

November 1, 2023 – (Vol. VII, No. 79)

## Will the real debt burden please stand up

By Warren Lovely

Fiscal fixation; is it a thing? It seems like it. Appropriately, bond investors are paying ever-greater attention to fiscal health measures, as budgets risk being buffeted by a few factors. An economic slowdown looks to crimp revenue growth, while pay hikes and fresh commitments (some thoughtful, others less so) create spending pressures. Then there's the growing hot spot of interest charges, as elevated borrowing rates drive debt servicing charges higher.

Simply put, debt is no longer free. Which brings us to the public sector balance sheet. To put government liabilities in context, the long-standing convention is to express debt relative to nominal output. Enter the debt-to-GDP ratio. This sounds like a simple enough concept. But at least in Canada, if you were to ask a random sample of 5 economists (or investors) what Canada's debt burden is, you'd be liable to get 10 or 15 different answers (if not more).

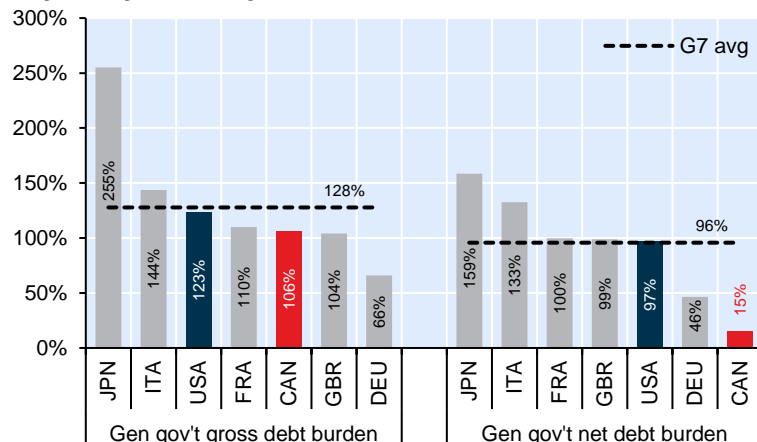
Based on the volume of queries we continue to field, there's a less-than-full understanding of public sector balance sheet(s). How much government debt is there in Canada? Where has it really piled up? What's with the huge gap between gross and net debt? How are social security funds, other financial assets and crown-related liabilities accounted for? Is Canada really that better off vs. other advanced nations? Channeling their inner Eminem, it's almost like investors are pleading: Won't the real debt burden please stand up?

Fiscal nuance, it seems, has intersected with growing interest. So treat this *Market View* as a reference guide when navigating government balance sheets. It may come in handy with mid-year reporting season kicking off in Canada. Here we provide a detailed accounting of general government debt, comparing Canada to its G7 peers and breaking down leverage by sector/level of government. As will become clear, debt burdens can look wildly different depending on the accounting concept embraced and/or the focal range (i.e., the level of general government inclusivity). Governments target different metrics and rating agencies have their own view too.

So the next time talk turns to Canadian government indebtedness, be sure to clarify which concept and level you're discussing. You might just as well ask your fellow discussant what party they support. Depending on the political axe one has to grind, there's no doubt a Canadian debt measure to wield with dramatic effect. Behold...

**Chart 1: Canada a relatively low debt jurisdiction... or is it?**

G7 general government gross & net debt burden (vs. GDP): 2023



Source: NBF, IMF (WEO Oct-23) | Note: IMF definition corresponds to debt instruments; excl. unfunded pension liabilities of gov't DB plans for cross-country comparability

General government refers to all levels of government (central, regional, local) plus social security. In Canada, general government gross debt exceeds 100% of GDP, which doesn't sound too lean. However, net off the market value of an enormous (and growing) pool of financial assets and Canada's net debt burden is easily the lowest in the G7. Either way, Canada's edge should grow over time.

