

Accrual Accounting: Concepts, Standards, and Implementation

James L. Chan

University of Illinois at Chicago

University of Cagliari

National School for
Public Administration
Republic of Italy

Roma/Bologna

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Introduction and Overview

Intended Audience

- Primarily Italian government accountants and auditors who draft, interpret or implement government accounting standards (laws, regulations, rules, norms)
- Secondly scholars and private-sector accountants and consultants who advise governments on accounting reforms

Anticipated Needs

- WHY is accrual accounting for government so much talked about?
- WHAT is accrual accounting?
- HOW to evaluate arguments for/against accrual accounting?
- HOW to implement accrual accounting?

Key Points: Sales Revenue Based on SEA and Tax Revenue on Claim

- Full accrual based on service effort and accomplishment (SEA) for recognizing sales revenue is commonly used for business in both private and public sectors.
- But SEA-based full accrual basis is not feasible for tax-financed government activities that distribute public goods for collective consumption.
- Accrual recognition of tax revenue is based on the concept of the government's unilateral claim against taxpayers.

Basis of Accounting and Measurement Focus

- Revenues and expenses reflect changes in assets and liabilities recorded in a double-entry system.
- Financial performance and financial position are necessarily related to each other.
- A wide range of assets and liabilities can be used to measure financial position.
- The basis of accounting of the statement of performance and measurement focus of the balance sheet have to be coordinated.

Accrual Requires Ability to Measure Assets and Liabilities

- IPSAS urges governments to use the accrual basis and to practice accrual accounting.
- IPSAS also urges governments to issue accrual-based financial statements.
- The implementation of IPSAS depends on a government's ability to recognize tax revenue on an accrual basis.
- The implementation of IPSAS also depends on a government's ability to establish the beginning/current balances of a wide range of assets and liabilities.

Symmetrical Gradual Accrual Based on Cost Benefit Comparison

- Countries have diverse responses to the call for accrual accounting and financial reporting.
- Accrual accounting and reporting has some real and achievable benefits, but some claimed benefits are exaggerated and illusory.
- Accrual accounting and financial reporting is also costly in financial, economic and political terms.
- A symmetrical approach of gradually raising the degree of accrual sets priority and guides the transition to accrual.

What Follows...

- A few simple examples to bring out the important principles of accrual
- Describe the full accrual basis used for business activities in both the private and public sectors
- Explain why service is replaced by claim as a basis for recognizing tax revenues of government
- Describe the transition from accrual basis to accrual accounting involving assets and liabilities
- Present accrual-based financial statements

What Follows ... (2)

- State the reasons why IPSAS recommends accrual-based financial statements
- Describe how countries have responded to IPSAS call to accrual differently
- Explain how American governments have implemented accruals and draw some lessons
- Recommend a symmetrical approach to gradually raise the degrees of accrual in accounting and financial reporting

Simple Examples; Important Principles

You are also living with accrual
accounting
(even if you do not know it!)

Example 1: Interest Accrues Daily

- On Day 1, you deposited Euro 1,000 in a savings account that promises to pay you interest at the rate of 6% per year, with interest accrues daily.
- On Day 2, you earned Euro $1,000 \times (6\%/365)$ in interest. At the end of Day 2
 - You had interest income and interest receivable
 - The bank had interest expense and interest payable

Example 2: Prepaid Bus Ticket

- On Day 1, you paid Euro 10 for a bus ticket that entitles you to 10 trips.
 - You had Euro 10 less in cash, but Euro 10 more in the right to ride buses
 - The bus company had Euro 10 more in cash, but had the obligation to give you 10 trips

Example 2: Prepaid Bus Ticket

- On Day 2, you took one bus trip.
 - You had transportation expense of Euro 1, that is, you used Euro 1 of your right to ride buses. You still had Euro 9 left
 - The bus provided Euro 1 in service to you, thus earning Euro 1 in sales revenue, and had Euro 1 less in the obligation to give bus rides

This is Accrual Accounting!

- Financial Accounting
 - Deciding what to count: recognition
 - Cash
 - Interest revenue, interest expense
 - Transportation revenue, transportation expense
 - Right to receive service (“prepaid expense”), obligation to provide service (“deferred revenue”)
 - Actually counting: measurement

Accrual Accounting Principles

- For the seller, no service, no revenue:
 - revenue is recognized to the extent of service provided
 - receiving cash from customer ahead of service gives rise to a liability (to provide service)
- What is being accounted for
 - Not only revenues and expenses
 - Also assets and liabilities

Accrual Basis:

Specifically Full Accrual Basis

- For the seller, no service, no revenue:
 - revenue is recognized to the extent of service provided
 - receiving cash from customer ahead of service gives rise to a liability (to provide service)
- Expense is the cost of generating revenue
 - Resources used: gasoline, the bus
 - Debt owed: interest payable
- $\text{Income} = \text{revenues} - \text{expenses}$

Accrual Basis vs. Cash Basis

- Cash basis is the opposite of accrual basis
- Under the cash basis, the bus company would recognize revenue when it received cash from the customer
- Is the accrual basis better than the cash basis?
 - If so, why?
 - If not, why?

