



Productivity by the numbers

Productivity hub symposium: Unpicking NZ's productivity paradox

Session One: Performance

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Outline

- ⊙ Introducing productivity measurement
 - ⊙ Productivity statistics: a decade in the making
- ⊙ Productivity by the numbers: setting the scene
 - ⊙ Through the years
 - ⊙ Across industries

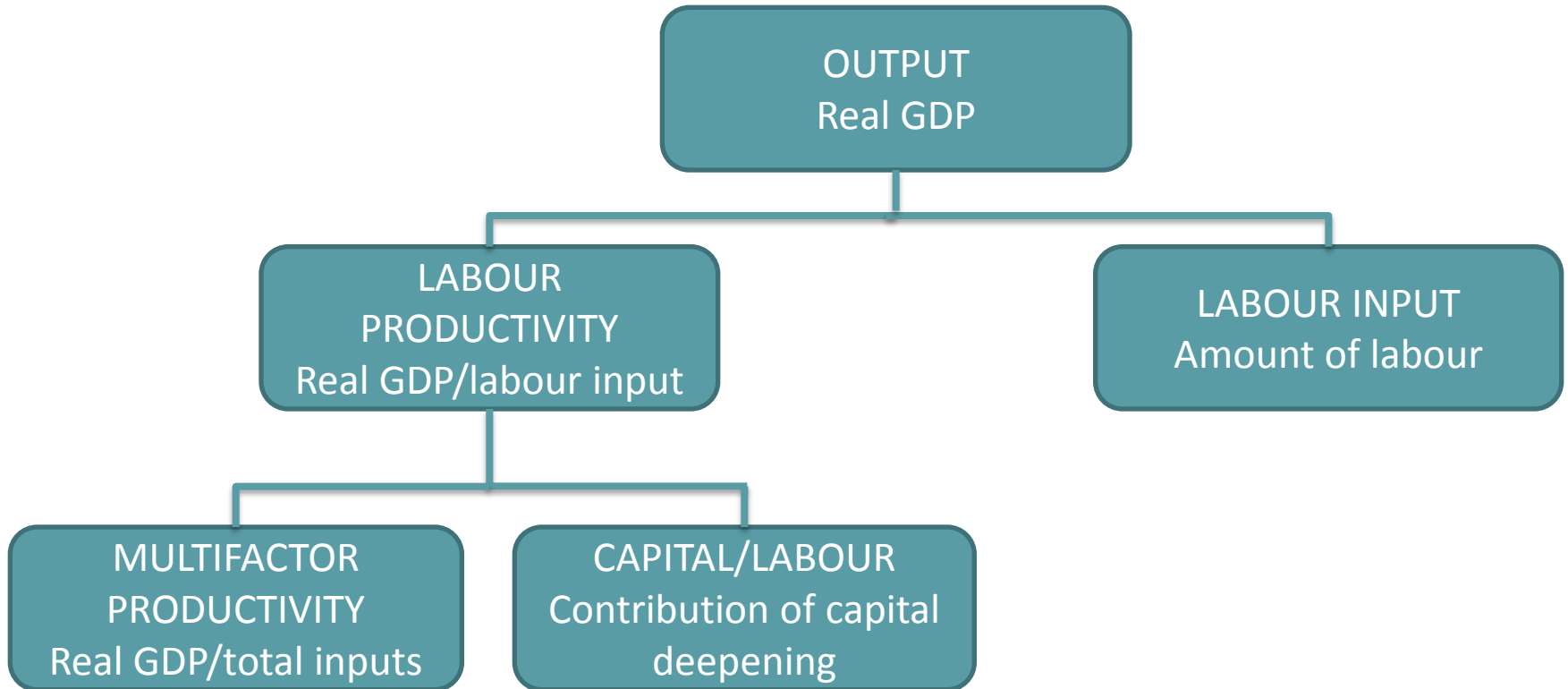
Importance of measuring productivity

- ⊙ *“Productivity isn’t everything, but in the long run it is almost everything”* Paul Krugman (1994)
- ⊙ *“...nothing contributes more to the reduction of poverty, to increases in leisure, and to the country’s ability to finance education, public health, environment and the arts.”* Alan Blinder and William Baumol (1993)

