From Confusing to Cringe-Worthy

Errors Made in Calculating Net Investment in Capital Assets

BY MICHELE MARK LEVINE

If you have not regularly followed the technical accounting and financial reporting topics discussed in GFR, GFOA's annual GAAP Update, and other GFOA updates, you may not be aware of the relative frequency with which the calculation of net investment in capital assets—a classification of net position reported in the financial statements of U.S. state and local governments—has been the focus of articles such as this. If, on the other hand, you have been checking this space regularly, you might be forgiven for having rolled your eyes and considered skipping this article, once you saw the title.

But please do read on! A surprisingly large number of the annual comprehensive financial reports (ACFRs) submitted to GFOA's Certificate of Achievement for Excellence in Financial Reporting Award ("Certificate" or "COA") program report an incorrect net investment in capital assets. So, if your first thought on the topic was "not again," then you are in good company: GFOA's professional staff in the Technical Services Center who review ACFRs experience a similar sinking feeling while looking at reported net investment in capital assets amounts that seem to be, to use technical terminology, out-of-whack.
Some governments disclose the calculation of net investment in capital assets in their notes, but this is not required by generally accepted accounting principles (GAAP), and not all the information necessary to make—or check—the calculation is normally contained in an ACFR. Often some detective work and inquiries of preparers are needed to verify the calculation and to understand what, if any, errors were made. Because of the frequency of questions and errors, and the difficulty of that detective work, GFOA is making a small but significant change in our COA requirements. Beginning March 1, 2022, COA applications must be accompanied by the calculations of net investment in capital assets reported on government-wide statements of net position for both governmental and business-type activities, as applicable. This article will review the principles of the calculation and highlight a few of the more commonly made mistakes.

**Net position**

As many readers know well, the residual amount reported in government-wide and proprietary fund financial statements, somewhat akin to “equity” in private-sector reporting, is called net position. Net position is the amount arrived at by deducting the sum of liabilities and deferred inflows of resources from the sum of assets and deferred outflows of resources. Net position is reported in one or more of the following classifications, as appropriate:

1. Net investment in capital assets (or investment in capital assets),
2. Restricted net position, and
3. Unrestricted net position.

These classifications are based on the **degree to which there are constraints on the purposes for which amounts can be spent**. Obviously, it’s difficult to “spend” (rather than use) capital assets for any purpose, which puts them at the very top tier of constraint. Regardless of the source and financing of capital assets, or their tangible or intangible nature, none of them is spendable, so whenever a government reports capital assets, it should also report a capital-asset classification of net position. Capital assets are the core of net investment in capital assets, and all other amounts used in the calculation are included because they are directly related to the included capital assets. It’s helpful to keep in mind that net investment in capital assets is simply the portion of net position related to the reported capital assets and those liabilities and deferred resource flows resulting from their acquisition. Said differently, net investment in capital assets is derived using the same formula as total net position, but applied only to capital assets and the liabilities and deferred resource flows **that arose from the construction, acquisition or improvement of those capital assets**.

In fact, the amounts of each classification of net position could be arrived at separately, starting each calculation with its respective asset values (capital assets, restricted noncapital assets, unrestricted noncapital assets) and then adjusting each by its respective portion of liabilities and deferred resource flows. In theory, all three are calculated in this manner, but in practice it is easier to make the calculations only for net investment in capital assets and restricted net position, and to report the remaining portion as unrestricted net position. (See Exhibit 1.)

**Capital assets**

Net position must be calculated for several reporting units in basic financial statements, as well as for many reporting units in individual fund and combining financial statements that are included in an ACFR. Reporting units generally correspond to columns in most financial statements. (See Exhibit 2.) The calculation of net investment in capital assets begins with the capital assets of the reporting unit for which net investment in capital assets is being calculated, as of the reporting date.
Everything else in the calculation is included solely because of its relationship to those specific capital assets. Because governmental funds (1) don’t include capital assets, as they are reported using a current financial resources measurement focus (MF) and a modified accrual basis of accounting (BA), and (2) report fund balance rather than fund net position, governmental funds and aggregations of governmental funds do not report a net investment in capital assets. Capital assets, however, are included in governmental activities reported in the government-wide statement of net position, and so governmental activities will report net investment (or investment) in capital assets, unless there are no general governmental capital assets at all.

