

Citizens' Wealth Glossary: 2021

Four sections: Section A. Terminology Definitions; Section B. Terminology Rationale; Section C. Citizens' Wealth Additional Information; Section D. Performance Metric Formula Examples – United States Federal Government.

In sum, the Citizens' Wealth (CW) indicator is a quantum leap improvement over the debt and deficit as percentage of GDP metrics. CW provides a true and fair picture of government financial performance and position and the relationship to GDP for both historical and international comparison.

Section A. Terminology Definitions:

1. **Citizens' Wealth (CW):** CW is per person and is the conversational summary term for CW1, CW2, and CW3. CW can be measured in billions.
2. **Citizens' Wealth 1 (CW1):** Total economy GDP per person plus Government Total Net Worth (Net Worth or GTNW) per person. CW1 is also referred to as the standard definition. CW1 can be measured in billions.
3. **Citizens' Wealth 2 (CW2):** Total economy GDP per person less Net Debt (government financial net debt) per person. CW2 can be measured in billions.
4. **Citizens' Wealth 3 (CW3):** Total economy GDP per person less Gross Debt (government financial debt) per person. CW3 can be measured in billions.
5. **CW Created/Destroyed Per Day:** Change in CW in billions divided by the number of working days during a specified period.
6. **CW Created/Destroyed "Return":** Change in CW per person divided by the absolute value change in Net Worth, Gross Debt, or Net Debt per person during a specified period. If there is an increase in Net Worth (GTNW) or a decrease in Net or Gross Debt, the metric is not measurable (typically noted as "NM").
7. **CW Decade Change "Swing":** Change in CW per person in the latest decade less the change in CW per person during the prior decade.
8. **Debts:** Changed the balance sheet term Liabilities to Debts (note the "s").
9. **Financial Burden:** Concept of financial burden put on citizens in communicating weight of a negative GTNW per person in describing the financial burden put on citizens by the government.
10. **Five Parts:** Noting that there are five parts of a Government Total Balance Sheet, which are financial assets, non-financial assets, financial debt, non-financial debt, and Government Total Net Worth.
11. **Framework:** Concept of a framework to describe and compare the Government Total Balance Sheet framework with the debt and cash deficit framework.
12. **GDP/GTNW "Multiplier":** Change in GDP per person divided by the absolute value change in Net Worth, Gross Debt, or Net Debt per person during a specified period. If there is an increase in Net Worth (GTNW) or a decrease in Net or Gross Debt, the metric is not measurable (typically noted as "NM").
13. **GTNW/GDP "Inverse Multiplier":** Absolute change in Net Worth, Gross Debt, or Net Debt per person divided by the change in GDP per person during a specified period. If there is an increase in Net Worth (GTNW) or a decrease in Net or Gross Debt, the metric is not measurable (typically noted as "NM").
14. **Government:** Inserting the word Government before five major balance sheet line items.
15. **Gross Debt:** General government financial debt; if not available, financial debt from government financial statements or public sector statistics. Central bank balance sheets

are not consolidated into the general government, and for comparability, government debt held by a central bank is not subtracted from Gross Debt.

16. **Net Debt:** Gross Debt less government financial assets. Government financial assets can be the IMF narrow definition of financial assets or a broader definition used in financial statements. Central bank balance sheets are not consolidated into the general government, and for comparability, government debt held by a central bank is not subtracted from Net Debt.
17. **Per Person:** Metrics per person based on total population.
18. **Purchasing Power Parity (PPP):** The World Bank defines PPP as a spatial deflator and currency convertor that eliminates the effects of the differences in price levels between economies, thereby allowing volume comparisons of GDP.
19. **Government Total Balance Sheet (GTBS):** Government Total Assets plus Government Total Debts. Inserting the word “Total” after Government and before Balance Sheet, Assets, Debts, Net Worth, and Net Debts. Government Total Assets include both financial assets and non-financial assets; Government Total Debts include financial debts and non-financial debts (often referred to as liabilities in accounting terminology). Adjustments may be necessary and appropriate to have numbers consistent with international standards, for example: (a) scope of entities included, (b) asset valuations both before and after depreciation and valuation adjustments, (c) government employee pension debts and other pension employment benefits (OPEB) often found only in the notes and/or not properly disclosed.
20. **Government Total Net Worth (GTNW or Net Worth):** Government Total Assets (financial assets plus non-financial assets) less Government Total Debts (financial debts plus non-financial debts).