Productivity statistics: a decade in the making

- ⊙ Treasury – leading the charge (late 90s)
 - ⊙ Diewert & Lawrence and others
- ⊙ SNZ's development initiative (mid 2000s)
 - ⊙ Suite of official productivity measures
 - ⊙ Measured sector coverage: ~80%
 - ⊙ Composition-adjusted labour inputs
 - ⊙ Comparability with international agencies
- ⊙ Parallel improvement in micro-data quality and access
 - Understanding the drivers of firm performance

Growth accounting decomposition



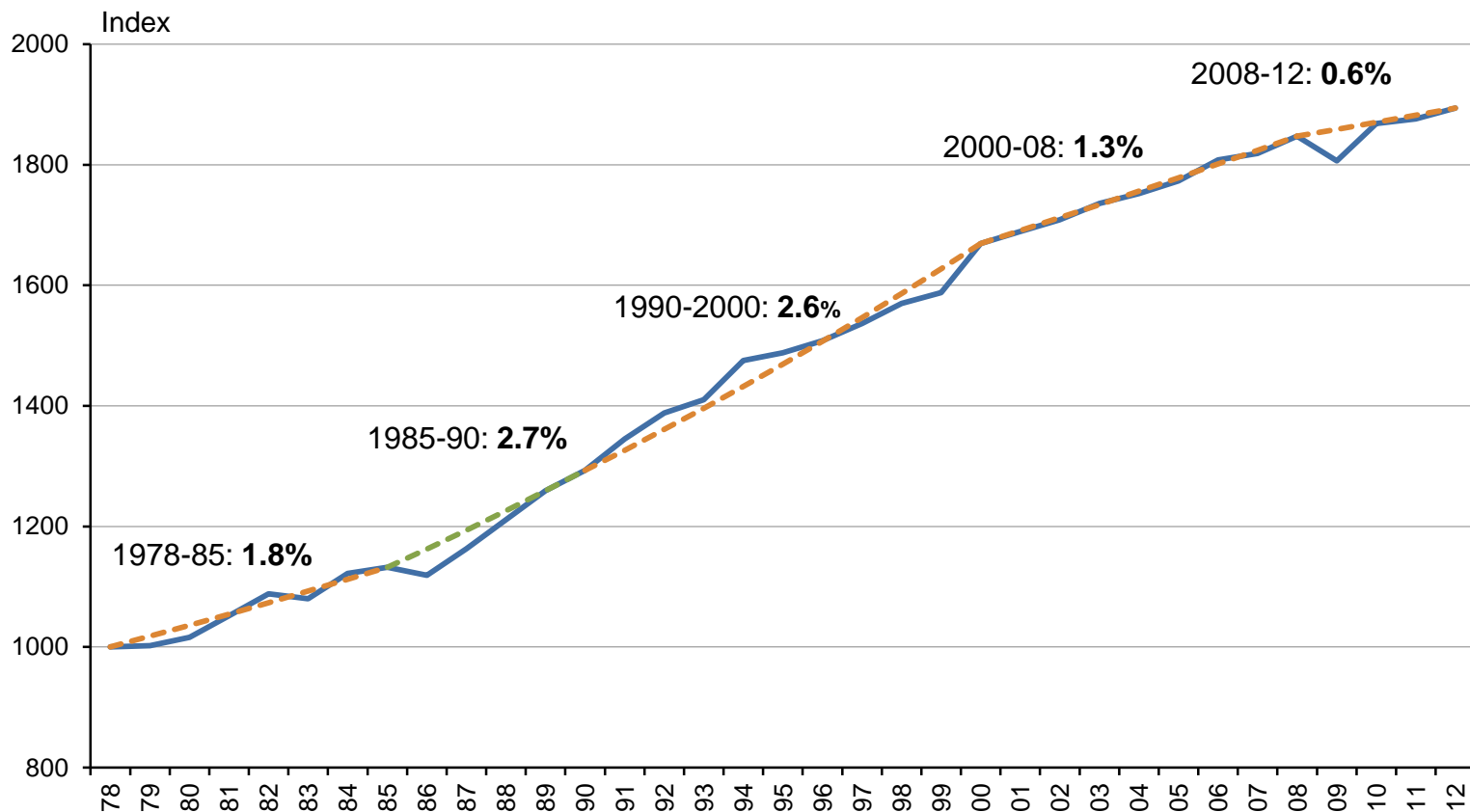
Source: New Zealand Treasury (2008)