Starting with the capital assets of our reporting unit, the next step is to deduct, or “net out,” all accumulated depreciation related to those assets, giving us what is generally referred to as their book value. Depreciation needs to be netted out in the calculation of net investment in capital assets because it is both:

1) netted out of total net position, and so logically must be netted out of a component of net position; and 2) related to reported capital assets.

Common mistake: Omission of some capital assets. When GASB first issued Statement No. 34, Basic Financial Statements – and Management’s Discussion and Analysis – for State and Local Governments (GASB 34), the name for what is now net investment in capital assets was invested in capital assets, net of related debt. This original name may have led some to interpret “net of related debt” as meaning that only debt-financed capital assets should be included. We see governments mistakenly excluding capital assets that were grant funded, purchased with existing resources, or donated to the government. With the implementation of recent GASB guidance on conduit-debt associated arrangements and public-public partnerships (PPPs), we are concerned that capital assets acquired through these methods might also be erroneously excluded based on this incorrect interpretation.

Sometimes governments mistakenly exclude all intangible capital assets. This latter omission may also become a more significant problem as governments add intangible right-to-use lease and subscription assets with the implementations of GASB statements on leases and subscription-based information technology arrangements (SBITAs). Both are capital assets and should be included in the calculation, along with their related liabilities, as discussed below.

Capital debt and other capital liabilities. The next step in the calculation is to net out what is commonly referred to as capital debt, although it includes liabilities other than just debt. Here, the term capital liabilities is used for this broader group. Once again, recall that the starting point of the entire calculation of net investment in capital assets is the capital assets of the reporting unit. Only debt and other liabilities that were incurred to construct, acquire, or improve those specific capital assets, or liabilities incurred to refinance liabilities originally incurred for such purposes (collectively, capital purposes), are deducted in the calculation of net investment in capital assets. For reporting units that have capital assets but no capital liabilities, the capital asset component of net position may be retitled as investment in capital assets instead of net investment in capital assets.

Capital liabilities include the currently outstanding principal amounts of bonds, notes, and any other borrowing from any external parties, if and to the extent that the proceeds were used for capital purposes. (See Exhibit 3.) This includes the outstanding principal amounts of lease liabilities; service concession arrangements and other public-private and public-public partnership arrangement (PPP) liabilities for the transferor; and subscription liabilities for subscription-based information technology arrangements (SBITAs), as applicable.

Capital liabilities also include other liabilities incurred for capital purposes such as accounts payable to contractors.
or vendors, and retainage payable to contractors, incurred for capital purposes. As with accumulated depreciation, these amounts are properly included in the calculation of net investment in capital assets because they both: 1) are related to the reported capital assets and 2) affect overall net position. It is possible to travel a little too far down this path of reasoning, however; asset retirement obligations and other environmental obligations, even if they are related to specific reported capital assets of the reporting unit, should not be netted out in the calculation of net investment in capital assets because they were not incurred for the purpose of constructing, acquiring, or improving those capital assets.4

In a relay race, one team member starts the race, runs part of the distance, and then passes the baton to another team member to continue the race, and so on throughout the entire race. In governmental accounting, we do something similar with the characterization of capital liabilities. When capital debt is refinanced—by the issuance of refunding bonds, for example, or if other capital liabilities are converted from one form to another—new liabilities to external parties that replace the original capital liabilities take on the capital nature of those replaced liabilities.