From (Full) Accrual Basis to (Full) Accrual Accounting

- Accrual basis: a method of measuring financial performance in terms of revenues and expenses
- Accrual accounting:
 - Accrual basis for measuring financial performance, AND
 - related assets and liabilities for measuring financial position

Assets and Liabilities

- Assets
 - Cash
 - Right to receive service
- Liabilities
 - Obligation to pay (cash) or to provide service
- The origins of assets and liabilities:
 - Past transactions: cash deposit in bank acct.
 - Past events: interest accumulation

Where is Accrual Accounting Used?

- Business firms/enterprises, whose transactions are virtually all exchange transactions, except taxes.
- Business or business-like activities of government owned
 - Business enterprises
 - Nonprofit organizations

Full Accrual Basis of Accounting for Business

Revenue based on Service

Full Accrual Motivates Service Efforts and Accomplishment (SEA)

- Full accrual basis = service effort and accomplishment (SEA) based accrual: no sale, no revenue; no revenue, no income; no income, no bonus for managers
- The full accrual basis motivates business managers to “sell” products or services so that the “input-throughout-output” cycle can continue, and the business can “stay in business” as a “going concern”

Feasibility Requirements for the Full Accrual Basis

- The (exchange) transactions are voluntary and reciprocal.
- There are identifiable customers
- Customers pay individual prices
- Customers pay for exclusive (private) goods or services

Applicability in Public Sector

- It is feasible to apply the full accrual basis to the business activities of government.
- Therefore, full accrual accounting for government owned business enterprises.
- Controversy: wider application to the rest of government?

Government Should Be Business Like, Therefore Accrual?

- Business-like means emphasizing economy, efficiency, effectiveness.
- However, unless the four conditions are met, it is impossible to use SEA-based, full accrual.
- However, the “spirit” of accrual accounting can encourage government accounting reform.

The Spirit of Accrual Accounting

- The amount of cash received / disbursed is not a good way to measure *financial* performance.
- Financial accounting should also measure financial position in terms of:
 - Assets: cash and other financial resources (“receivable”), perhaps even economic resources (capital assets, e.g. buses)
 - Liabilities: both short-term debt, and long-term debt

Traditional Model of Government Accounting

- Purpose: to assist in the execution of the government budget
- Budget: projected revenues – appropriations
- Budget accounting:
 - Cash receipts, cash disbursements, cash position
 - Charges to appropriations: cash, expenditures, contractual commitments/obligations

Financial Accounting vs. Budgetary Accounting

Financial Accounting

- Purpose: accurate presentation of consequences of past transactions/events
- Assets
- Liabilities: for goods or services already received

Budgetary Accounting

- Purpose: financial control to prevent spending in excess of appropriations
- Cash
- Contractual commitments or obligations: for goods or services on order (to be received)

Relationship between Financial and Budgetary Accounting

- Both budgetary accounting and financial accounting are necessary; they serve different purposes
- The numbers have to be reconciled (differences to be explained) because
 - Financial accounting uses accrual basis
 - Budgetary accounting uses budgetary basis

Brief Summary and Next Steps

- Government's business enterprises / activities should use SEA-based full accrual basis of accounting
- Needed:
 - How to account for taxation and other non-exchange transactions
 - How to do accrual accounting for government: assets and liabilities

Accounting for Tax Revenues

Based on Claim

Sources of Complications

Sales Revenue

- Price = value of service to individual customers
- Accounting recognition based on SEA

Tax Revenue

- Amount of tax \neq value of service to individual taxpayers
- Accounting recognition *cannot* be based on SEA

If Not Based on SEA, Then What?

Cash Receipt?

- Recognition of tax revenue on the basis of cash received, i.e. cash basis
- Advantages:
 - Cash is a critical resource
 - Valuable information on liquidity – availability of cash to pay off liabilities when they come due
 - Objective information

Why Not Cash Basis for Recognizing Tax Revenue?

- The accounting system is already keeping track of cash position and cash flows.
- In some cases, government has a claim against taxpayers before cash is received.
- Information about taxes receivable is useful for projecting the amount, timing and uncertainty of cash inflows
- Issue: relevancy or objectivity?

