



STATISTICS

Analyzing Non-Financial Corporate and Household Sectors Issues Using Institutional Sector Accounts

WORKSHOP ON FINANCIAL ACCOUNTS

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Presentation Outline

- **Nonfinancial Corporations in the System of National Accounts**
- **Data Sources**
- **Special Issues**
- **Analytical Uses of the Data / Key Indicators**
- **Way Forward**
- **Households**

The Structure of the SNA

NONFINANCIAL CORPORATIONS IN THE SNA

The total economy is split into five institutional sectors

NON-FINANCIAL
CORPORATIONS



FINANCIAL
CORPORATIONS



GENERAL
GOVERNMENT



HOUSEHOLDS



NON-PROFIT
INSTITUTIONS
SERVING
HOUSEHOLDS



In general, the principal activity of nonfinancial corporations is the production of market goods or non-financial services.

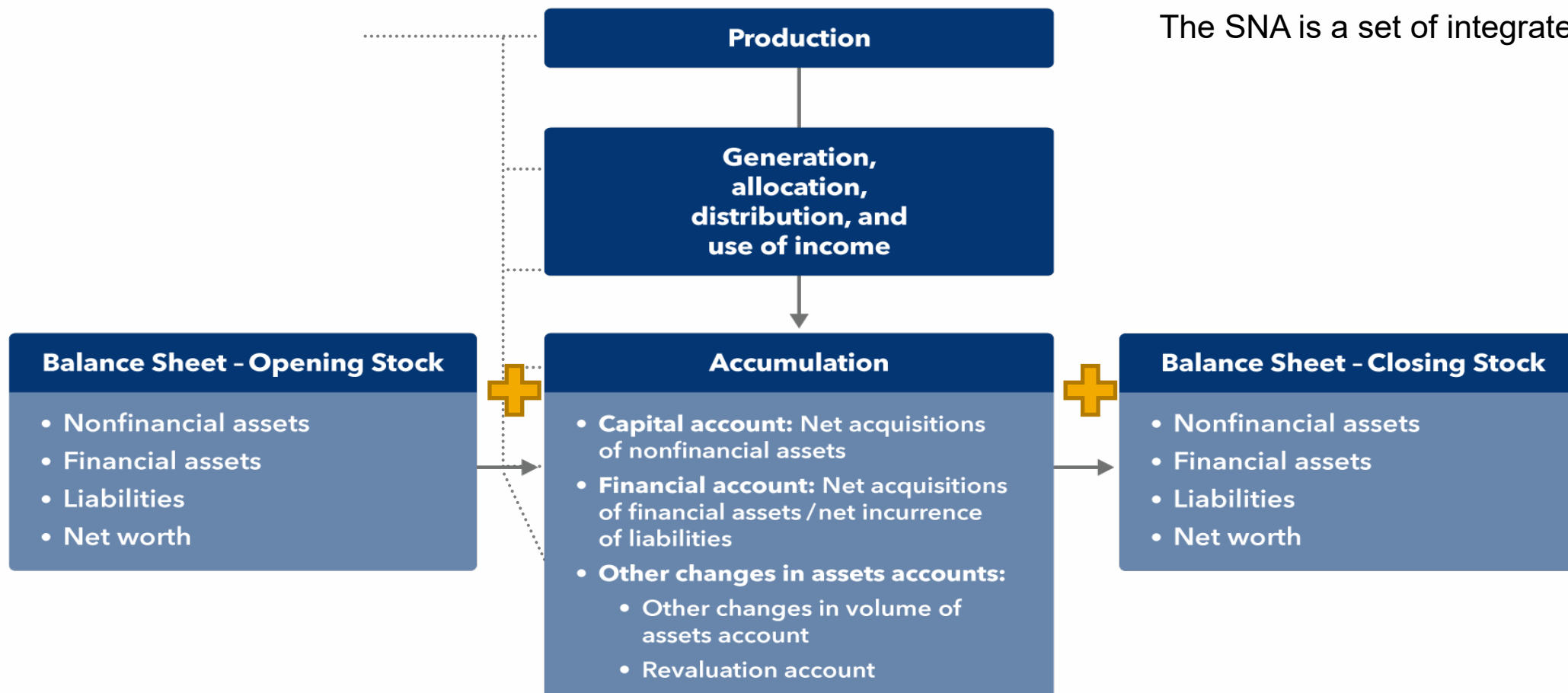
The sector comprises of :

- *Public and national private* non-financial corporations
- *Foreign-controlled and domestic* non-financial corporations including Quasi Corporations
- *Non-profit institutions* that provide services to nonfinancial corporations

The Structure of the SNA

Financial Accounts & Balance Sheets within the SNA Sequence of Accounts

The SNA is a set of integrated accounts



- The balance sheets show the composition of net worth from non-financial assets, financial assets and liabilities at the beginning and the end of the accounting period.

Data Sources

Source Data for Non-financial Corporations (NFC)

- Direct estimates of source data for the NFC sector may be difficult to acquire
- Counterpart data as well as other partial sources of data are important in this sector
- Multiple sources of data is the norm. The key is understanding (1) **the strengths of each source and then (2) combining these sources judiciously to estimate transactions, other flows and stocks**
- In the absence of any sources for any given item for this sector, then the balancing of the flow or stock matrices can be relied upon to produce an lower quality estimate for that item. This procedure is referred to as **residual derivation**

Source Data for Non-financial Corporations

The size, structure and variation of NFCs affect the data sources available to compile financial accounts and balance sheets.

- Four primary data sources:
 - Survey statistics
 - Taxation statistics
 - Publicly available corporate financial statements
 - Counterpart (indirect) data

Non-financial Corporations Data sources - Surveys

Survey data sources typically cover income statements and balance sheets, which implies deriving transactions from positions and other sources. The survey design can allow for the configuration of corporate financial statements into SNA 2008 categories. Some considerations:

- The existence of a corporate survey for NFCs is not that common among countries, even among developed economies. The survey can be focused on companies (legal entities) or on statistical enterprises (consolidation of related legal entities, allocated to the dominant industry).
- Coverage is often an issue. Some countries may only survey or sample large corporations.
 - Under-estimation of the sector is quite common in these situations.
 - A business list approach may lead to biases.
 - Sampling errors can be an issue if the universe is not known, since a representative sample cannot be drawn without a comprehensive business register
- In these situations, statisticians must rely on other sources, often a mixture of sources, to complete the coverage.

Non-financial Corporations Data sources – Administrative data

Advantages/Opportunities

- Reliable Data Source
- Can be used in conjunction with Corporate Balance Sheets (survey data)
- Great Source for Benchmarking Estimates and Improving Coverage for NFCs

Challenges

- May Require an MOU/LOA to Access Data
- Usually available with an Annual Frequency (with lags)
- Limited transaction and detailed breakdown of financial accounts categories/instruments
- Mapping with Required SNA Categories needed

Non-financial Corporations Data sources - Financial Statements

Annual (and sometimes less detailed sub-annual) reports for large corporations. Predominately listed corporations, are increasingly available and increasingly timely and frequent.

Some commercial vendors (third party providers) that specialize in providing such information to the markets.

- Challenges:
 - For MNEs, may not reflect domestic consolidation of the enterprise
 - Coverage of large entities only
 - Data generally aggregated over financial instruments
 - Accounts built in accordance with country specific accounting principles
- Main use:
 - Supplementary information on new funds raised, mergers and acquisitions, etc. ... volume changes...

Non-financial Corporations Data sources - Example of Financial Statement Data

	Note	2014 \$'000	2013 \$'000
Assets			
Cash and deposits	5	2,233,056	1,605,227
Investment securities	6	5,430,199	5,262,815
Receivables	7	1,255,599	1,192,234
Inventories	8	2,071,718	2,071,950
Loans receivable	9	3,305,387	1,569,419
Subsidiaries	34	445,334	82,922
Taxation recoverable		148,029	62,376
Investments in associates	10	49,698	185,173
Investments in subsidiaries		12,933,078	10,681,070
Intangible assets	11	115,552	105,940
Fixed assets	12	230,661	219,697
Pension plan asset	14	5,437,116	5,506,469
Total Assets		33,655,427	28,545,292
Liabilities			
Bank and other loans	15	4,128,016	3,397,782
Payables	16	1,781,118	1,790,265
Subsidiaries	34	2,420,347	240,081
Provisions	17	6,221	6,221
Deferred tax liabilities	13	1,038,498	1,096,490
Other post-employment obligations	14	1,410,009	1,311,018
Total Liabilities		10,784,209	7,841,857
Equity			
Share capital	18	588,533	643,074
Capital and fair value reserves	19	250,564	244,591
Retained earnings		22,032,121	19,815,770
Total Equity		22,871,218	20,703,435
Total Equity and Liabilities		33,655,427	28,545,292

Notes are important part of the data and are used to breakdown the data

Business accounting instruments have to be converted or mapped to ESA 2010 / 2008 SNA instruments.

Non-financial Corporations Data sources - Other

Indirect source data plays an important role in generating the estimates for this sector. Such data can provide crucial information of the financial assets (depending on asset composition) and of liabilities (depending on liability composition).