### EXHIBIT 3 | INTRA- AND INTER-GOVERNMENTAL CAPITAL-RELATED TRANSACTIONS

<table>
<thead>
<tr>
<th>Transaction Type</th>
<th>Description</th>
<th>Treatment as Capital or Noncapital</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intra-governmental borrowing</td>
<td>Internal to a single legal entity such as between two funds of a primary government (PG)</td>
<td>Noncapital liability, regardless of how proceeds were used</td>
</tr>
<tr>
<td>Intra-entity borrowing</td>
<td>Between legally separate governments in the same reporting entity (two types): (1) PG with one of its blended component units (BCUs), or between BCUs of the same PG</td>
<td>Capital liabilities, if and to the extent proceeds were used for capital purposes</td>
</tr>
<tr>
<td>(2) PG with one of its discreetly presented component units (DCPUs), or between DCPUs of the same PG</td>
<td>Capital liabilities, if and to the extent proceeds were used for capital purposes</td>
<td></td>
</tr>
<tr>
<td>Intra-entity grant of externally borrowed funds</td>
<td>One government borrows money externally (issues bonds) and gives the proceeds to, or spends them on behalf of, another government in the same reporting entity</td>
<td>External borrowings are noncapital liabilities of the borrowing government (the capital assets do not belong to the borrowing government) If an entity-wide total column is reported in the government-wide financial statements, external borrowing should be reclassified as a capital liability for that column only, if and to the extent the granted proceeds were used for capital purposes. *</td>
</tr>
<tr>
<td>Inter-governmental loan</td>
<td>Between governments that are not in the same reporting entity</td>
<td>Capital liabilities, if and to the extent proceeds were used for capital purposes</td>
</tr>
</tbody>
</table>

*This is because the entity-wide column is a reporting unit, and the capital assets and the external liability used to acquire them are both reported in that same reporting unit. Similarly, if a grant is made from one DCPU to another DCPU, a total column of all DCPUs would also classify the external liability as capital.
The passing of this capital “baton” continues until the liability is finally paid off or otherwise permanently extinguished. Moreover, any deferred outflows of resources or deferred inflows of resources that arise either (1) as a result of the refunding of capital debt or (2) as part of an arrangement through which a government has acquired a capital asset (such as for a lessee, a transferor government in a PPP, or a government in a SBITA), should also be included in the calculation of net investment in capital assets. These kinds of deferred outflows of resources are added to, and deferred inflows of resources deducted from, capital assets in the calculation of net investment in capital assets. To properly determine which liabilities should be included in the calculation of net investment in capital assets, focus on the starting point: existing capital assets of the reporting unit. Remember that only the liabilities related to constructing, acquiring, or improving those assets—or liabilities that substitute for them, as just discussed—are included in the calculation. Also don’t forget to include unamortized original issue premiums and discounts associated with outstanding capital debt, as they are part of that debt. Accrued Interest, even interest on capital liabilities, however, is not capital.

Common mistake: Mistreatment of unspent bond proceeds and related portion of debt. Unspent bond proceeds are held in the form of cash and investments, which are not capital assets. It follows, then, that the debt from which the unspent proceeds arose cannot have been used for capital purposes, regardless of how they will be used in the future. Any significant amount of outstanding debt related to unspent proceeds must be excluded from net investment in capital assets calculation. Moreover, both the unspent proceeds (noncapital assets) and the related portion of the debt should be reported in the same component of net position, either restricted or unrestricted, depending on the facts and circumstances. Thus, unspent bond proceeds should have no net impact on any classification of net position, as the amount of the unspent proceeds and the amount of the outstanding debt that provided them will offset each other.

Common mistake: Including liabilities related to capital assets that are not capital assets of the unit reporting the liabilities. Governments might issue long-term debt to purchase, construct, or provide financing for assets that will belong to others, or that will be used and reported by a reporting unit that does not report the liability. When calculating net investment in capital assets for a specific reporting unit, any liabilities that are not related to a reporting unit’s own reported capital assets are not capital liabilities of that reporting unit and should not be factored into the calculation of that unit’s net investment in capital assets. Examples of errors we see include: 1) treating a primary government’s debt as capital when it was used to acquire capital assets reported by a discretely presented component unit of the primary government; 2) treating a discretely presented component unit’s debt as capital when it was used to acquire capital assets reported by the primary government or by another discrete component unit of the primary government; 3) in the calculation of net investment
in capital assets for governmental activities, treating general governmental debt as capital when it was used to acquire capital assets reported by an enterprise fund that is part of business-type activities; and 4) treating an enterprise fund’s debt as capital when it was used to acquire general governmental capital assets.