Section B. Terminology Rationale:

1. **Citizens' Wealth (CW):** Citizens' Wealth is a per person government performance (track record) indicator that provides significantly better historical and comparative insights into the relationship between the total economy GDP and GTBS (especially when compared to GDP or a debt to GDP ratio). The CW government performance indicator disrupts obsolete and financially destructive conventional thinking merging two data silos by starting with an annual economic statistic, total economy gross domestic product (GDP), and subtracting a government financial statement balance sheet number, Government Total Net Worth. Recognizing the importance of CW, the former head of Moody's Sovereign Bond Ratings stated that the greatest advance in sovereign risk analysis has been the development of a measure of Citizens' Wealth.
See Section C. Citizens' Wealth Additional Information.
2. **Citizens' Wealth 1 (CW1):** CW1 is the most comprehensive of the three CW terms as it utilizes the Government Total Balance Sheet as opposed to CW2 and CW3 which each only utilize parts of the Government Total Balance Sheet.
3. **Citizens' Wealth 2 (CW2):** CW2 is an improvement upon CW3 (government Gross Debt) as it utilizes not only government Gross Debt but also the financial assets on the government balance sheet, hence the term Government Net Debt.
4. **Citizens' Wealth 3 (CW3):** CW3 is the most easily understood of the CWs as it utilizes the familiar government Gross Debt.
5. **CW Created/Destroyed Per Day:** To understand the daily magnitude, measure the change in CW per government working day over a specified period of time.
6. **CW Created/Destroyed “Return”:** A metric with similar traits to a return on investment ratio. The numerator is the change in CW, which can be positive or negative, divided by the

change in GTNDs, Gross Debt, or Net Debt, which can be thought of as the cost of obtaining the increase in CW.

7. **CW Decade Change “Swing”:** An easy-to-understand math term for focusing on the relative rate of change (similar to a second derivative) during a period of two or more decades by subtracting the change in CW over the latest decade less the change in CW during the prior decade. The goal is to understand if the rate of change in CW is increasing or decreasing. For example, a negative Swing indicates a greater decline in the latest decade compared to the earlier decade. A positive Swing indicates an improvement in the latest decade compared to the earlier decade.
8. **Debts:** Using Total Debts is easier to communicate than Total Liabilities and distinguishes from financial debt without the “s”.
9. **Financial Burden:** Financial burden is easier to understand than the technical term Government Net Liabilities in describing the burden put on citizens by the government.
10. **Five Parts:** Five parts of a Government Total Balance Sheet contrasts with one part focus in the debt and cash deficit framework with its omission of financial assets, non-financial assets, non-financial debt, and Government Total Net Worth. Stressing that there are five parts to a Government Total Balance Sheet exposes partial or improperly reported government balance sheets as significantly deficient.
11. **Framework:** Framework is a good starting point to understand the significant comparative advantage of a Government Total Balance Sheet framework (also referred to as the New Zealand government public financial management – PFM – framework) compared to the debt and cash deficit framework. The New Zealand PFM framework has built over 30 years a culture of using the Government Total Balance Sheet and Government Total Net Worth for decision-making and financial management. NZ has built a full system of PFM using international standards with timely and insightful financial reporting and projections. This is complemented by financial reporting based on international accounting and auditing standards, produced on a timely monthly and annual basis, and projected key balance sheet numbers. Simply put, the debt and cash deficit framework is both chronically flawed and massively value destructive in part because it enables corruption and mismanagement. In point of fact, for massive and highly complex organizations (unlike households or small businesses), cash-based fiscal balances (i.e., cash deficits) provide vastly more flexibility to create fiscal illusions than do numbers calculated in accordance with international accounting standards.
12. **GDP/GTNW “Multiplier”:** The GDP/GTNW “Multiplier” is a useful metric to show the change in GDP associated with the change in the associated burden put on the government’s citizens; burden calculated as increases in Net Worth, Gross Debt, or Net Debt. A related number is the claims associated with the impact on GDP from government spending. Not uncommon are claims by government that specific spending will have a multiple impact on GDP, but omitted from the conversation is the relationship between the increase in GDP and the decrease in GTNW.
13. **GTNW/GDP “Inverse Multiplier”:** The GTNW/GDP “Inverse Multiplier” is as its name indicates the mathematical inverse of the GDP/GTNW “Multiplier”. The Inverse Multiplier shows the ratio of the burden put on the country’s people needed to increase GDP by one unit. For example, a ratio of 1.5x means that for every one unit increase in GDP, the government put 1.5 units of government total financial burden on its people. For conversational purposes, the Inverse Multiplier can be communicated as steps forward or back. For example, a 1.5x would mean that for every one step forward in GDP, the government total financial burden placed on its population took 1.5 steps back.
14. **Government:** Inserting the word government before terms of the government balance sheet reinforces that all five parts of the Government Total Balance Sheet are under the legal stewardship of the government and elected officials.

