

Metro Brussels Benchmarking Analysis Update 2013

February 2014

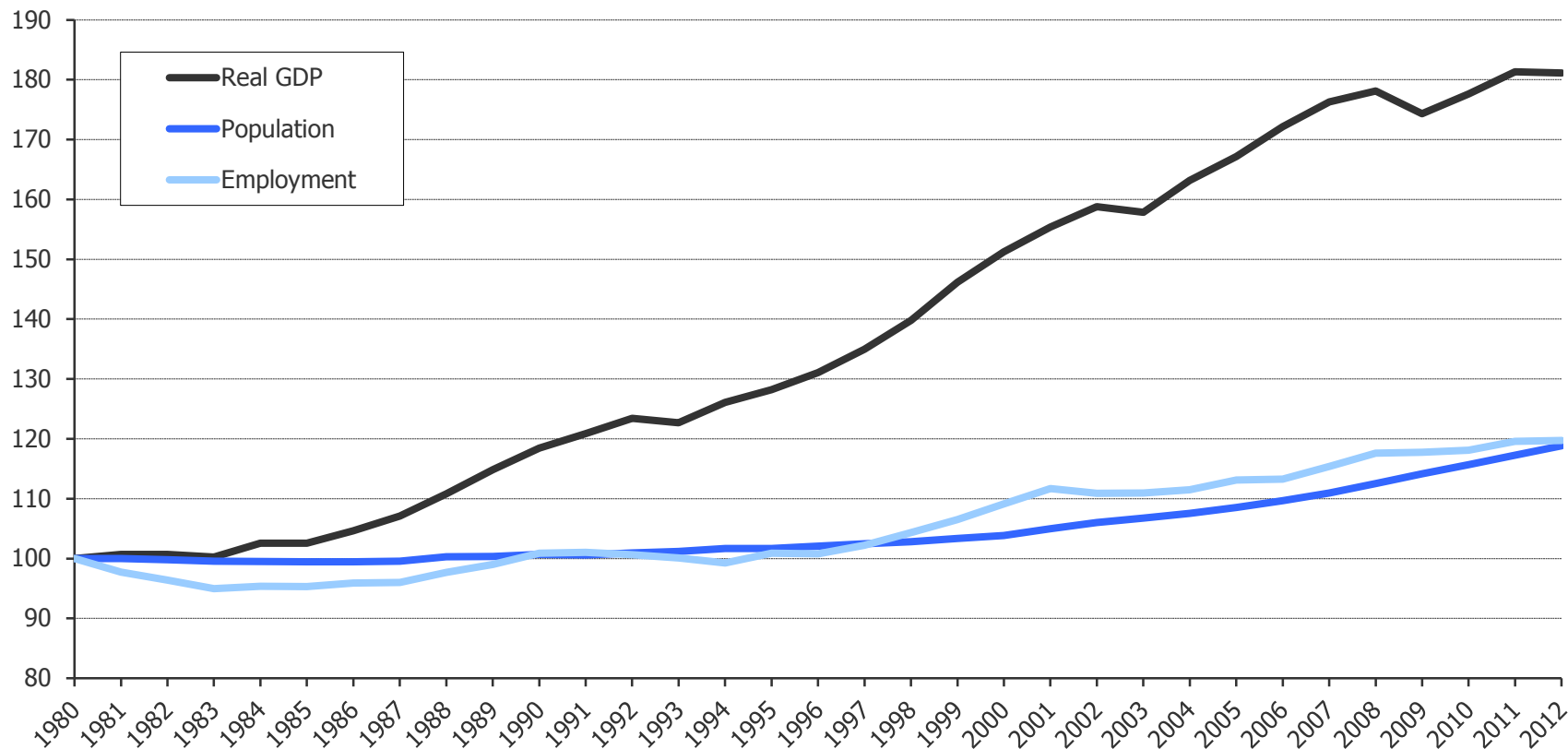
Content

- **Metro Brussels**

- **Metro Brussels under the international Benchmarking Lens**
 - Economic Performance
 - The Driver Sectors
 - The Key Industries

- **The Benchmarking of Location Factors**
 - Innovation Resources
 - Regulation
 - Taxation
 - Accessibility

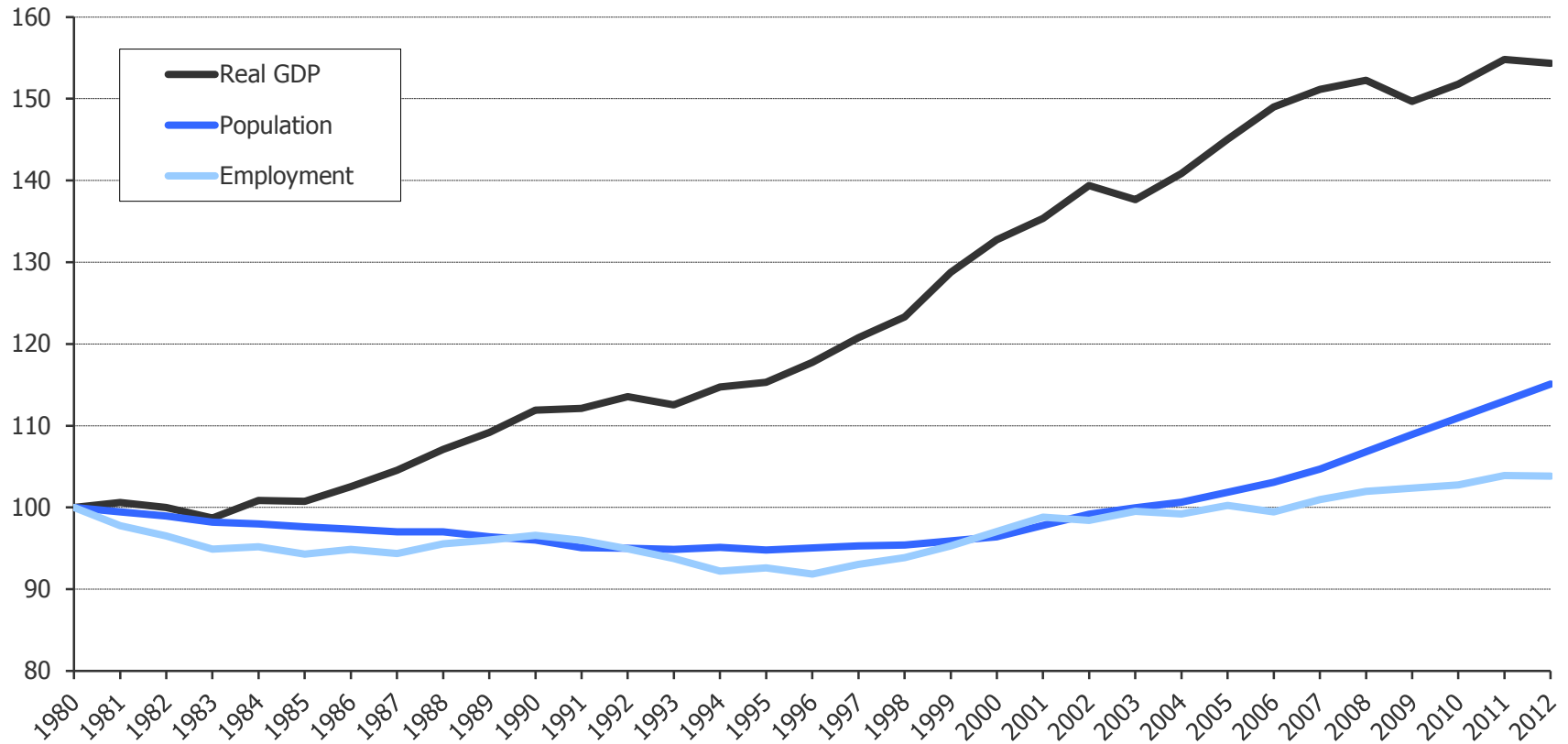
Growth of real GDP, employment and population Brussels Metropolitan Region, 1980-2012



Note
Source

Index 1980 = 100 (GDP in US\$ at constant prices and exchange rates, PPP corrected)
BAKBASEL

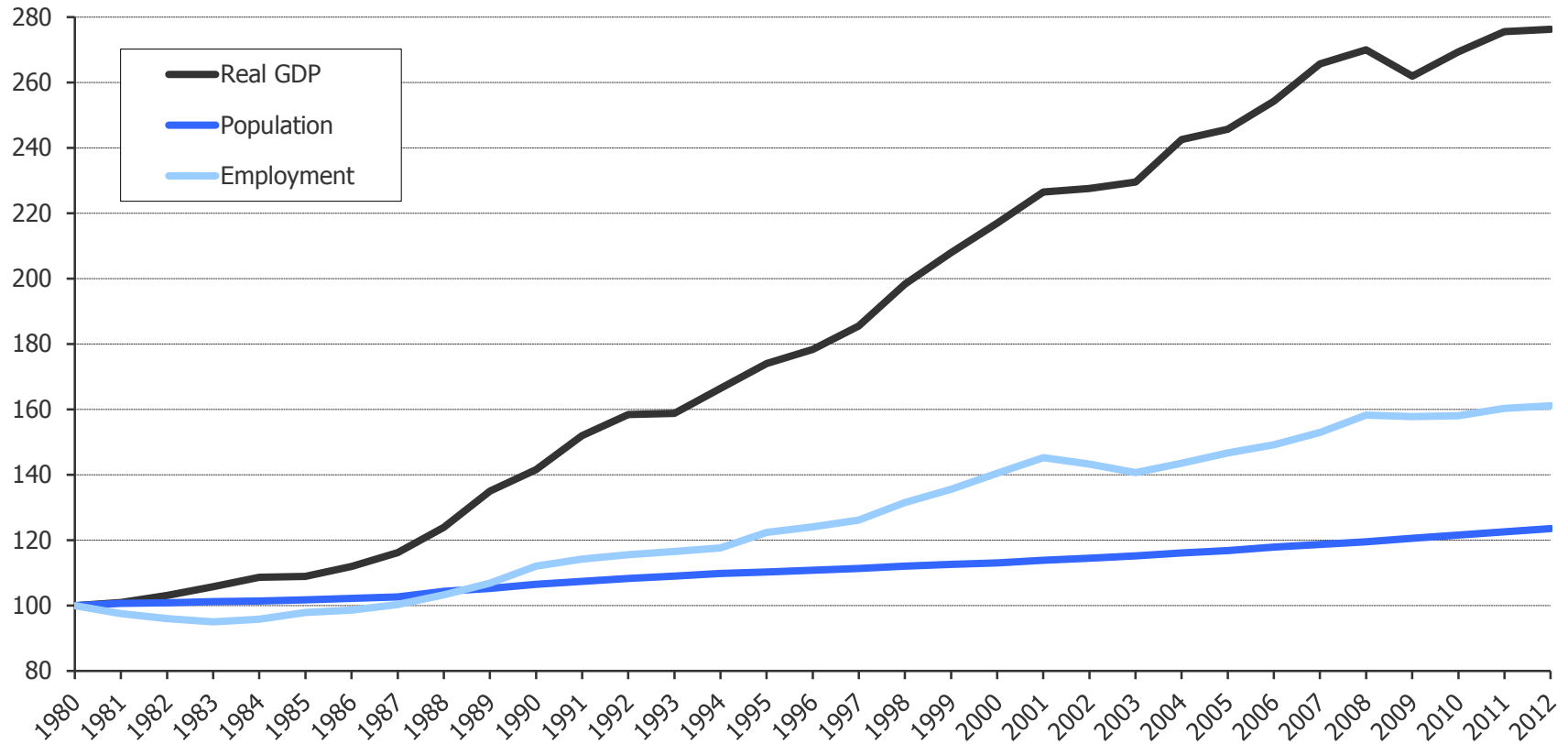
Growth of real GDP, employment and population Brussels Capital Region, 1980-2012



Note
Source

Index 1980 = 100 (GDP in US\$ at constant prices and exchange rates, PPP corrected)
BAKBASEL

Growth of real GDP, employment and population Brabant Walloon and Halle-Vilvoorde, 1980-2012



Note
Source

Index 1980 = 100 (GDP in US\$ at constant prices and exchange rates, PPP corrected)
BAKBASEL

The five key sectors in the regional growth process:

Composition of sectors

The "New Economy" Sector:

- Computers and office equipment
- Telecommunication equipment (incl. electrical engineering)
- Telecommunication services
- IT-Services

The High Value Added "Old Economy" Sector:

- Chemicals and pharmaceuticals
- Precision and optical equipment, watches
- Manufacture of vehicles

The „Political“ Sector:

- Primary Sector
- Energy and water supply
- Research and development
- Public administration etc.
- Education
- Health and social services
- Sewage treatment, refuse disposal

The Urban Sector:

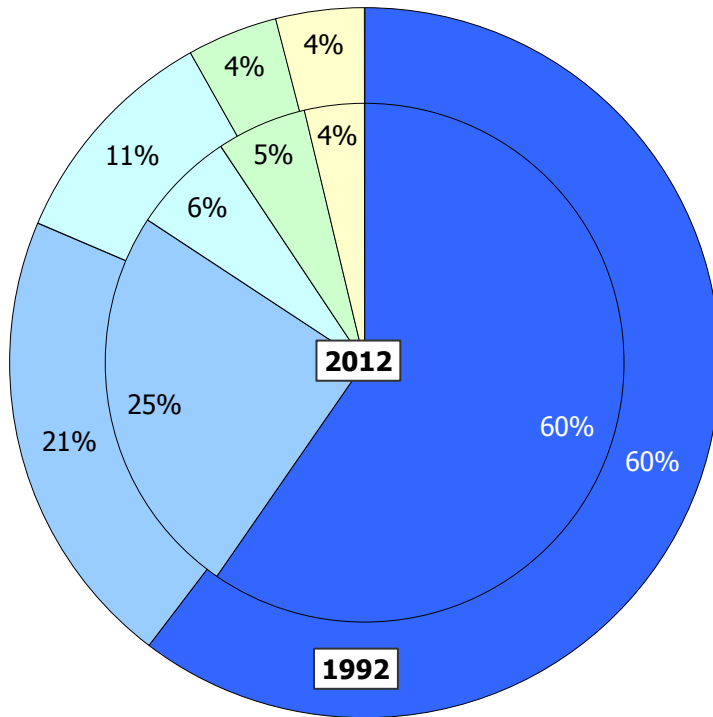
- Trade and repair of automobiles and consumer durables
- Financial and business services
- Transport
- Hotels and restaurants
- Entertainment, culture and sport
- Personal services
- Private households

The Traditional Sector:

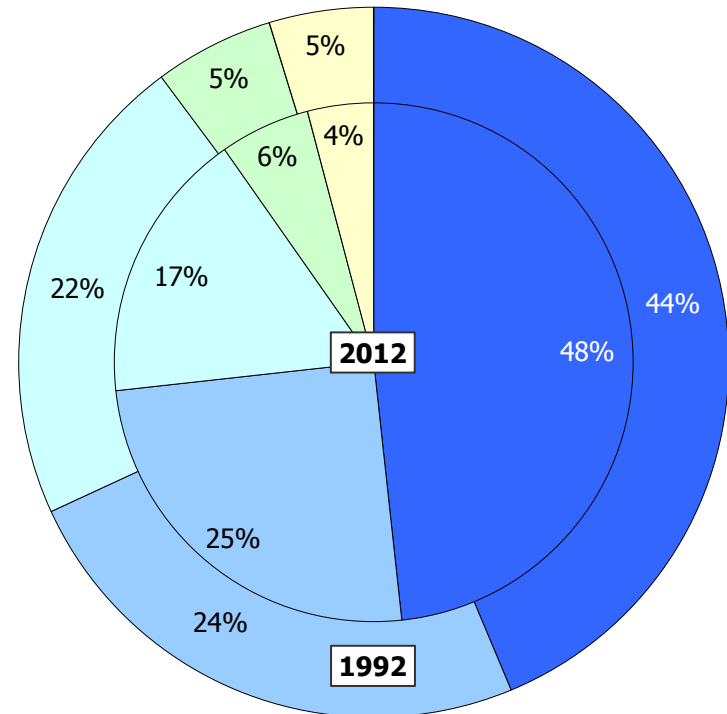
- Food, beverage, tobacco products
- Textiles, garments, furs, leather products and shoes
- Processing of wood
- Paper- and boardmaking / Printing and publishing
- Coke, refined petroleum products
- Rubber and plastic products
- Other products from nonmetallic minerals
- Metals and metal products / Mechanical engineering
- Manufacturing not elsewhere classified
- Construction

Share of the 5 driver sectors in nominal GDP 1992 and 2012

Brussels Metropolitan Region



Western Europe (17)



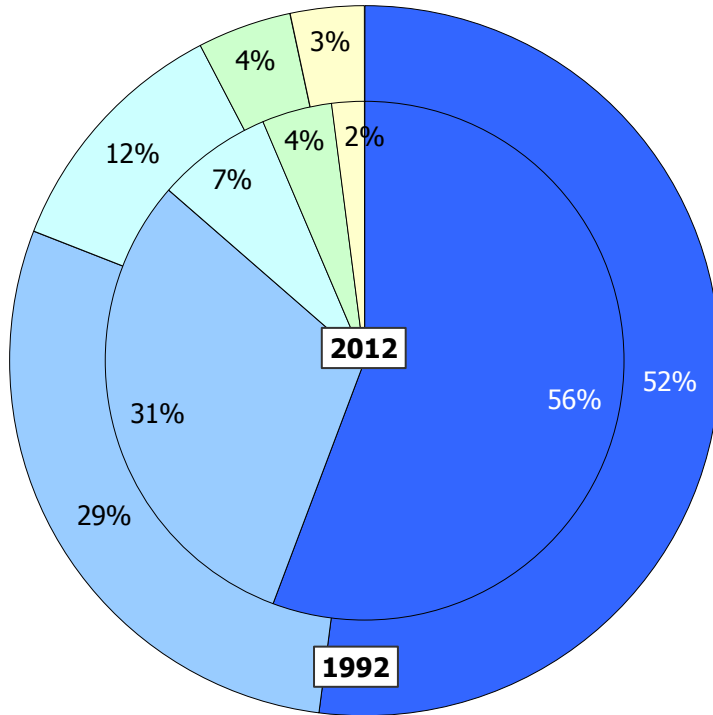
■ Urban Sector
 ■ Political Sector
 ■ Traditional Sector
 ■ New Economy
 ■ Old Economy