**Common mistake: Including other noncapital liabilities.** Governments might issue long-term debt explicitly for noncapital purposes such as obtaining the corpus of a revolving loan fund or paying for services that are expected to have long-term social and financial benefits. More frequently, a portion of the proceeds of long-term debt is used for costs that do not ultimately get capitalized, even though most of the proceeds from the same debt issuance are used for capital purposes. For example, bond proceeds may be used to pay costs of the bond issuance to purchase items that are not capitalized based on the government’s accounting policies (such as those costing less than a threshold amount) or spent on maintenance work that is undertaken along with an improvement to the same capital asset. If the amount of proceeds put to noncapital uses is not significant, the government may treat the entire debt issuance as capital debt. However, if significant, that portion of the proceeds used for noncapital purposes should be attributed to (reduce the amount reported as) unrestricted net position, rather than to net investment in capital assets.

Some governments erroneously include all long-term liabilities, even those that have no relationship to capital assets, such as liabilities for compensated absences, judgements and claims, and postemployment benefits, in their calculations of net investment in capital assets. These preparers might be thinking of net investment in capital assets as the appropriate classification for all amounts needed to convert governmental fund balances to governmental activities. However, while governmental funds omit only capital assets, they omit virtually all long-term liabilities, capital and noncapital, and only the capital liabilities belong in the net investment in capital asset calculation.

**EXHIBIT 4 | DEFERRED RESOURCE FLOWS ARISING FROM CERTAIN ARRANGEMENTS**

<table>
<thead>
<tr>
<th>Type of Arrangement</th>
<th>Party Reporting</th>
<th>Capital-Related Deferred Resource Flows</th>
<th>Noncapital Deferred Resource Flows</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public-private and public-public partnerships (PPPs), including Service Concession Arrangements (SCAs)</td>
<td>Transferor*</td>
<td>Unamortized deferred inflows of resources that arose when operator-acquired underlying PPP assets, operator-constructed underlying PPP assets, or operator-made improvements to the transferor’s underlying PPP assets were put into service and had become the property of the transferor</td>
<td>(1) Unamortized deferred inflow of resources that arose when upfront payments were made by operators on PPPs, including SCAs, even if up-front payments were used for capital purposes</td>
</tr>
<tr>
<td>Conduit-Debt Associated Arrangements</td>
<td>Issuer**</td>
<td>Unamortized deferred inflows of resources that arose because the issuer will retain title to the underlying capital asset at the end of the arrangement and the third-party obligor has exclusive use of only portions of the capital asset during the term of the arrangement</td>
<td>(2) Unamortized deferred inflows of resources that arose when the transferor recognized a receivable for the underlying PPP asset(s) that were put into service but for which ownership has not yet been transferred by the operator</td>
</tr>
</tbody>
</table>

* A governmental operator in a PPP is generally not obtaining any capital asset, so the arrangement will have no effect on the operator’s net investment in capital assets. But in non-SCA PPPs where the operator retains title to an underlying capital asset for a period after it has been put in service, that asset and any related capital debt would be included in the calculation of net investment in capital assets until such time as title is transferred.

** A governmental obligor in a conduit debt arrangement is obtaining a right-to-use capital asset for the duration of the arrangement, and in some cases will ultimately own the underlying capital asset, so the related obligation to make payments to cover debt service during the arrangement is a capital liability.
In practice, just as the capital character give rise to capital deferred resources prepayments. (See Exhibit 4.)

Deferred inflows of resources and deferred outflows of resources from refinancing those liabilities

Common mistake: Including accreted interest. Finally, sometimes governments that have outstanding deep discount or “zero-coupon” bonds that were used for capital purposes erroneously include the accreted interest in their calculations of net investment in capital assets. Accrued interest, however, whether paid in installments or accreted over the entire term of the debt, is not properly characterized as a capital liability.

