STATISTICS

# Analyzing Non-Financial Corporation Using Institutional Sector Accounts

WORKSHOP ON FINANCIAL ACCOUNTS
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# 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 - 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

# 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 (Depreciation SNA 2025)
  - ✓ 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

# Data challenges - Sector detail (+/-)

- **Too little detail given analytical needs**

**S11**
Non-financial corporations

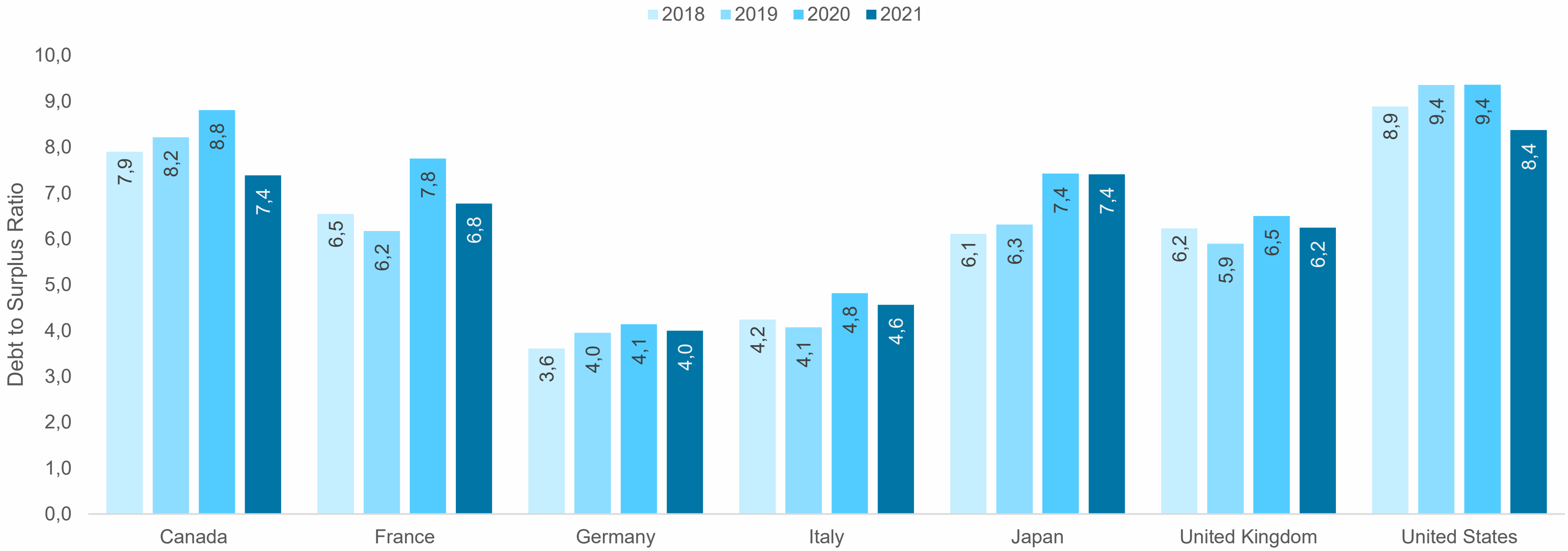
Section level of the ISIC Rev4
Section A agriculture, forestry and Fishing
Section B Mining and Quarring
Section C Manufacturing
Section D Electricity, gas, steam and air conditioning supply
Section E Water supply; sewerage, waste management
Section F Construction
Section G Wholesale and retail trade
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

# Nonfinancial Corporations Analytical uses

# 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*

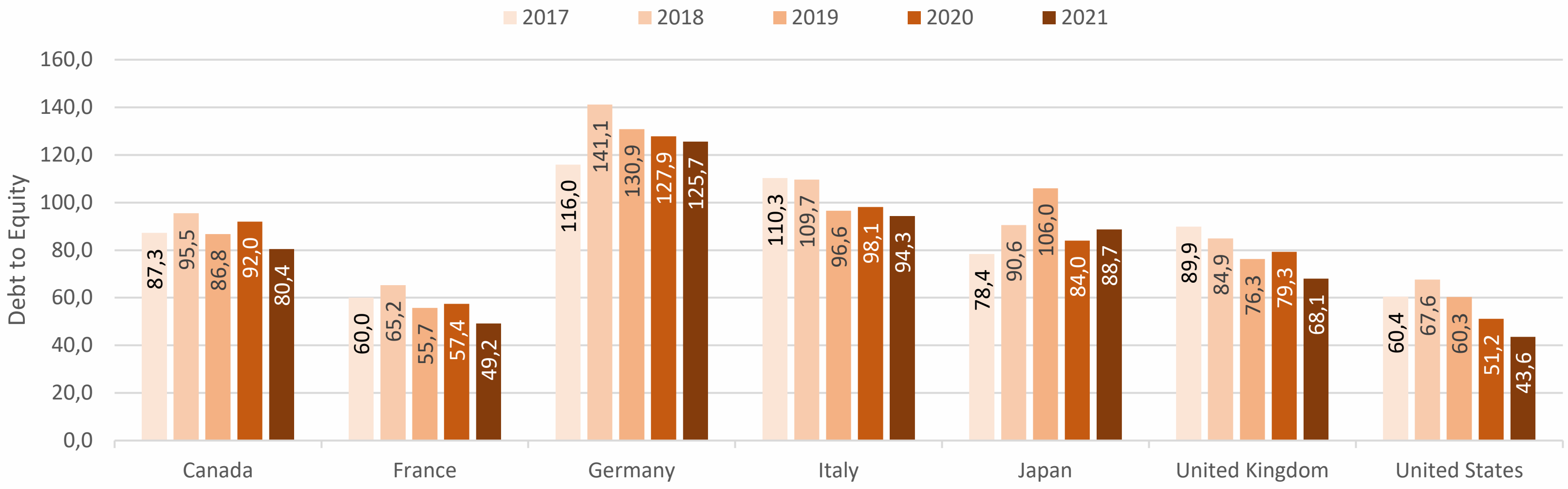
The increasing ratios prior to 2021 show that NFCs are increasing their debt liabilities without a proportionate increase in their annual operating surplus flows to cover repayment of debt/interest cost.