15. **Gross Debt:** From a practical perspective, government Gross Debt may be the only balance sheet number available. The scope and quality of the numbers can and -indeed- will vary significantly, but NGO and multi-national databases may be the only sources of Gross Debt data available. Most often the scope of Gross Debt is general government.
16. **Net Debt:** Net Debt is an improvement to government Gross Debt, as it includes a reduction of financial assets to the Gross Debt. The rationale is in part based on the fact that financial assets and financial debt are highly fungible and should be considered together. The composition of financial assets will vary significantly, as certain sources only include financial assets corresponding to the Gross Debt, while other sources provide a more comprehensive financial asset number including financial assets such as equity financial assets. For classification purposes, accounts receivable should not be included in financial assets and accounts payable should not be included in government debt.
17. **Per Person:** Per person (also referred to as per citizen) calculated with total population numbers is a more meaningful, easier to understand, and more helpful management performance metric than abstract percentages or numbers in the millions, billions, or trillions.
18. **Purchasing Power Parity (PPP):** When there are significant changes in the currency relationships or large differences in GDP and GDP in PPP, or in developing economies, GDP in PPP can offer additional if not greater comparative financial insights than GDP converted to US Dollars.
19. **Government Total Balance Sheet (GTBS):** The word Total is inserted after Government and before the word Balance to stress that there is much more than debt and cash on Government Total Balance Sheet. For example, with six AAA-rated governments that publish an internationally comparable balance sheet, an average of 63% of the balance sheet is outside of cash and gross debt. The UK Treasury Chief Secretary recently stated that the benefits to taxpayers from improved balance sheet management include increased returns on public assets, higher quality public services, lower taxes, as well as substantially reduced costs and risks across its liabilities.
20. **Government Total Net Worth (GTNW):** The importance of Government Total Net Worth continues to increase as the financial and economic footprint of government continues to increase as indicated in officially reported statistics. Recent IMF research noted that countries with stronger GTNW experience shallower recessions and recover faster in the aftermath of economic downturns and managing GTNW means better managing government assets, which yields higher asset values, higher economic growth, and higher tax revenue. Research from the University of Oxford recently stated GTNW is the most important country-specific fiscal factor driving bond yields.

Section C. Citizens' Wealth Additional Information:

1. **Background:** The historical highlights of the CW family of performance (track record) metrics include: (i) created by an affiliate of KCPFM, Japonica Partners founder, in the early 1980s to analyze corporate financial performance, (ii) an essential analytical and management tool in all of Japonica Partners transformational investments, (iii) a cornerstone of the Kazarian Foundation core competencies, (iv) a core part of Columbia Business School class B8024 on Understanding Sovereign Risk from Financial Statements, and (iv) a main focus of the Center for Economic and Policy Research (CEPS) task force on public financial management Research Report. CW is part of a new disruptive technology framework for assessing sovereign credit risk and government performance from a financial perspective. The CW government performance indicator disrupts obsolete and financially destructive conventional thinking by merging two silos; an annual economic statistics flow, total economy gross domestic product (GDP), and a point-in-time government financial statement

balance sheet stock, Government Total Net Worth. CW is most often calculated and reported per person to provide greater meaning to a wide range of users, especially citizens.