Note
Source

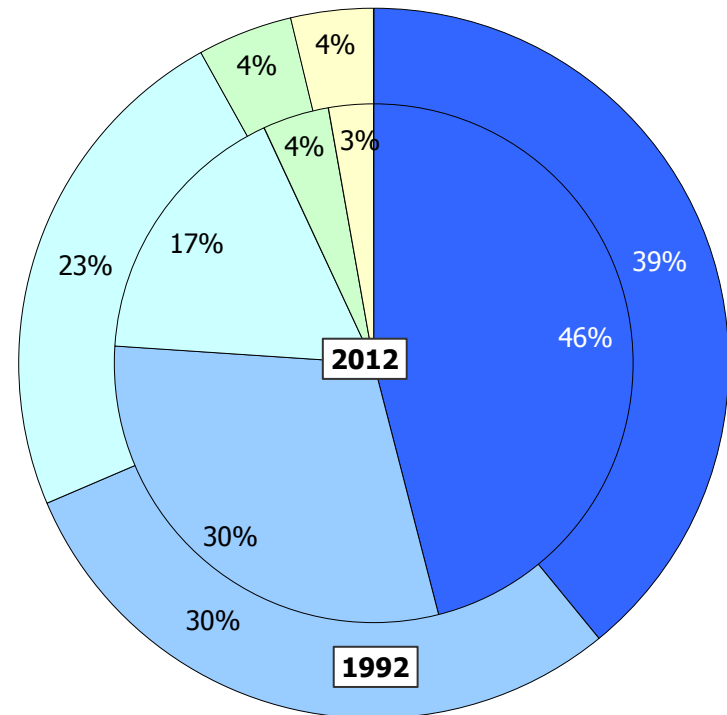
Share in % (based on US\$ at current prices and exchange rates)
BAKBASEL

Share of the 5 driver sectors in total employment 1992 and 2012

Brussels Metropolitan Region



Western Europe (17)

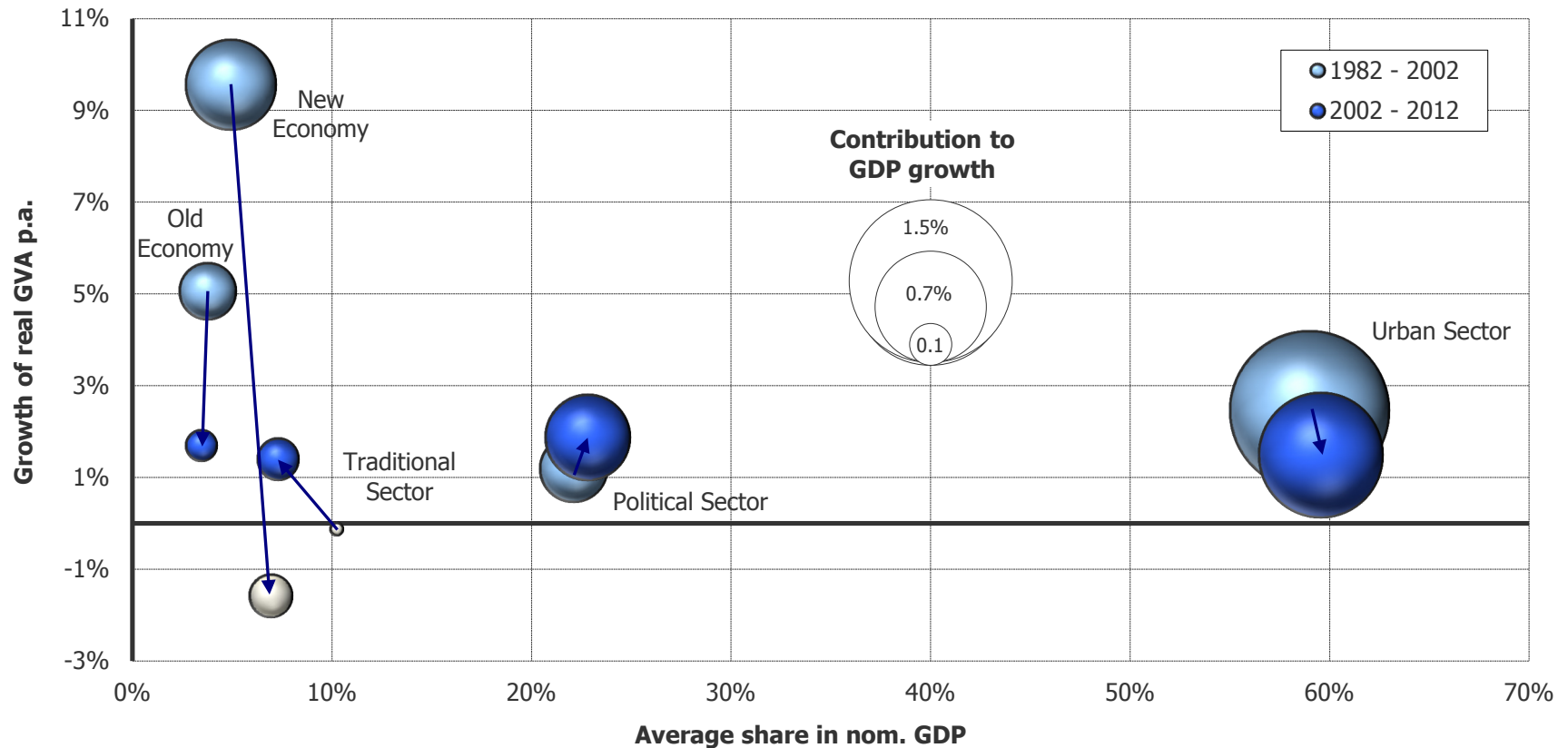


■ Urban Sector
 ■ Political Sector
 ■ Traditional Sector
 ■ New Economy
 ■ Old Economy

Note
Source

Share in %
BAKBASEL

Growth contribution of the 5 driver sectors in Metro Brussels 1982-2002 and 2002-2012

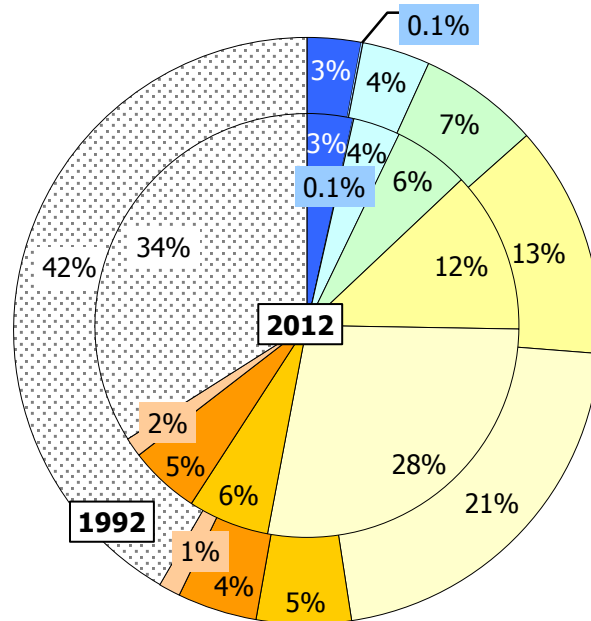


Note Gross Value Added; horizontal: average share in % (based on US\$ at current prices and exchange rates); vertical: in % p.a. (based on US\$ at constant prices and exchange rates, PPP corrected)

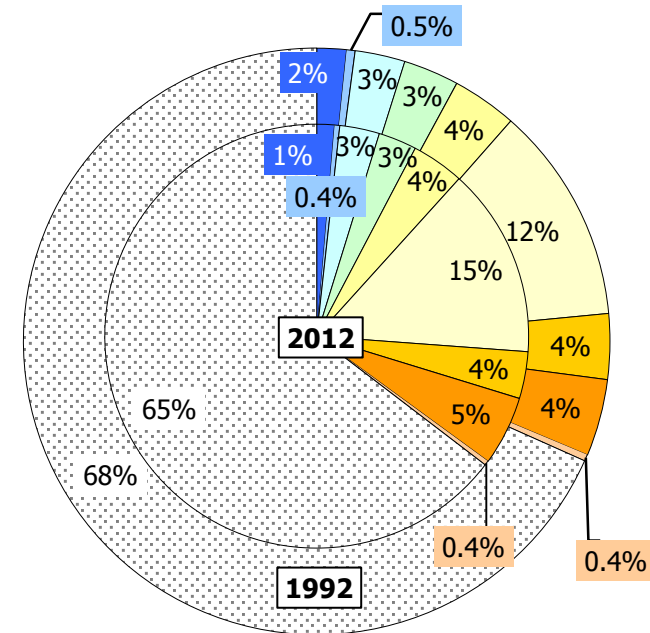
Source BAKBASEL

Share of the 9 key industries in nominal GDP 1992 and 2012

Brussels Metropolitan Region



Western Europe (17)

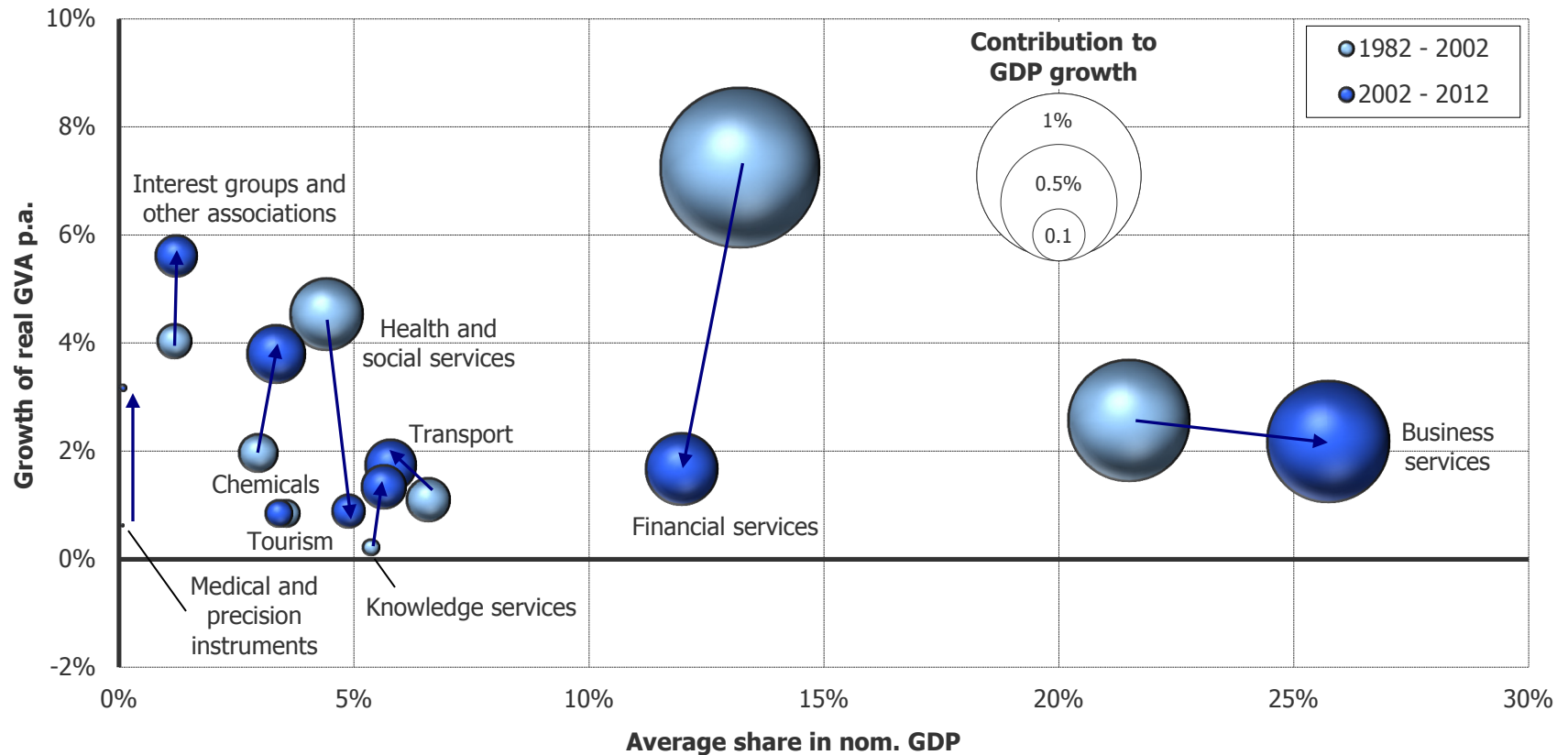


- | | |
|---|--|
| ■ Chemicals (2324) | ■ Medical and precision instruments (33) |
| ■ Tourism (55+92) | ■ Transport (6063) |
| ■ Financial services (6567) | ■ Business services (7074, excl. 73) |
| ■ Knowledge services (73+80) | ■ Health and social services (85) |
| ■ Interest groups and other associations (91) | ■ Rest of the economy |

Note
Source

Share in % (based on US\$ at current prices and exchange rates)
BAKBASEL

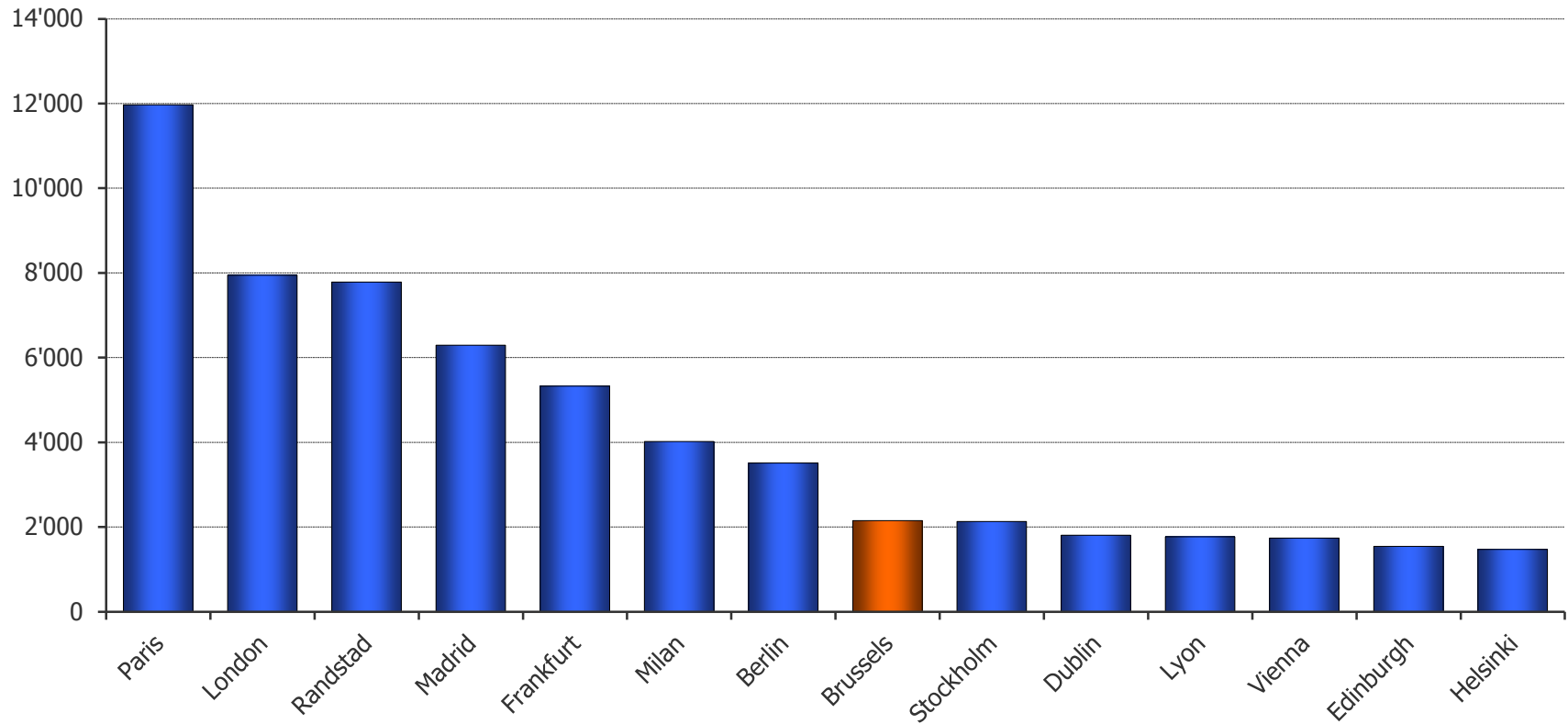
Growth contribution of the 9 key industries in Metro Brussels 1982-2002 and 2002-2012



Note Gross Value Added; horizontal: average share in % (based on US\$ at current prices and exchange rates); vertical: in % p.a. (based on US\$ at constant prices and exchange rates, PPP corrected)