The measured sector

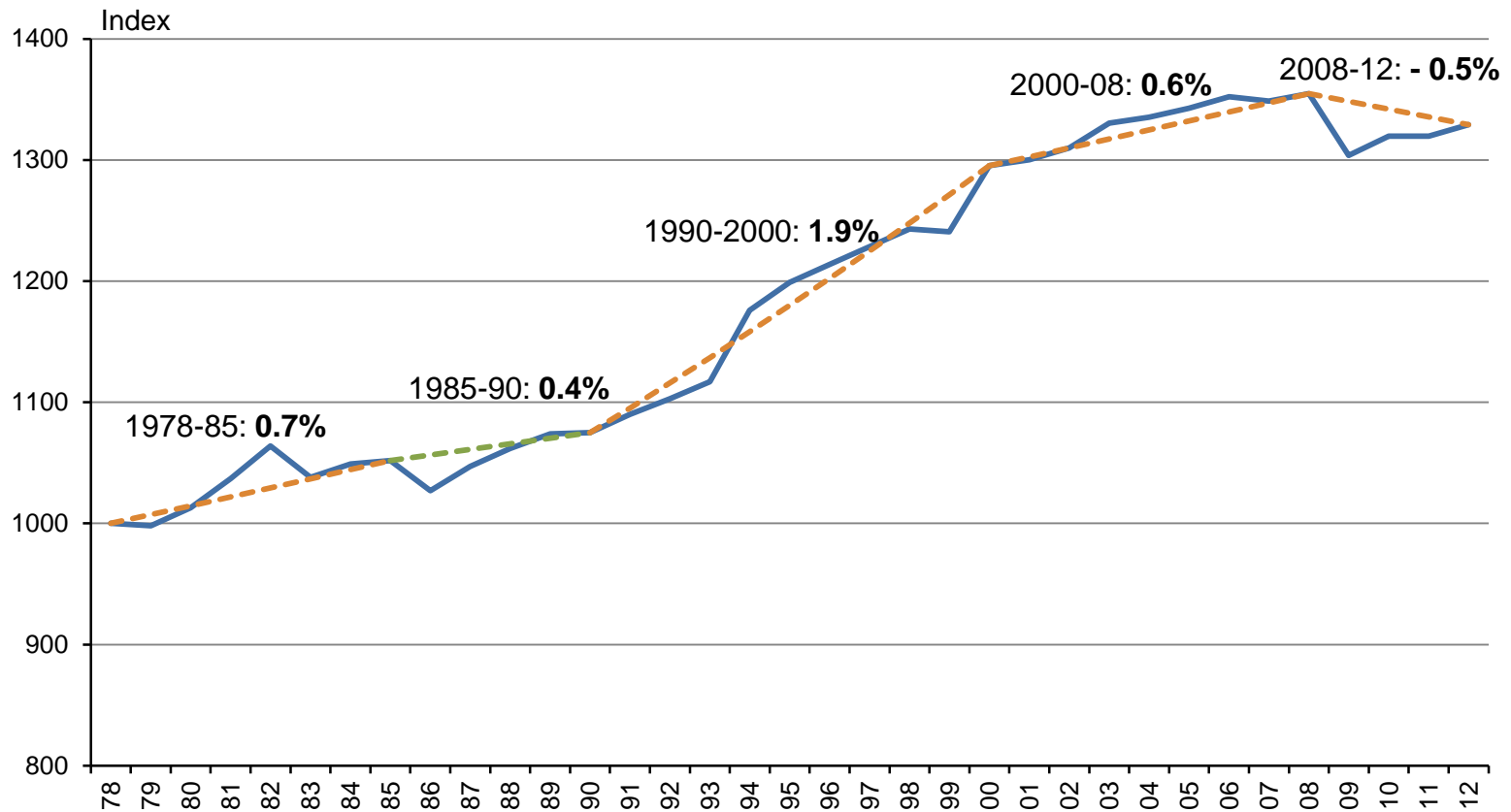
Industry	Contribution to GDP (2010)
Agriculture, forestry and fishing	6.6
Mining	2.4
Manufacturing	12.4
Electricity, gas, water, and waste services	3.5
Construction	5.9
Wholesale trade	5.0
Retail trade	5.0
Accommodation and food services	2.1
Transport, postal and warehousing	4.5
Information, media and telecommunications	3.3
Financial and insurance services	6.3
Arts and recreation services	1.6
Rental, hiring, and real estate services	6.6
Professional, scientific, and technical services	7.8
Administrative and support services	2.2
Other services	2.1
Education and training	5.0
Healthcare and social assistance	6.8
Local government administration	0.6
Central government administration, defence, and public safety	4.2
Ownership of owner-occupied dwellings	6.2