2. **More Insightful:** Citizens' Wealth is a government performance indicator that provides significantly better historical and comparative insights into the relationship between the total economy GDP and Government Total Balance Sheet (especially compared to GDP or a debt to GDP ratio). Citizens' Wealth is significantly more insightful than the debt and cash deficit framework metrics and the conventional macroeconomic government performance measurement statistics. Focusing on Citizens' Wealth can help improve government financial performance and expose touted claims of economic prosperity (i.e., GDP growth) that in reality are financially destructive resulting in hidden declines in GTNW. Citizens' Wealth is most meaningful when calculated per person, which can be more meaningful, easier to understand, and a more helpful management performance metric than abstract percentages or numbers in the millions, billions, or trillions. On a ten criteria evaluation comparison used in Columbia Business School class B8024, Citizens' Wealth scored 92 out of 100 and debt to GDP scored only 30. The ten criteria list in order: (i) quality and verifiability of inputs, (ii) historical comparison meaningfulness, (iii) peer comparison meaningfulness, (iv) performance measurement and improvement value, (v) includes the total balance sheet not only parts, (vi) accountability improvement, (vii) decision-making benefits, (viii) credit (risk-reward) assessment value, (ix) ability to communicate importance of KPI to all, and (x) based on international standards that reflect financial reality.
3. **Increased Importance:** (i) The importance of Government Total Net Worth continues to increase as the financial and economic footprint of government continues to increase as indicated in officially reported statistics. And, the reported numbers understate the economic scope of the government in part by not accounting for the financial costs imposed on other sectors through government rules and regulations. (ii) The complexity and diversity of government operations vastly exceeds that of the most complex private sector multi-national corporation. One need only to read a whole of government sovereign financial report to see the mind-numbing number of initiatives with mega financial implications. (iii) Governments are increasingly using financial schemes to circumvent legislative restraints and create fiscal illusions of financial reality. The existence and propagation of government fiscal illusions that misrepresent financial reality are so pervasive that the term creative accounting is openly revered and rewarded, while in the private sector such schemes can serve as grounds for criminal charges and incarceration. It is only with financial statements based on international standards that a true and fair reflection of financial reality of these schemes is revealed. (iv) The standard debt and cash deficit frameworks show only a portion of financial reality. For example, debt can be a fraction of the Government's Total Balance Sheet (Government Total Assets and Government Total Debts) as the UK's government's 2018 balance sheet illustrates. Non-Financial Debts is 38%, Government Total Assets is 31%, and Government borrowings is 20% of Government Total Balance Sheet. (v) The continued massive decrease in Government Total Net Worth. (vi) The absence of high, positive impact public financial management (PFM) plans and processes.
4. **Integrity of Numbers:** Financial statement numbers almost always require critical judgement based adjustments for financial comparability, but such adjustments are facilitated by the existence of more than a decade of financial statements with extensive notes, based on international accounting standards, as well as published audits consistent with international auditing standards. Statistics from economic databases, such the IMF WEO database, IMF IFS database, EC AMECO, Eurostat, and OECD Statistics should not be taken at face value, but should be thoroughly tested for integrity and comparability. These macroeconomic statistics can have very large deviations from a true and fair representation of financial reality, are prone to be produced with political bias, and do not have the integrity of either financial notes contained in international standards-based

financial statements nor are they audited by third parties using international auditing standards.

