STATISTICS

Financial Accounts Workshop

Consistency and Balancing

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Outline

✓ **Balancing the Current and Capital Account**

✓ **Balancing the Financial Account**

✓ **Balance Sheet**

✓ **Compilation Example**

Balancing the Current and Capital Account and Financial Account

Balancing between Capital and Financial Accounts

- Source of funds = Use of funds

- Sources = Gross Savings (GS) + External sources (Net increase in liabilities (NIL))

- Uses = Gross capital formation (GCF) + net increase in financial assets (NAFA)

- Rearranging
  - ▶ GS – GCF = NAFA – NIL
  - ▶ GS- GFC = NL/B
  - ▶ NAFA – NIL = NL/B

- Applies to the whole economy and to each sector.

Balancing the financial account: main identity, at category (instrument) level

| Changes in financial assets | = | Changes in liabilities |

*for **each** category (instrument)*

Category	Sectors	
Mortgage Assets	Households	137
	Non-financial corporations	231
	Financial corporations	19,156
	General governments	190
	Total all sectors	**19,714**
Mortgage Liabilities	Households	13,867
	Non-profit institutions serving households	64
	Non-financial corporations	5,610
	Financial corporations	158
	General governments	15
	Total all sectors	**19,714**

Balancing the financial account: financial assets and liabilities transactions by sector

Transactions in financial assets	=	Transactions in liabilities

*across **all** sectors* | Net financial investment = 0 |

Category	Sectors	
Transactions in financial assets	Households	8,731
	Non-profit institutions serving households	1,689
	Non-financial corporations	30,952
	Financial corporations	117,109
	General governments	15,628
	Non residents	110,327
	Total all sectors	**284,436**
Transactions in financial liabilities	Households	23,463
	Non-profit institutions serving households	642
	Non-financial corporations	39,334
	Financial corporations	98,896
	General governments	26,369
	Non residents	95,732
	Total all sectors	**284,436**

Alternative presentation of financial transactions: a second identity

| **Sources of funds** | = | **Uses of funds** |

Sources of funds
- saving
- net borrowing
- sales of (disinvestment in) financial or non-financial assets

Uses of funds
- investment, tangible assets
- net investment, financial assets
- reduction of outstanding debt and negative saving

- The financial account is not presented as sources and uses, but this approach is useful for understanding the conceptual framework

Balance Sheet

Compiling the balance sheet

The national balance sheet accounts share the category and sector profile of all the financial and wealth accounts

The balancing item of a balance sheet is called net worth

The main identities for the national balance sheet accounts:

Financial assets, by category = **Liabilities, by category**

for the economy as a whole

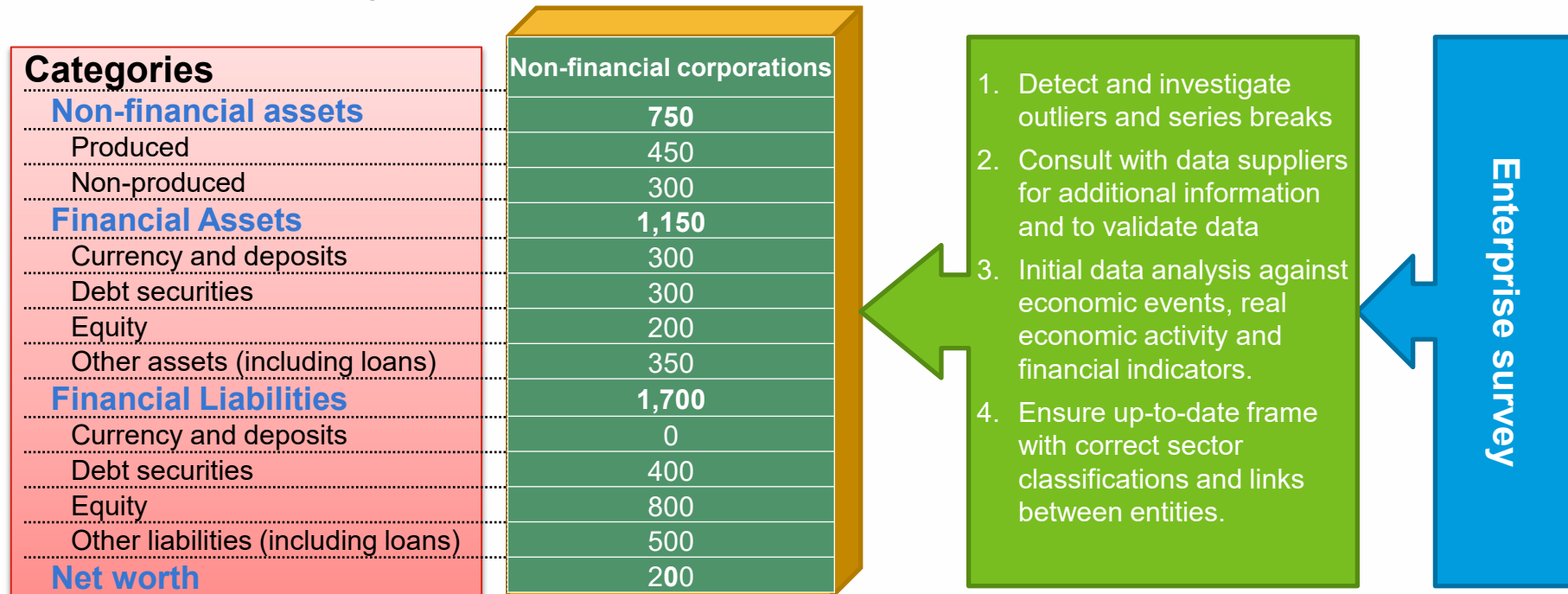**Assets** *less* **Liabilities** = **Net worth**