Steps in Accrual Accounting for Taxes

1. Identify the taxable event or property and its financial consequences for government
2. Recognize the effects on the government's assets and liabilities, if any
3. Measure the amounts of assets and liabilities recognized, if any

Taxable Events or Property: Some Examples

- Property tax
 - Assessed value of taxable property
- Sales tax
 - Underlying sales transactions
- Income tax
 - Underlying income-producing activities

Taxes Are Receivable When the Government Can Assert a Claim

- Property tax
 - On the due date of the tax
- Sales tax
 - When the sales transaction happens
- Income tax
 - When the income-producing activity takes place

Amount of Tax and Receivable

- General formula: $\text{Tax} = (\text{tax rate}) \times (\text{tax base})$
- Both the tax rate and tax base can be adjusted for deductions and exemptions
- The gross amounts of taxes receivable and tax revenues are adjusted for estimated uncollectible amounts

Accounting Standards

- First principle: taxation does not give rise to government's liability to provide services to individual taxpayers
- Basic problem: A tax can be considered to be receivable at multiple “critical events” during the tax imposition and collection process.
- Accounting recognition decision balances objectivity and relevancy of information

Examples of Accounting Standards

- Standard No. 23 of IPSAS (International Public Sector Accounting Standards) Board – very general: taxable events
- Standard No. 33 of the Governmental Accounting Standards Board (GASB) in the United States – very specific for several categories of tax revenues

Obstacles to Accruing Tax Revenues and Taxes Receivable

- Weak or non-existence of system to administer and enforce tax laws
- Government's lack of timely information about taxable events / property
- Uncertainties about the final amounts of taxes because of adjustments
- The uncollectible amounts are difficult to determine

Why Is Accrual Accounting Difficult? Need for Analysis

- To accrue means to accumulate; accrual means accumulation
- Some financial or economic effects occur continuously (as in “interest accrues daily”), accrual accounting periodically recognizes them.
- Some financial or economic effects are not obvious (as in the teacher and parking examples), accrual accounting analyzes the economic substance of relationship among people or institutions.

Summary

- Under the accrual basis of accounting, in principle tax revenue is recognized when government can assert a claim against a taxpayer
- The enforceable legal claim is based on the occurrence of a taxable event or the existence of taxable property
- Implementation is greatly affected by the provisions and enforcement of tax laws

From Accrual Basis to Accrual Accounting

Relationship between
Financial Performance
and Financial Position

Example 1: Interest Accrues Daily, But Accounting Monthly

- On Day 1, you deposited Euro 1,000 in a savings account that promises to pay you interest at the rate of 6% per year, with interest accrues daily.
- By the end of first month:
 - You had accumulated interest income and interest receivable of $\text{Euro } 1,000 \times 6\% \times 1/12 = \text{Euro } 5$
 - The bank had accumulated interest expense and interest payable of also Euro 5
- You did not record anything.

Example 2: Prepaid Bus Ticket

- On Day 1, you paid Euro 10 for a bus ticket that entitles you to 10 trips.
 - You had Euro 10 less in cash, but Euro 10 more in the right to ride buses
 - The bus company had Euro 10 more in cash, but had the obligation to give you 10 trips.

Example 2: Prepaid Bus Ticket

- On Day 2, you took one bus trip.
 - You had transportation expense of Euro 1, that is, you used Euro 1 of your right to ride buses. You still had Euro 9 left
 - The bus provided Euro 1 in service to you, thus earning Euro 1 in sales revenue, and had Euro 1 less in the obligation to give bus rides
- You did not record anything

Why No Accounting?

- Possible reasons for no accounting:
 - No time, i.e. opportunity cost too high
 - No need, no benefits, no use for information
 - Don't know how to do it: too hard to learn
 - So simple, I can remember everything!
- Why accounting – keeping financial records
 - Preserving memory
 - Keeping track of changing financial position

Formal Accounting System: Double-entry Bookkeeping

- “Accounting equation”

Assets = Liabilities + Net Assets

Assets – Liabilities = NA

- $A = L + NA$
- $A - L = NA$

Example 1

YOU		YOUR BANK	
$A - L = NA$		$A - L = NA$	
Interest Receivable	+5	Interest Payable	-(+5)
Interest Income	+5	Interest Expense	-5

Example 2

	YOU		BUS COMPANY	
	A - L = NA		A - L = NA	
Day 1			Day 1	
Cash	-10		Cash	+10
Tickets	+10		Service owed	-(+10)
Day 2			Day 2	
Tickets Expense	-1	-1	Service owed	-(-1)
			Revenue	+1

Example 3

- Mr. Cicero, a senior Italian government official whose salary in 2008 is Euro 100,000, is entitled to 10% of his salary as retirement pension.
- He and the government did not do any accounting about it for the first six months of 2008.
- What should they have done?

Example 3 (in 1,000 euros)

Mr. Cicero		Government	
A - L = NA		A - L = NA	
Pension		Pension	
Receivable	+5	Payable	-(+5)
Pension		Pension	
Income	+5	Expense	-5

Financial Accounting: 3+1 Steps

- Step 1: Identification of the effects of transactions and events on an entity's resources and obligations.
- Step 2: Recognition of some resources as assets and some obligation as liabilities.
- Step 3: Measure assets and liabilities and changes thereof.
- Step 4: Report financial position and performance

Transactions and Events As the Origins of Financial Data

- Transactions involve the exchange of economic benefits between two parties.
 - Market transactions: reciprocal and voluntary
 - Governmental transactions: non-reciprocal and involuntary at the individual level
- Events are happenings of significance that may evolve into transactions.
 - Events for which the govt. is responsible
 - Events for which the govt. agrees to be responsible.