Source BAKBASEL

Population 2012

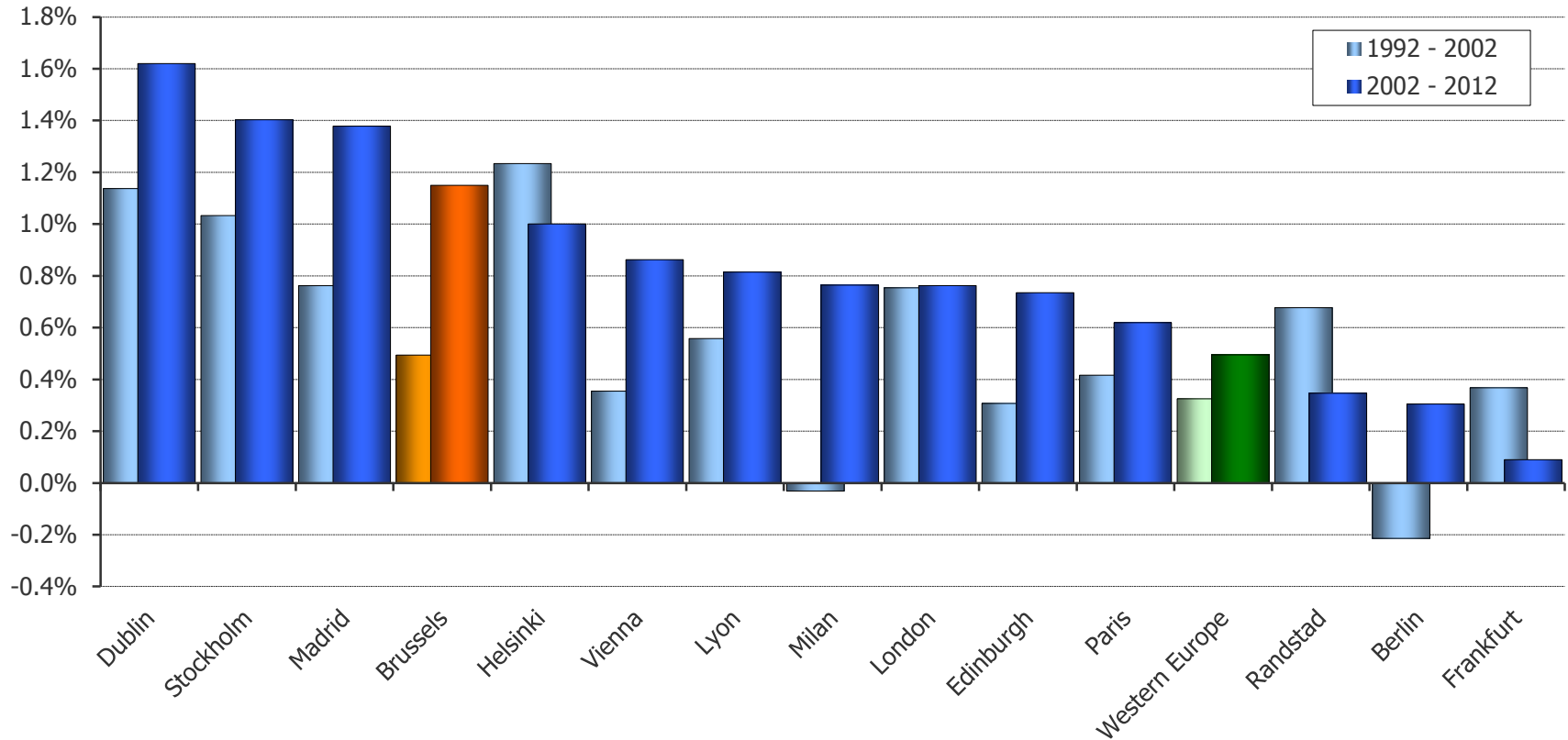


Note
Source

In 1'000 persons
BAKBASEL

Growth of population

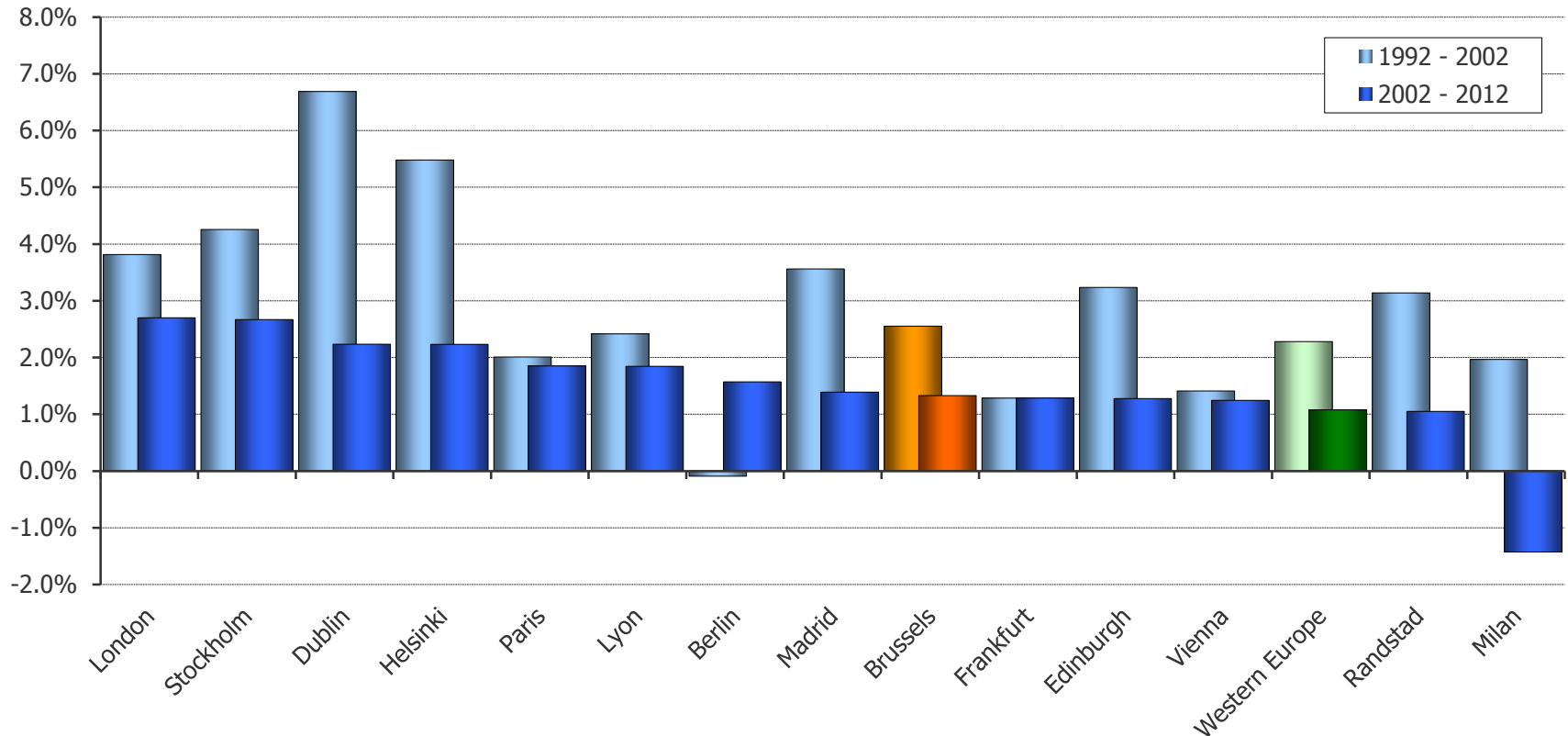
1992-2002 and 2002-2012



Note
Source

In % p.a.
BAKBASEL

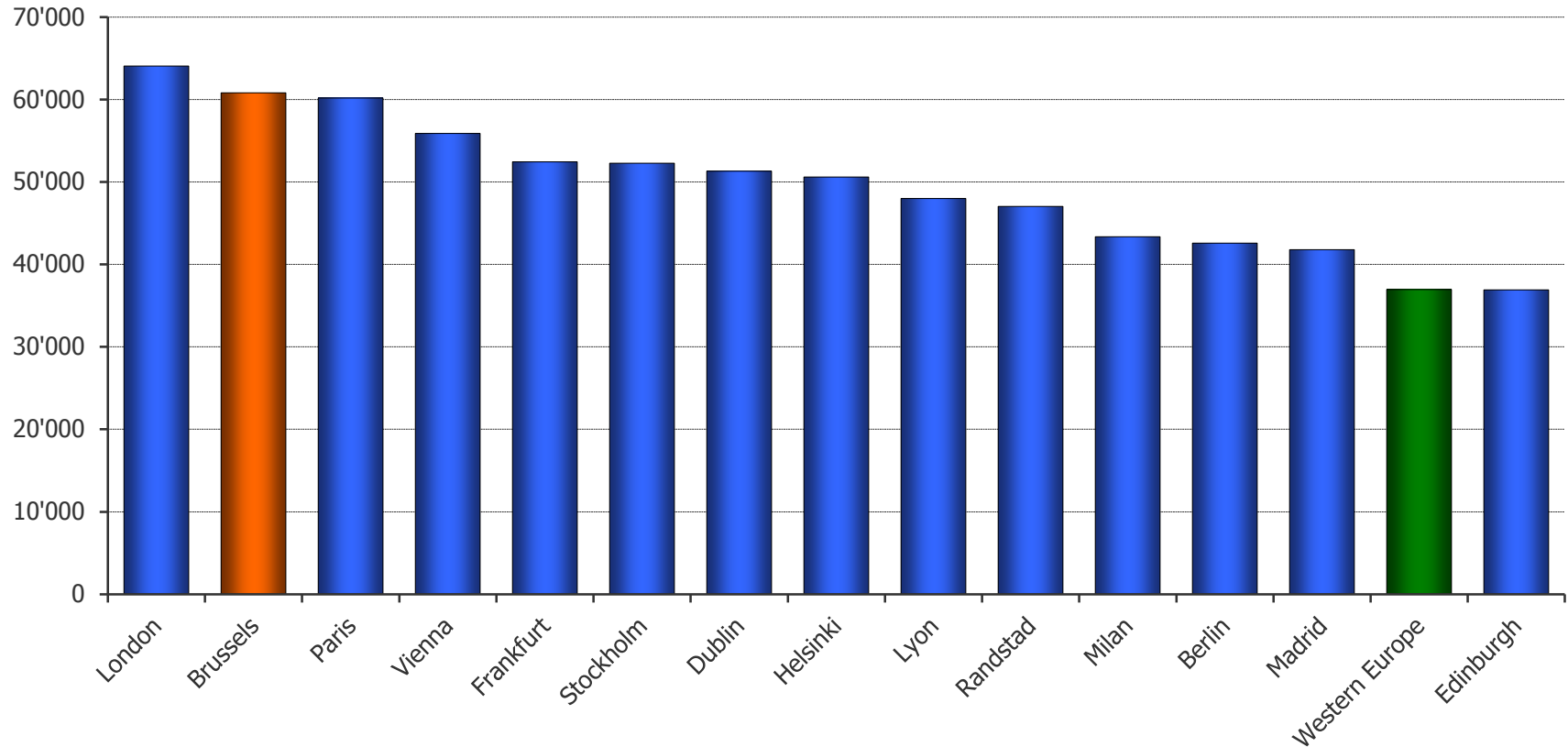
Growth of real GDP 1992-2002 and 2002-2012



Note
Source

In % p.a. (GDP in US\$ at constant prices and exchange rates, PPP corrected)
BAKBASEL

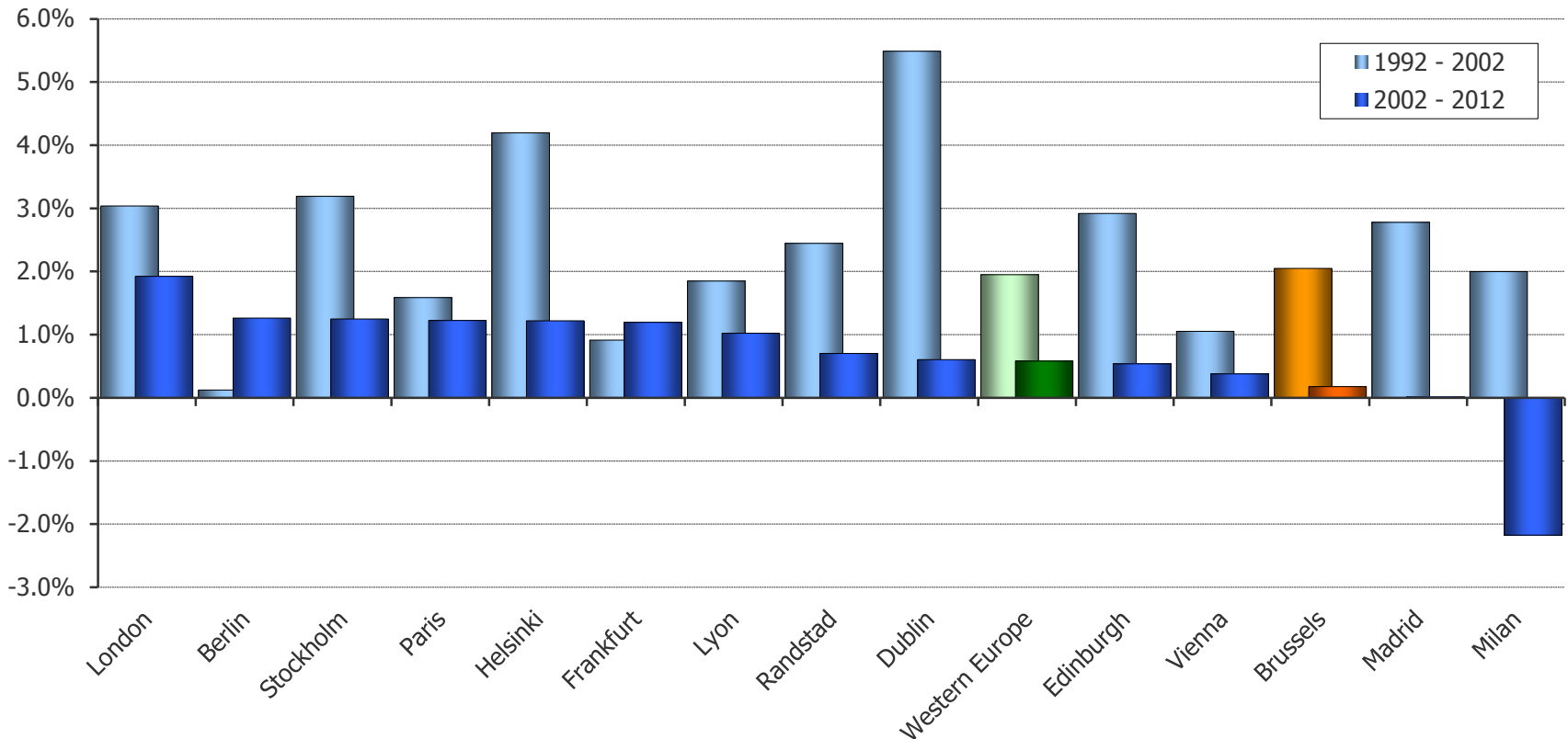
Nominal GDP per capita 2012



Note
Source

In US\$ at current prices, PPP corrected
BAKBASEL

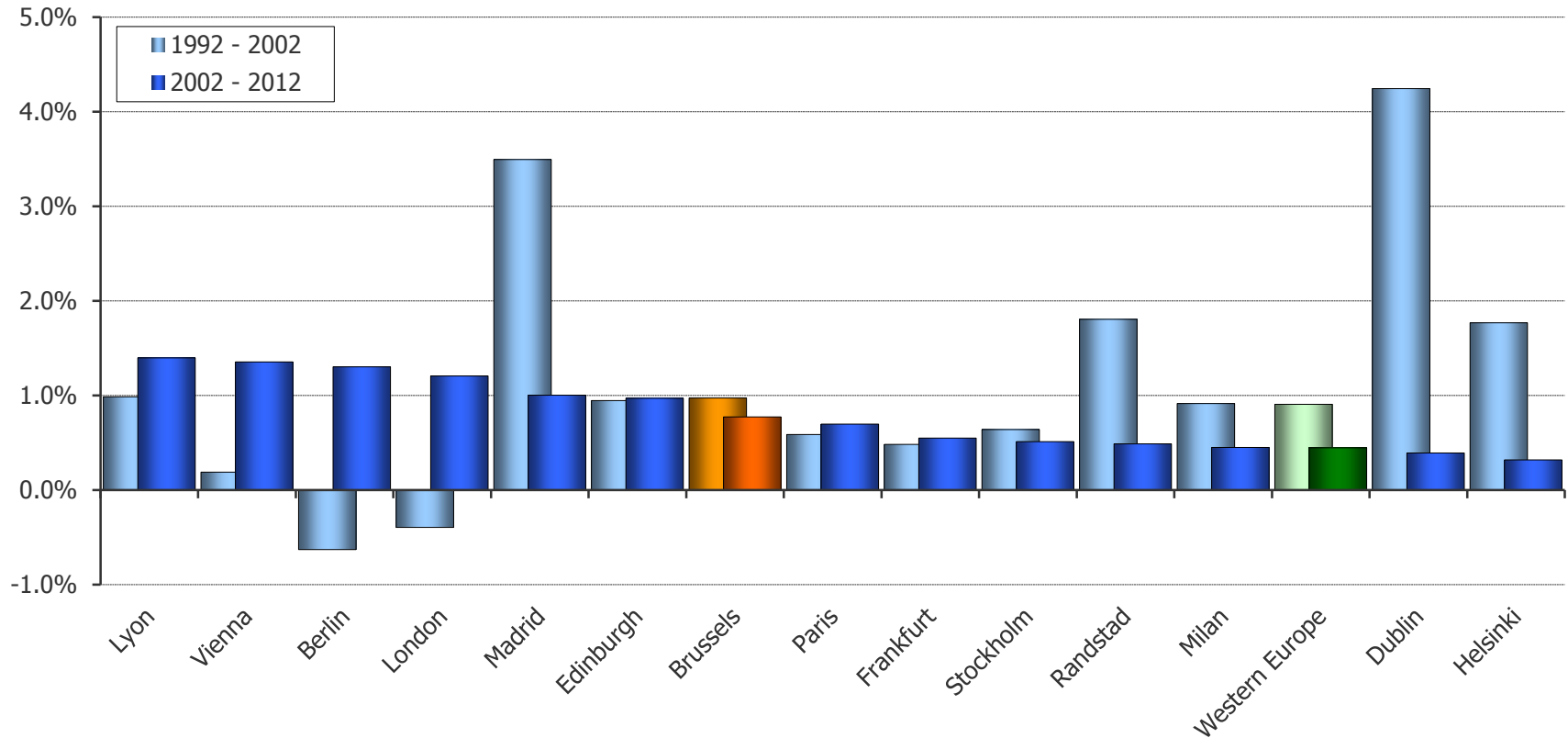
Growth of real GDP per capita 1992-2002 and 2002-2012