*[Snippet from a rapidly constructed NBF fiscal ditty, inspired by Eminem's 'The Real Slim Shady']*

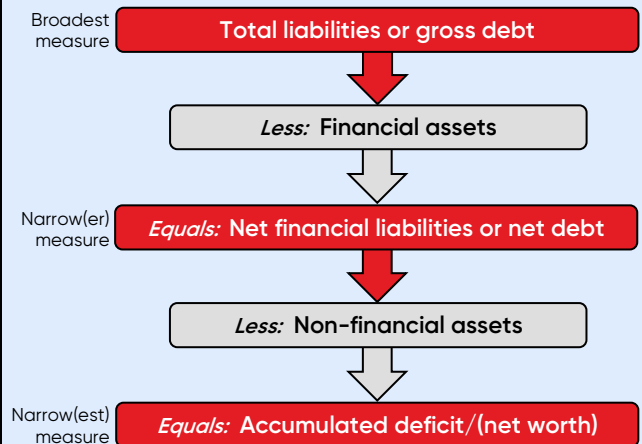
### The Real Debt Burden by Warren Lovely

May I have your attention please?  
Will the real Debt Burden please stand up?  
I repeat, will the real Debt Burden please stand up?  
We're gonna have misunderstanding here

...  
Y'all act like you never seen a budget before  
Arms in the air like Chrystia just threw money on the floor  
And started whipping the economy like never before

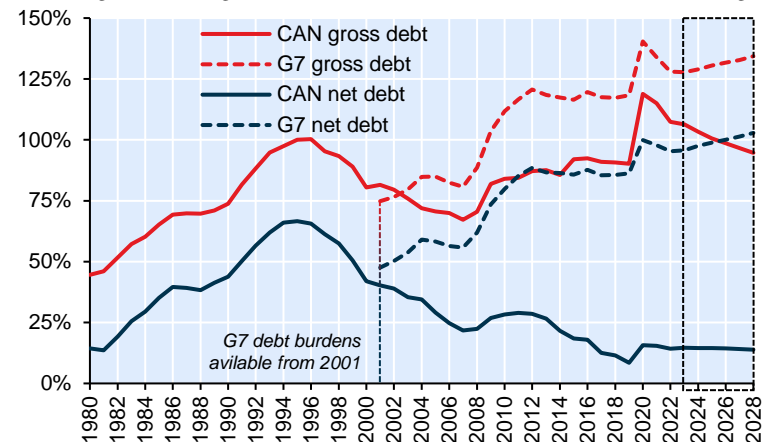
...  
Investors trade your portfolios, sing the chorus and it goes...  
'Cause it's this Debt Burden, no it's this Debt Burden  
All these Debt Burdens are super confusing  
So won't the real Debt Burden please stand up  
Please stand up, please stand up?

### A simplified illustration of government debt concepts



**Chart 2: Gross or net, Canada on more favourable trajectory**

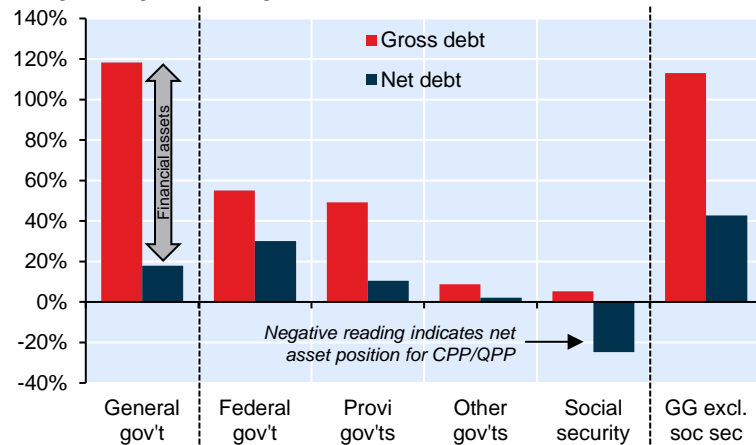
General government gross & net debt burden (vs. GDP): Canada vs. G7 avg