The Balance Sheet Emphasis

- Budgeting and budgetary accounting emphasize revenues (receipts) and expenditures (outlays) during a period.
- The emphasis of financial accounting is reflected in the accounting equation: assets = liabilities + net assets, or $A = L + NA$, at the end of a period (e.g. a fiscal year).
- Therefore:
 - Revenues are +NA (or +A or -L)
 - Expenses are -NA (or -A or +L)

Relationship between Financial Position & Performance

- At the beginning of a period:

$$\text{Net Assets} = \text{Assets} - \text{Liabilities}$$

- During the period

Revenues: +A -L

Expenses: - A +L

- At the end of the period: new balances

$$\text{Net Assets} = \text{Assets} - \text{Liabilities}$$

Relationship Between BA and MF

- Basis of accounting (BA) is the method of measuring financial performance during a period: revenue, expenses, income.
- Measurement focus (MF) is the method for measuring financial position at the end of a period: assets, liabilities, and net assets

No Double-entry Bookkeeping, No Accrual Accounting

$$\text{Net Assets} = \text{Assets} - \text{Liabilities}$$

- Revenue generation transactions

$$+ \text{NA} = +\text{A}$$

$$+ \text{NA} = -(-\text{L})$$

- Expense incurring transactions

$$- \text{NA} = -\text{A}$$

$$- \text{NA} = -(+\text{L})$$

Recording the Government's Tax Receivable and Revenue

- Accounting entity: the government

$$A - L = NA$$

- Taxes Receivable

+

Tax Revenue

+

- + in Taxes receivable means the government has asserted a claim on taxpayers
- Tax revenue means the government has more NA

Summary

- Accrual accounting uses the accrual basis of accounting for measuring financial performance: revenues and expenses.
- Since revenues and expenses are increases and decreases in net assets, respectively
- Accrual accounting also measure assets and liabilities as indicators of financial position

**From Accrual Accounting
to Accrual-based
Financial Reporting**

Statements of Financial Performance
And Financial Position

Operational Definitions of Key Financial Accounting Elements

Financial Position

- Assets
- Liabilities
- Net Assets

Results of Periodic Operations

- Revenues
- Expenditures/expenses

A New Perspective: Focus on Rights and Obligations

- Conventional view focuses on revenues and expenditures or expenses.
- Question: What rights and obligations lie behind these constructs?
- Assets are property rights (claims against others) and useful resources; liabilities are obligations (others' claims) and responsibilities.
- Revenue: Increase assets or decrease in liabilities.
- Expenditure or expense: Decrease in assets or increase in liabilities.

Financial Position in Terms of Assets and Liabilities, But

Are these Assets?

- Cash
- Current financial resources
- Long-term financial resources
- Capital assets
- Anticipated future revenue streams

Are these Liabilities?

- Current obligations
- Long-term obligations
- Contingent obligations
- Promise of service implicit in taxation
- Legislated social benefits (entitlements)

Assets and Liabilities

Resources

- Ownership or control
- Consequences of past transactions or events
- Service potentials

Obligations

- Incurred / unavoidable
- Consequences of past transactions or events
- Will require cash payment or service

Accrual Based Financial Statements

- A statement of financial performance: revenues and expenses
- A statement of financial position (or balance sheet): assets and liabilities
- A statement of cash flows

Financial Statements of the U.S. Government

- Accrual-based financial statements
 - Statement of Financial Position: $\text{assets} - \text{liabilities} = \text{net assets}$
 - Statement of Financial Performance:
(Expenses – service revenues) – tax revenues
- Statement of cash balance, receipts and outlays
- Reconciliation of cash deficit and accrual deficit

Accounting Recognition Decisions

→ Data in Balance Sheet

- Assets are economical resources owned or controlled, acquired in the past
- Liabilities are obligations to pay cash or provide service because of benefits received in the past
- Resources and obligations failing to meet these recognition criteria are left out of the balance sheet
- The amount of net asset is derived from the amounts of assets and liabilities

Financial Position in Billions of \$

As of Sept. 30, 2007

<u>Assets</u>		<u>Liabilities</u>	
Financial assets	548	Bonds, notes &	
Non-financial		interest payable	5,078
economic resources	968	Pension &	
Others	<u>65</u>	benefits payable	4,769
Total assets	1,571	Other liabilities	<u>940</u>
		Total liabilities	10,787
		<u>Net position</u>	(9,206)

Accounting Recognition → Data in Financial Performance Statement

- Expenses are incurred for assets (including capital assets) used and liabilities incurred
- Revenues include sales revenues earned, and tax revenues
 - In principle, claimed
 - In practice, mostly cash received

Financial Performance (Accrual) in Billions for Fiscal Year 2007

Financial Performance (Cash) in Billions for Fiscal Year 2007

Cash and Accrual Reconciliation

- Begin with cash deficit -163
- Add non-cash expenses
 - Increase in liability for retirement benefits -127
 - Depreciation expense - 45
- Deduct cash outlays for future benefits
 - Capital outlays or expenditures +59
- Other items offset each other +0
- End with accrual deficit -276

Off-Balance Sheet Assets

- Stewardship assets
 - Land
 - Property, plant and equipment
 - Heritage assets
 - Natural resources
 - Cultural heritage assets
 - Collection items

Off-Balance Sheet Responsibilities (Liabilities?)