for each sector

Compilation Example

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Compilation – Step 1: Verification of data inputs

Example: Non-financial corporations

Categories	Non-financial corporations
Non-financial assets	**750**
Produced	450
Non-produced	300
Financial Assets	**1,150**
Currency and deposits	300
Debt securities	300
Equity	200
Other assets (including loans)	350
Financial Liabilities	**1,700**
Currency and deposits	0
Debt securities	400
Equity	800
Other liabilities (including loans)	500
Net worth	**200**

1. Detect and investigate outliers and series breaks
2. Consult with data suppliers for additional information and to validate data
3. Initial data analysis against economic events, real economic activity and financial indicators.
4. Ensure up-to-date frame with correct sector classifications and links between entities.

Enterprise survey

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Compilation – Step 2: Populate sector level estimates

Initial stage where all source data is loaded to matrix

When the data is initially compiled, the matrix is not yet balanced

Categories	Households	Non-financial corporations	Financial corporations	Governments	Non-residents	Total, all sectors
Non-financial assets	**650**	**750**	**550**	**500**	**0**	**2,450**
Produced	500	450	350	450	0	1,750
Non-produced	150	300	200	50	0	700
Financial Assets	**800**	**1,150**	**2,800**	**800**	**1,200**	**6,750**
Currency and deposits	200	300	100	50	50	700
Debt securities	200	300	650	150	550	1,850
Equity	250	200	450	200	300	1,400
Other assets	150	350	1,600	400	300	2,800
Financial Liabilities	**1,000**	**1,700**	**1,950**	**1,200**	**700**	**6,550**
Currency and deposits	0	0	1,000	0	0	1,000
Debt securities	0	400	200	800	300	1,700
Equity	0	800	500	0	200	1,500
Other liabilities	1,000	500	250	400	200	2,350
Net worth	**450**	**200**	**1,400**	**100**	**500**	**2,650**

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Compilation – Step 3: Verify sector level estimates

Analyze changes to net worth, composition of assets and liabilities, flows and stocks of assets and liabilities

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Financial Assets	**800**	**1,150**	**2,800**	**800**	**1,200**	**6,750**
Currency and deposits	200	300	100	50	50	700
Debt securities	200	300	650	150	550	1,850
Equity	250	200	450	200	300	1,400
Other assets	150	350	1,600	400	300	2,800
Financial Liabilities	**1,000**	**1,700**	**1,950**	**1,200**	**700**	**6,550**
Currency and deposits	0	0	1,000	0	0	1,000
Debt securities	0	400	200	800	300	1,700
Equity	0	800	500	0	200	1,500
Other liabilities	1,000	500	250	400	200	2,350
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Compilation – Step 4: Incorporate category level estimates

Incorporate category level estimates based on data quality and availability when necessary or appropriate

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Financial Liabilities	**1,700**
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Net worth	**200**

Debt securities database
Comprehensive listing of issues of debt securities (paper, bonds, equity) by sector