**Measured Sector:
77.2% of
GDP**

Measured sector labour productivity 1978–2012

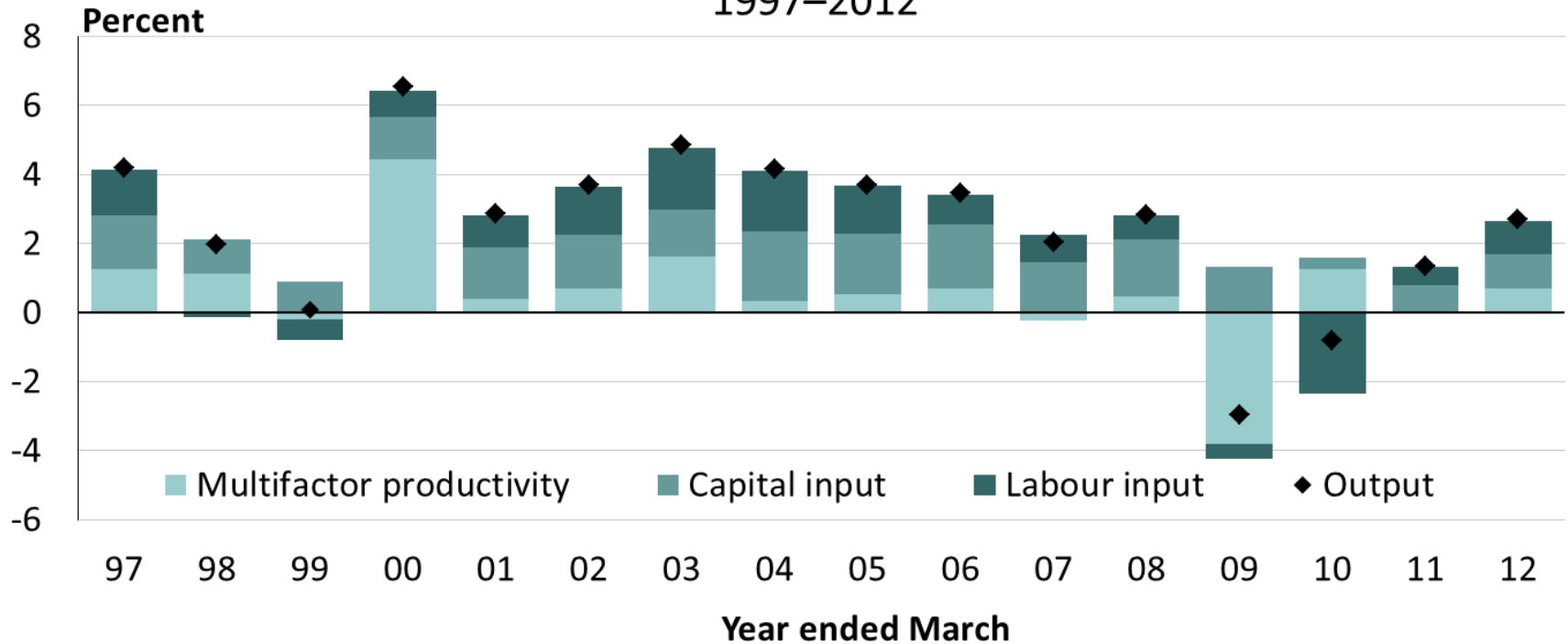


Measured sector multifactor productivity 1978–2012