- Definitely liabilities
 - Contingent liabilities
- Contractual obligations/commitments – not liabilities!
- Social insurance (mostly Social Security, Medicare): present value of (future expenditures – future revenues) = \$41,000,000,000,000 (\$41 trillion)

Revealed, Concealed (?)

- Consolidated financial statements show the U.S. Government taken as a whole
- Effects of intra-governmental borrowings and transfers are eliminated, but appear in “supplemental disclosure”
- The “General Fund” borrowed \$180 billion from other funds and gave them interest credit of \$124 billion in Fiscal Year 2007

Conclusion

- The reported numbers are the combined effects of
 - Fiscal policy
 - Nature of resources, responsibilities
 - Accounting policy – accrual
- Information for evaluating
 - Liquidity
 - Financial solvency
 - Economic solvency
 - Economic viability

**Call to Accrual:
Center Piece of Government
Accounting Reform**

Basis of the Appeal from
the IPSAS Board

IPSAS

- IPSAS = International Public Sector Accounting Standards
- The IPSAS has used “accrual basis”, “accrual accounting” and “accrual-based financial reporting” interchangeably
- A study sponsored by the IPSAS Board has alleged many benefits

Accountability and Decision Usefulness

- Accrual-based financial reports present information useful for accountability and decision-making, so that users can
 - “assess the accountability for all resources the entity controls and the deployment of those resources;
 - Assess the performance, financial position and cash flows of the entity; and
 - Make decisions about providing resources to, or doing business with the entity.” (PSC Study No. 14, p. 7)

Informative Financial Reports

- Governments can use accrual-based financial reports to
 - Show how it financed its activities and met its cash requirements;
 - Show its financial position and changes in financial position;
 - Demonstrate its successful management of resources (Study No. 14, p. 7)

Performance

- Accrual-based financial reports can help users to evaluate a government's
 - Performance “in terms of its service costs, efficiency and accomplishments”
 - “Ongoing ability to finance its activities and to meet its liabilities and commitments” (Study No .14, p. 7)

Planning, Decision-making and Management

- Accrual-based financial reporting provides asset and liability information so that a government can
 - Decide the feasibility of financing services
 - Demonstrate accountability for managing assets and liabilities
 - Plan future funding requirements for asset maintenance and replacements;
 - Plan for the liquidation of liabilities; and
 - Manage cash position and financing requirements (p. 8)

Use of Asset Information

- Asset records can help management
 - Better maintain or replace assets
 - Identify and dispose surplus assets
 - Manage risk, e.g. loss due to theft or damage
 - Understand the impact of using fixed assets in service delivery
 - Consider alternative ways of managing costs and delivering services (Study No. 14, p.8)

Use of Liability Information

- Liability information compels a government to
 - Acknowledge liabilities and plan for their liquidation
 - Assess the impact of liabilities on future resources
 - Assign responsibilities for managing liabilities
 - Assess the ability to provide current and new services

Use of Net Asset Information

- A positive net asset figure shows net resources available to provide future services.
- A negative net asset figure implies future taxation and revenues needed to liability liquidation.

Financial Performance Information

- Accrual information on revenue is good for assessing the impact of taxation and other revenues on financial position, and need for borrowing
- Accrual information on revenues and expenses helps users determine whether current revenues are sufficient to cover current cost of service

Expense Information

- Expense information can help a government
 - Assess its revenue requirements and sustainability of existing programs
 - Assess future costs of proposed programs
 - Produce full cost information to (1) project cost consequences of alternatives, (2) make or buy services, (3) set fees to cover costs, and (4) better manage particular costs.

Managing and Evaluating Parts of Governments

- Having accrual-based financial information can help
 - a government determine whether sub-entities are delivering specified services within budgets
 - Sub-entities better manage activities and costs

Information for the Whole Government

- Become aware of the total costs of specific activities, including depreciation and amortization
- Become aware of all employee-related costs so that compensation options can be compared
- Assess most of efficient way of producing services and managing resources
- Formulate cost-recovery policies
- Monitor actual costs against budgeted costs

Reponses to the Call to Accrual

Why Some Countries Do
and Others Don't

ABC Countries

- Advanced British Commonwealth (ABC) countries include: Australia, Canada, New Zealand, and United Kingdom
- Strong advocates of basing government accounting standards on business accounting principles
- All have, at least in principle, been practicing accrual accounting, and some even using accrual concepts in budgeting.

