IN BRIEF

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Capital Cost Allowance

WHAT IS A CAPITAL COST ALLOWANCE?

The cost of depreciable assets, such as buildings, furniture and equipment, acquired for use in business or professional activities cannot be deducted as an up-front expense when calculating net income for tax purposes. In recognition, however, of the fact that these assets wear out or become obsolete over time and are replaced, the federal government created the capital cost allowance (CCA). The CCA is a non-refundable tax deduction that reduces taxes owed by permitting the cost of business-related assets to be deducted from income over a prescribed number of years.

CAPITAL COST ALLOWANCE RATES

Canadian legislation sets out more than 40 classes of assets and their associated CCA rates, which are expressed in percentage terms. In 1987, the federal government reduced many CCA rates to reflect more accurately what it believed were the useful economic lives of certain assets. Since then, the federal government has indicated that it will follow a policy of setting and revising CCA rates to reflect the economic life of assets as closely as possible. Appendix A provides a list of commonly used asset classes and their CCA rates as of 2005, while Appendix B provides an overview of changes to CCA rates in federal budgets between 2000 and 2006.

> While the CCA is prescribed under the *Income Tax Act*, the depreciation reported in a business's financial statements ("book depreciation") is chosen from several options available under Generally Accepted Accounting Principles.

On occasion, a CCA rate is "accelerated" or clearly set above what would be required to reflect the economic useful life of the asset. By permitting an asset to be depreciated more quickly, an accelerated CCA rate can be used to increase the incentive for investing in the asset. Accelerated CCA rates are available for items such as renewable energy and energy efficiency equipment, vessels, mining assets, and capital equipment used for scientific research and experimental development. The 2005 federal budget established that, in the future, new accelerated CCA rates will be considered only for investments in green technology.

> **Economic life** is typically defined as that period of time during which an asset is able to earn a competitive or "normal" rate of return. Factors such as technological change as well as the competitive and institutional environment affect the economic life of an asset.

Differences in the classification of assets and the method of calculating the CCA (or its equivalent) make it difficult to compare meaningfully the generosity of CCA systems across countries.

HOW IS THE CAPITAL COST ALLOWANCE DEDUCTION CALCULATED?

Since the coming into force of the *Income Tax Act* in 1949, Canada has used the declining balance method for calculating the CCA deduction for most asset classes.(1) This method involves applying the appropriate CCA rate to the undepreciated capital cost of an asset, or group of assets from the same class, at the end of each year.

The CCA rate is the maximum rate that can be applied to assets in that class in each year; only one-half of the normal CCA rate can generally be claimed in the year that an asset is acquired and first used, and a taxpayer may elect to claim a smaller deduction in any year if it is advantageous.(2)

The undepreciated capital cost of an asset class is equal to the full cost of any new assets plus the undepreciated balance from existing assets in the same class. Disposal of an asset reduces the undepreciated balance by the value of the proceeds of disposition up to the original capital cost of the asset. Proceeds received in excess of the asset's original capital cost are treated as a taxable capital gain. If there is a positive undepreciated capital cost when all assets in an asset class are sold, this value is considered a "terminal loss" and may be deducted from income. A terminal loss occurs when the CCA rate underestimated the true economic depreciation of the asset's value.[3] Conversely, if the sale or salvage value of the asset exceeds the undepreciated capital cost of the class of assets, there is a "recapture" of depreciation that is subject to tax. A recapture, therefore, occurs when the CCA rate overestimated the true economic depreciation of the asset's value.

> The **undepreciated balance** is the cost of the asset(s) minus the total CCA deductions claimed on the asset(s) in previous years.

Table 1 shows the CCA calculation for a hypothetical asset purchased in year 1 for $10,000 and subject to a CCA rate of 12% using the declining balance method. The asset is assumed to be the only one in its class.

Table 1
Capital Cost Allowance: Sample Calculation Using the Declining Balance Method

Year	Undepreciated Capital Cost	Capital Cost Allowance (CCA)
1	$10,000	$600*
2	$9,400	$1,128
3	$8,272	$993
4	$7,279	$874
5	$6,406	$769
6	$5,637	$676
7	$4,961	$595
8	$4,365	$524
9	$3,842	$461
10	$3,381	$406

* One-half (6%) of the normal CCA rate (12%) is permitted in the first year.