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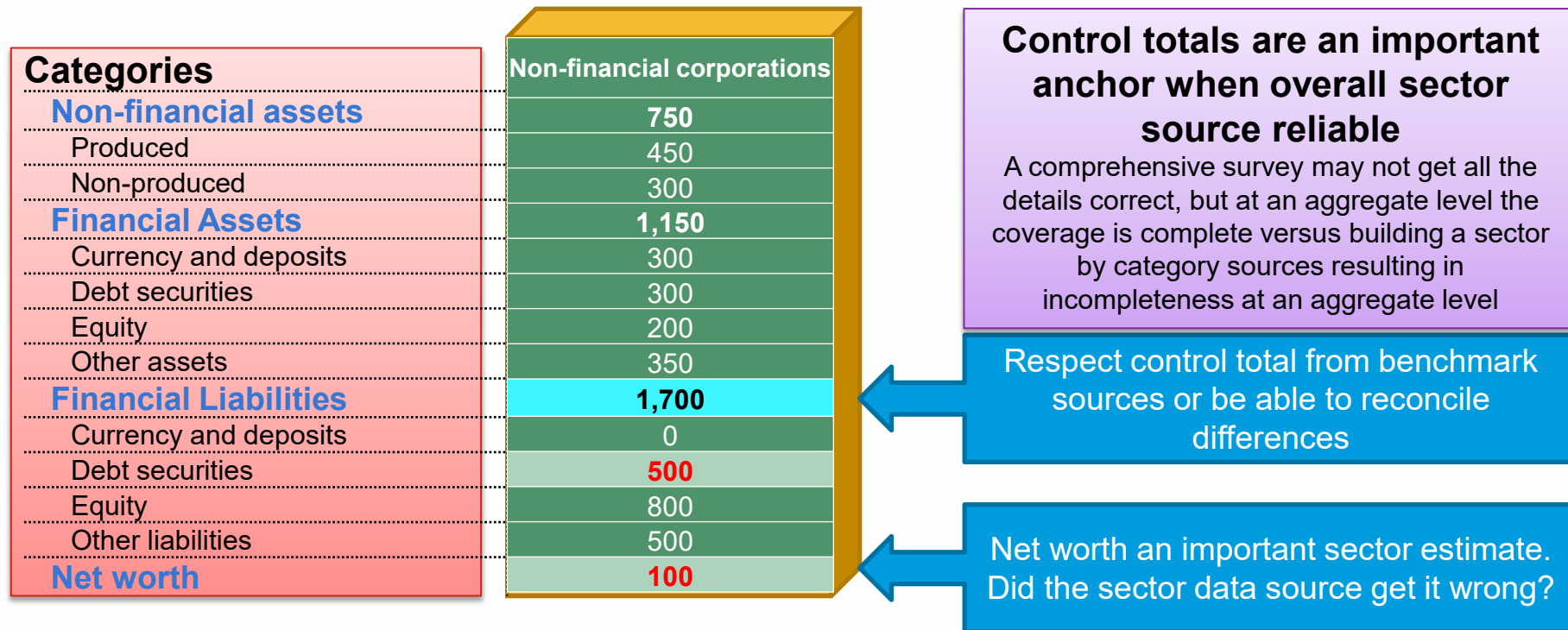Net worth impacted if no other offsets
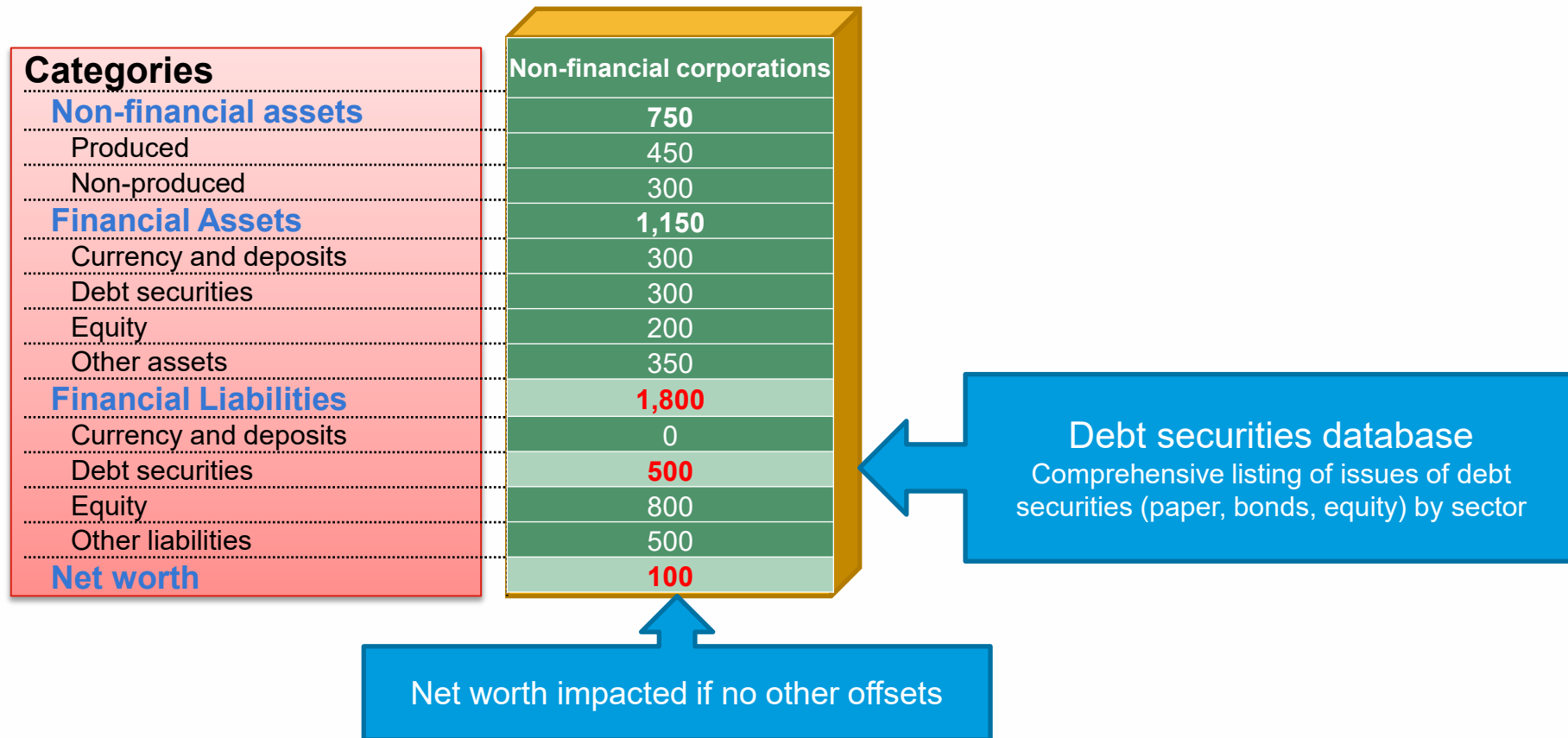
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Compilation – Step 5: Verify sector again