Source: NBF, IMF (WEO Oct-23) | Note: IMF definition corresponds to debt instruments; excl. unfunded pension liabilities of gov't DB plans for cross-country comparability

### Chart 3: Balance sheet accts = Detailed/frequent breakout

Cda general government gross & net debt burden (vs. GDP): 2023:Q2

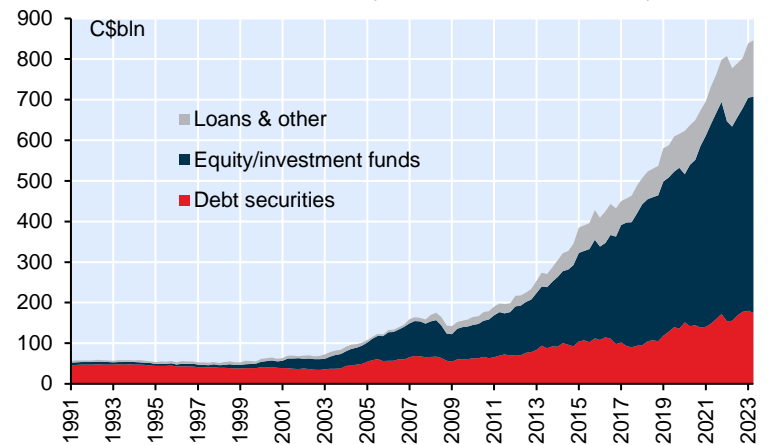


Source: NBF, StatCan (NBS) | Note: National accts basis; mkt value; available quarterly

StatCan's quarterly balance sheet accounts release provides a detailed breakdown of assets/liabilities across the broad, general government sector. Here again, you'll see a gulf between gross and net debt measures. Canada's social security system (i.e., CPP+QPP) is in a growing net asset position. In contrast to U.S. social security, Canada's public pension system is seen as actuarially sound.

### Chart 4: Assets of social security system accumulating rapidly

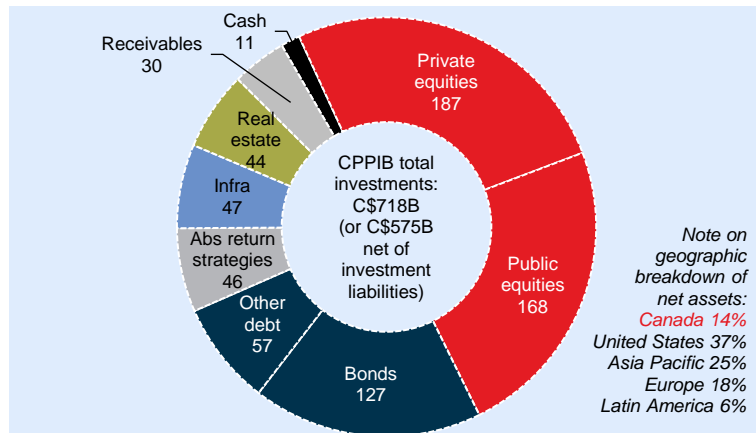
Financial assets of Cda social security funds (CPP/QPP): Quarterly to 2023:Q2



Source: NBF, StatCan (NBS) | Note: National accts basis; mkt value; incl. CPP & QPP