Note
Source

In % p.a. (GDP in US\$ at constant prices and exchange rates, PPP corrected)
BAKBASEL

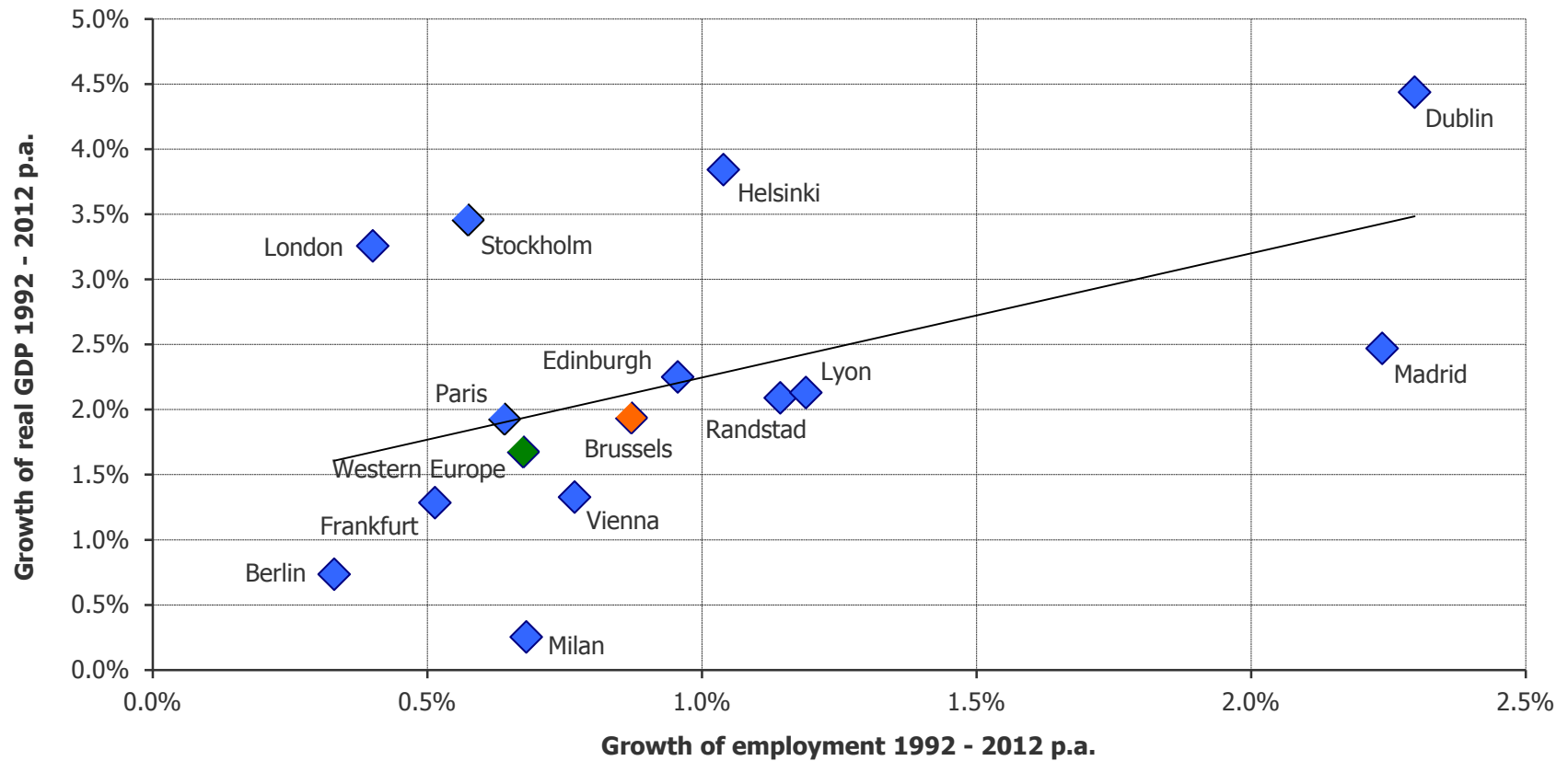
Growth of employment 1992-2002 and 2002-2012



Note
Source

In % p.a.
BAKBASEL

Growth of real GDP and employment 1992-2012

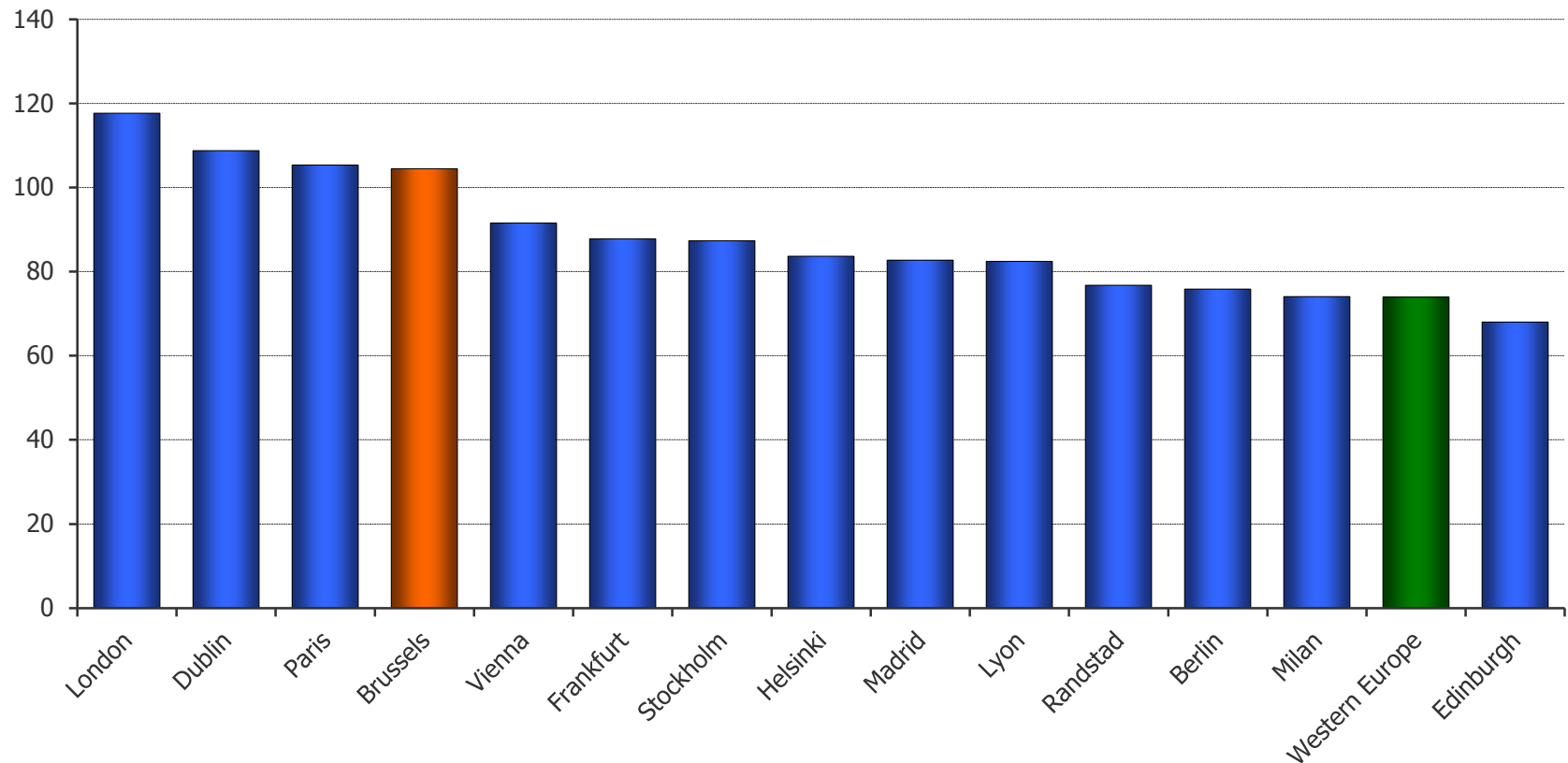


Note
Source

In % p.a. (GDP in US\$ at constant prices and exchange rates, PPP corrected)
BAKBASEL

Nominal employment productivity

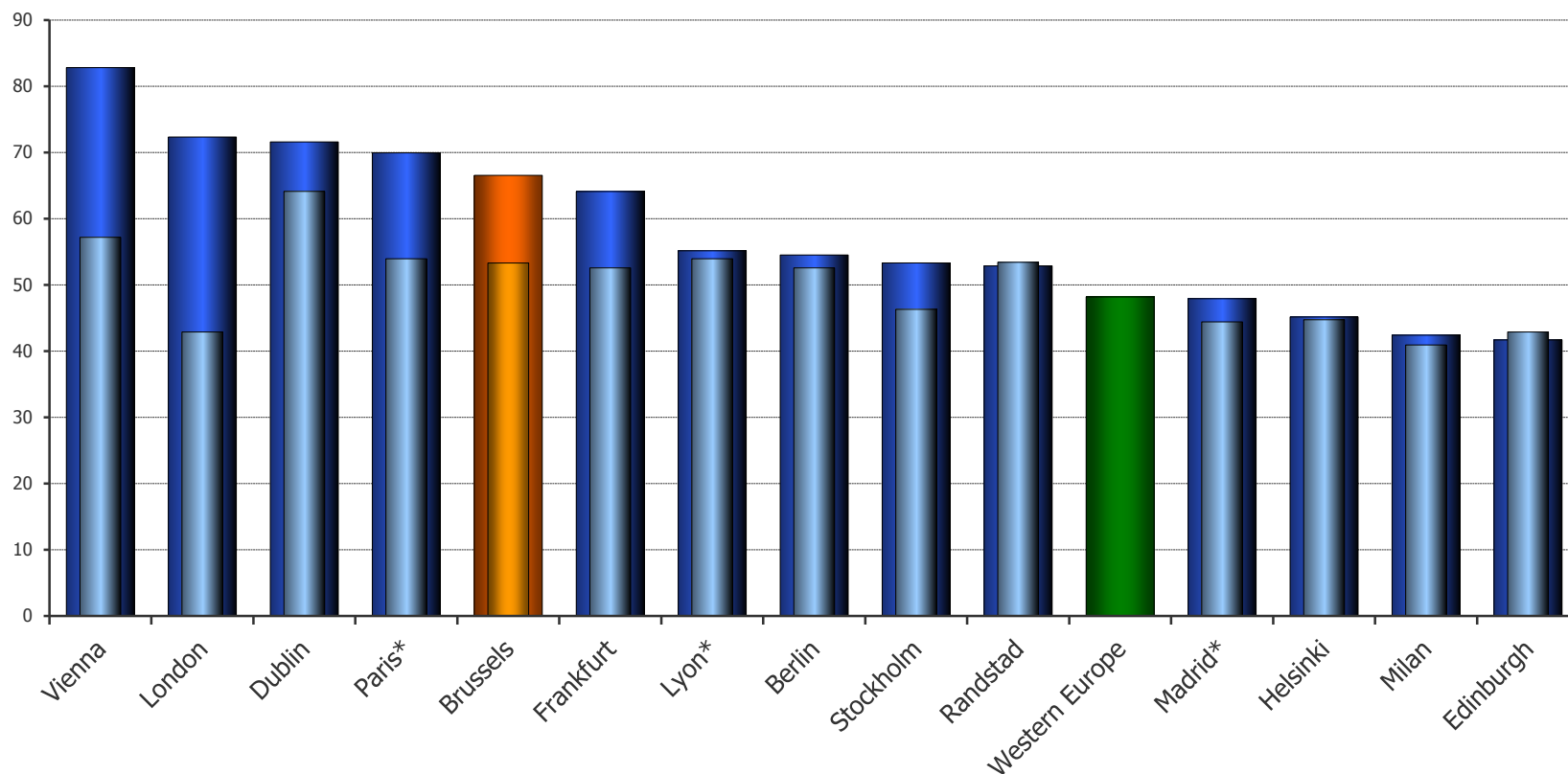
2012



Note
Source

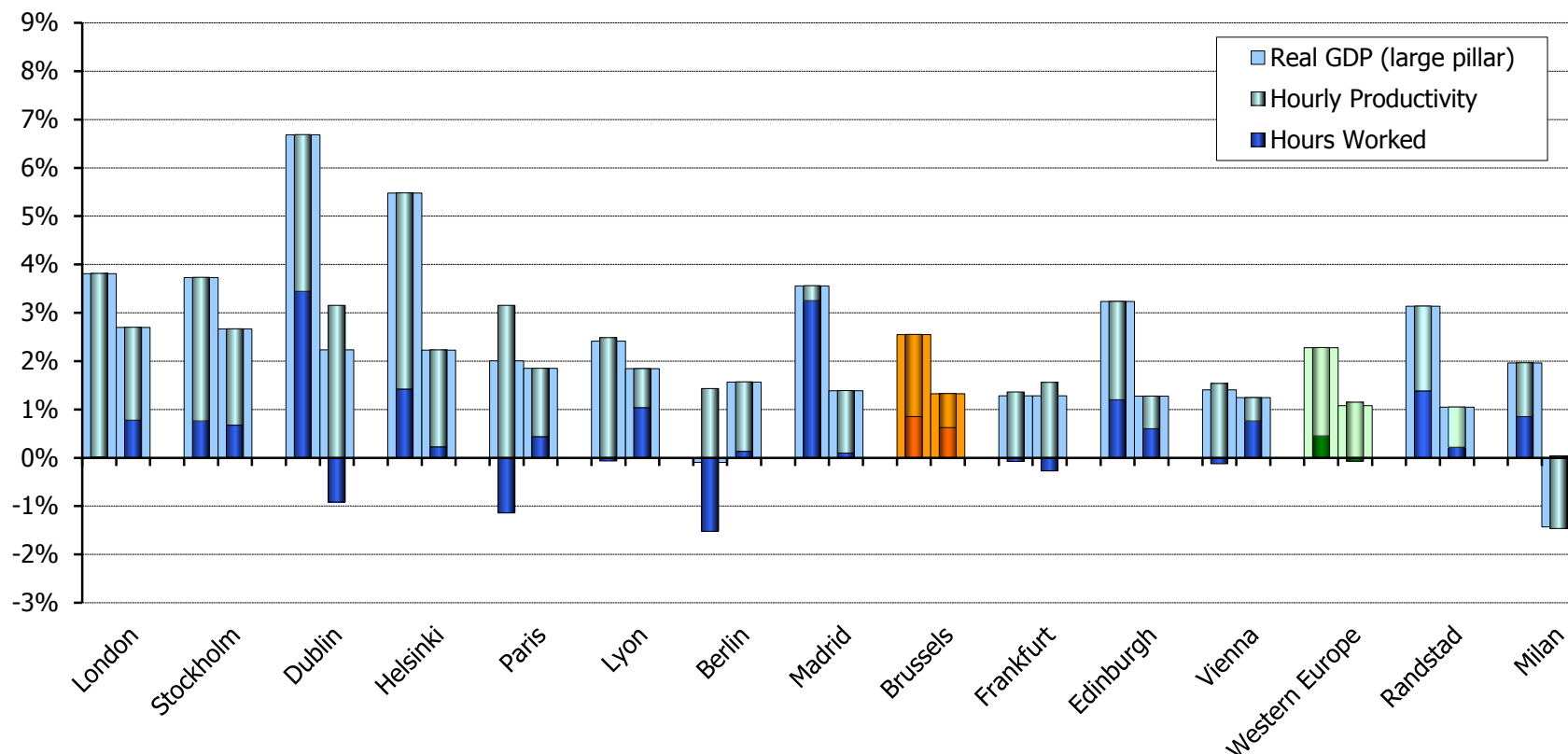
In 1'000 US\$ at current prices, PPP corrected
BAKBASEL

Nominal hourly productivity in regions (large pillar) and corresponding countries (small pillar), 2012



Note In US\$ at current prices, PPP corrected
* Data from IBD 2012
Source BAKBASEL