While the coverage is generally lower on financial assets, these assets are typically much smaller than liabilities for NFCs (the largest assets being non-financial assets)

- Data sources and approaches:
 - Counterpart data from financial corporations: Deposit assets; Loan liabilities: [Life insurance assets and pension assets](#); and, sometimes, financial derivatives
 - Lesser-known counterpart data: Trade accounts (F8.1 payable/receivable) from the ROW sector; and, for Non-trade payables (F8.2), corporate taxes receivable from the government sector
 - Securities' databases: Can provide flow and stock data for debt securities (liabilities and sometimes assets) corporate shares (liabilities and sometimes assets)
 - Non-data approach: The vertical and horizontal rules of the Capital Account, Financial Account and Balance Sheet Account can permit the derivation of some financial instruments

Non-Financial Corporations statistical challenges

- This sector is a challenge in many countries, with various approaches to generating estimates based on the source data available
- Direct source data is often not available or imperfect
- Compilation challenges will be evident in both annual and quarterly spaces
- The estimates for this sector will rely to the extent possible on counterpart entries for financial assets and liabilities
- Transactions may have to be largely derived from positions

Non-Financial Corporations Data Sources - Summary

Sources of data for non-financial corporations

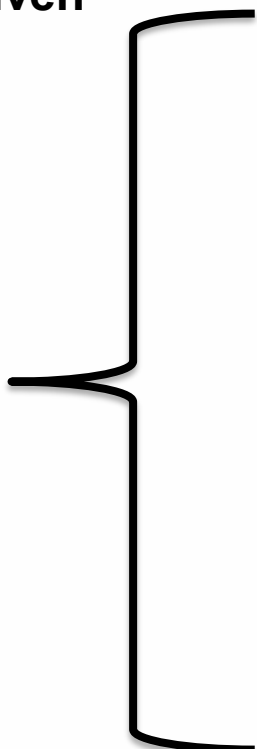
Data source/ characteristics	Publicly available corporate balance sheets	Taxation statistics	Survey statistics	Counterpart (indirect) data
Frequency	Typically annual although with the increase in private sector databases, sub-annual information is becoming increasingly common on the Internet	Annual	Can be designed to be quarterly	Typically, quarterly
Timeliness	Varying lags, from medium to long lag (typically in excess of one year). with the increase in private sector databases, select information is becoming more timely	Long lag (often in excess of 1-2 years)	Can be designed to have an adequate lag	Typically, a short lag
Detail	Aggregated, such that only limited details may be available	Aggregated, such that only limited details may be available	Can be quite detailed, by design (taking into account response burden issues)	Instrument specific details
Consolidation	<ul style="list-style-type: none"> ◆ Typically, global for complex MNEs ◆ Domestic for others, based on legal entities 	Domestic based on legal entities	<ul style="list-style-type: none"> ◆ Domestically consolidated enterprises ◆ Domestic legal entities 	Reflection of domestically consolidated entities
Universe coverage	Typically, not universe coverage	Yes, for legal entities	<ul style="list-style-type: none"> ◆ No, if sample survey only ◆ Yes, if other data (e.g. tax data) are used to estimate 	Typically, yes

Special Cases

Data challenges - Sector detail (+/-)

- Too little detail given analytical needs

S11
Non-financial
corporations



Section level of the ISIC Rev4
Section A agriculture, forestry and Fishing
Section B Mining and Quarring
Section C Manufacturing
Section D Electricity, gas, steam and air conditioning supply
Section E Water supply; sewerage, waste management
Section F Construction
Section G Wholesale and retail trade
Section H transportation and storage
Section I Accommodation and food service activities
Section J Information and communication
Section L Real estate activities
Section M Professional, scientific and technical activities
Section N Administrative and support service activities
Section P Education
Section Q Human health and social work activities
Section R Arts, entertainment and recreation
Section S Other service activities

National Accounting and Business Accounting

Accounts are similar in structure although some terminology may be different

- Coverage of assets
 - ✓ Intellectual property products and other intangible assets
- Valuation differences for nonfinancial assets
 - ✓ Depreciation vs consumption of fixed capital
 - ✓ Current values vs book values
- Treatment of equity and net worth
 - ✓ Total assets = *total debt liabilities* + *owners' equity* → business accounting
 - ✓ Total assets = *total liabilities (including outstanding equity)* + *net worth* → SNA

Instrument and valuation and classification and differing accounting principles

Multiple accounting standards in play

- IFRS, ASPE (private GAAP), US GAAP

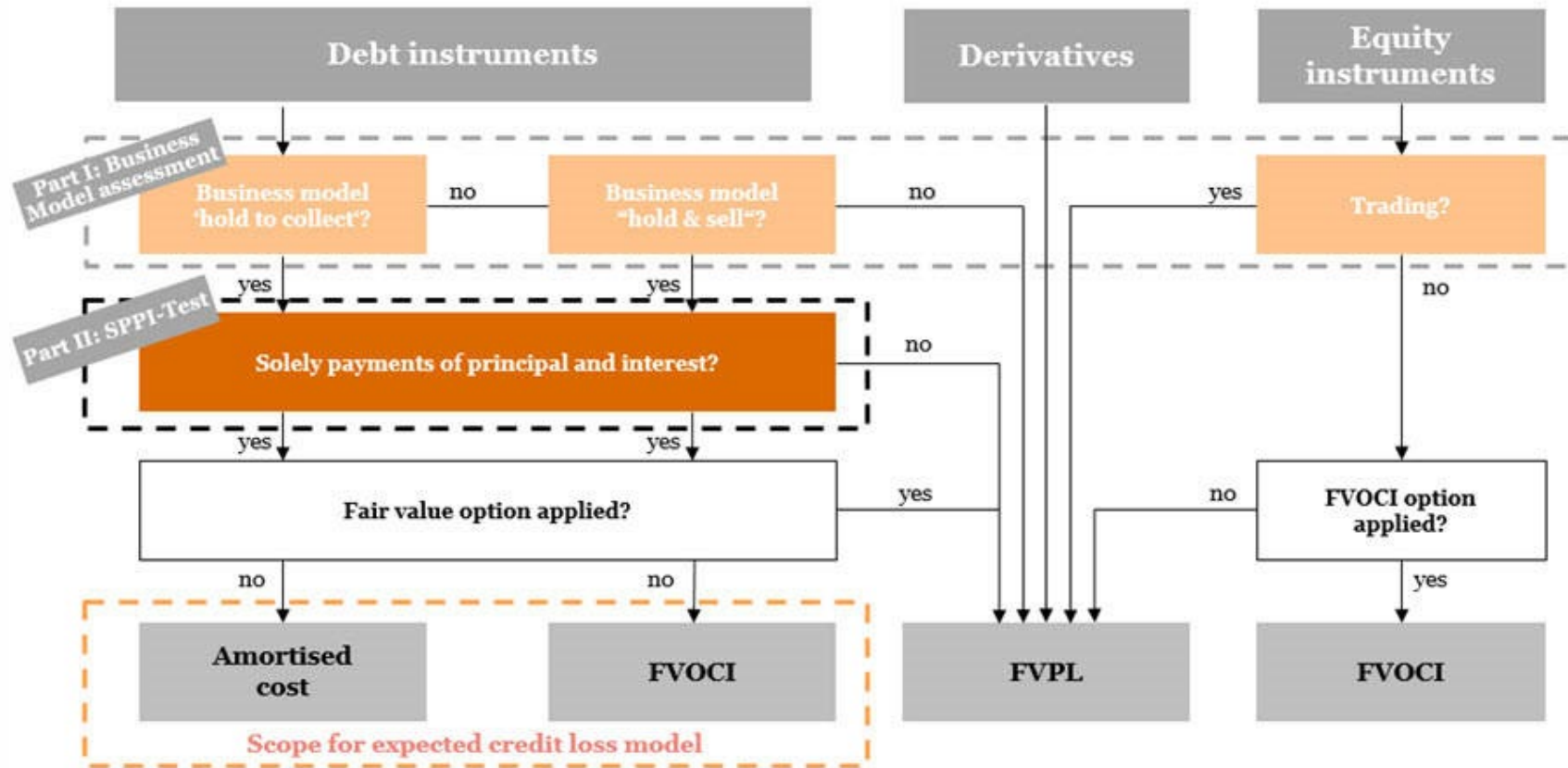
Balance sheet levels could be at different valuations

Differing treatment of gains/losses (income statement, OCI)

Different classification	Different valuation
<ul style="list-style-type: none">• Financial assets<ul style="list-style-type: none">• Held for trading• Held to maturity• Available for sale	<ul style="list-style-type: none">• Designated at fair value<ul style="list-style-type: none">• Fair value through profit/loss• Fair value through OCI• Amortized cost

Differing classification guidelines

IFRS 9 Classification & Measurement 3 steps to classify financial assets



Caption: SPPI = Solely Payments of Principal & Interest
 FVOCI = Fair Value through Other Comprehensive Income
 FVPL = Fair Value through Profit & Loss

Differing valuation guidelines

Type	Intent	Accounting Treatment
Held to maturity (for debt securities)	Has intent and ability to hold the debt until it matures.	<ul style="list-style-type: none"> • Reported at amortized cost. • Changes in value ignored unless deemed as impaired.
Available for sale	Does not intend to sell in the near term, elect fair value accounting, or hold until maturity.	<ul style="list-style-type: none"> • Recorded at fair value. • Changes in value are recognized in other comprehensive income.
Held for trading and those designated as fair value through profit or loss	Intends to sell in the near term (i.e., held for trading) or has otherwise elected fair value accounting.	<ul style="list-style-type: none"> • Recorded at fair value. • Changes in value are recognized in profit or loss on income statement.