### Chart 5: Diverse portfolio of assets backing CPP

Canada Pension Plan Investment Board total investments: As at 30-Jun-23

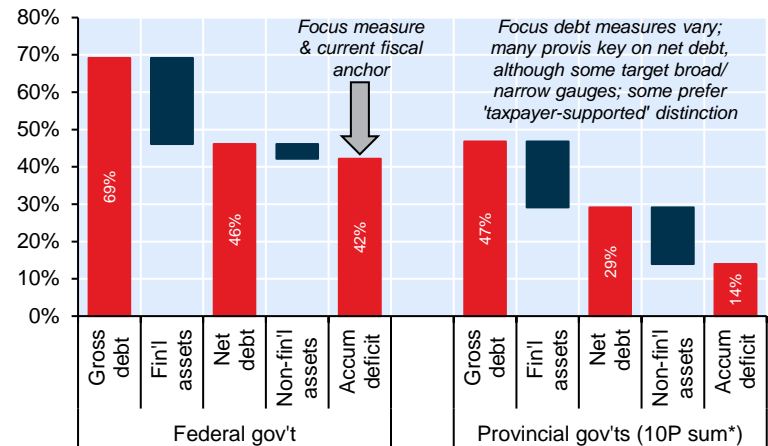


Source: NBF, CPPIB | Note: As per CPPIB's latest quarterly report (F2024:Q1 to Jun-23)

Further to Charts 3-4, the CPP Fund has enjoyed a ~10% annualized net return over the past decade, a diverse investment portfolio valued at C\$575bln as of Jun-23 (net of related liabilities).

### Chart 6: Public accounts provide 'official' government lens

Federal-provincial debt measures (vs. GDP): 2022-23 (or latest public accts)

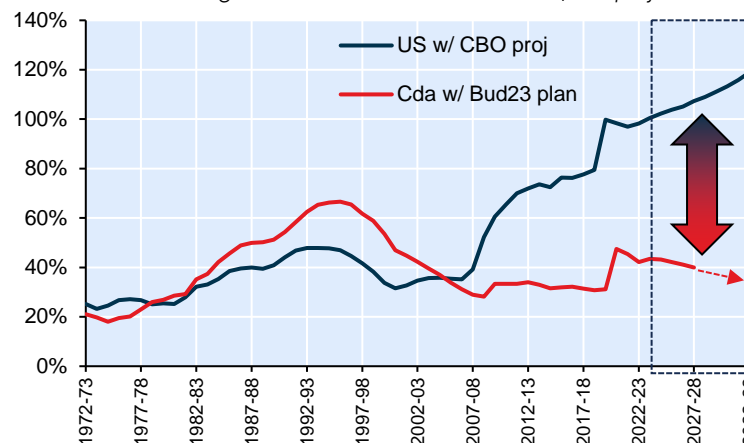


Source: NBF, fed-prov gov'ts | Note: Based on latest public accts; Que & PEI are 2021-22

Public accounts, budgets and government fiscal updates provide an 'official' debt lens. To keep things interesting, and by way of caution, not all governments key on the same debt measure.

### Chart 7: Ottawa vs. Washington no contest (as 30Y yields attest)

Canada-U.S. federal gov't focus debt measures vs. GDP, incl. projections

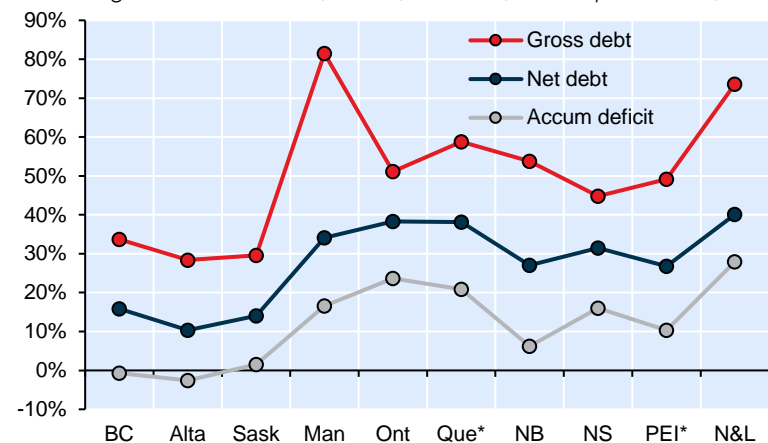


Source: NBF, GoC, OMB, CBO | Note: US is publicly held debt; Cda is accumulated deficit; GoC Bud23 pledged to reduce federal debt burden over medium term

There's a yawning gap between Canada vs. US federal debt loads. This is likely to remain a source of fundamental and technical support for longer-term GoC-UST yield differentials.