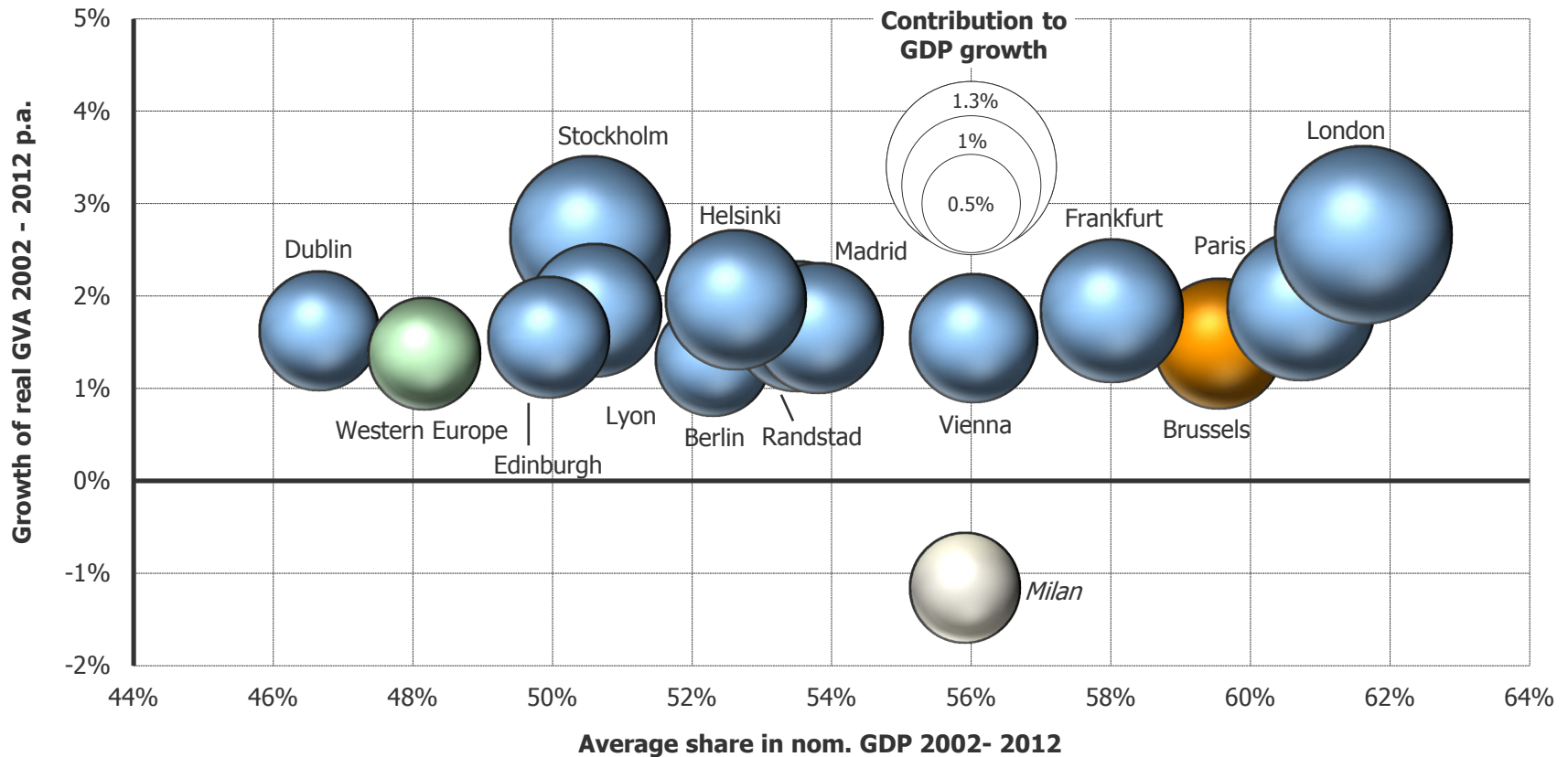
Growth of hours worked and real hourly productivity 1992-2002 and 2002-2012



Note In % p.a. (GDP and productivity in US\$ at constant prices and exchange rates, PPP corrected)
First pillar: 1992-2002 (Stockholm: 1994-2002), Second pillar: 2002-2012

Source BAKBASEL

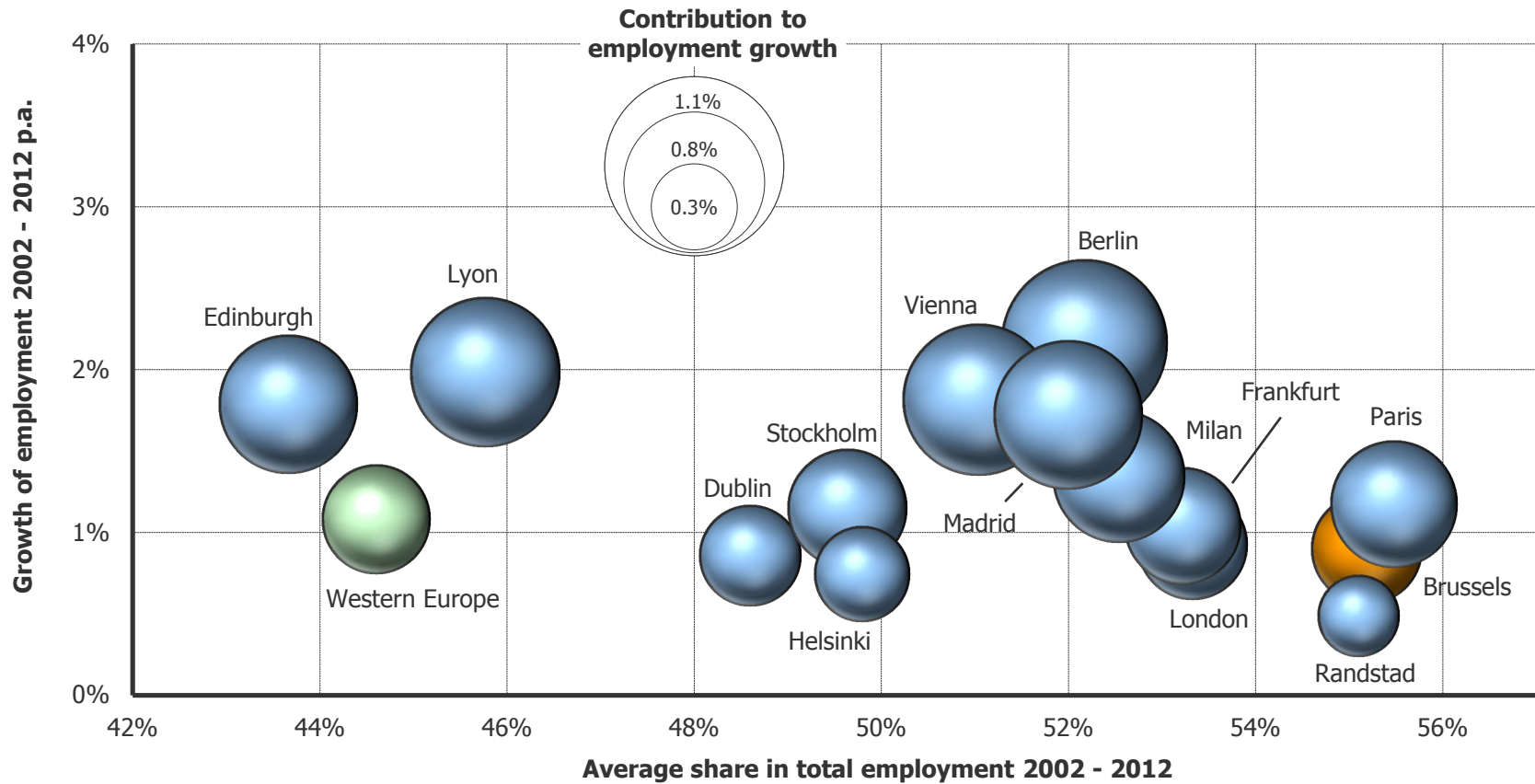
Urban Sector: Contribution to real GDP growth 2002-2012



Note Gross Value Added; horizontal: average share in % (based on US\$ at current prices and exchange rates); vertical: in % p.a. (based on US\$ at constant prices and exchange rates, PPP corrected); *italics: negative contribution to growth*

Source BAKBASEL

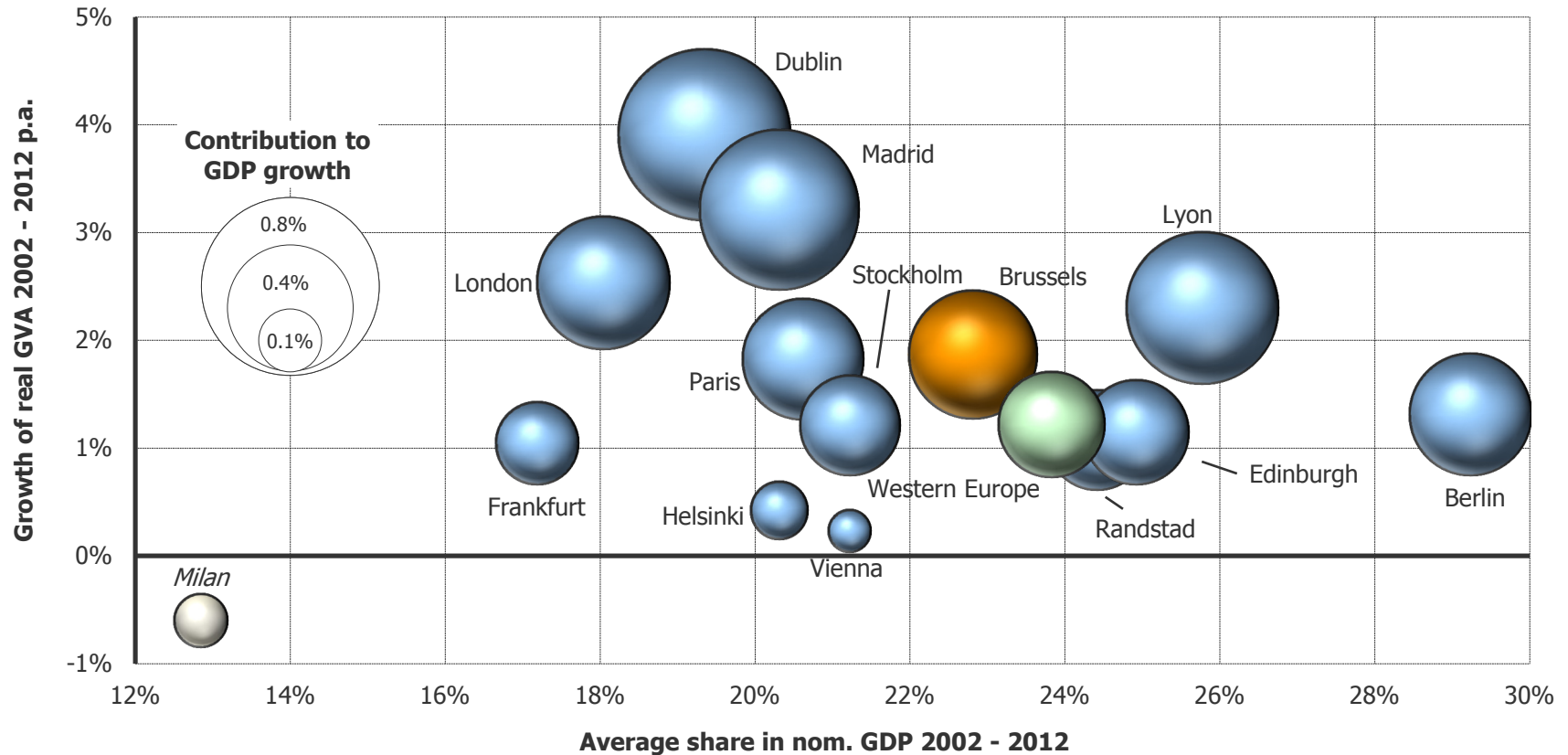
Urban Sector: Contribution to employment growth 2002-2012



Note
Source

In % p.a.
BAKBASEL

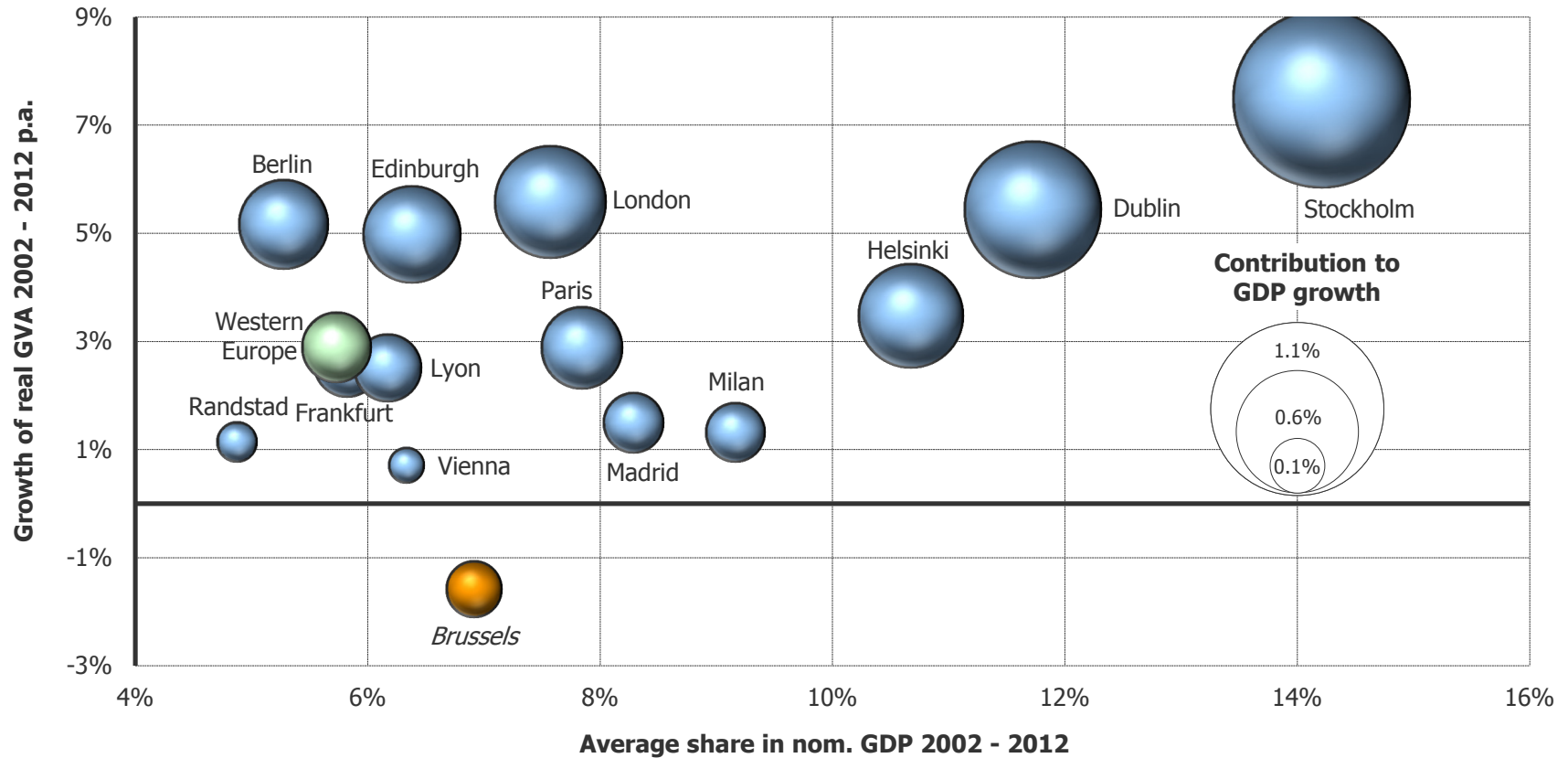
Political Sector: Contribution to real GDP growth 2002-2012



Note Gross Value Added; horizontal: average share in % (based on US\$ at current prices and exchange rates); vertical: in % p.a. (based on US\$ at constant prices and exchange rates, PPP corrected); *italics: negative contribution to growth*

Source BAKBASEL

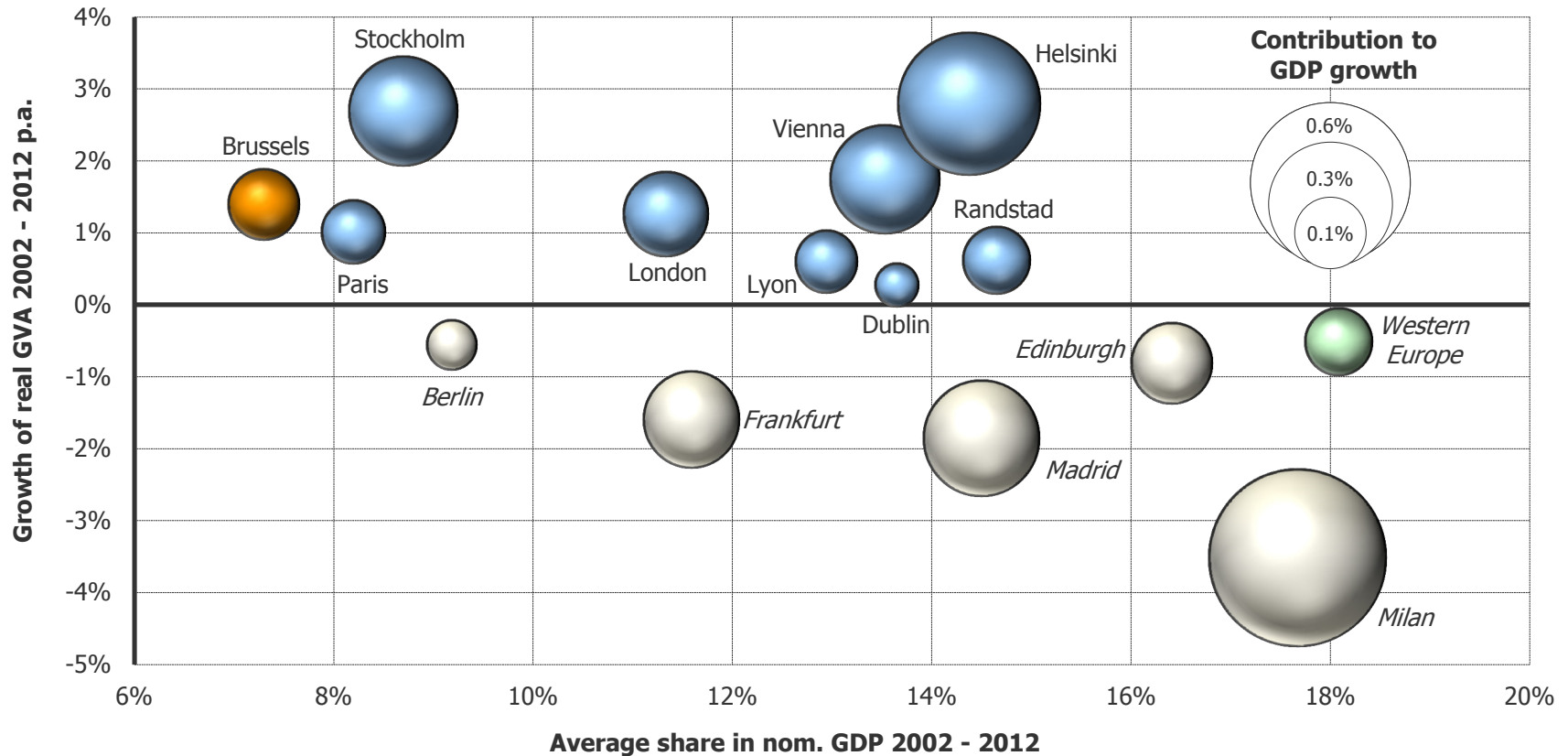
New Economy: Contribution to real GDP growth 2002-2012