Differing valuation guidelines

	Measurement Category	
	Original (IAS 39)	New (IFRS 9)
Financial Assets:		
Cash	Amortized cost	Amortized cost
Cash equivalents	Available-for-sale	Amortized cost/fair value through profit or loss
Trade receivables	Amortized cost	Amortized cost
Settlement receivables	Fair value through profit or loss	Fair value through profit or loss
Marketable equity securities	Available-for-sale	Fair value through other comprehensive income
Debt securities	Available-for-sale	Fair value through other comprehensive income
Long term receivables and deposits	Amortized cost	Amortized cost
Derivative instruments and embedded derivatives with non-financial host contracts	Fair value through profit or loss	Fair value through profit or loss
Financial Liabilities:		
Trade payables	Amortized cost	Amortized cost
Settlement payables	Fair value through profit or loss	Fair value through profit or loss
Debt	Amortized cost	Amortized cost
Derivative instruments and embedded derivatives	Fair value through profit or loss	Fair value through profit or loss

Investments in financial assets: Example

- On 1 January 2008, ACME Inc. invested \$300,000 in ABC Co. debt securities (with a 6% stated rate on par value, payable each 31 December). The par value of the securities was \$275,000. On 31 December 2008, the fair value of ACME's investment in ABC is \$350,000.
- Assume the market interest rate when the bonds were purchased was 4.5%. If the investment is designated as held to maturity, the investment is reported at amortized cost using the effective interest method. A portion of the amortization table is as follows:

End of Year	Interest Payment	Interest Income	Amortization	Carrying Value
0				\$300,000
1*	\$16,500	\$13,500	\$3,000	297,000
2	16,500	13,365	3,135	293,865
3	16,500	13,224	3,276	290,589

*6% × Par value (\$275,000) = \$16,500; 4.5% × Carrying value (\$300,000) = \$13,500

Investments in financial assets: Example

How would this investment be reported on the financial statements at 31 December 2008 under either IFRS or U.S. GAAP (accounting is essentially the same in this case) if ACME designated the investment as:

- (1) held-to-maturity,
- (2) held for trading,
- (3) available-for-sale, or
- (4) designated at fair value?

	Income Statement	Balance Sheet	Statement of Owners' Equity
Held-to-maturity	Interest income: \$13,500	Reported at amortized cost: \$297,000	No effect
Held for trading	Interest income: \$13,500 and \$53,000 unrealized gain recognized through profit	Reported at fair value: \$350,000	No effect
Available-for-sale	Interest income: \$13,500	Reported at fair value: \$350,000	\$53,000 unrealized gain (net of tax) reported as OCI
Designated at fair value	Interest income \$13,500 and \$53,000 unrealized gain recognized through profit	Reported at fair value: \$350,000	No effect

Investments in financial assets: Example

Held-to-maturity	$\$352,000 - \$297,000 = \$55,000$
Fair value through profit or loss (held for trading)	$\$352,000 - \$350,000 = \$2,000$
Available-for-sale	$(\$352,000 - \$350,000) + \$53,000$ (removed from OCI) = $\$55,000$

If the investment was held-to-maturity, the reported amount at amortized cost on the balance sheet would be \$293,865.

If it was classified as either held for trading, available-for-sale, or designated at fair value, it would be reported at its fair value at 31 December 2009.

Valuation of Equity and Investment Fund Shares

Market value includes accrued income:

- On equity: dividends (until securities go ex-dividend)
- On investment funds: dividends and reinvested earnings

Listed Shares

- Regularly traded on stock exchanges or other organized financial markets, current price available
- Same value adopted for both the asset side and liabilities side
- Valued at representative mid-market price observed in a stock exchange
- For a large corporation listed on many exchanges, market price based on representative stock exchange or average of market prices from stock exchanges

Unlisted Shares

- Not traded on exchanges
- Market prices/transaction values not readily available
- → Estimation required

Valuation of Equity and Investment Fund Shares

When actual market values are not available, an estimate is required. Alternative methods of approximating market value of shareholders' equity include the following:

Estimation Approach	Description	Remarks
Recent Transaction Price	Use most recent observed transaction price	Good indicator to the extent that conditions are unchanged
Net Asset Value	Assessment of total asset value less liabilities	Valuations should be recent and include intangible assets
Present Value/ Price-to-Earnings Ratios	Approximated by applying a market or industry price-to-earnings ratio to the (smoothed) recent past earnings of the unlisted enterprise	
Market Capitalization	Adjustment of reported book values at an aggregate level with ratios based on suitable price indicators or by revaluing assets to current period prices	

Valuation of Equity and Investment Fund Shares

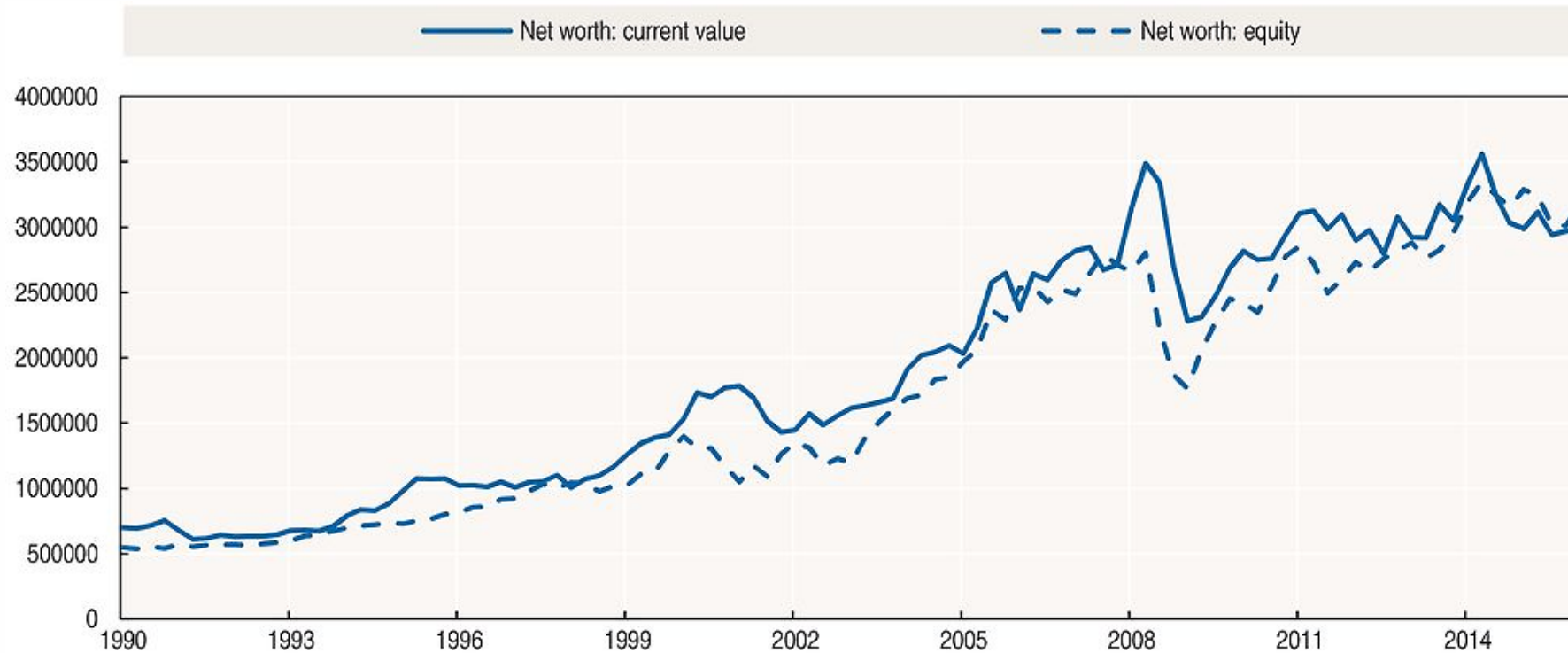
When actual market values are not available, an estimate is required. Alternative methods of approximating market value of shareholders' equity include the following:

Estimation Approach	Description	Remarks
Own Funds at Book Value (OFBV)	<ul style="list-style-type: none">• Based on the accounting values as reported in the financial reports of the corporation.• Unlisted shares are thus value reflecting the book value.• Calculated as paid-up capital and all types of reserves identified as equity in the enterprise's balance sheet plus cumulated reinvested earnings plus holding gains or losses included in own funds in the accounts	In some circumstances, a strict application of this method can lead to an inconsistent valuation of cross-border assets and liabilities of one institutional unit (and consequently to distortions in a country's IIP).