Contribution to measured sector output growth

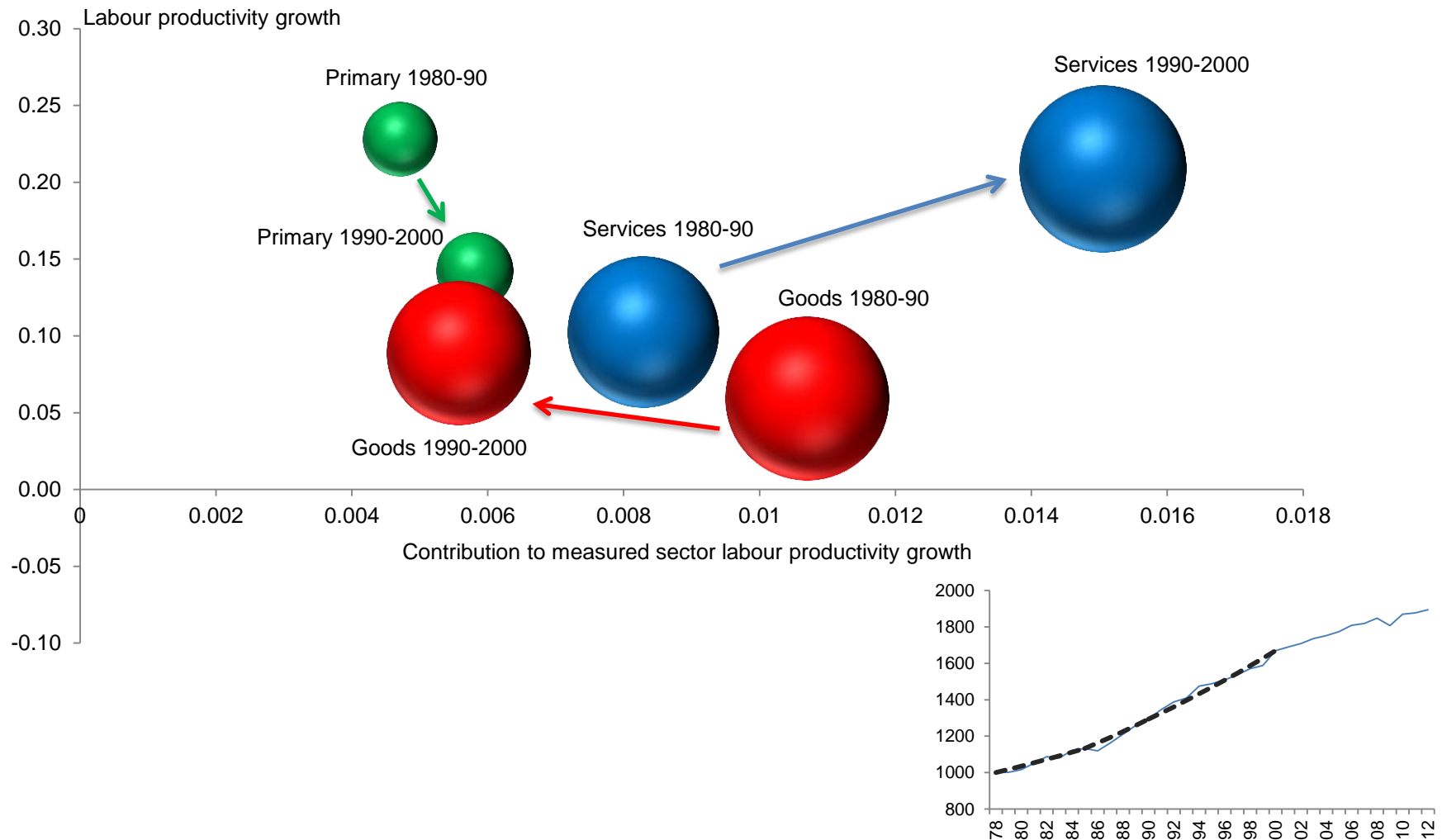
Annual percentage change
1997–2012



Source: Statistics New Zealand