In an iterative process, analysts are continually evaluating their sector as different data sources are made available throughout production process

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Currency and deposits	0
Debt securities	**500**
Equity	800
Other liabilities	500
Net worth	**100**

Control totals are an important anchor when overall sector source reliable
A comprehensive survey may not get all the details correct, but at an aggregate level the coverage is complete versus building a sector by category sources resulting in incompleteness at an aggregate level

Respect control total from benchmark sources or be able to reconcile differences

Net worth an important sector estimate. Did the sector data source get it wrong?

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Compilation – Step 5: Verify sector again

Do more accurate estimates for specific categories cast a new light on the existing allocation of assets/liabilities?

- Substitution brings to light cases where instruments are misclassified and data is adjusted accordingly

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Respect control total from benchmark sources or be able to reconcile differences

Adjust for misclassifications or where a given category is weak, but the control total is strong
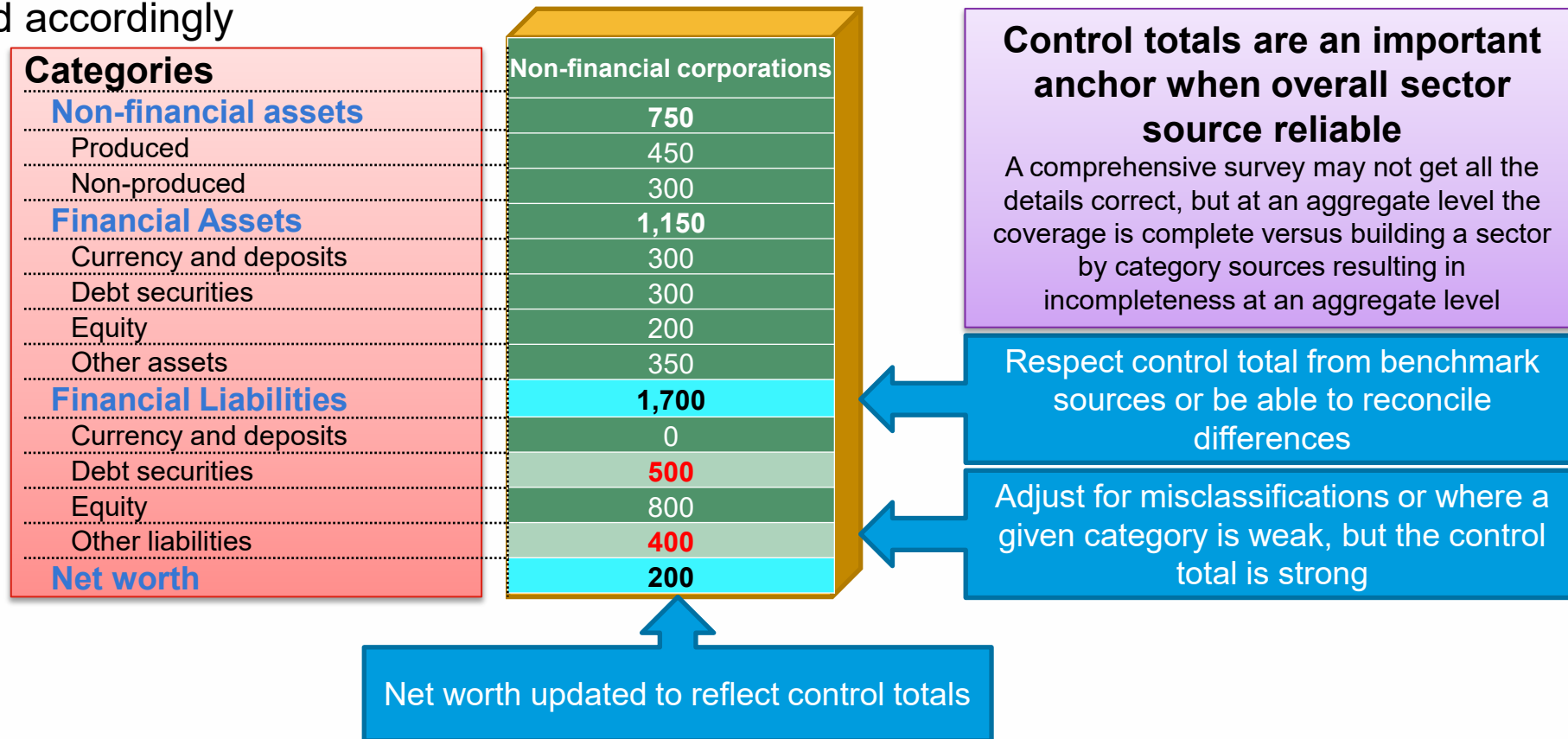
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Net worth updated to reflect control totals

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Compilation – Step 6: Freeze higher quality estimates and balance the matrix

With strong estimates of debt security liabilities the analyst responsible for this instrument must now balance across sectors, assets and liabilities

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Non-financial assets	**650**	**750**	**550**	**500**	**0**	**2,450**
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Financial Assets	**800**	**1,150**	**2,800**	**800**	**1,200**	**6,750**
Currency and deposits	200	300	100	50	50	700