Capital-acquisition-related and capital-debt-related deferred resource flows

Certain arrangements by which governments acquire capital assets, such as through service concession arrangements (SCAs) and other PPPs, or conduit-debt associated arrangements, may give rise to deferred inflows which, like capital liabilities, are incurred for capital purposes and should be included in the calculation of net investment in capital assets. However, some deferred resource flows that arise from these arrangements need to be excluded because they arise not from the government’s construction, acquisition, or improvement of capital assets, but from other aspects of the same arrangements, such as prepayments. (See Exhibit 4.)

Refinancing of capital debt can also give rise to capital deferred resources flows. Just as the capital character of debt is handed off in a refinancing, any unamortized deferred resource flows arising from gains or losses on refunding of capital debt are capital in nature and should be factored into the calculation of net investment in capital assets, with deferred outflows of resources being added and deferred inflows of resources being deducted.

Common mistake: Omitting deferred resource flows from refinancing of capital debt.

Governments often only think about capital assets, accumulated depreciation, and capital liabilities when calculating net investment in capital assets. Most commonly we see governments that forget to include significant amounts of unamortized deferred resource flows from gains or losses on refinancing of capital debt.

Conclusion

We hope you will invest some time in reviewing your current calculations of net investment in capital assets, and that this article will help you in doing so. A list of calculation “bloopers” we have seen with varying frequency, and a few we anticipate may arise as governments implement recent GASB standards, is included in the “Net Investment in Capital Assets Calculation “Bloopers” sidebar for your reference.

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1 GASB explains the term capital assets as “include[ing] land, improvements to land, easements, buildings, building improvements, vehicles, machinery, equipment, works of art and historical treasures, infrastructure, and all other tangible or intangible assets that are used in operations and that have initial useful lives extending beyond a single reporting period” (GASB Cod. Sec. 1400:103).

2 The name of this capital asset component may change if there are no liabilities related to capital assets.

3 In this article, references to accumulated depreciation are intended to include accumulated amortization.

4 At the time, the residual category was called net assets, so the full name of the first classification was net assets invested in capital assets, net of related debt (GASB 34, paragraph 32).

5 GASB Cod. Sec. 1800-733-7.

6 GASB Cod Sec:1800.733-2. Other environmental obligations are landfill closure and postclosure care liabilities and pollution remediation obligations. Except to the extent to which they will be paid from restricted assets, these liabilities would be included in (deducted from unrestricted assets and deferred inflows of resources as part of) the calculation of unrestricted net position.

7 As an example of a conversion of capital liabilities, assume a state government makes a debt service payment on behalf of a local government that had used the proceeds of the debt to acquire capital assets, as might occur if the state has guaranteed the bonds and the local government cannot make the payment. If the local government is then obligated to repay the state, the amount of the repayment obligation related to the principal portion of the debt service payment would take on the capital nature of the original capital debt.

8 GASB Cod Sec: 1800.733-6.

9 The difference in verb tense here is key. As previously stated, the core of the calculation of net investment in capital assets is the capital assets of the reporting entity, as of the reporting date. The fact that bond proceeds will be used in the future to obtain or improve capital assets means those capital assets do not exist as of the reporting date.

10 For example, criminal recidivism-prevention services. These are sometimes referred to as “social impact bonds.”

11 In the authoritative accounting literature, the term significant is used in a manner that is similar to the way in which the term material is used in the auditing literature. Both terms generally refer to amounts that, based on their sizes or natures, would influence the judgement of a reasonable user of financial statements. The exact sizes and kinds of amounts that meet this threshold is a matter of professional judgement.

12 Before GASB’s introduction of deferred resource flows into GAAP, items that are now deferred inflows of resources were reported as liabilities. While these capital deferred inflows of resources don’t meet GASB’s current definition of liabilities, they are conceptually similar to unearned revenue liabilities in that the government has already received resources that are inherently related to (or are “for”) future periods.
Net Investment in Capital Assets
Calculation Bloopers

Even experienced finance professionals make mistakes in reporting net investment in capital investments. As you compile your annual comprehensive financial reports (ACFRs), be aware of these common mistakes and oversights for reported net investment in capital assets—and avoid them with this list.