Source: Calculations by the Library of Parliament.

The declining balance method produces relatively larger CCA deductions during the earlier years of an asset's life, decreasing deductions over time, and an asset balance that never reaches zero.

Some asset classes are not subject to the declining balance method; the CCA is instead calculated using the straight-line method or a rate determined by the consumption of the asset. Unlike the declining balance method, the straight-line method is calculated on an asset-by-asset basis and generates equal CCA deductions each year until the undepreciated balance reaches zero. Table 2 shows the CCA calculation for the same asset as in Table 1, instead using the straight-line method and assuming a useful life of 10 years.

Table 2
Capital Cost Allowance: Sample Calculation Using the Straight-Line Method

Year	Undepreciated Capital Cost	Capital Cost Allowance (CCA)
1	$10,000	$1,000*
2	$9,000	$1,000
3	$8,000	$1,000
4	$7,000	$1,000
5	$6,000	$1,000
6	$5,000	$1,000
7	$4,000	$1,000
8	$3,000	$1,000
9	$2,000	$1,000
10	$1,000	$1,000

* The half-year rule generally does not apply to asset classes that use the straight-line method to calculate the CCA; however, other rules may apply to specific asset classes.

Source: Calculations by the Library of Parliament.

SELECTED REFERENCES AND LINKS

- Canada Revenue Agency, http://www.cra-arc.gc.ca/.
- Rose Filice, ed., *Capital Cost Allowance in Canada*, 2nd ed., CCH Canadian Limited, Toronto, 2005.

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(1) Other possible methods for calculating CCA deductions are the straight-line method (discussed later in this paper) or a rate determined by the consumption of the asset.

(2) In most instances, the half-year rule applies to net additions; that is, assets disposed of during the year are subtracted from the year's additions, and one-half of this net amount is subtracted from the undepreciated capital cost balance at the end of the year before calculating the year's CCA. In any year, a taxpayer may elect to not claim the full CCA deduction available in order to create sufficient income to use a loss carryover or to claim an investment tax credit, for example.

(3) It can also occur if the taxpayer deducts less than the full CCA allowed.

APPENDIX A

COMMON CAPITAL COST ALLOWANCE CLASSES

Class number	Description	CCA rate
1	Most buildings made of brick, stone, or cement acquired after 1987, including their component parts such as electric wiring, lighting fixtures, plumbing, heating and cooling equipment, elevators, and escalators	4%
3	Most buildings made of brick, stone, or cement acquired before 1988, including their component parts as listed in class 1 above	5%
6	Buildings made of frame, log, stucco on frame, galvanized iron, or corrugated metal that are used in the business of farming or fishing, or that have no footings below-ground; fences and most greenhouses	10%
7	Canoes, boats, and most other vessels, including their furniture, fittings, or equipment	15%
8	Property that is not included in any other class such as furniture, calculators and cash registers (that do not record multiple sales taxes), photocopy and fax machines, printers, display fixtures, refrigeration equipment, machinery, tools costing $200 or more, and outdoor advertising billboards and greenhouses with rigid frames and plastic covers	20%
9	Aircraft, including furniture, fittings, or equipment attached, and their spare parts	25%
10	Automobiles (except taxis and others used for lease or rent), vans, wagons, trucks, buses, tractors, trailers, drive-in theatres, general-purpose electronic data-processing equipment (e.g., personal computers) and systems software, and timber-cutting and removing equipment	30%
10.1	Passenger vehicles costing more than $30,000 if acquired after 2000	30%
12	Chinaware, cutlery, linen, uniforms, dies, jigs, moulds or lasts, computer software (except systems software), cutting or shaping parts of a machine, certain property used for earning rental income such as apparel or costumes, and videotape cassettes; certain property costing less than $200 such as kitchen utensils, tools, and medical or dental equipment	100%
13	Property that is leasehold interest (the maximum CCA rate depends on the type of leasehold and the terms of the lease)	N/A
14	Patents, franchises, concessions, and licences for a limited period – the CCA is limited to whichever is less: ■ the capital cost of the property spread out over the life of the property; or ■ the undepreciated capital cost of the property at the end of the taxation year. Class 14 also includes patents, and licences to use patents for a limited period, that you elect not to include in class 44.	N/A
16	Automobiles for lease or rent, taxicabs, and coin-operated video games or pinball machines; certain tractors and large trucks acquired after December 6, 1991, that are used to haul freight and that weigh more than 11,788 kilograms	40%
17	Roads, sidewalks, parking-lot or storage areas, telephone, telegraph, or non-electronic data communication switching equipment	8%
38	Most power-operated movable equipment acquired after 1987 used for moving, excavating, placing, or compacting earth, rock, concrete, or asphalt	30%
39	Machinery and equipment acquired after 1987 that is used in Canada primarily to manufacture and process goods for sale or lease	25%
43	Manufacturing and processing machinery and equipment acquired after February 25, 1992, described in class 39 above	30%
44	Patents and licences to use patents for a limited or unlimited period that the corporation acquired after April 26, 1993 - However, you can elect not to include such property in class 44 by attaching a letter to the return for the year the corporation acquired the property. In the letter, indicate the property you do not want to include in class 44.	25%
45	Computer equipment that is "general-purpose electronic data processing equipment and system software" included in paragraph f of class 10 acquired after March 22, 2004	45%
46	Data network infrastructure equipment that supports advanced telecommunication applications, acquired after March 22, 2004 - It includes assets such as switches, multiplexers, routers, hubs, modems and domain name servers that are used to control, transfer, modulate and direct data, but does not include office equipment such as telephones, cell phones or fax machines, or property such as wires, cables or structures.	30%