# 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.

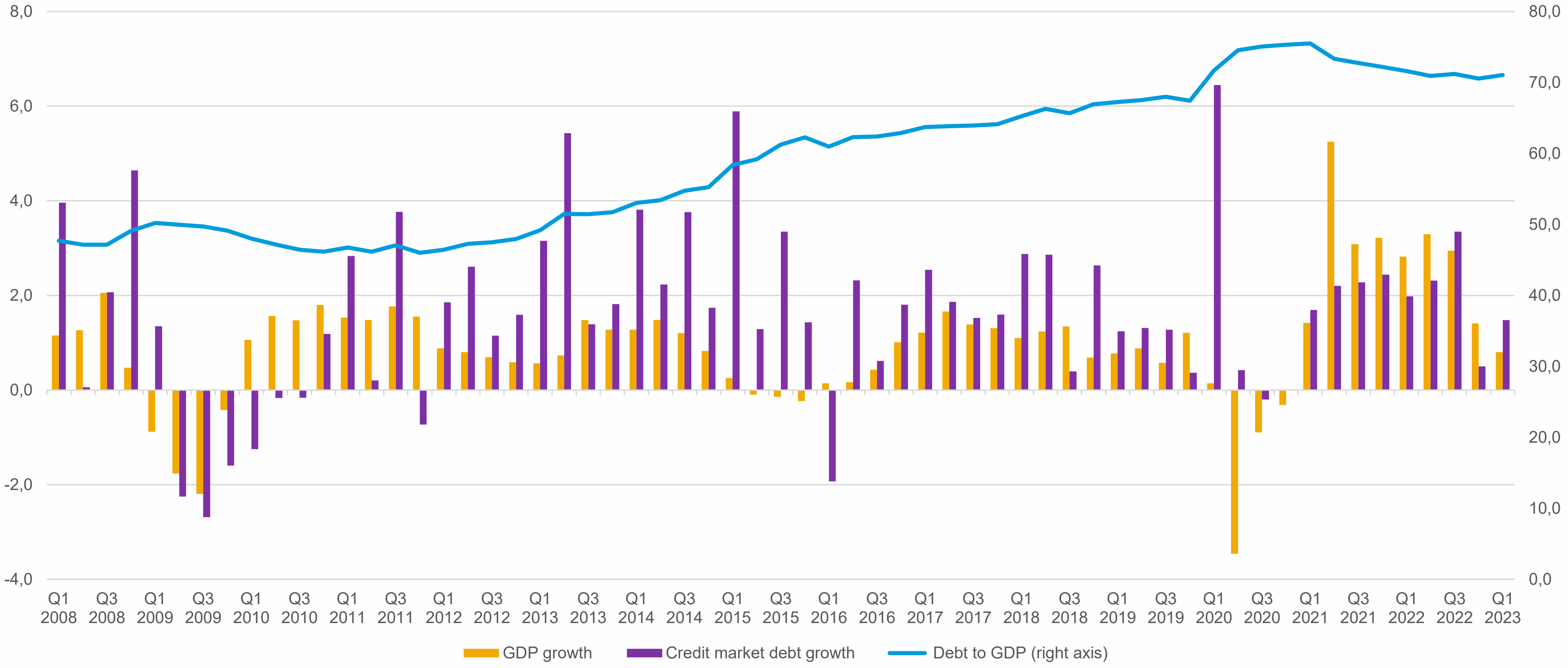
- The leverage ratio looks at the structure of the NFCs' balance sheets and any potential vulnerabilities from excess leverage.

## Debt to Equity Ratio in G7 Economies




*Source: https://data.oecd.org/*

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




www150.statcan.gc.ca/t1/tbl1/en/cv.action?pid=3610010401 & pid=3810023401

# Thank you