Valuation of Equity and Investment Fund

SPECIAL ISSUE: Corporate equity, Net asset value, Residual corporate net worth

Net asset value versus equity (market value) for non-financial corporations in Canada Millions of CAD



OECD handbook, Understanding Financial Accounts https://www.oecd-ilibrary.org/sites/9789264281288-en/1/2/6/index.html?itemId=/content/publication/9789264281288-en&_csp_=ec2ae7bbfb38708b05397f7c4a7de6ff&itemIGO=oecd&itemContentType=book#chap00005

Valuation of Equity and Investment Fund

TOBIN'S Q (MV/NAV; MV/OFBV)

Description

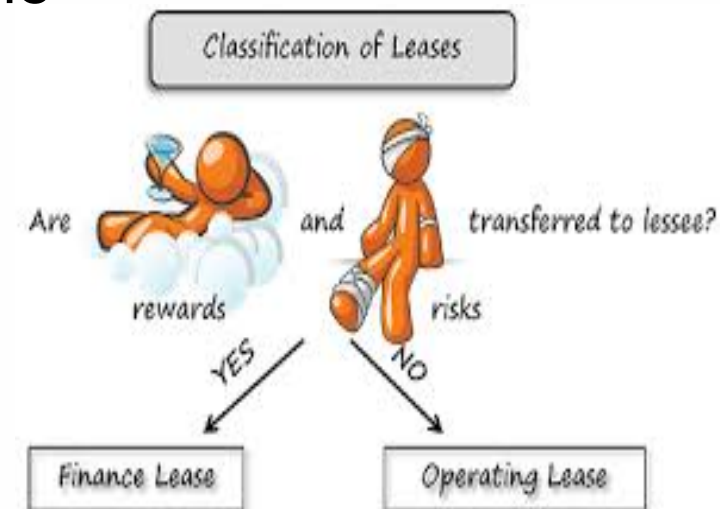
- **Tobin's q** is an indicator to assess the market valuation of a (listed) company. This usually refers to the ratio of stock price estimates and financial accounting measures (ideally, IFRS measures) for any or all listed companies. Tobin's Q suggests that the market value of a firm (or firms) should be close to its intrinsic value (at replacement cost)
- Values of >1 are interpreted as overvaluation, and <1 are interpreted as undervaluation
- Using SNA values from the BSA, the ratio from market value (**MV equity**) to replacement value (**Net asset value**) for all non-financial enterprises is equivalent to **Tobin's Q**, but as a macroeconomic measure

Application and Interpretation in practice

- For the company, companies, or for NFCs in aggregate, assets may not be perfectly accounted for
- Similarly, markets may assign premiums/discounts to intangibles, or they may be subject to speculative pressures at different points in time
- For these, and other reasons, **Tobin's Q** measures may fluctuate considerably over economic events like the dotcom boom-bust or the great recession. As such, it can offer some valuable insights on the perceptions of corporate performance

Financial Accounts - Treatment of Leases

- Financial lease (FL) is a contract under which the **lessor** (as legal owner of the asset) conveys substantially all the risks and rewards of ownership of the asset to the **lessee**
- The financial lease entails a financial claim which is an asset of the lessor and the liability of the lessee.
 - ▶ *An operating lease is a service.*
- Financial leases are included under loans because these arrangements are taken as presumptive evidence that an economic change in the ownership of goods has occurred.
 - ▶ *The financial lease is essentially a method by which the lessee finances the purchase of goods.*



Financial Accounts - Financial vs Operating Leases

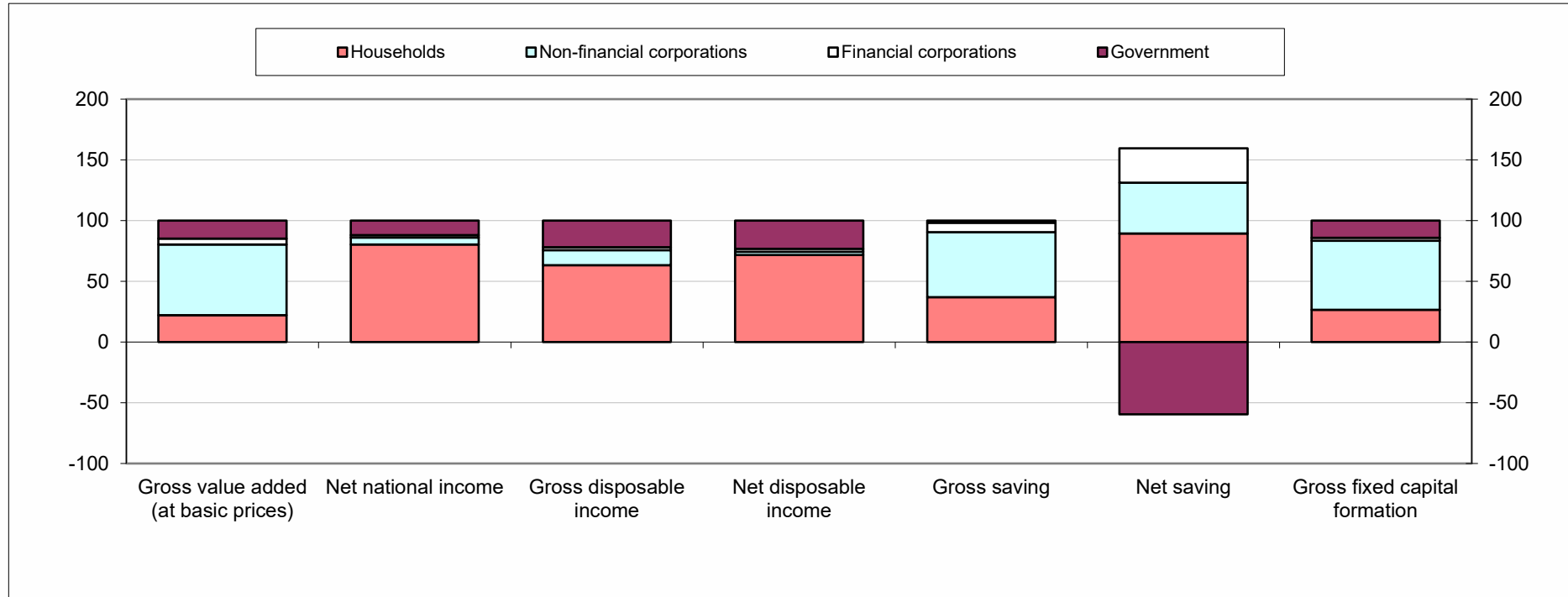
	Financial Lease	↔	Operating Lease
Tax treatment	As trade of goods		As trade of services
Financial Aspect	Long-term loans		Long-term lease
Legal Ownership	Lessor		Lessor
Economic Ownership	Lessee		Lessor
User Tax Savings	Depreciation and interest		Rent
Risks of Using	Lessee		Lessor
Lease Period	Optional		→ 75% of asset economic life
VAT Invoicing	At inception on total value of asset + VAT on interest		On individual rental (net rental + VAT)
Ownership Transfer (after contract expiry)	Upon payment of final installment lessee bec. owner		Upon contract expiry, lessee has the right to purchase at market value
Suitable Form of Leasing	Where user wants to become the asset owner		Where user does not want to own leased asset, lessor bears all risks
Statistical Treatment	Asset with economic owner + Imputation of a Loan		Recorded as Service Payment

Financial Accounts Treatment of Leases

		IAS 17				IFRS 16		
Financial statement	Section	Lessor		Lessee		Lessor		Lessee
		Finance leases	Operating leases	Finance leases	Operating leases	Finance leases	Operating leases	All leases
Balance sheet	Assets	Receivable (net Investment in the lease)	Property, plant and equipment subject to operating leases	Right-of-use asset		Receivable (net investment in the lease)	Property, plant and equipment subject to operating leases	Right-of-use asset
	Liabilities			Lease liability				Lease liability
Income statement	Revenues	Interest income	Rental income			Interest income	Rental Income	
	Operating expenses		Depreciation expense	Depreciation expense	Rental payment		Depreciation expense	Depreciation expense
	Finance expenses			Interest expense				Interest expense

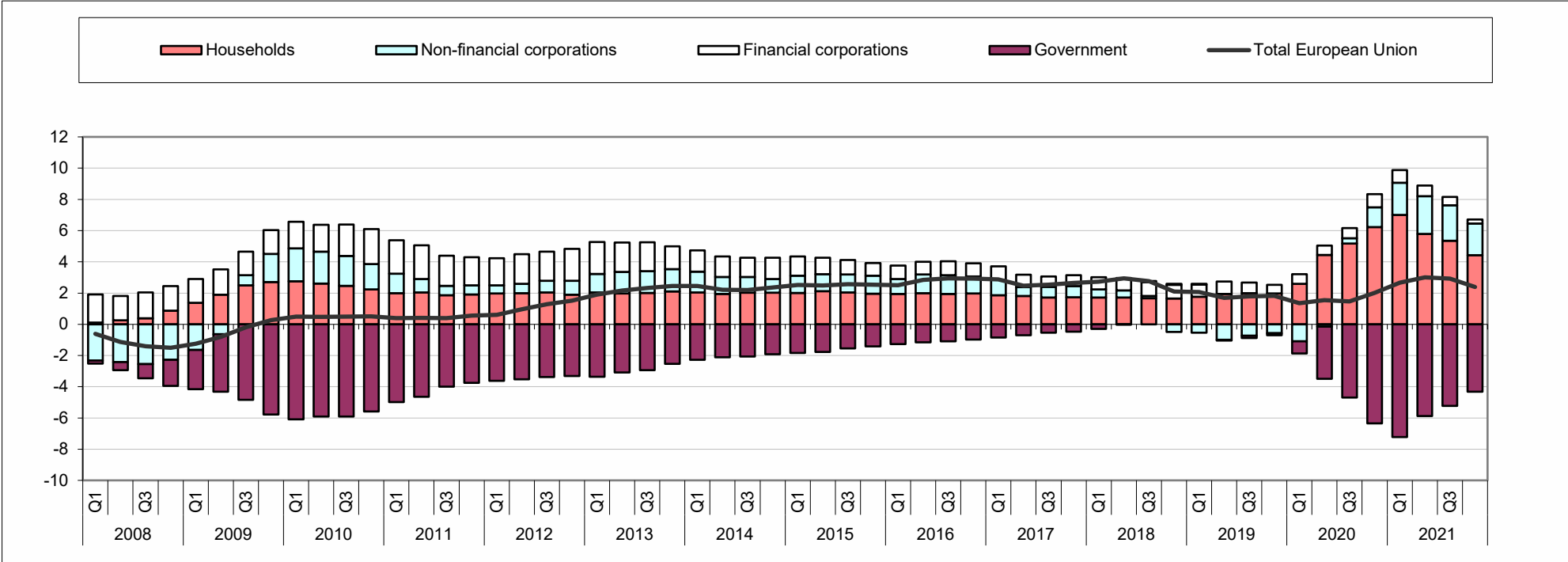
Nonfinancial Corporations Analytical uses