Note: A complete list of CCA asset classes and their CCA rates is available in the *Income Tax Regulations*, http://laws.justice.gc.ca/en/I-3.3/C.R.C.-c.945/index.html.

Source: Canada Revenue Agency, *T2 Corporation – Income Tax Guide*, 2005, p. 33, http://www.cra-arc.gc.ca/E/pub/tg/t4012/t4012-05e.pdf.

APPENDIX B

RECENT CHANGES TO CAPITAL COST ALLOWANCE (CCA) RATES IN FEDERAL BUDGETS, 2000-2006[1]

Budget 2000

- Increased the CCA rate for certain rail assets, including railway cars, locomotives and rail suspension devices, to 15%.
- Increased the CCA rate for electrical generating equipment, heat production and distribution equipment, and water distribution equipment from 4% to 8%.

Budget 2001

- Expanded the scope of Class 43.1 assets to include larger hydro-electric projects and the equipment used to generate electricity from "blast furnace gas" (a by-product of the steel manufacturing process).

Budget 2003

- Expanded the scope of Class 43.1 assets to include: certain stationary fuel cell systems; equipment acquired for electricity generation using bio-oil; and certain types of equipment used in greenhouse operations.

Budget 2004

- Increased the CCA rate for computer equipment from 30% to 45%.
- Increased the CCA rate for broadband, Internet and other data network infrastructure equipment from 20% to 30%.

Budget 2005

- Increased the CCA rate for combustion turbines that generate electricity from 8% to 15%.
- Increased the CCA rate for electricity transmission and distribution assets from 4% to 8%.
- Increased the CCA rate for oil and gas transmission pipelines from 4% to 8%, and set a 15% rate for compression and pumping equipment on such pipelines.
- Increased the CCA rate for cables used for telecommunications infrastructure from 5% to 12%.
- Expanded the scope of Class 43.1 assets to include distribution equipment used in district energy systems that rely on efficient cogeneration, as well as biogas production equipment.

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(1) Compiled by the Library of Parliament based on federal budget documents available at: http://www.fin.gc.ca/access/budinfoe.html#year.

- Created Class 43.2, which further accelerated the CCA rate for certain Class 43.1 assets acquired during the next seven years – including highly fossil-fuel-efficient and renewable energy generation equipment – from 30% to 50%.

Budget 2006[2]

- Expanded the scope of Class 43.1 and Class 43.2 assets to include cogeneration systems that use a type of biomass used in the pulp and paper industry, which is commonly referred to as "black liquor" or "spent pulping liquor."[3]
- Increased the limit on the cost of tools eligible for the 100% CCA rate from $200 to $500.

(2) The changes to the CCA proposed in the 2005 federal budget were not introduced before Parliament was prorogued in November 2005. The 2006 federal budget, however, confirmed the federal government's intention to enact regulations to implement these changes.

(3) This change was initially announced in *The Economic and Fiscal Update* of November 2005.