### Chart 8: Debt burdens vary by province (w/ special factors at play)

Provincial gov't debt measures (vs. GDP): 2022-23 (or latest public accts)



Source: NBF, prov gov'ts | Note: Based on latest public accounts; Que & PEI are 2021-22; negative values for accumulated deficit imply positive net worth (total assets>liabilities)

Leverage varies by province, with crown-related debt also muddying comparisons. Critically, many provinces reduced leverage when they had a chance, with refi risk also kept to a minimum.

**Table 1: The IMF's semi-annual cross-country snapshot shows Canada stacking up well on net debt (less so on gross debt)**  
Canada & G7 general government gross & net debt burden over time (vs. GDP)

CDA GEN GOVT: GROSS DEBT to NET DEBT		CANADA general government debt [IMF WEO, Oct-23]														
		< Historical reference >				< Recent past >					Current	< Medium-term outlook >				
		1980	1990	2000	2010	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Level (C\$bn)	Gross debt	\$144	\$513	\$890	\$1,400	\$2,029	\$2,087	\$2,627	\$2,888	\$2,988	<b>\$3,024</b>	\$3,065	\$3,115	\$3,167	\$3,221	\$3,274
	less: Financial assets	\$97	\$208	\$425	\$928	\$1,771	\$1,891	\$2,279	\$2,502	\$2,593	<b>\$2,608</b>	\$2,634	\$2,667	\$2,705	\$2,748	\$2,796
	equals: Net debt	\$47	\$305	\$465	\$472	\$258	\$196	\$348	\$386	\$395	<b>\$416</b>	\$432	\$448	\$462	\$472	\$478
vs. N GDP (%)	Gross debt	45%	74%	80%	84%	91%	90%	119%	115%	107%	<b>106%</b>	103%	101%	99%	97%	95%
	less: Financial assets	30%	30%	38%	56%	79%	82%	103%	100%	93%	<b>92%</b>	89%	86%	84%	82%	81%
	equals: Net debt	14%	44%	42%	28%	12%	8%	16%	15%	14%	<b>15%</b>	15%	14%	14%	14%	14%
Ref: Cda Nom GDP (C\$bn)		\$323	\$696	\$1,106	\$1,666	\$2,236	\$2,314	\$2,210	\$2,510	\$2,783	<b>\$2,843</b>	\$2,966	\$3,095	\$3,213	\$3,333	\$3,459

G7: GROSS DEBT (GEN GOVT)		General government GROSS DEBT [IMF WEO, Oct-23]														
		< Historical reference >				< Recent past >					Current	< Medium-term outlook >				
		1980	1990	2000	2010	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
G7: Gross debt (% of GDP) [BROAD]	Japan	48%	63%	136%	206%	232%	236%	259%	255%	260%	<b>255%</b>	252%	251%	251%	252%	253%
	Italy	N/A	102%	109%	119%	134%	134%	155%	150%	144%	<b>144%</b>	143%	143%	142%	141%	140%
	United States	N/A	N/A	N/A	95%	107%	109%	133%	126%	121%	<b>123%</b>	127%	130%	133%	135%	137%
	France	21%	36%	59%	85%	98%	97%	115%	113%	112%	<b>110%</b>	111%	110%	110%	111%	111%
	<b>Canada</b>	<b>45%</b>	<b>74%</b>	<b>80%</b>	<b>84%</b>	<b>91%</b>	<b>90%</b>	<b>119%</b>	<b>115%</b>	<b>107%</b>	<b>106%</b>	<b>103%</b>	<b>101%</b>	<b>99%</b>	<b>97%</b>	<b>95%</b>
	United Kingdom	43%	28%	37%	74%	85%	84%	105%	105%	102%	<b>104%</b>	106%	107%	108%	108%	108%
	Germany	N/A	N/A	59%	82%	62%	60%	69%	69%	66%	<b>66%</b>	64%	62%	60%	59%	58%
	G7 average	N/A	N/A	N/A	112%	117%	118%	140%	134%	128%	<b>128%</b>	129%	130%	132%	133%	134%
	Canada GROSS DEBT rank in G7: Lowest=1; highest=7 >					3	3	4	4	3	3	2	2	2	2	2