Debt securities	200	300	650	150	550	**1,850**
Equity	250	200	450	200	300	1,400
Other assets	150	350	1,600	400	300	2,800
Financial Liabilities	**1,000**	**1,700**	**1,950**	**1,200**	**700**	**6,550**
Currency and deposits	0	0	1,000	0	0	1,000
Debt securities	0	500	200	800	300	**1,800**
Equity	0	800	500	0	200	1,500
Other liabilities	1,000	400	250	400	200	2,250
Net worth	**450**	**200**	**1,400**	**100**	**500**	**2,650**

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Compilation – Step 6: Freeze higher quality estimates and balance the matrix

In this case, based on the relative strength of differing data sources judgments can be made on which sectors to adjust on the asset side to balance

Categories	Households	Non-financial corporations	Financial corporations	Governments	Non-residents	Total, all sectors
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Currency and deposits	200	300	100	50	50	700
Debt securities	200	300	**600**	150	550	**1,800**
Equity	250	200	450	200	300	1,400
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Financial Liabilities	**1,000**	**1,700**	**1,950**	**1,200**	**700**	**6,550**
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Compilation – Step 6: Freeze higher quality estimates and balance the matrix

After numerous iterations they matrix reaches its final balanced form

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Non-produced	150	300	200	50	0	700
Financial Assets	**800**	**1,100**	**2,750**	**750**	**1,250**	**6,650**
Currency and deposits	250	250	150	100	100	850
Debt securities	200	300	600	150	550	1,800
Equity	250	200	500	200	350	1,500
Other assets	100	350	1,500	300	250	2,500
Financial Liabilities	**1,100**	**1,800**	**1,850**	**1,200**	**700**	**6,650**
Currency and deposits	0	0	850	0	0	850
Debt securities	0	500	200	800	300	1,800
Equity	0	800	500	0	200	1,500
Other liabilities	1,100	500	300	400	200	2,500
Net worth	**350**	**50**	**1,450**	**50**	**550**	**2,450**

Questions?

Thank you for your participation!