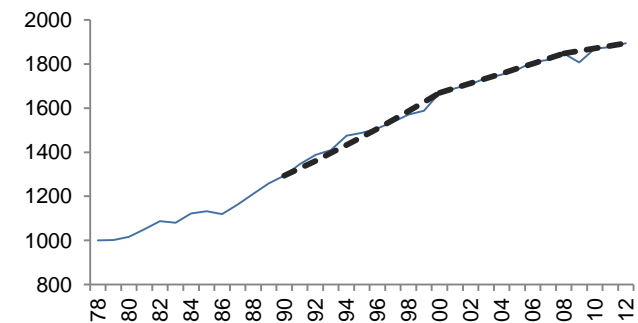
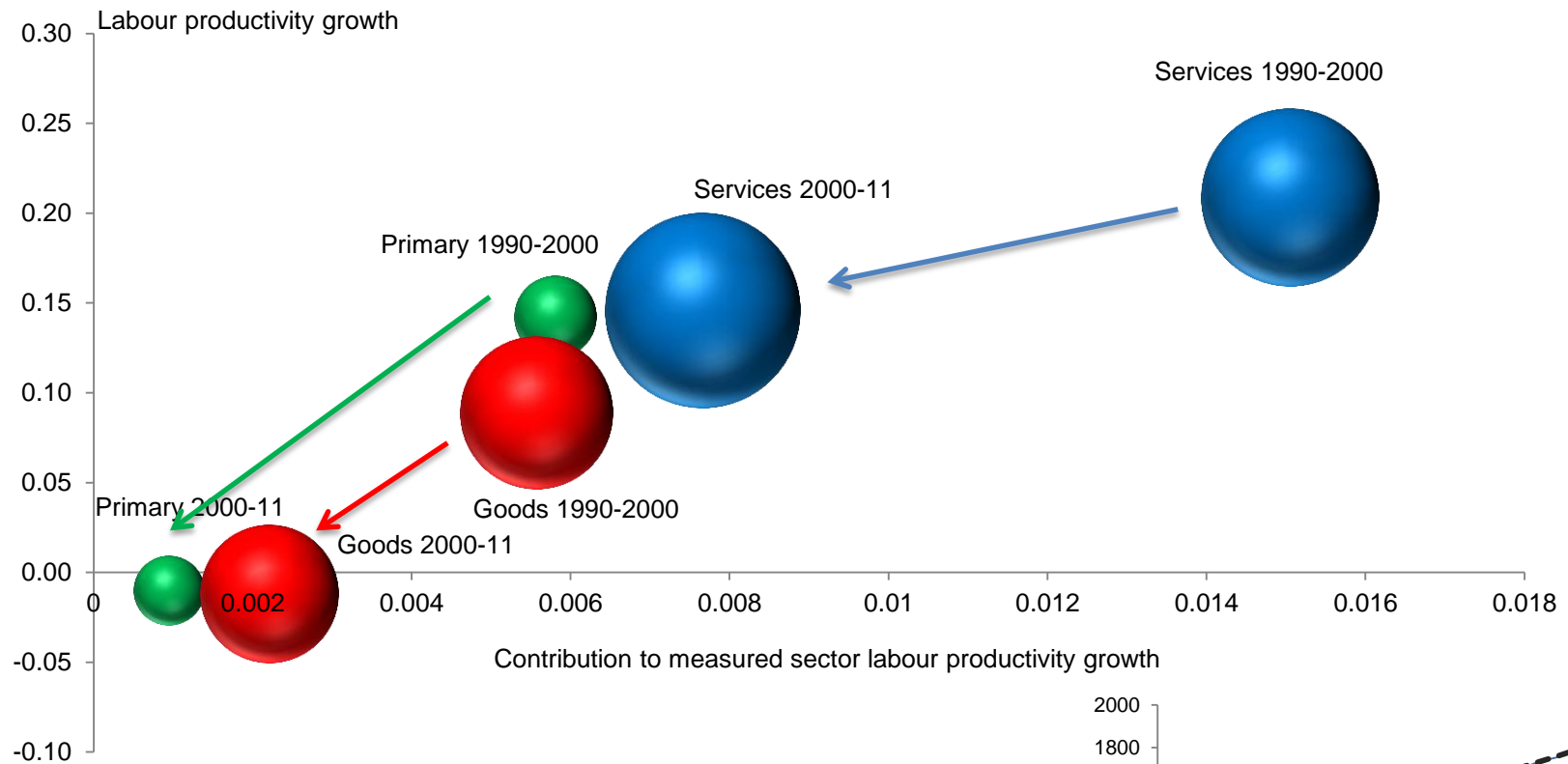
Sector contributions to measured sector labour productivity growth