Note Gross Value Added; horizontal: average share in % (based on US\$ at current prices and exchange rates); vertical: in % p.a. (based on US\$ at constant prices and exchange rates, PPP corrected); *italics: negative contribution to growth*

Source BAKBASEL

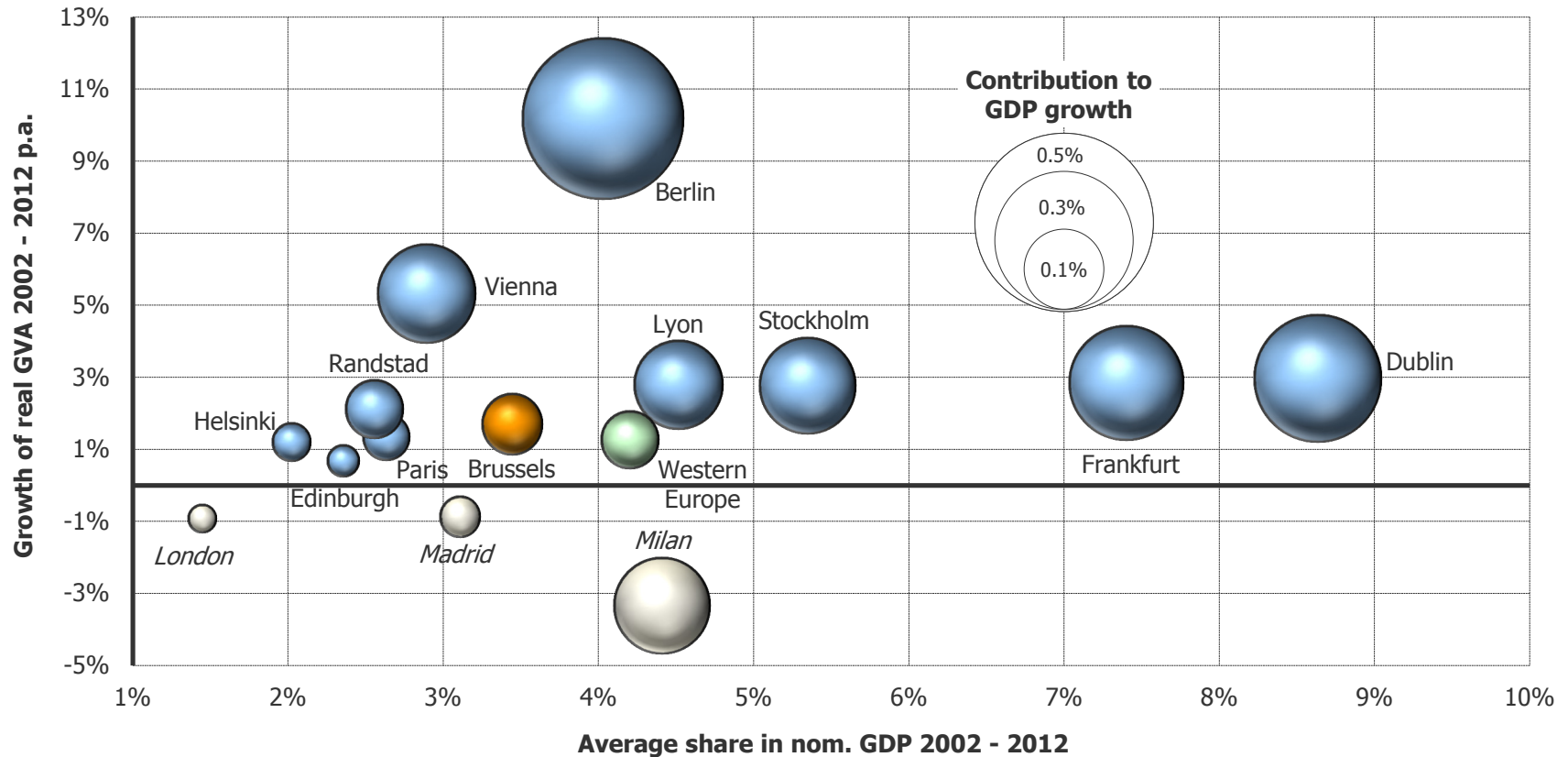
Traditional Sector: Contribution to real GDP growth 2002-2012



Note Gross Value Added; horizontal: average share in % (based on US\$ at current prices and exchange rates); vertical: in % p.a. (based on US\$ at constant prices and exchange rates, PPP corrected); *italics: negative contribution to growth*

Source BAKBASEL

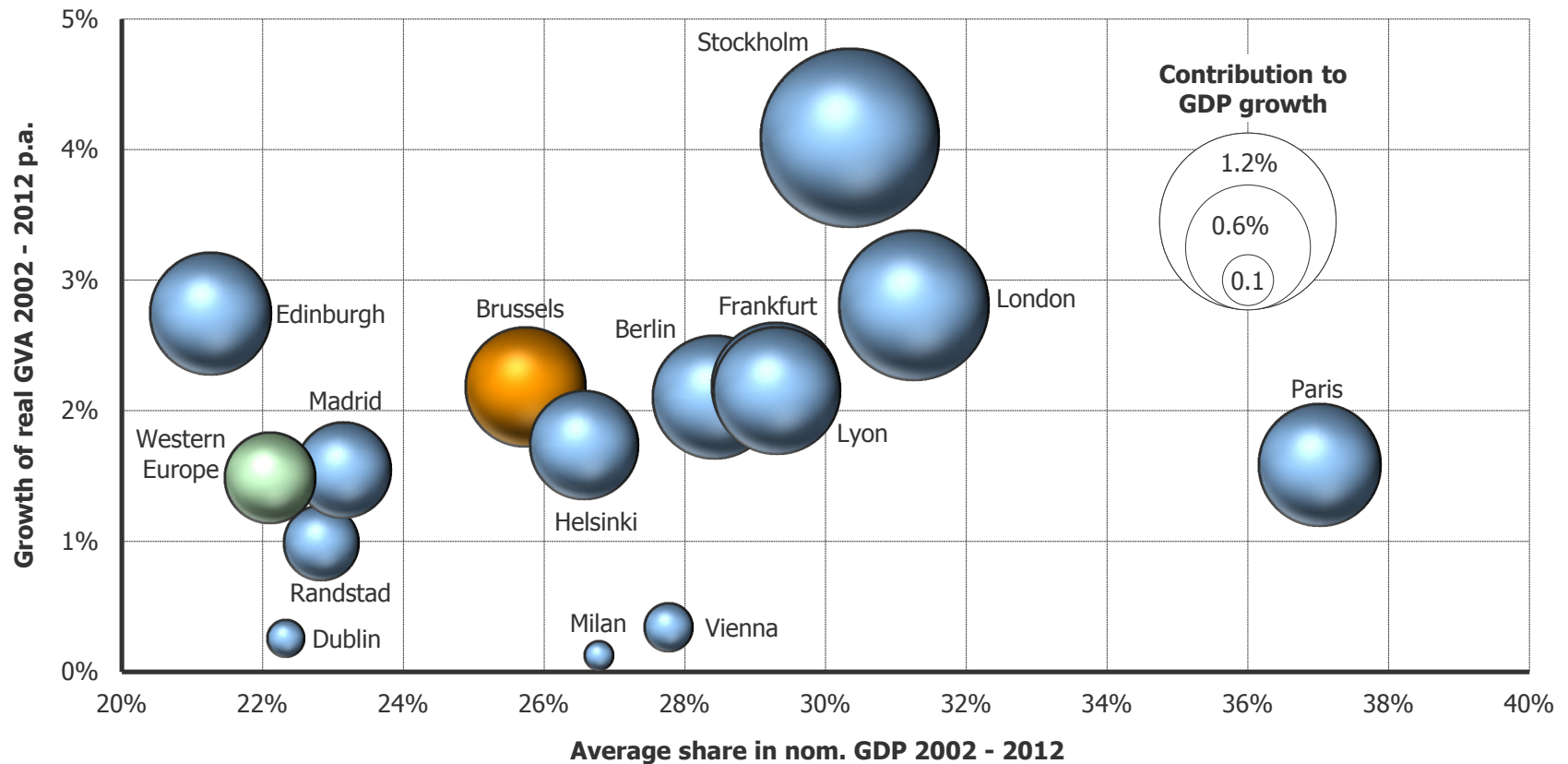
Old Economy: Contribution to real GDP growth 2002-2012



Note Gross Value Added; horizontal: average share in % (based on US\$ at current prices and exchange rates); vertical: in % p.a. (based on US\$ at constant prices and exchange rates, PPP corrected); *italics: negative contribution to growth*

Source BAKBASEL

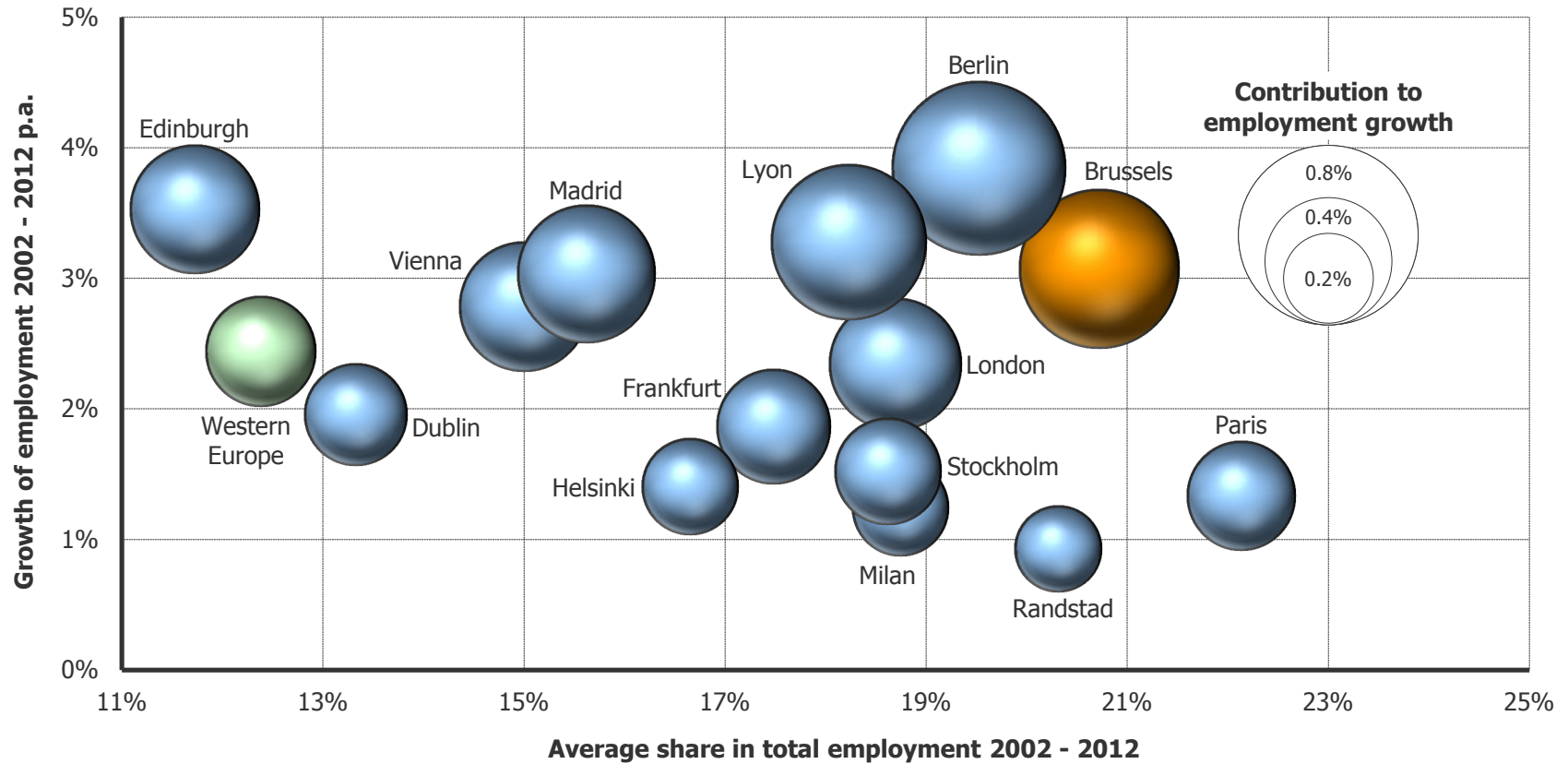
Business Services: Contribution to real GDP growth 2002-2012



Note Gross Value Added; horizontal: average share in % (based on US\$ at current prices and exchange rates); vertical: in % p.a. (based on US\$ at constant prices and exchange rates, PPP corrected)

Source BAKBASEL

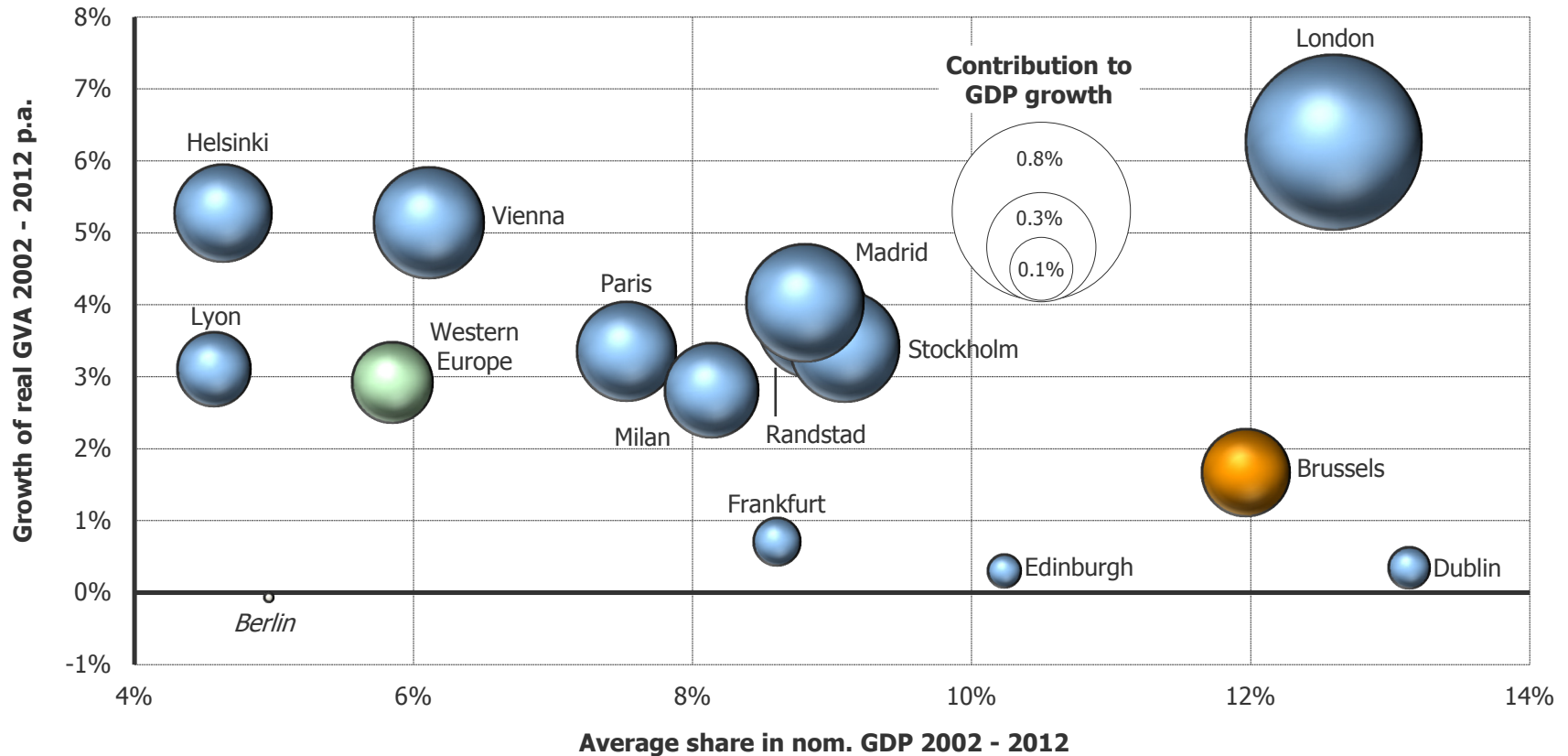
Business Services: Contribution to employment growth 2002-2012