Euro Area: Shares of sectors in key aggregates 2009 - 2020 average



Sources: Eurostat and ECB

Euro Area: Contributions of sectors to the net lending (+)/net borrowing (-)

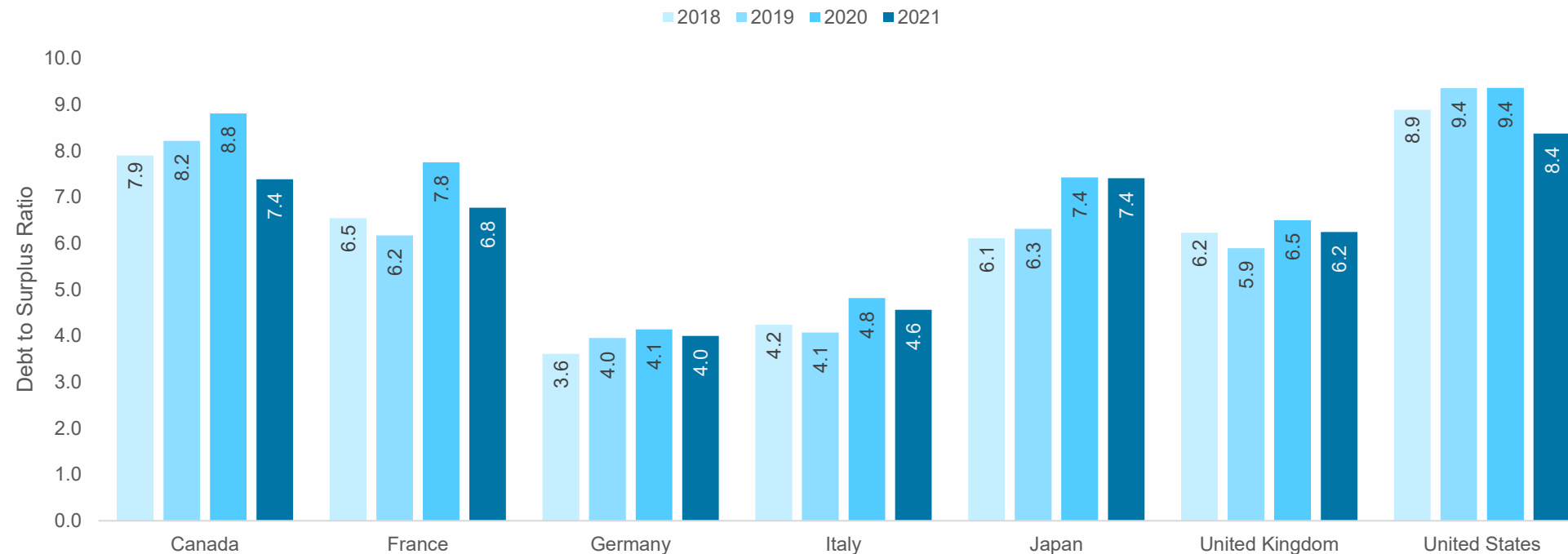


Sources: Eurostat and ECB

Analytical Uses of Data: Structure & Use of Funds

- The debt to surplus ratio looks at the sustainability of the sector's cash flows to service their debt and mitigate any potential spillovers to other sectors (creditors).

Debt to Operating Surplus in G7 Economies

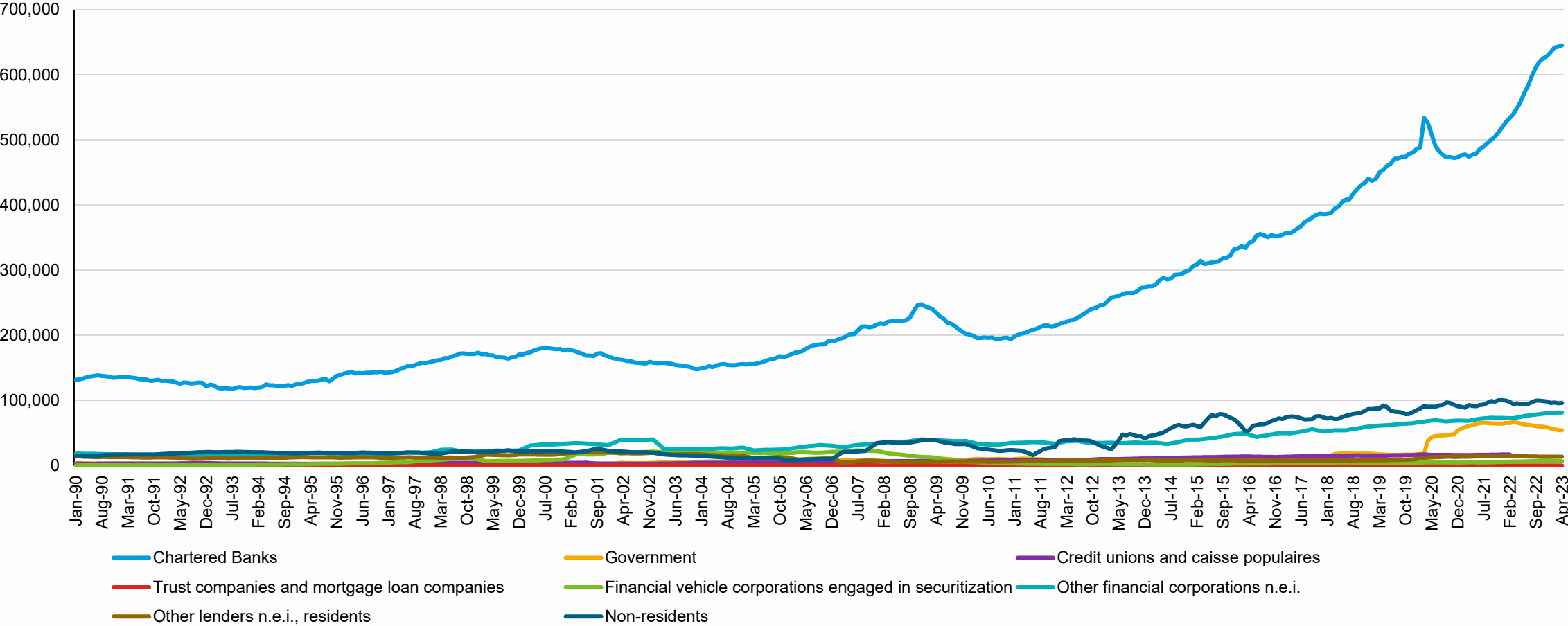


Source: <https://data.oecd.org/corporate/non-financial-corporations-debt-to-surplus-ratio.html>

The increasing ratios prior to 2021 show that NFCs are increasing their debt liabilities without a proportionate increase in their annual operating surplus flows to cover repayment of debt/interest cost.

Non-Financial Corporations Borrowing – Canada

Non-mortgage Loans of Private Non-financial Corporations, Monthly, Seasonally-adjusted