5. **Components:** Citizens Wealth 1 (CW1) is defined as total economy GDP plus Government Total Net Worth. The total economy GDP, although a non-audited flow calculated using statistics guidelines, is by default considered a proxy for annual national wealth creation. Government Total Net Worth includes all five parts of a Government Total Balance Sheet (not just debt): Government Total Assets (both financial and non-financial), Government Total Debts (both financial and non-financial debts), and Government Total Net Worth.
6. **CW Metrics:** Citizens' Wealth can be calculated to show: changes over time, at a point in time, country comparisons, and value created or destroyed metrics (the Return), the change amount per day over a period of time, comparing decade change (the Swing), or communicated as units/steps forward and units/steps backward. The metrics are calculated both per person based on a country's population or in billions as an aggregate measure. Metrics are also calculated in both local currency and in a common currency. And, nominal current GDP can also be calculated in GDP in purchasing power parity.
7. **CW1 Alternatives:** Citizens' Wealth 2 (CW2), which is GDP less Government Net Debt, and Citizens' Wealth 3 (CW3), which is GDP less Government Gross Debt, are used when Government Total Balance Sheet numbers are not available. General Government Gross Debt is the most frequently available number for Government Gross Debt. General Government Net Debt includes financial assets as a reduction to Gross Debt, but this financial information is often not available or is reported on a noncomparable basis.
8. **Similar Metrics:** Metrics similar to Citizens' Wealth include: (i) Subtracting a corporation's change in net worth, debt, or net debt from a corporations' increase in revenue over a period of time. Part of the rationale for this is that mainstream company valuations have often converged to be valued at one times sales, which makes revenue a benchmark for the entity's value. Subtracting the balance sheet change number from the revenue increase number provides insight into the sources of and the cost of the revenue growth. When debt increases exceed sales increase or the unit change decrease from prior periods, financial alarm bells sound a warning. (ii) Calculating the change in GDP as a percentage of the change in total economy or non-government gross debt and comparing annual ratios, which is often referred to as the marginal contribution of debt. (iii) Calculating the change in GDP as a multiple of change in debt, with GDP impact in a specific year or the sum over a period of time, which is often referred to as the GDP/GTNW "Multiplier" and used frequently to justify government fixed consumption expenditures.
9. **Buffett Indicator:** Approximately 15 years after our founder introduced the origin of the Citizens' Wealth financial concept at Goldman Sachs, a conceptually equivalent metric was introduced to the public mainstream by Warren E. Buffett identified as the Buffett Indicator. The Buffett Indicator is defined as the total market capitalization of U.S. stocks divided by the total dollar value of the nation's gross domestic product. It is a macro metric for assessing whether the country's stock market is overvalued or undervalued, compared to a historical average. It is similar to a company's price to revenue valuation multiple ratio but for a country. The indicator has also been applied to other countries.
10. **New Zealand's Contribution:** In the early 1990's New Zealand pioneered the publication of a whole of government balance sheet using emerging international public sector best practices, which included reporting Government Total Net Worth. As their government public financial management progressed, by the mid-1990s, the New Zealand government was widely publishing and commenting on Government Total Net Worth as a percentage of GDP seeking to increase historical, projected, and international comparisons.

Section D. Performance Metric Formula Examples – United States Federal Government:

Numbers:

1. GDP per person (2019): \$65,112
2. Net Worth per person (2019): -\$79,439
3. Net Debt per person (2019): \$54,655
4. Gross Debt per person (2019): \$60,938
5. Change in CW1 in billions (2000-2019): -\$7,803 billions
6. Change in CW1 per person (2000-2019): -\$25,258
7. Change in Net Worth per person (2000-2019): -\$54,052
8. Change in CW1 per person (2000-2010): -\$15,508
9. Change in CW1 per person (2010-2019): -\$9,751
10. Change in GDP per person (2000-2019): \$28,794

	Term	Formula	Example
1.	Citizens' Wealth 1 (CW1)	GDP per person plus Net Worth per person (2019)	$\$65,112 - \$79,439 = \mathbf{-\$14,327}$
2.	Citizens' Wealth 2 (CW2)	GDP per person minus Net Debt per person (2019)	$\$65,112 - \$54,655 = \mathbf{\$10,456}$
3.	Citizens' Wealth 3 (CW3)	GDP per person minus Gross Debt per person (2019)	$\$65,112 - \$60,938 = \mathbf{\$4,174}$
4.	CW1 Created/Destroyed "Return"	Change in CW1 per person divided by Absolute Value Change in Net Worth per person (2000-2019)	$-\$25,258 / \text{ABS}(-\$54,052) = \mathbf{-47\%}$
5.	CW1 Created/Destroyed Per Day	Change in CW1 in billions divided by number of work days (2000-2019)	$-\$7,803 \text{ billion} / (215 \times 19) = \mathbf{-\$1.910 \text{ billion}}$
6.	CW1 Decade Change "Swing"	Change in CW1 per person (2010-2019) minus Change in CW1 per person (2000-2010)	$-\$9,751 - (-\$15,508) = \mathbf{\$5,757}$
7.	GDP/GTNW "Multiplier"	Change in GDP per person divided by Absolute Value Change in Net Worth per person (2000-2019)	$\$28,794 / \text{ABS}(-\$54,052) = \mathbf{0.5x}$
8.	GTNW/GDP "Inverse Multiplier"	Absolute Value Change in Net Worth per person divided by Change in GDP per person (2000-2019)	$\text{ABS}(-\$54,052) / \$28,794 = \mathbf{1.9x}$