European Countries

- “Euro-CIGAR” (2003) provides the most recent information in English about the adoption of accrual accounting by the European Commission and nine countries:
 - Switzerland (CH), Germany (D), Spain (E), France (F), Finland (FIN), Italy (I), Netherlands (NL), Sweden (S) and United Kingdom (UK)

Major Findings of the Euro-CIGAR Study

- Accrual accounting is viewed as the extent to which all assets and liabilities are accounted for and reported.
- All the countries in the study are moving in the direction toward a greater extent of accrual.
- It is necessary to separately analyze the national and local governments in the same country.
- The European countries in the study (1) showed uneven progress toward accrual, and (2) interpreted accrual differently.

Developing Countries

- Developing countries were/are the intended adopters of IPSAS.
- Developing countries are the implicit audience of the Cash-based IPSAS
- Likely result: a very long transition with uncertain prospect of eventual implementation of accruals

The U.S. as a Useful Case Study

- Cautious reformers: not a radical and not a conservative either
- Many possible lessons from one hundreds of deliberations and experimentation
- Extensive debates expose the flaws in arguments for/against accrual
- Experimentations reveal the costs and benefits

The Long Road to Accrual in the United States

The Federal Government
State and Local Governments

Standards + Enforcement → Practice

- Federal Government
 - Federal Accounting Standards Advisory Board (FASAB) sets standards for executive branch
 - Enforced by auditing and administrative rules
- State and local governments
 - Governmental Accounting Standards Board (GASB) sets standards for 50 states and 87,000 local governments
 - Enforced by private-sector auditors

Federal Government's Significant Milestones

- 1950s: Hoover Commission on administrative reform in favor of accurate cost accounting, but little action.
- Late 1960s: Presidential Commission on Budget Concepts in favor of recognizing accrued expenditures – found to be not practical.
- 1970s: Arthur Andersen & Co. recommended (strong) accrual accounting, and Treasury began preparing prototype Consolidated Financial Statements for the next 20 years.

Federal Government Milestones (2)

- 1980s: Comptroller General in favor of accrual accounting and conducted study with Canada.
- Late 1980s: Congressional objection to business accounting model to Federal Govt.
- 1990:
 - Credit Reform Act: requires budgetary resources to cover the cost of Federal subsidies to borrowers.
 - Chief Financial Officers Act requires audited agency financial statements.
 - FASAB established.

FASAB (1)

- General direction: consistently moved toward a higher degree of accrual
- Initial standards on financial assets and short-term liabilities.
- Next step: non-financial economic resources used in operations
 - Inventories
 - Fixed assets: buildings, equipment

FASAB (2)

- Greater difficulties in dealing with unique assets, such as weapon systems
- Plagued by internal control problems
- Stopped short of accounting recognition of natural resources and heritage assets: reporting off the balance sheet as “stewardship assets”

FASAB (3)

- Recognition of short-term and long-term liabilities, regardless of budgetary funding status.
- Difficulties in dealing with unique assets, such as contingent liabilities for loan guarantees and for insurance programs.
- Stopped short of accounting recognition of “liabilities” for social insurance and social welfare “entitlement” programs: reported off balance sheet as “stewardship responsibilities”

Selective Federal Accrual Budgeting

- Amortization of employee pension liabilities.
- Current funding for new pension liabilities.
- Budgetary resources to cover the costs of interest and default subsidies on loans, and loan guarantees.

State and Local Government: New Practice of an Old Idea

- The idea that governments should use a balance sheet (statement of financial position) to show its ability to survive as a going concern was suggested 100 years ago.
- For 70 years until 1980, accrual was neglected due to the emphasis of accounting as a tool for budget execution.
- GASB (established in 1984) began to stress “inter-period equity” and began to raise the degrees of accrual

Modified Accrual Basis for Governmental Funds

- The accrual basis is modified “to reflect the current financial resource flows measurement focus.... Expenditures are recognized in the period in which they are expected to require to use current financial resources, revenue is not recognized until it is available to pay current obligations, and certain long-term liabilities are not recognized until due and payable” (p.61 of IFAC,

Limited Attempt toward a Higher Degree of Accrual

- Statement No. 11 (1990)
 - Objective: to promote interperiod equity by asking “Are current-year revenues sufficient to pay for current-year services?”
 - Expenditures to include operating debts – liabilities for services received by government.
 - Tax revenues to be recognized on occurrence of underlying taxable events and government’s demand for payment.

Claim-based Tax Revenue Recognition

- Statement No. 11 – continued
 - Non-tax non-exchange revenues to be recognized on the basis of the government's (legally) enforceable claims
 - Demise of Statement No. 11
 - Unfavorable impact on fund balance
 - Potential for abuse in revenue recognition
- Claim-based tax revenue recognition resurrected by Statement No. 33 (1999)

Complete Overhaul of Financial Reporting Model: Statement 34

- Financial statements for funds financing by taxes and conduct governmental activities use modified accrual.
- Financial statements for the whole government
 - Net Assets: fixed assets and long-term liabilities
 - Financial Performance: expenses, tax revenues based on claims