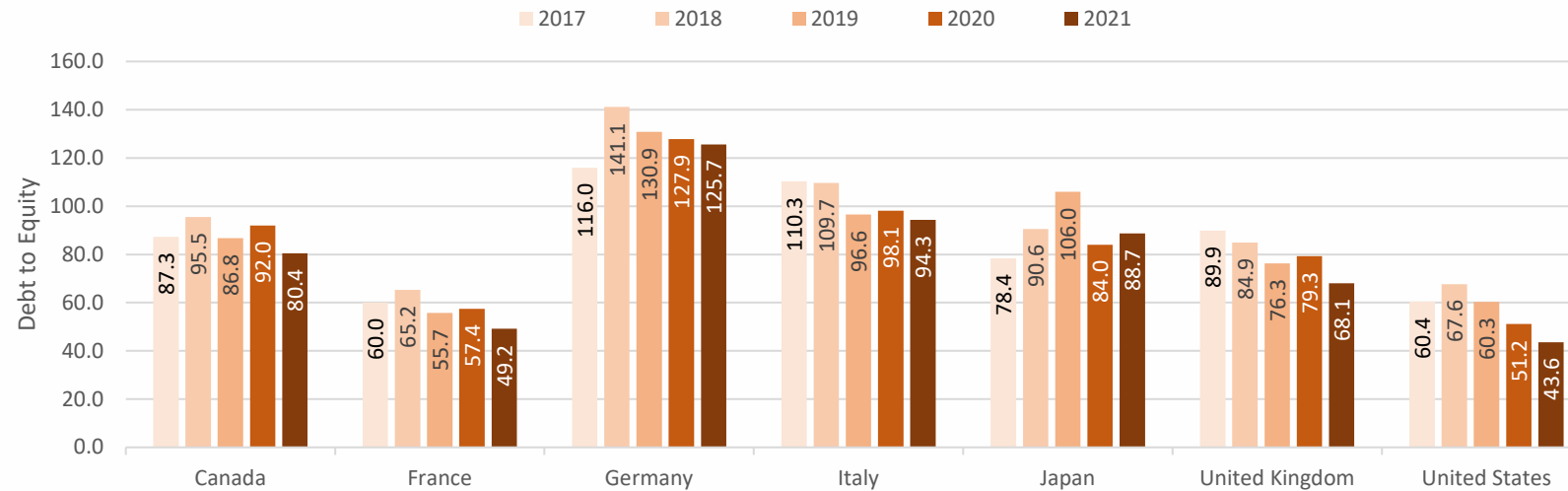


<https://www150.statcan.gc.ca/t1/tbl1/en/cv.action?pid=3610064001>

Analytical Uses of Data: Structure and Use of Funds

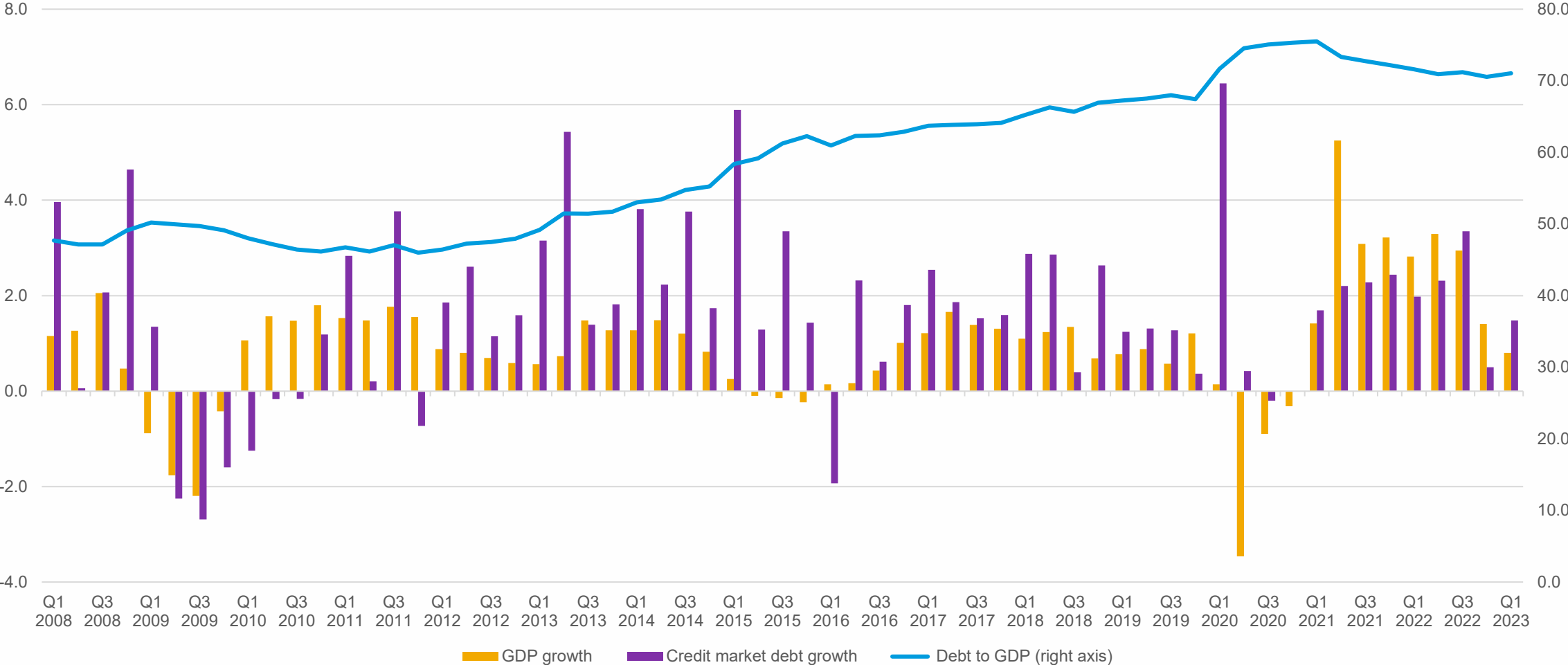
- For NFCs, debt securities and loans are key instruments - they are also relevant for financial corporations, but not in the same proportion.
- The leverage ratio looks at the structure of the NFCs' balance sheets and any potential vulnerabilities from excess leverage.