Notes: Terms 4-8 can be calculated using CW2 and CW3 and corresponding Net and Gross Debt as appropriate. For terms 5, 7, and 8, the change in Net Worth, Net Debt, or Gross Debt is an absolute value as these metrics focus on a decrease in Net Worth or an increase in Net or Gross Debt; if there is an increase in Net Worth or a decrease in Net or Gross Debt, the metric is not measurable (typically noted as "NM"). ABS: absolute value.

Section E. Select Citizens' Wealth Metrics: Basic Math Examples

1. For ease of explanation and math in these examples, billions are used rather than per citizen.
2. Government Total Net Worth (GTNW) is Government Total Assets less Government Total Debts.
3. A decrease in GTNW is viewed as the government balance sheet cost of the increase in GDP.
4. When using negative GTNW numbers, the absolute value of the change in GTNW is used in the Multiplier-related and Return metrics.
5. Yellow cells are variable input cells.

United States Actual*					
	2000	2019	2000-2019	Formula	Comments
GDP	\$10.2	\$21.4	\$11.2		
Government Total Net Worth (GTNW)	-\$7.1	-\$26.1	-\$19.0		
Citizens' Wealth (CW)	\$3.1	-\$4.7	-\$7.8	$GDP \Delta \text{ plus } GTNW \Delta$	GDP Increase plus change in GTNW.
GDP/GTNW "Multiplier"			0.6x	$\Delta GDP \div \Delta GTNW$	Increase in GDP for each one dollar decrease in GTNW.
GTNW/GDP "Inverse Multiplier"			-1.7x	$\Delta GTNW \div \Delta GDP$ (or, $1 \div \text{Multiplier}$)	How many dollars of GTNW were spent for each one dollar increase in GDP. Steps back for each step forward.
CW Created/Destroyed "Return"			41%	$\Delta CW \div \Delta GTNW$ (or, $\text{Multiplier minus } 100\%$)	What % change in CW resulted from decrease in GTNW or what % of GTNW was lost.
GDP increase greater than GTNW decrease					
	2000	2019	2000-2019		
GDP	\$10.3	\$21.4	\$11.1		
Government Total Net Worth (GTNW)	-\$7.1	-\$16.0	-\$8.9		
Citizens' Wealth (CW)	\$17.4	\$37.4	\$20.0		
GDP/GTNW "Multiplier"			1.2x		
GTNW/GDP "Inverse Multiplier"			-0.8x		
CW Created/Destroyed "Return"			-225%		
GTNW increase					
	2000	2019	2000-2019		
GDP	\$10.3	\$21.4	\$11.1		
Government Total Net Worth (GTNW)	-\$7.1	-\$6.2	\$0.9		Rare example with negative GTNW increase, which makes multipliers "Not meaningful" as there was no cost to the GDP increase.
Citizens' Wealth (CW)	\$17.4	\$27.6	\$10.2		
GDP/GTNW "Multiplier"			12.3x	NM Not meaningful	
GTNW/GDP "Inverse Multiplier"			0.1x	NM Not meaningful	
CW Created/Destroyed "Return"			1133%	NM Not meaningful	

*Government Total Net Worth (GTNW) numbers from Financial Reports of the United States Government; corrected for federal debt securities held by the Social Security and Medicare trust funds incorrectly claimed as intragovernmental debt holdings, \$1.2 billion and \$3.2 billion in 2000 and 2019, respectively.