G7: NET DEBT (GEN GOVT)		General government NET DEBT [IMF WEO, Oct-23]														
		< Historical reference >				< Recent past >					Current	< Medium-term outlook >				
		1980	1990	2000	2010	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
G7: Net debt (% of GDP) [NARROW]	Japan	17%	19%	68%	129%	151%	152%	162%	157%	162%	<b>159%</b>	156%	154%	153%	153%	153%
	Italy	N/A	97%	100%	108%	122%	122%	141%	137%	133%	<b>133%</b>	133%	132%	132%	131%	131%
	France	N/A	26%	50%	74%	89%	89%	101%	100%	101%	<b>100%</b>	100%	100%	100%	100%	100%
	United Kingdom	41%	26%	31%	67%	75%	75%	94%	94%	99%	<b>99%</b>	100%	97%	97%	96%	96%
	United States	N/A	N/A	N/A	70%	81%	83%	98%	98%	95%	<b>97%</b>	101%	104%	107%	109%	112%
	Germany	N/A	N/A	45%	62%	43%	41%	46%	47%	46%	<b>46%</b>	46%	44%	43%	42%	42%
	<b>Canada</b>	<b>14%</b>	<b>44%</b>	<b>42%</b>	<b>28%</b>	<b>12%</b>	<b>8%</b>	<b>16%</b>	<b>15%</b>	<b>14%</b>	<b>15%</b>	<b>15%</b>	<b>14%</b>	<b>14%</b>	<b>14%</b>	<b>14%</b>
	G7 average	N/A	N/A	N/A	80%	86%	86%	100%	98%	95%	<b>96%</b>	98%	99%	100%	101%	103%
	Canada NET DEBT rank in G7: Lowest=1; highest=7 >					1	1	1	1	1	1	1	1	1	1	1

Source: NBF, IMF (WEO Oct-23) | Note: IMF definition corresponds to debt instruments; excl. unfunded pension liabilities of gov't DB plans for cross-country comparability; G7 countries are sorted by 2023 estimated debt burdens, from most to least indebted; select elements illustrated in Charts 1-2

**Table 2: Using StatCan's national balance sheet accounts data to gauge general government balance sheet health**  
Snapshot of Canada general government debt measures (gross debt to accumulated deficit): 2023:Q2

GROSS DEBT to NET DEBT to ACCUMULATED DEFICIT		Canada general government: Balance sheet measures [Latest quarter: 2023:Q2]									
		GG sector (Gov'ts+SS)	Federal gov't	Other levels of government				Social sec. (CPP/QPP)	Excl. CPP/QPP		
				Sub-total	Provincial	Local	Aboriginal				
		[A=B+C+G]	[B]	[C=D+E+F]	[D]	[E]	[F]	[G]	[H=A-G]		
Level (C\$bln)	Gross debt	[A]	\$3,340	\$1,555	\$1,637	\$1,390	\$198	\$50	\$148	\$3,192	BROAD
	less: Financial assets	[B]	\$2,834	\$703	\$1,284	\$1,095	\$190	\$0	\$846	\$1,987	V
	equals: Net debt	[C=A-B]	\$506	\$852	\$353	\$295	\$8	\$50	-\$699	\$1,205	NARROW(ER)
	less: Non-financial assets	[D]	\$1,510	\$98	\$1,412	\$820	\$542	\$50	\$0	\$1,510	V
	equals: Accumulated deficit	[E=C-D]	-\$1,004	\$754	-\$1,059	-\$525	-\$534	\$0	-\$699	-\$305	NARROW(EST)
vs. Nominal GDP (%)	Gross debt	[A]	118%	55%	58%	49%	7%	2%	5%	113%	BROAD
	less: Financial assets	[B]	100%	25%	45%	39%	7%	0%	30%	70%	V
	equals: Net debt	[C=A-B]	18%	30%	12%	10%	0%	2%	-25%	43%	NARROW(ER)
	less: Non-financial assets	[D]	53%	3%	50%	29%	19%	2%	0%	53%	V
	equals: Accumulated deficit	[E=C-D]	-36%	27%	-37%	-19%	-19%	0%	-25%	-11%	NARROW(EST)
Reference: Nominal GDP C\$bIn > \$2,826 Period > 2023:Q2 Coverage > Cda											