Debt to Equity Ratio in G7 Economies

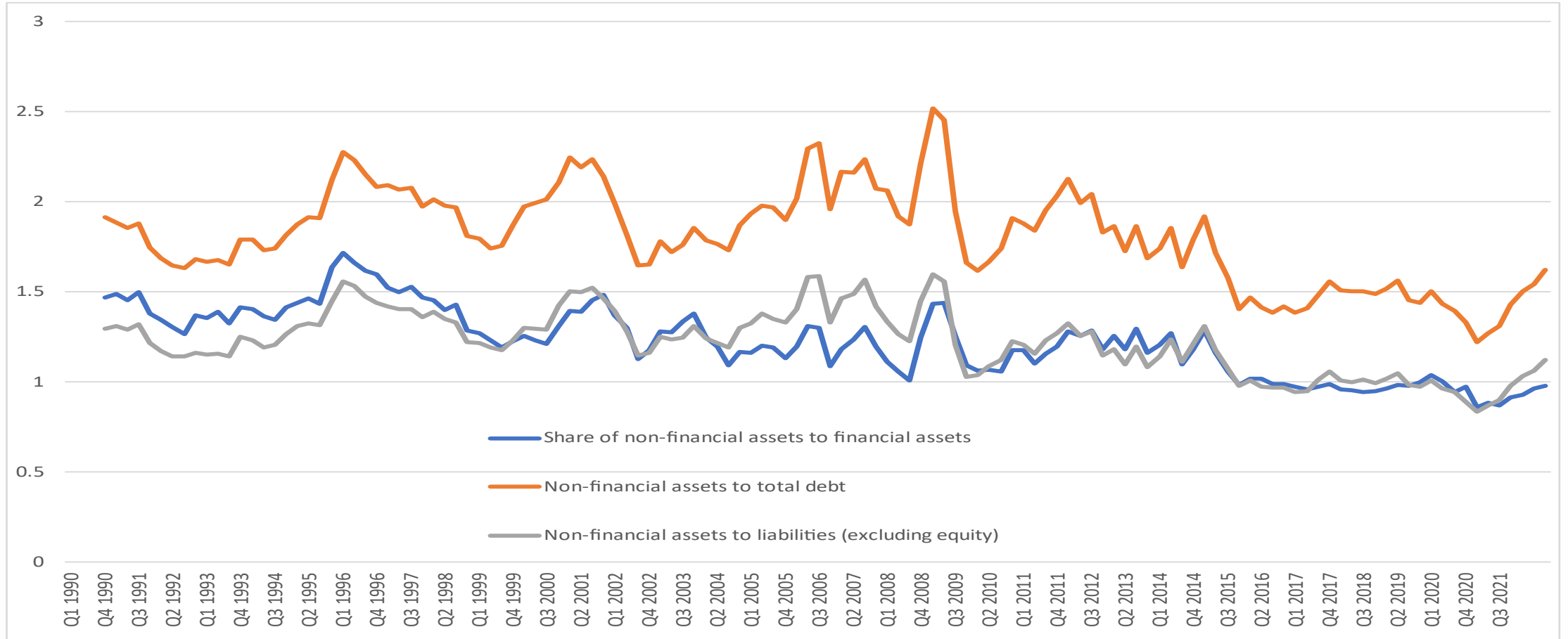


Source: <https://data.oecd.org/>

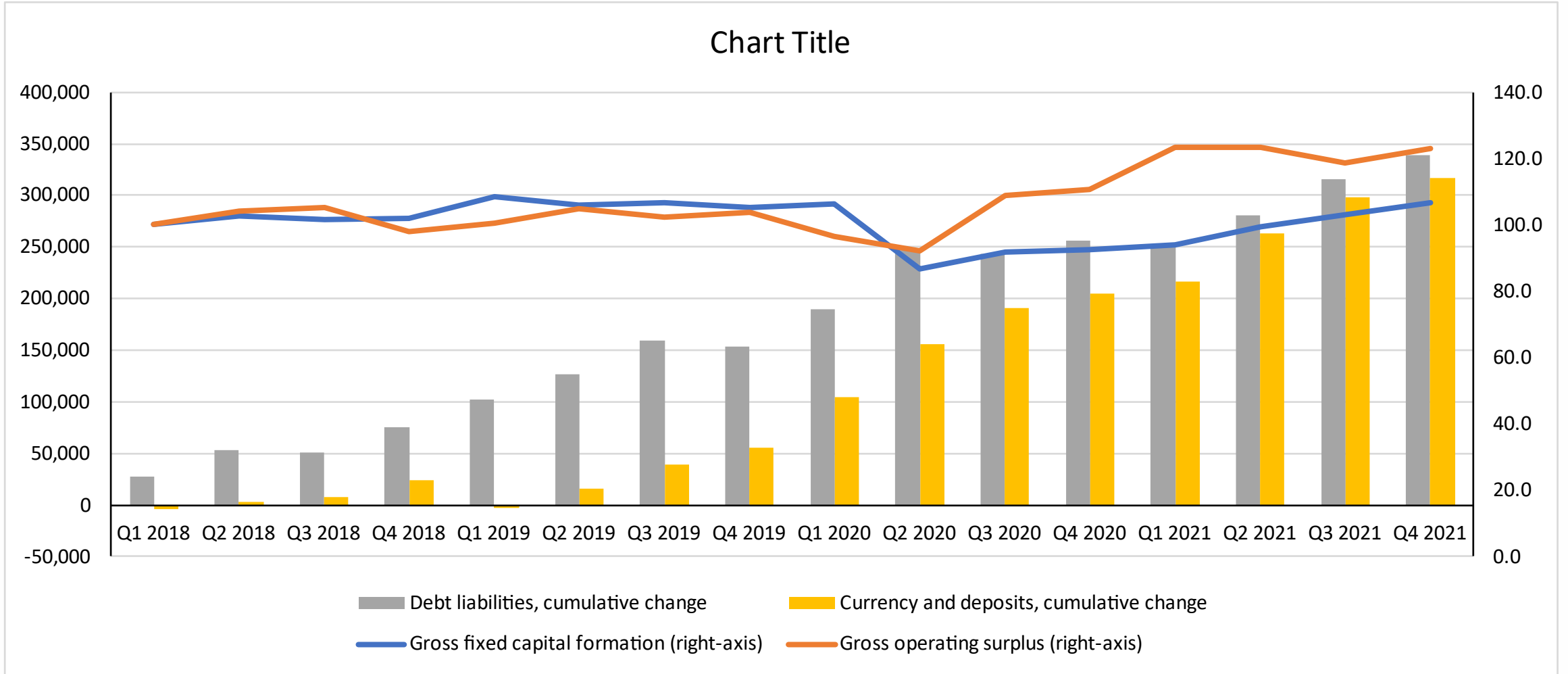
Non-Financial Corporations - Credit Market Debt in Relation to GDP



Non-Financial Corporation leverage ratios



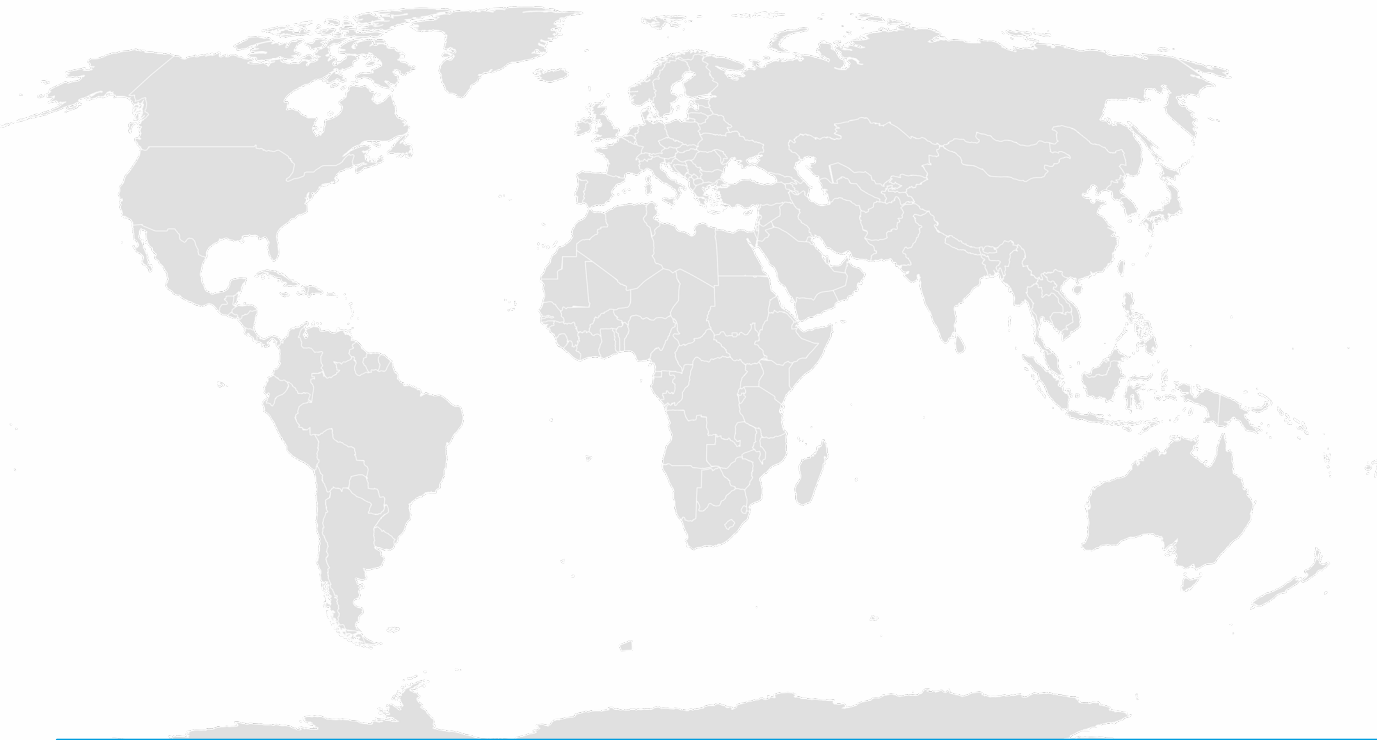
Gross Capital Formation



Nonfinancial Corporations

Way forward

Data Availability: The G-20 Data Gaps Initiative and Addressing Data Gaps



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Database

Download data from OECD.Stat Extracts. They are updated on a daily basis.

- » [Financial Accounts Flows - Consolidated data](#)
- » [Financial Accounts Flows - Non consolidated data](#)
- » [Financial Balance Sheets - Consolidated data](#)
- » [Financial Balance Sheets - Non consolidated data](#)

- Financial balance sheet data are available for ≈ 50 economies. In most cases, these are G20, non-G20 OECD economies, and EU member states.
- Through STA's CD program, TA is being provided to several emerging & developing economies to build capacity and develop these data.
- Data for the OECD member countries can be accessed the [OECD. Stat website](#). For other economies, data are available from their respective NSO websites or their [NSDPs](#) (links provided).

Data Availability: The G-20 Data Gaps Initiative and Addressing Data Gaps

In response to the 2008/09 Global Financial Crisis – the G20, led by the Interagency Group on Economic and Financial Statistics (IAG) and the Financial Stability Board (FSB) sought to address the data gaps on balance sheet estimates through phases 1 and 2 of the Data Gaps Initiative (DGI).

Related Recommendations:

- **DGI – 1 (Rec. 15)** - develop a strategy to promote the compilation and dissemination of the balance sheet approach, flow of funds, and sectoral data more generally, starting with the G20 economies.
- **DGI – 2 (Rec. 8)** - encouraged G20 and non-G20 FSB economies to compile and disseminate sectoral accounts flows **and balance sheet data**, including data for the other (non-bank) financial corporations sector, and develop from-whom to-whom matrices for both transactions and stocks to support balance sheet analysis.

Extract from Monitoring Traffic Light Dashboard: G20 Economies' Status of Implementation of DGI-2 Rec.8 at end-2021*

	AR	AU	BR	CA	CN	FR	DE	IN	ID	IT	JP	KR	MX	RU	SA	ZA	TR	UK	US	EU/EA
Recommendation II.8. Sectoral Accounts (COMMON PRIORITY)	Red	Orange	Orange	Orange	Red	Green	Green	Red	Orange	Green	Orange	Orange	Green	Orange	Red	Orange	Green	Orange	Green	Green
- Dissemination of financial accounts and balance sheets (Annual data)	Red	Orange	Orange	Green	Red	Green	Green	Orange	Orange	Green	Green	Orange	Green	Orange	Red	Orange	Green	Orange	Green	Green
- Dissemination of financial accounts and balance sheets (Quarterly data)	Red	Orange	Red	Green	Red	Green	Green	Red	Orange	Green	Green	Orange	Green	Orange	Red	Orange	Green	Orange	Green	Orange

Source: G20 Data Gaps Initiative (DGI-2): Progress Achieved, Lessons Learned, and the Way Forward, IMF Staff and FSB Secretariat (TBD)

Way Forward: From-Whom-To-Whom Estimates

- More economies are developing from whom to whom estimates.
- These better illustrate NFCs' exposures and the vulnerabilities of other domestic sectors that are exposed to the NFC sector.
- Other updates:
 - Further breakdowns to show domestic and foreign-controlled NFCs.
 - Breakdowns to show these instrument holdings by corporations that incorporate ESG principles into their operations.