Current Issue: Employee Pensions and OPEB

- Many government offer defined-benefit pensions and other post-employment benefits (OPEB) to employees – therefore accumulate liabilities.
- Many governments
 - Fail to pre-fund pension and OPEB
 - Under-fund pension and OPEB
 - Provide benefits without calculating the costs
 - Use current revenues to pay for benefits due

Pension and OPEB Standards

- GASB has issued standards calling for the measurement and reporting of
 - Long-term pension and OPEB liabilities measured with prescribed methods
 - Funding status of pension and OPEB plans = (estimated present value of future pension and OPEB benefits) – (available assets)

Government Responses to GASB Standards

- GASB standards have indirect influence on fiscal practices, including budgeting
- Governments have responded to GASB standards by
 - Hiring actuaries to calculate the government's costs of benefits
 - Re-examine and changing benefits
 - Opposing GASB standards

Lessons from the American Experience

Lessons from the American Experience

- Long process full of controversies about “rights” and “obligations”
- Accrual accounting requires many judgments and estimates
- Uncertain benefits, but certain costs – net cost or net benefits?
- Accrual information has impact on government fiscal practice and budget behavior of officials

Lessons for Other Standard-setting Bodies

- It is necessary, but not sufficient, to address accrual accounting as a specific technical issue of financial measurement.
- Transitioning” to accrual accounting may require a virtually complete overhaul of (1) accounting systems, and (2) financial reporting model.

Lessons for Advocates of Accrual Accounting Reforms

- Be prepared to respond to request from public managers, executives and politicians for information regarding
 - The scope of accrual accounting project
 - Projected benefits
 - Likely costs

Public Managers Should Ask:

- What do you mean by accrual accounting?
 - Accrual basis of accounting
 - Accrual measurement
 - Accrual-based financial statements
- What are the projected benefits?
- What are the likely cost?

An Assessments of the Claimed Benefits of Accrual

- Some benefits are direct outputs
- Some benefits are possible and likely outcome.
- Some benefits are possible but unlikely outcomes
- Some benefits are impossible to achieve

Direct Outputs

- Information about how a government financed its activities and met cash requirements
- Information on financial position and changes therein
- Information about ability to meet liabilities and obligations
- Manage cash position and financing requirement
- Positive net assets as available for future use, and negative net assets implies need for future revenue and resources to liquidate liabilities
- Aware of total costs of specific activities, employee-related costs

Possible and Likely Outcome

- Demonstrate accountability for assets and liabilities
- Better maintain or replace assets
- Identify and dispose surplus assets
- Manage risks
- Understand the impact of using fixed assets in service delivery
- Plan for the liquidation of liabilities
- Demonstration of successful (unsuccessful too?) management of resources
- Help users evaluate government' service costs

Possible and Likely Outcomes

- Assess the impact of liabilities on future resources
- Assign responsibility for managing liabilities
- Information for assessing impact of taxation
- Assessing sufficiency of current revenue to cover current service costs

Possible and Likely Outcomes

- Assess revenue requirements and sustainability of programs
- Set fees to cover costs
- Formulate cost-recovery policies
- Managing actual costs against budgeted costs

Possible but Unlikely Outcomes

- To help govt. decide feasibility of financing options
- To help govt. plan future funding requirement for asset maintenance and replacement
- Consider alternative ways of managing costs and delivering services
- Help make or buy decisions

Impossible Outcomes

- Information to help user evaluate the government's efficiency and accomplishments
- Determine government units are delivering services within budget
- Assess the most efficient way of producing services and managing resources

Direct Costs of Accrual Accounting

- Cost to Government
 - Expanding capability of accounting system
 - People
 - Software
 - Hardware
 - Producing and disseminating information
- Cost of interpreting, evaluating and using information

Indirect Cost of Accrual Accounting

- Likely accrual information
 - Larger reported amounts of liabilities, e.g. for employee pensions and OPEB, contingent liabilities for insurance and loan guarantees
 - Larger reported amounts of expenses, leading to larger accrual deficits

Possible Actions Triggered by Accrual Information

- Actions to reduce employee pension benefits and OPEB
- Attempts to raise taxes to
 - Pay for current expenditures for benefits earned in the past
 - Reduce unfunded liabilities, and
 - Pre-fund benefits of current employees

Political Costs to Government Officials

- Political costs of accrual information
 - Accrual deficit likely to be greater than cash deficit
 - Reduced credibility of public officials due to accusations of misleading information
 - Greater pressure from employees for more funding and pressure from taxpayers for less taxes

Summary: An Balancing Act

	Political	Financial
Benefits	Greater transparency; early warning	More assets More revenues
Costs	Worse financial position; Worse deficits	More liabilities More expenses

Summary

- Most benefits are intangible and indirect, and enjoyed by “stakeholders” such as employees and taxpayers.
- Many costs are direct and require money sooner or later.
- Accrual information can give rise to conflicts between (1) taxpayers and employees, and (2) taxpayers of different generations.

What To Do?

To accrue, or not to accrue?

That is not the question.