- Excluding some capital assets of the reporting unit—causes understatement
  - Intangibles
  - Donated/contributed
  - Grant-funded
  - Conduit-debt funded
    • From a governmental third-party obligor’s perspective, when it recognizes a capital asset, or
    • From an issuer’s perspective, if and when it recognizes the underlying capital asset

- Including assets that are not capital assets of the reporting unit—causes overstatement
  - Restricted cash and investments (unspent bond proceeds)
  - “Investments” in joint ventures
  - Interfund receivables
  - Pension/OPEB assets

- Excluding liabilities incurred for capital purposes of the reporting unit (capital debt)\(^1\) —causes overstatement, except as noted
  - Non-bonded capital debt issued (notes, bank loans)
  - Non-debt capital liabilities (payables and retainage for acquisition, construction, and improvements of capital assets)
  - Refunding bonds
  - Intergovernmental (not intra-governmental) loans used for capital purposes

- Debt of blended component units, in cases where the proceeds of the debt were loaned or granted by the debtor component unit to the primary government for capital purposes (the interfund loan itself should be reported as an internal balance, which is non-capital)
- Lease liabilities (soon: subscription liabilities and public-private and public-public partnership liabilities)
- Obligations to service conduit debt (from a governmental obligor’s perspective)
- Unamortized original issue premiums on capital debt
- Unamortized original issue discounts on capital debt (contra-liability; omission would cause understatement)

- Including noncapital debt of the reporting unit—causes understatement
  - Unspent bond proceeds, even if restricted to use for capital purposes
  - Debt from which the proceeds were used to fund capital assets either
    • Belonging to external parties, or
    • Properly reported by another reporting unit within the reporting entity
  - Long-term liabilities unrelated to capital assets
    • Compensated absences
    • Claims and judgements
    • Pension/OPEB
  - Bond proceeds used for noncapital purposes, if significant (costs of issuance, items not capitalized based on capitalization policies, pollution remediation)
  - Interfund liabilities (including liabilities to or between blended component units), even if used for capital purposes
  - Accreted interest on deep-discount capital debt
  - Asset retirement obligations, landfill closure and postclosure care obligations, and pollution remediation obligations

- Excluding deferred resource flows associated with capital debt issuance—causes understatement if excluding deferred outflows of resources, or overstatement if excluding deferred inflows of resources
  - Unamortized deferred inflows/outflows of resources from refinancing (refundings, defeasances)

- Excluding capital-related deferred inflows of resources resulting from certain arrangements used to acquire capital assets—causes overstatement
  - Transferor’s unamortized deferred inflows of resources arising from a service concession arrangement (SCA) in which operator-acquired underlying PPP assets, operator-constructed underlying PPP assets, or operator-made improvements to a transferor’s underlying PPP assets, have been put into service
  - Issuer’s unamortized deferred inflows of resources arising from conduit-debt associated arrangements where the issuer retains title to the capital asset at the end of the arrangement and the third-party obligor has exclusive use of portions of the capital asset during the term of the arrangement

- Including noncapital deferred inflows of resources resulting from noncapital components of certain arrangements—causes understatement
  - Transferor’s unamortized deferred inflow of resources from upfront payments in leases (lessors) and PPPs (transferors), including SCAs, even if upfront payments were used for capital purposes
  - Transferor’s unamortized deferred inflows of resources arising from the transferor’s receivable for the underlying PPP assets not yet transferred to the transferor, in non-SCA PPPs
  - Sales of future revenues

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\(^1\) Capital purposes are limited to the construction, acquisition, or improvement of capital assets of the reporting unit (generally, a column in a financial statement), or liabilities that are incurred to refinance or restructure such liabilities.

\(^2\) This category of liabilities is often referred to as “capital debt,” although it includes non-debt liabilities incurred for capital purposes.