Instrument/proposed sector levels	Assets of:	Liabilities of:					Rest of the world (S2)
		Total economy (S1)	Non-financial corporations (S11)	Financial corporations (S12)	General government (S13)	Households and NPISHs (S14_S15)	
		F - Total assets/liabilities	S1				
F1 - Monetary gold and SDRs	S1						
F2 - Currency and deposits	S1						
F3 - Debt securities	S1						
F31 - Debt securities, short-term	S1						
F32 - Debt securities, long-term	S1						
F4 - Loans	S1						
F41 - Loans, short-term	S1						
F42 - Loans, long-term	S1						
F5 - Equity and investment funds shares	S1						
F51 - Equity	S1						
F511 - Listed shares	S1						
F512+F519 - Unlisted shares and other equity	S1						
F52 - Investment funds shares or units	S1						
F6 - Insurance, pension and standardized guarant	S1						
F61 - Non-life insurance technical reserves	S1						
F62 - Life insurance and annuity entitlements	S1						
F63 - Pension entitlements	S1						
F64 - Claim of pension funds on pension manage	S1						
F65 - Entitlements to non-pension benefits	S1						
F66 - Provisions for calls under standardised gua	S1						
F7 - Financial derivatives and employee stock opt	S1						
F71 - Financial derivatives	S1						
F72 - Employee stock options	S1						
F8 - Other accounts receivable/payable	S1						
F81 - Trade credits	S1						
F89 - Other accounts receivable/payable excludi	S1						

A Look at the Institutional Sector Accounts Templates

	= Target	= Encouraged	* : item only relevant for stocks, not requested for flows	Total Economy	Non-financial corporations							
					Total	Domestically controlled non-financial corporations				Foreign-controlled non-financial corporations		
						Total	Public non-financial corporations	Of which: Public non-financial corporations, which are part of domestic multinationals			National private non-financial corporations	Of which: National private non-financial corporations, which are part of domestic multinationals
								S11001	S110011			
S1	S11	S11DO	S11001	S110011	S11002	S110021	S11003					
F3 Debt securities												
Of which: Domestic currency *												
F31 Short-term												
F32 Long-term												
With remaining maturity of one year or less *												
With remaining maturity of more than a year *												
F4 Loans												
Of which: Domestic currency *												
F41 Short-term												
F42 Long-term												
With remaining maturity of one year or less *												
With remaining maturity of more than a year *												
F5 Equity and investment fund shares												
F51 Equity												
F52 Investment fund shares/units												
F6 Insurance, pension and standardized guarantee schemes												
F61 Non-life insurance technical reserves												
F62 Life insurance and annuity entitlements												
F63+F64+F65 Retirement entitlements												
F66 Provisions for calls under standardized guarantees												
F7 Financial derivatives and employee stock options												
F71 Financial derivatives												
F72 Employee stock options												
F8 Other accounts receivable/payable												
F81 Trade credits and advances												
F89 Other accounts receivable/payable												

[Link to templates](#)

Households

Households - Data sources

- This sector also presents a challenge for many countries, as there is little recourse to using survey data for the complete sequence of sector accounts
 - Surveys
 - For the financial account and balance sheet account, household asset and debt surveys, where these exist, are generally infrequent and require a sufficient sample size to be representative. Consequentially, an adjustment is required to obtain a universe estimate.
 - Survey estimates are better suited for household asset composition rather than for control totals (exception periodic Census).

Households - Data sources

- Administrative data
 - There are some economies that have comprehensive administrative data for households but this is more of an exception. Generally, administrative data is suitable for certain categories:
 - property assessment records, land registry data, limited financial data from tax returns....
- Other approaches
 - There are two basic approaches to bridge the data gap for these accounts:
 - Counterpart entry source data for the most important components and residual derivation for certain components, which relies on data quality of these items in the other sectors
- **Given this situation, balancing the sector and the matrix can be challenging**

Households - Data sources

Indirect Data

- Indirect source data plays an important role in generating the estimates for this sector.
- For households, the two most important assets are non-financial (their dwellings) and for financial assets their pensions. Typically household assets are much larger than liabilities.
- Data sources and approaches:
 - Counterpart data from financial corporations: Deposit assets; Loan liabilities: Life insurance assets and pension assets; Investment fund assets; and, sometimes, financial derivatives. The data extracted from these sources is usually stock data. Hence, transactions and other flows need to be derived.
 - Securities' databases: Can provide flow and stock data for debt securities (sometimes assets available or derived) corporate shares (sometimes assets available or derived)

Households - Data sources

Indirect Data

- Data sources and approaches (cont.):
 - Government statistics can provide data on securities, loans and other accounts receivable/payable
 - Non-data approach: The vertical and horizontal rules of the Capital Account, Financial Account and Balance Sheet Account can permit the residual derivation of some financial instruments. Challenges remain for Trade Credits, Repos, Stock Options and the most problematic one (in terms of size) can be F51 (especially listed and unlisted equity)

Households - Data sources

Non-Profit Institutions Serving Households (NPISHs)

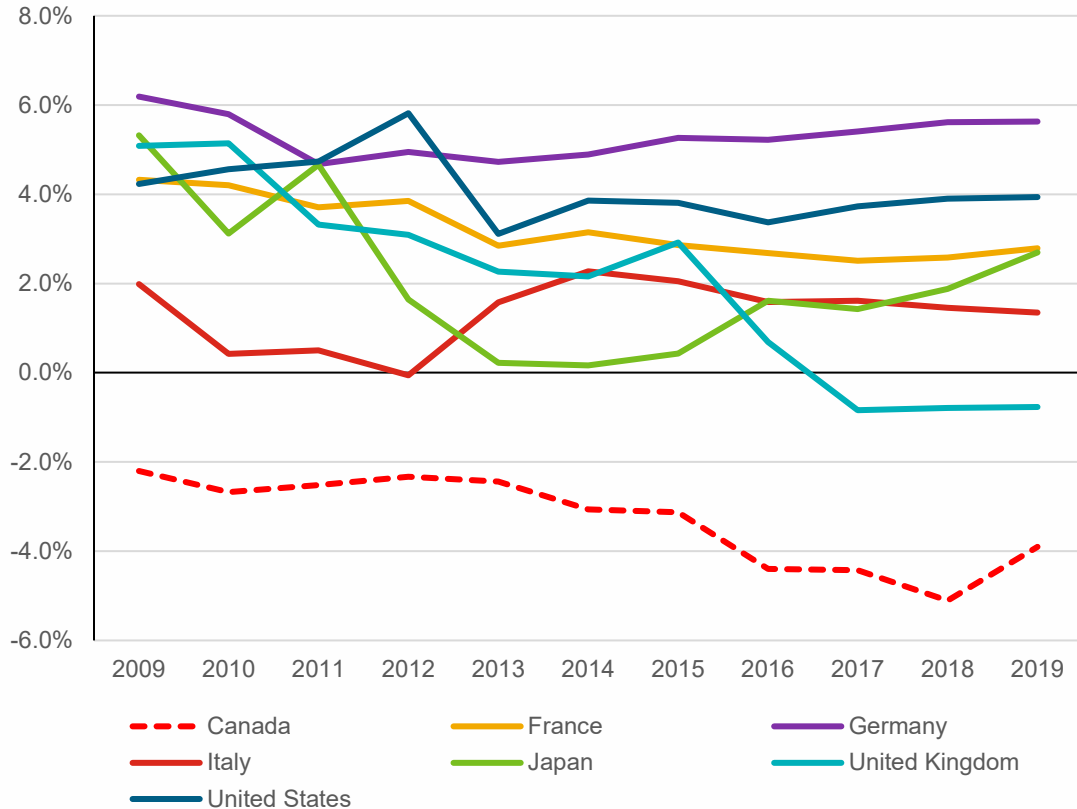
- This sector as well, mainly relies on counter-part entries (deposits and loans) and securities data (bonds of some private hospitals and universities). The sector is relatively small, and therefore the data gaps present less of an issue
 - Sometimes, in certain countries, the Financial Account and Balance Sheet are included in households

Small businesses included in the sector (no separate set of financial statements)

- Unincorporated businesses (associated with mixed income estimates) in this sector may be captured with counterpart data on deposit and loans. Challenges may arise in identifying the individual from the business activity
- Informal activities may or may not be covered. To the extent that they generate saving (covered in non-financial accounts), there is likely no way of generating the corresponding financial statistics and an imputation would be required to balance the sector

Household Net lending / Net borrowing

Figure 1. Household net lending as a percentage of GDP among the G7



2009-2019 Average Household Net Lending as % of GDP

Rank	%	Country
1	10.5%	Switzerland
2	9.7%	China (People's Republic of)
3	8.4%	Mexico
4	5.3%	Germany
5	4.9%	Sweden
6	4.8%	Korea
7	4.4%	Hungary
8	4.1%	United States
9	4.0%	Slovenia
10	3.9%	Chile
11	3.2%	France
12	3.0%	Russia
13	2.9%	Portugal
14	2.9%	Netherlands
15	2.8%	Austria
16	2.6%	Ireland
17	2.3%	Australia
18	2.2%	Belgium
19	2.1%	Japan
20	2.0%	Czech Republic
21	2.0%	United Kingdom
22	2.0%	European Union – 27 countries
23	1.5%	Estonia
24	1.3%	Italy
25	1.3%	Colombia
26	1.0%	Slovak Republic
27	0.9%	Spain
28	0.6%	Luxembourg
29	0.5%	Denmark
30	0.3%	Norway
31	-0.1%	Latvia
32	-0.7%	New Zealand
33	-0.7%	South Africa
34	-1.4%	Lithuania
35	-2.3%	Poland
36	-2.5%	Finland
37	-3.3%	Canada
38	-4.1%	Greece

Source: <https://data.oecd.org/>