Apportionment

1

Objective

- Aggregating accounts
  - Members of 'natural' groups
    - Commodity accounts etc.,
      - What are 'natural' groups?
    - Preserves accounting identities
- 'Folding' accounts of one group into others
  - Financial accounts in NAM

With minimal loss of information

2

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Apportionment

- Pyatt, G. (1989). 'The Method of Apportionment and Accounting Multipliers', *Journal of Policy Modeling*, 11(1), pp 111-130.

Partitioned matrix

	Expenditure Accounts		Totals
Income Accounts	X	s	u
	r'	q	v
Totals	u'	v	

Vectors **s** and **r** are the account to be 'folded'

q is a scalar

3

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Apportionment

$$\mathbf{X}^* = \mathbf{X} + \left(\frac{1}{v-q} \right) \mathbf{sr}'$$

$$= \mathbf{X} + \left(\frac{1}{\mathbf{i}'\mathbf{s}} \right) \mathbf{sr}' = \mathbf{X} + \left(\frac{1}{\mathbf{r}'\mathbf{i}} \right) \mathbf{sr}'$$

4

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Apportionment

The End

5

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