Contribution, size, and labour productivity growth
1980–90 and 1990–2000

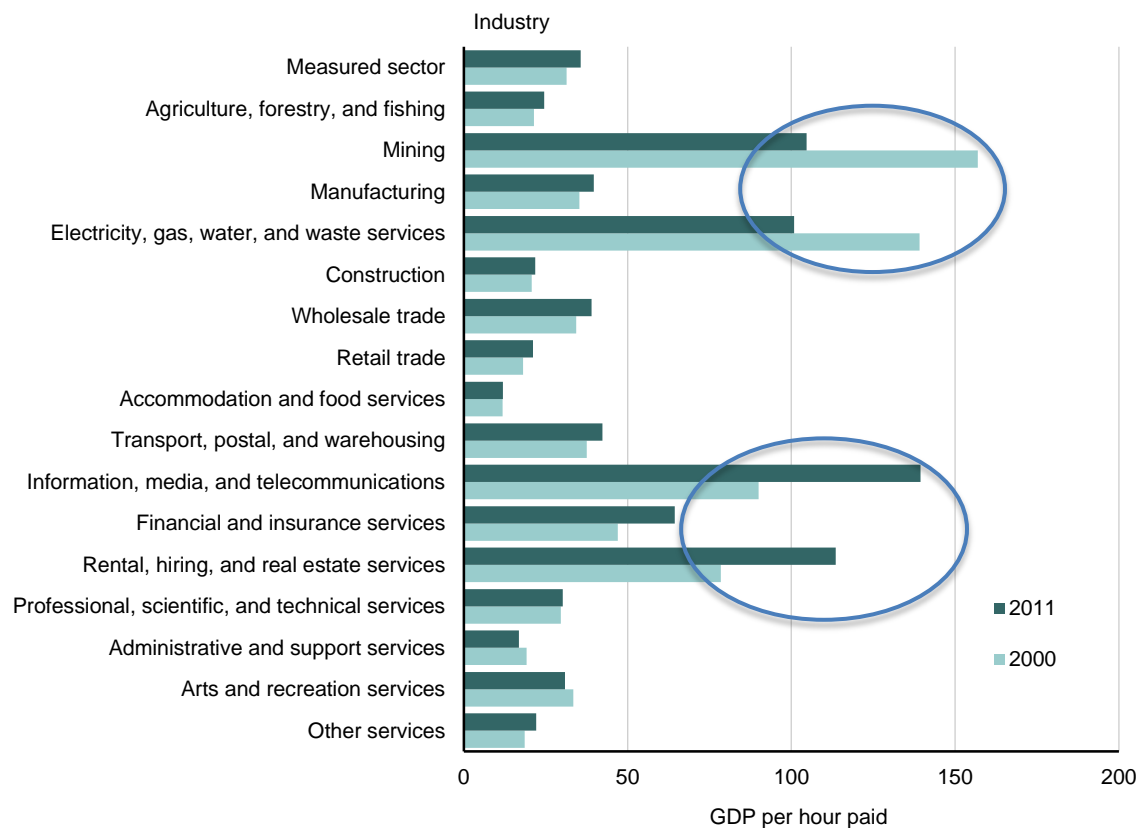


Sector contributions to measured sector labour productivity growth

Contribution, size, and labour productivity growth
1990–2000 and 2000–2011



Labour productivity levels By industry



Source: Statistics New Zealand

Summary: key points

- ⊙ Post reform 1990s labour productivity underpinned by MFP
- ⊙ Strong output growth reflects increased inputs during the last decade
- ⊙ Slowing in labour productivity in 2000s reflects weaker MFP growth and Global Financial Crisis
- ⊙ Service sector, in particular business services, has contributed the most to labour productivity
- ⊙ Mining and utilities have relatively high levels of labour productivity