Source: NBF, StatCan (NBS) | Note: National balance sheet data are released quarterly; latest reference quarter is 2023:Q2; all figures are market value; select elements illustrated in Charts 3-4

**Table 3: A closer look at debt in Ottawa and across provinces using official/audited financial statements**  
Snapshot of federal-provincial debt measures (gross debt to accumulated deficit): 2022-23 (or latest available public accounts)

GROSS DEBT to NET DEBT to ACCUMULATED DEFICIT			Federal & provincial governments, plus social security [Public accounts/annual report]														
			Government of Canada	Provincial governments											Social security		
				Sum (10P)	Ont	Que*	BC	Alta	Man	Sask	NS	NB	N&L	PEI*	CPP	QPP*	
				Mar-23	Latest PA >	Mar-23	Mar-22	Mar-23	Mar-23	Mar-23	Mar-23	Mar-23	Mar-23	Mar-23	Mar-22	Mar-23	Dec-22
Level (C\$bln)	Gross debt / Liabilities	[A]	\$1,925.0	\$1,273.0	\$534.3	\$296.7	\$129.3	\$125.1	\$72.3	\$30.8	\$25.3	\$24.7	\$30.3	\$4.2	\$136.2	\$0.7	BROAD
	less: Financial assets	[B]	\$642.3	\$480.2	\$133.9	\$104.5	\$68.6	\$79.5	\$42.0	\$16.2	\$7.5	\$12.3	\$13.8	\$1.9	\$706.3	\$108.2	V
	equals: Net debt	[C=A-B]	\$1,282.8	\$792.9	\$400.5	\$192.2	\$60.7	\$45.6	\$30.3	\$14.6	\$17.8	\$12.4	\$16.5	\$2.3	-\$570.0	-\$107.5	NARROW(ER)
	less: Non-financial assets	[D]	\$109.7	\$414.3	\$153.7	\$87.0	\$63.4	\$56.9	\$15.5	\$13.0	\$8.8	\$9.6	\$5.0	\$1.4	-	-	V
	equals: Accumulated deficit	[E=C-D]	\$1,173.0	\$378.6	\$246.8	\$105.2	-\$2.7	-\$11.3	\$14.7	\$1.6	\$9.0	\$2.9	\$11.5	\$0.9	-\$570.0	-\$107.5	NARROW(EST)
vs. Nominal GDP (%)	Gross debt / Liabilities	[A]	69%	47%	51%	59%	34%	28%	81%	30%	45%	54%	74%	49%	6%	0%	BROAD
	less: Financial assets	[B]	23%	18%	13%	21%	18%	18%	47%	16%	13%	27%	34%	22%	32%	20%	V
	equals: Net debt	[C=A-B]	46%	29%	38%	38%	16%	10%	34%	14%	32%	27%	40%	27%	-26%	-19%	NARROW(ER)
	less: Non-financial assets	[D]	4%	15%	15%	17%	17%	13%	18%	12%	16%	21%	12%	16%	-	-	V
	equals: Accumulated deficit	[E=C-D]	42%	14%	24%	21%	-1%	-3%	17%	2%	16%	6%	28%	10%	-26%	-19%	NARROW(EST)
Reference: Nominal GDP C\$bln >			\$2,783	\$2,718	\$1,045	\$504	\$384	\$441	\$89	\$104	\$56	\$46	\$41	\$9	\$2,230	\$553	
Period >			2022	2021-22	2022	2021	2022	2022	2022	2022	2022	2022	2022	2021	2022	2022	
Coverage >			Cda	Sum (10P)	Ont	Que	BC	Alta	Man	Sask	NS	NB	N&L	PEI	Cda xQue	Que only	

