates the impact of retaining the $100M liability for 60 years assuming the same initial conditions (e.g., a 5% coupon). However, given the assets generated in the bank at year 30, the institution can deploy $150M of funds to a new project with an associated new internal loan (rather than the original $100M). The bank balance in year 60, inclusive of the additional $150M of deployed funds in year 30, is nearly $510M, demonstrating the power of compounding. Although market fluctuations, additional draws, and other dynamics may negatively influence the bank, compounding mitigates these impacts.

Nominal Internal Bank Projections: 60-Year Look ($ in 000s)



Source: HilltopSecurities.

Conclusion

Central banks have been a powerful tool for institutions. They offer an opportunity to use debt as a strategic resource to grow net assets and diversify revenue through earnings on the central bank. As the sector faces a period of challenging headwinds and current monetary policy conditions that seem to indicate rates will remain higher for longer, a central bank can offer a mechanism for institutions to enjoy additional capital and potential budget flexibility.

Central banks have been a powerful tool for institutions. They offer an opportunity to use debt as a strategic resource to grow net assets and diversify revenue through earnings on the central bank.