Note
Source

In % p.a.
BAKBASEL

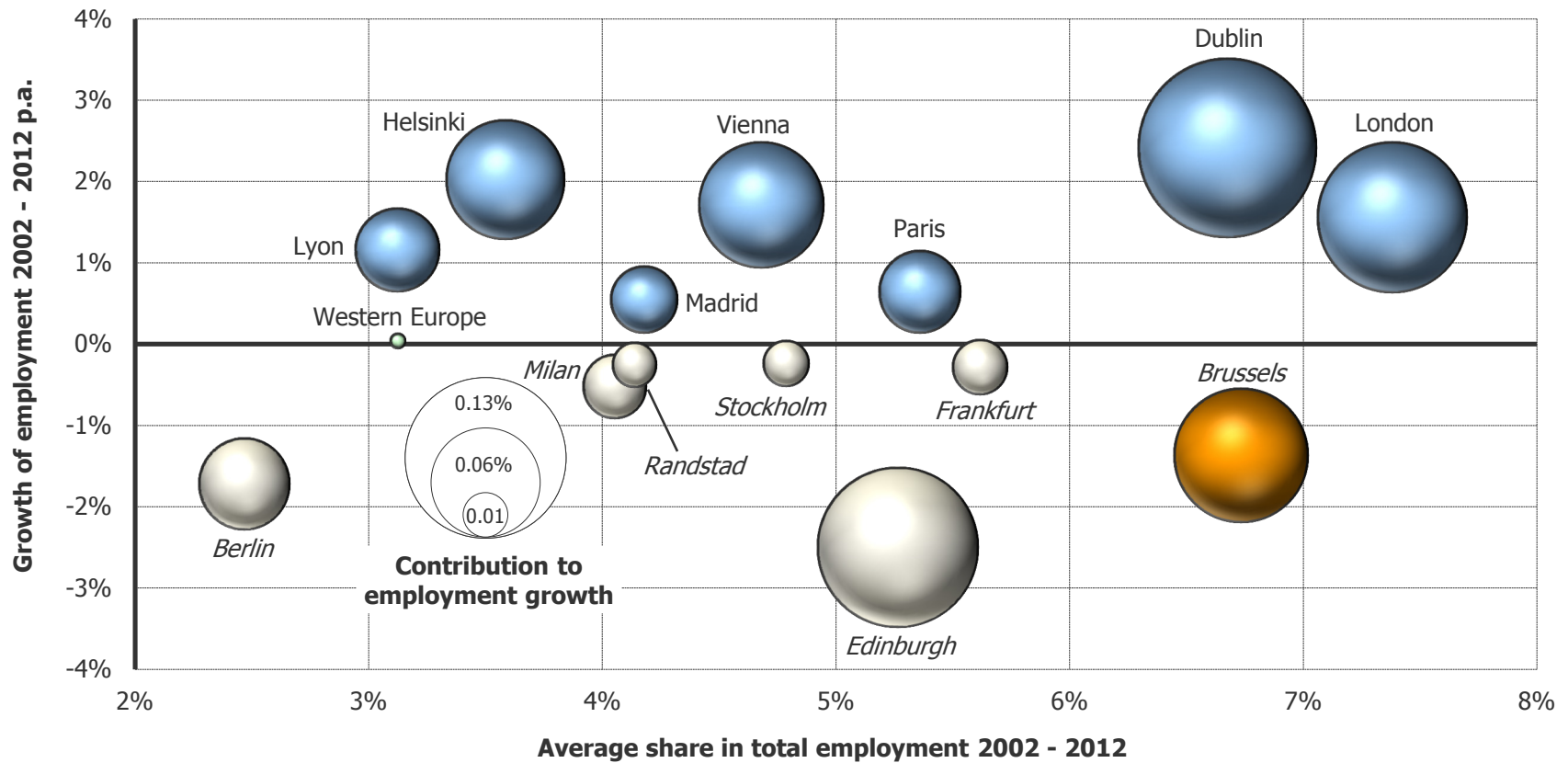
Financial Services: Contribution to real GDP growth 2002-2012



Note Gross Value Added; horizontal: average share in % (based on US\$ at current prices and exchange rates); vertical: in % p.a. (based on US\$ at constant prices and exchange rates, PPP corrected); *italics: negative contribution to growth*

Source BAKBASEL

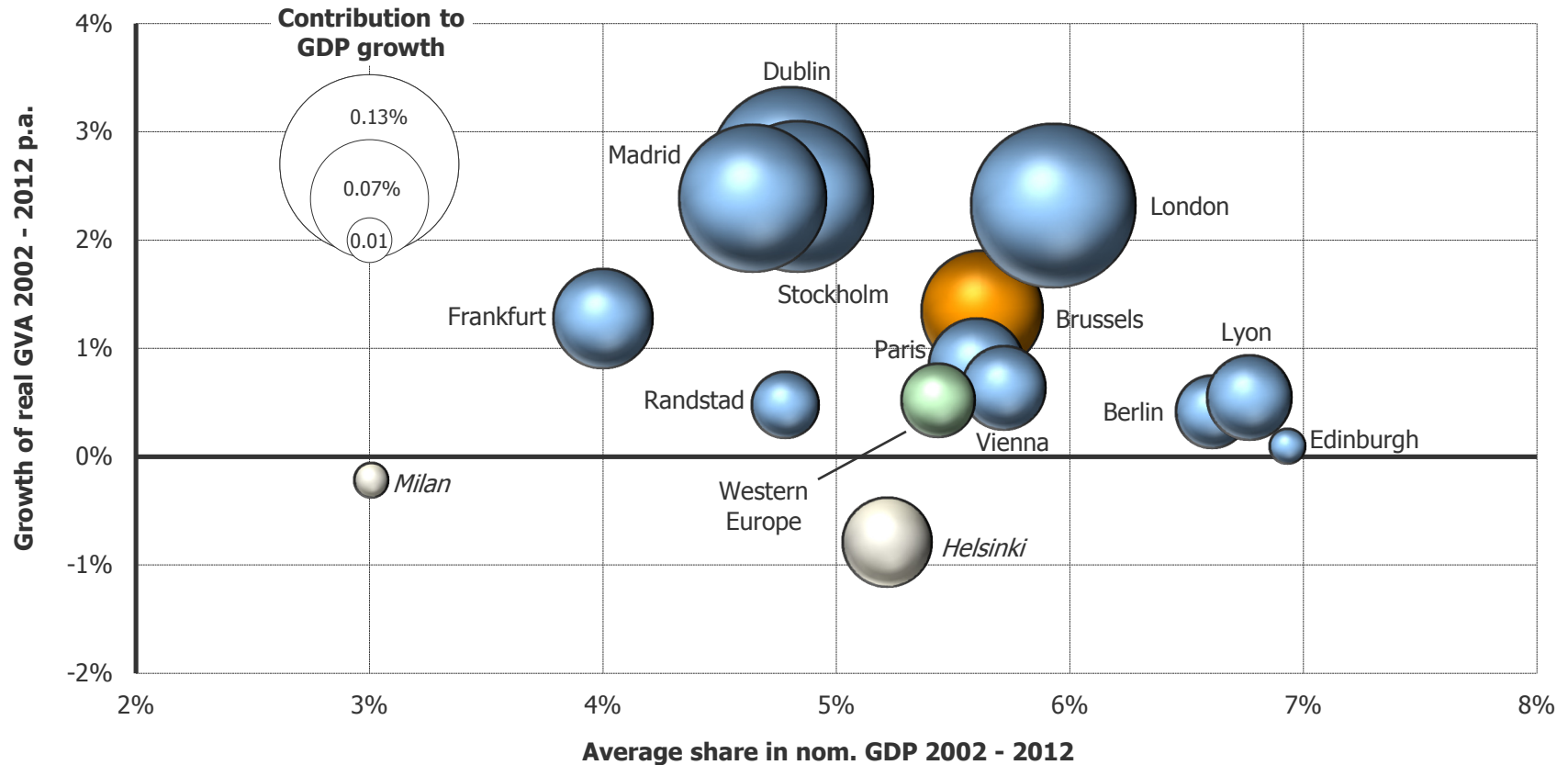
Financial Services: Contribution to employment growth 2002-2012



Note
Source

In % p.a., *italics: negative contribution to growth*
BAKBASEL

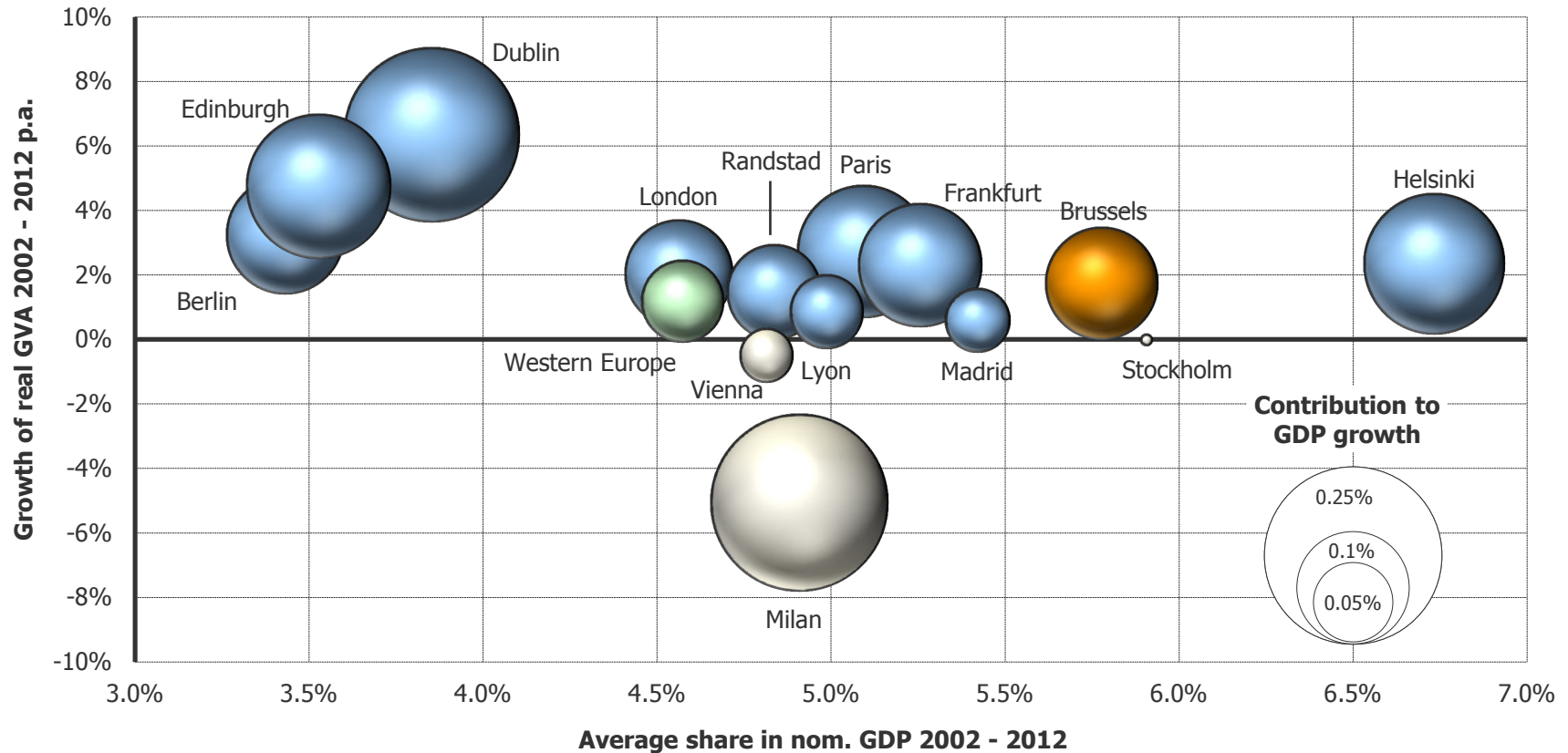
Knowledge Services: Contribution to real GDP growth 2002-2012



Note Gross Value Added; horizontal: average share in % (based on US\$ at current prices and exchange rates); vertical: in % p.a. (based on US\$ at constant prices and exchange rates, PPP corrected); *italics: negative contribution to growth*

Source BAKBASEL

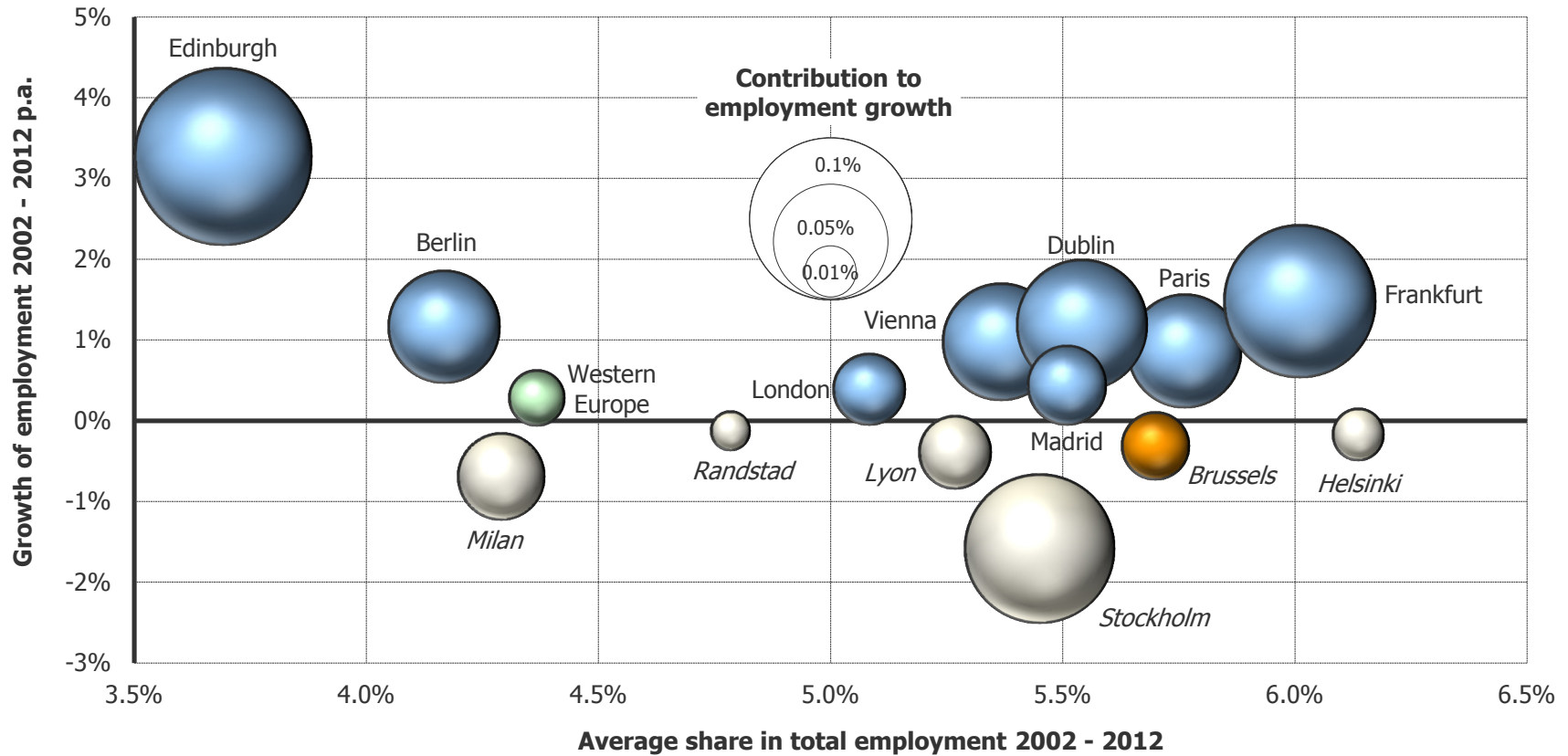
Transport: Contribution to real GDP growth 2002-2012



Note Gross Value Added; horizontal: average share in % (based on US\$ at current prices and exchange rates); vertical: in % p.a. (based on US\$ at constant prices and exchange rates, PPP corrected); *italics: negative contribution to growth*

Source BAKBASEL

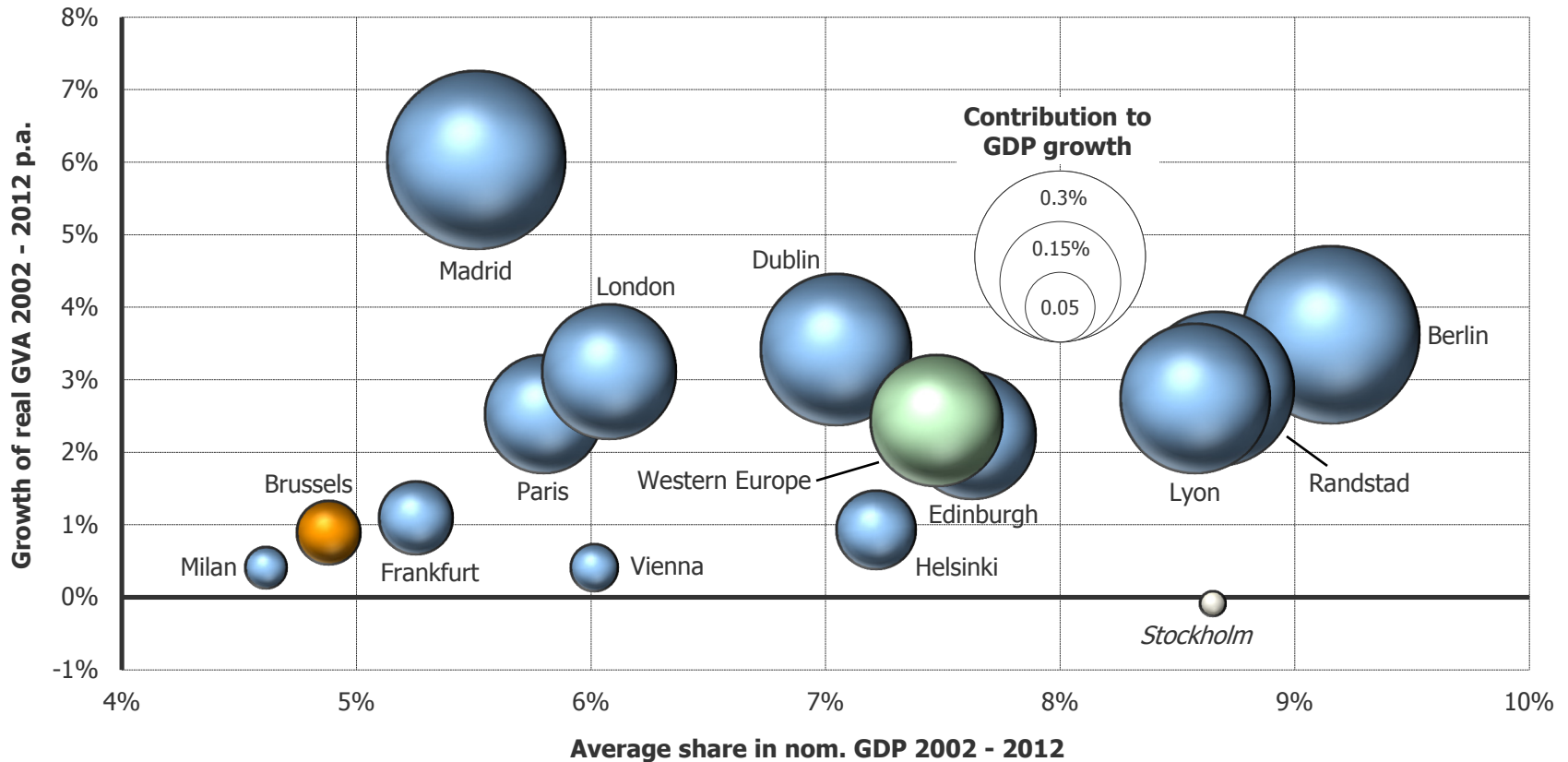
Transport: Contribution to employment growth 2002-2012