Source: NBF, fed-prov gov'ts (public accounts) | Note: All fed-prov figures sourced from latest issue of Vol. 1 audited consolidated financial statements; excl. Que & PEI, all government debt figures relate to 2022-23; figures for Que & PEI relate to 2021-22; total liabilities not to be confused with or interpreted as taxpayer-supported debt; provincial figures may not in all cases be strictly comparable; CPP & QPP figures refer to latest fiscal year-end & are based on publicly available information; select elements illustrated in Charts 6-8



### Topic Box: How do credit rating agencies think about the debt burden when assessing a sovereign's creditworthiness?

Treatment & measurement of 'debt burden' by major credit rating agencies (one component of overall analytical framework/sovereign rating model)

	S&P	Moody's	DBRS Morningstar	Fitch
Rating methodology	Sovereign Rating Methodology	Rating Methodology: Sovereigns	Global Methodology for Rating Sovereign Governments	Sovereign Rating Criteria
Last updated	18-Dec-17	22-Nov-22	6-Oct-23	6-Apr-23
Simplified approach on debt burden	Debt burden part of "Fiscal Assessment", which is one of five "Key Rating Factors" in analytical framework	Debt burden part of "Fiscal Strength" assessment, which is one of four "Factors" in analytical framework	Debt burden part of "Debt and Liquidity" assessment, which is one of six "Building Blocks" in analytical framework	Debt burden part of "Public Finances" assessment, which is one of four "Analytical Pillars" in analytical framework
Scope of measurement: Government concept	General government (GG) concept, which is aggregation of central, regional and local governments, plus the social security system; in some cases a credit rating agency may make certain perimeter adjustments			
Scope of measurement: Debt concept	Net debt	Gross debt	Gross debt	Gross debt
Key debt burden measure(s)	General government net debt/GDP (%)	General government gross debt/GDP (%); General government gross debt/revenue (%)	General government gross debt/GDP (%)	General government gross debt/GDP (%)

Reference:

Canada sovereign long-term credit rating	AAA	Aaa	AAA	AA+
Credit rating outlook	Stable	Stable	Stable	Stable
Last rating report	25-Oct-23	13-Jul-23	8-Sep-23	8-Jun-23
Relevant debt burden score/comment (one part of overall rating assessment)	"Fiscal Assessment: Debt Burden" scored '3' on a 1-6 scale, where 1 is strongest; debt burden lowest of all Key Rating Factor scores	GG gross debt/GDP scored 'b2'; GG gross debt/revenue scored 'baa3'; overall, "Fiscal Strength" assigned Final Factor Score of 'a3'	"Debt and Liquidity" Building Block, which includes GG gross debt/GDP, scored 10.65 and classified 'Moderate'; qualitative factors provide +2 category uplift, resulting in overall Building Block Assessment of 'Good'	Rating model assigned overall/all pillar score equivalent to rating of 'AA-'; rating committee applied +1 adjustment for "Public Finances", to reflect mitigants to high GG gross debt/GDP (incl. more advantageous GG net debt position, small unfunded pension liability); +1 adjustment for "External Finances" applied too

Source: NBF, S&P, Moody's, DBRS Morningstar, Fitch | Note: The above table is focused on the debt burden as a sovereign rating factor; note that fiscal assessments incorporate other budgetary measures, which can include related measures of debt affordability; moreover, in all cases, sovereign rating methodologies incorporate a variety of other, non-fiscal considerations; refer to published rating methodologies/criteria for further information/context and for details on other sovereign rating factors/considerations



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