Some Economic and Political “Realities”

- Governments make decisions and take actions with financial consequences beyond the current period.
- Governments receive and extend credit.
- Governments have non-cash resources.
- There is a disconnect between taxes and government services in the short-term at the individual level.
- Politicians have the incentive to defer or obscure costs.

Accounting Reaction: Accruals

- Doing nothing ignores the realities.
- Acknowledge more resources as assets.
- Acknowledge more obligations as liabilities.
- Attempt to measure performance besides resources.
- Push for more disclosures.

How to Accrue?

- Gradual
 - Current financial resources and obligations: Yes
 - Long-term financial resources and obligations? Yes
 - Capital assets & depreciation? Maybe. Benefits > costs?
- Symmetrical
 - Recognize assets and liabilities at the same time.
 - Accruals can be manipulated to make the government look better or worse.

Answer: It Depends... on the Degree of Accrual

- That is, what assets *and* liabilities to recognize, measure and report in the balance sheet.
- Theoretically, five degrees of accrual:
 1. Mild accrual
 2. Moderate accrual
 3. Strong accrual
 4. Super-strong accrual
 5. Radical accrual

Default: No accrual

- Cash
 - Level of cash at the end of day, month, quarter, year.
 - Cash receipt – cash disbursement during a period.

1st Degree: Mild Accrual

- ***Current financial resources***

- Taxes receivable
- Accounts receivable
- Grants receivable
- ...

In general, government claims against others, convertible to cash within one year, net of allowance for uncollectible amounts.

- ***Current liabilities***

- Benefits payable
- Accounts payable
- Grants payable
- ...

In general, others' claims against government, requiring cash payments due within one year.

2nd Degree: Moderate Accrual

- Current financial resources
- *Non-current financial resources* - Claims against others but not convertible to cash within 1 year.
- Current liabilities
- *2a. Long-term liabilities* - Others' claims against government but not due within 1 year.
- **2b. Contingent liabilities** – probable long-term claims

3rd Degree: Strong Accrual

- Current financial resources
- Non-current financial resources
- *Capital assets, net of depreciation*
 - **3a. Operating assets**
 - **3b. Special govt. assets**
 - **3c. Infrastructure**
 - **3d. Heritage assets**
- Current liabilities
- Long-term liabilities
- Contingent liabilities

4th Degree: Super-strong Accrual

- Current financial resources
- Non-current financial resources
- Capital assets
- Current liabilities
- Long-term liabilities
- Contingent liabilities
- *Tax collections regarded as liability; no revenue recognized until services are rendered*

5th Degree: Radical Accrual

- Current financial resources
- Non-current financial resources
- Capital assets
- *Anticipated future revenue streams*
- Current liabilities
- Long-term liabilities
- Contingent liabilities
- Unearned revenue
- *Legislative social benefits (entitlements)*

Problems of Higher Accruals

- The higher the degree of accrual:
 - The more dubious the recognition of assets and liabilities;
 - The more estimates and judgments required;
 - The less reliable and less possible the monetary measures;
 - The less meaningful the disclosure.

Recognition Problems

- Stretching the definition of assets to the limit
 - Future revenue streams – the power to tax
- Stretching the definition of liabilities to the limit
 - Legislative social benefits (“entitlements”)

Measurement Problems

- Receivables: estimating uncollectible amounts.
- Contending multiple valuation bases for fixed assets:
 - Historical cost: non-existent or not meaningful.
 - Price-level adjustment.
 - Replacement cost or market value.
- Dubious meaningfulness of monetary measures
- Contingent liabilities: estimating uncertain cost of guarantees and insurance.
- Measuring delivery of *public* goods

How Far to Accrue?

- “To accrue, or not to accrue?” – That’s not the question.
- “How far to accrue?” is the real issue.
- Accrue as far as benefits $>$ costs.
- Maximize useful information subject to constraints.

At Most, Strong Degree of Accrual

- Super-strong accrual defies accounting recognition and is not feasible.
- Radical accrual defies the realization principles of financial accounting.
- In practice, only mild, moderate and strong degrees.

Even Moderate Accrual Accounting Can Produce Useful Information

- For predicting the amount and timing of future cash requirements.
- For predicting the amount and timing of future cash availability.
- For short, medium and long-term financial planning.
- For improving the accuracy of revenue & expenditure forecasts in cash budgets.

FURTHER REFERENCE

- James L. Chan, “The Bases of Accounting for Budgeting and Financial Reporting,” in *Handbook of Government Budgeting*, edited by Roy T. Meyers (Jossey-Bass, 1998), pp. 357-380.
- GASB, Concept Statement No. 1, Statement Nos. 11 and 34
- FASAB, Concepts Statement No. 2 and various standards on recognition and measurement.

- IFAC Information Paper “The Road to Accrual Accounting in the United States of America” (March 2006).
- IFAC Study 14 Transition to the Accrual Basis of Accounting: Guidance for Governments and Government Entities (2nd ed. 2003)

www.JamesLChan.com

My own teaching and research;
Links to U.S. and international
resources