Note
Source

In % p.a., *italics: negative contribution to growth*
BAKBASEL

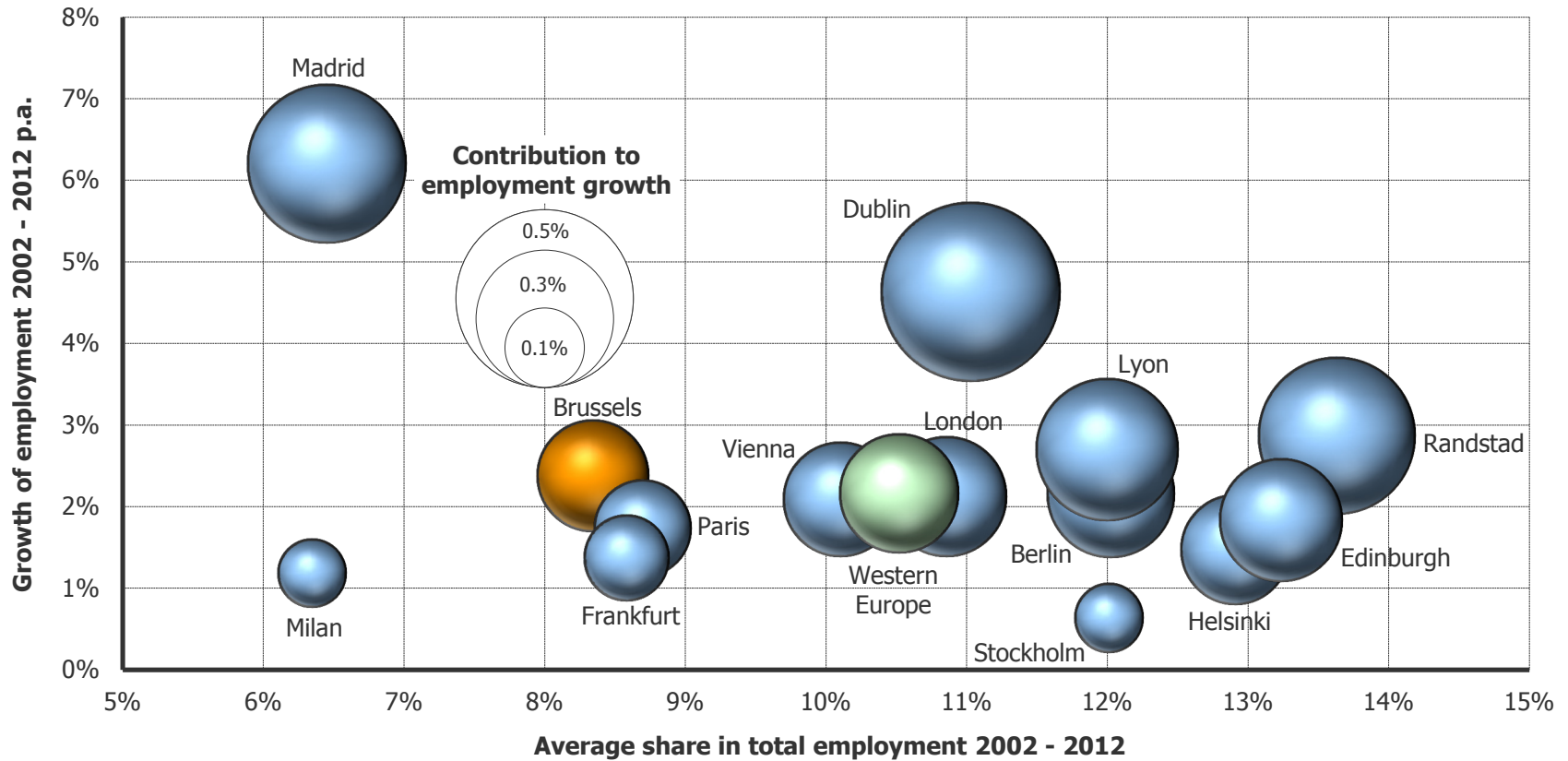
Health & Social Services: Contribution to real GDP growth 2002-2012



Note Gross Value Added; horizontal: average share in % (based on US\$ at current prices and exchange rates); vertical: in % p.a. (based on US\$ at constant prices and exchange rates, PPP corrected); *italics: negative contribution to growth*

Source BAKBASEL

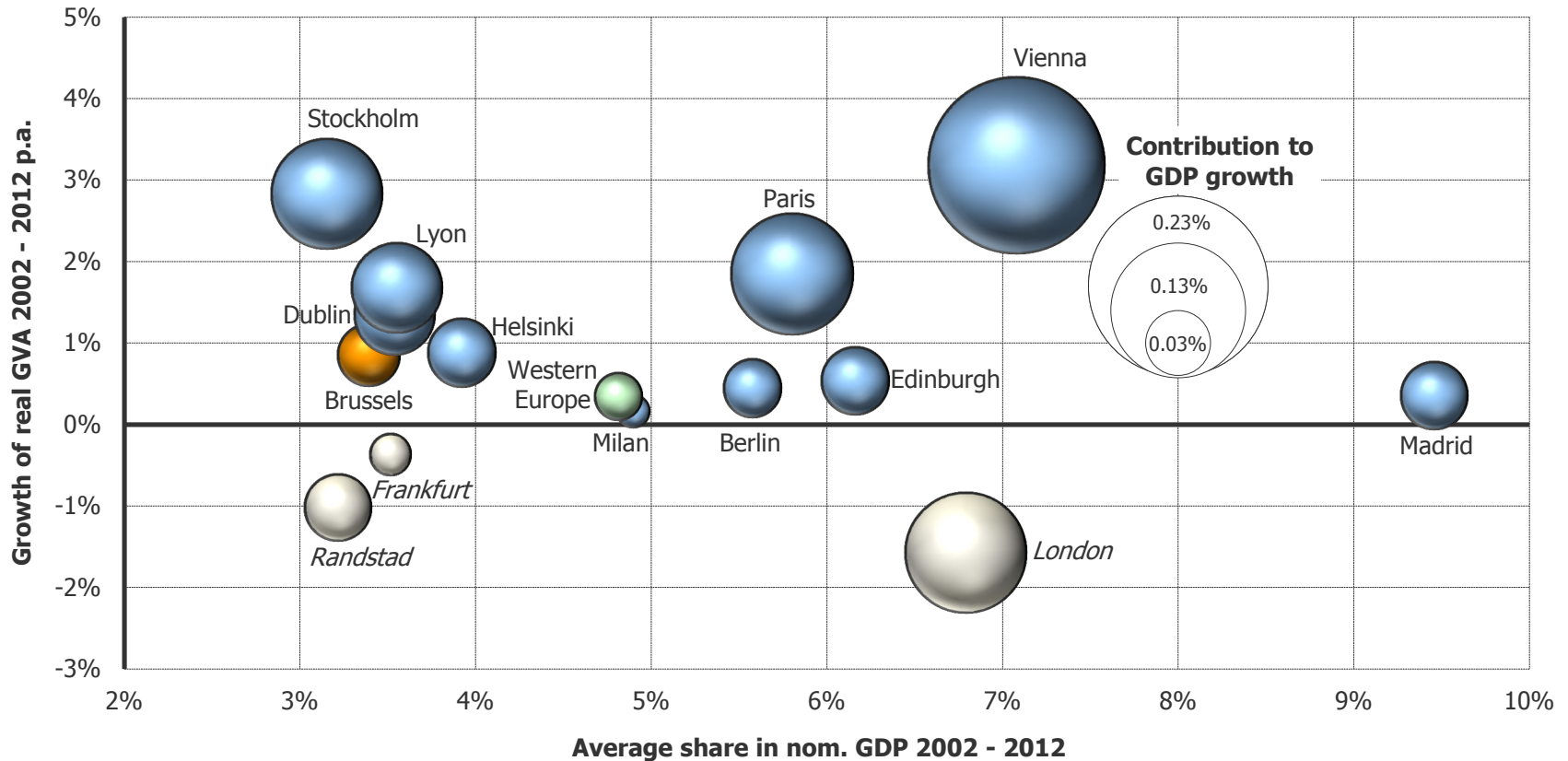
Health & Social Services: Contribution to employment growth 2002-2012



Note
Source

In % p.a.
BAKBASEL

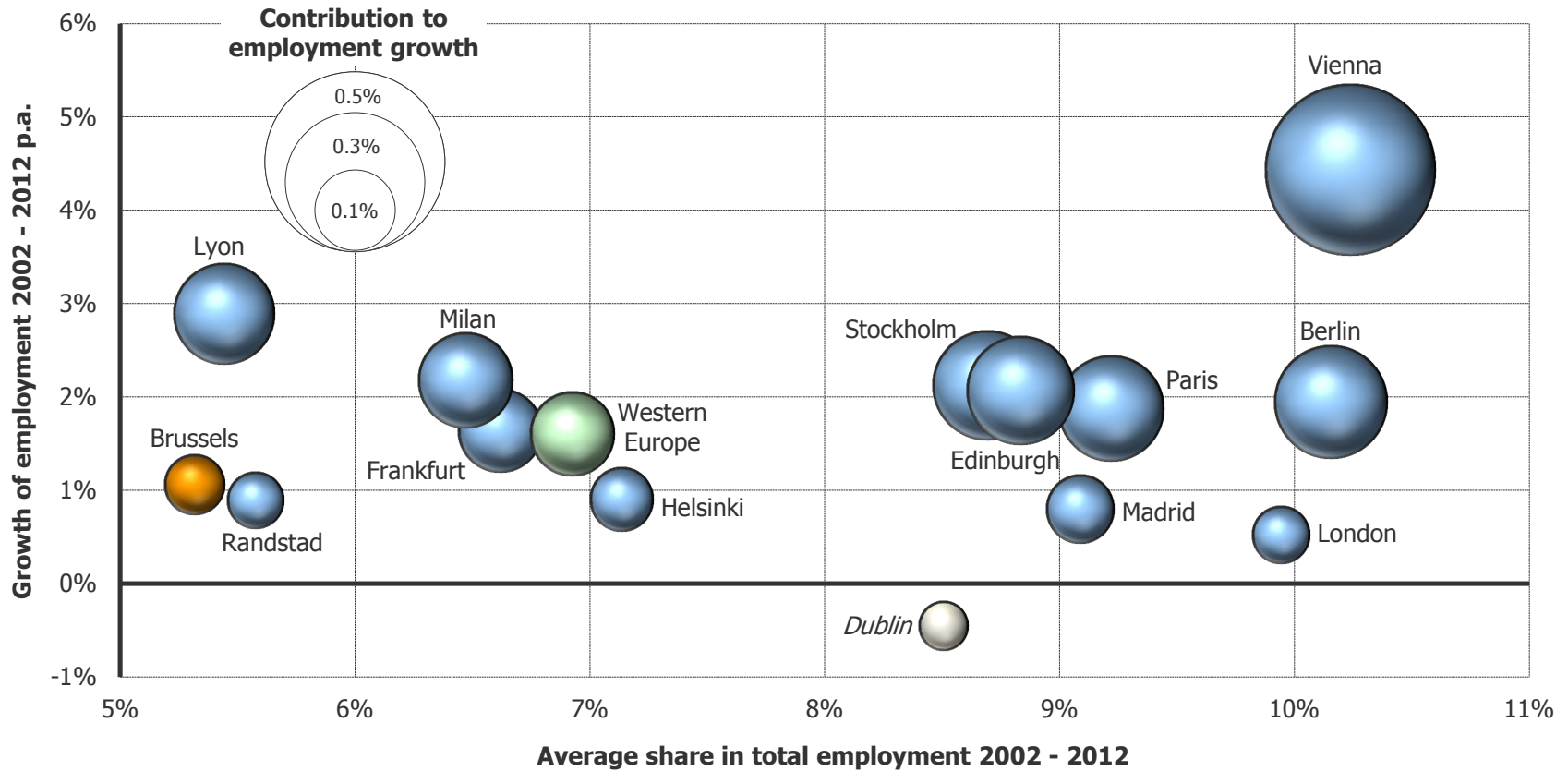
Tourism: Contribution to real GDP growth 2002-2012



Note Gross Value Added; horizontal: average share in % (based on US\$ at current prices and exchange rates); vertical: in % p.a. (based on US\$ at constant prices and exchange rates, PPP corrected); *italics: negative contribution to growth*

Source BAKBASEL

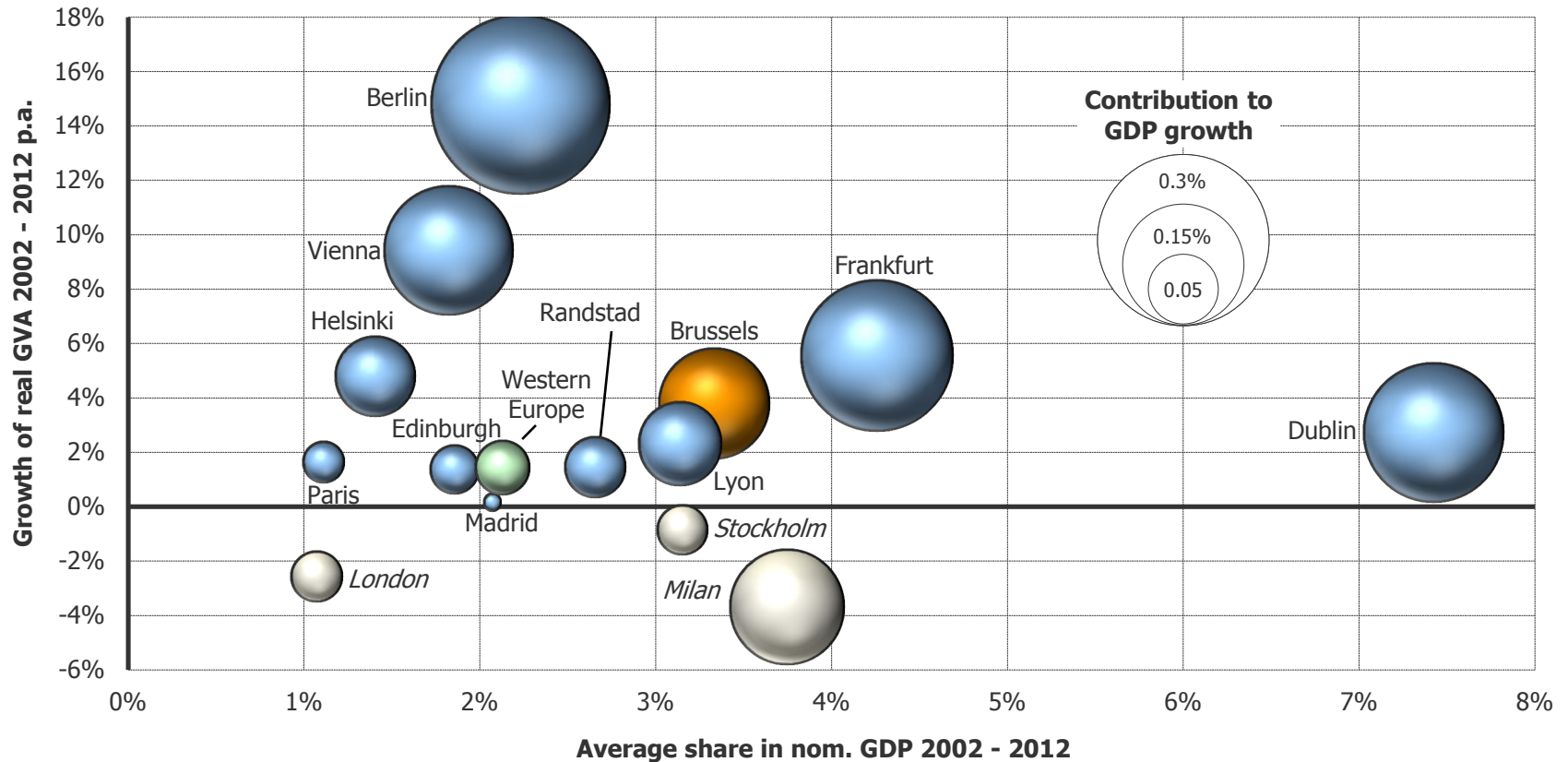
Tourism: Contribution to employment growth 2002-2012



Note
Source

In % p.a., *italics: negative contribution to growth*
BAKBASEL

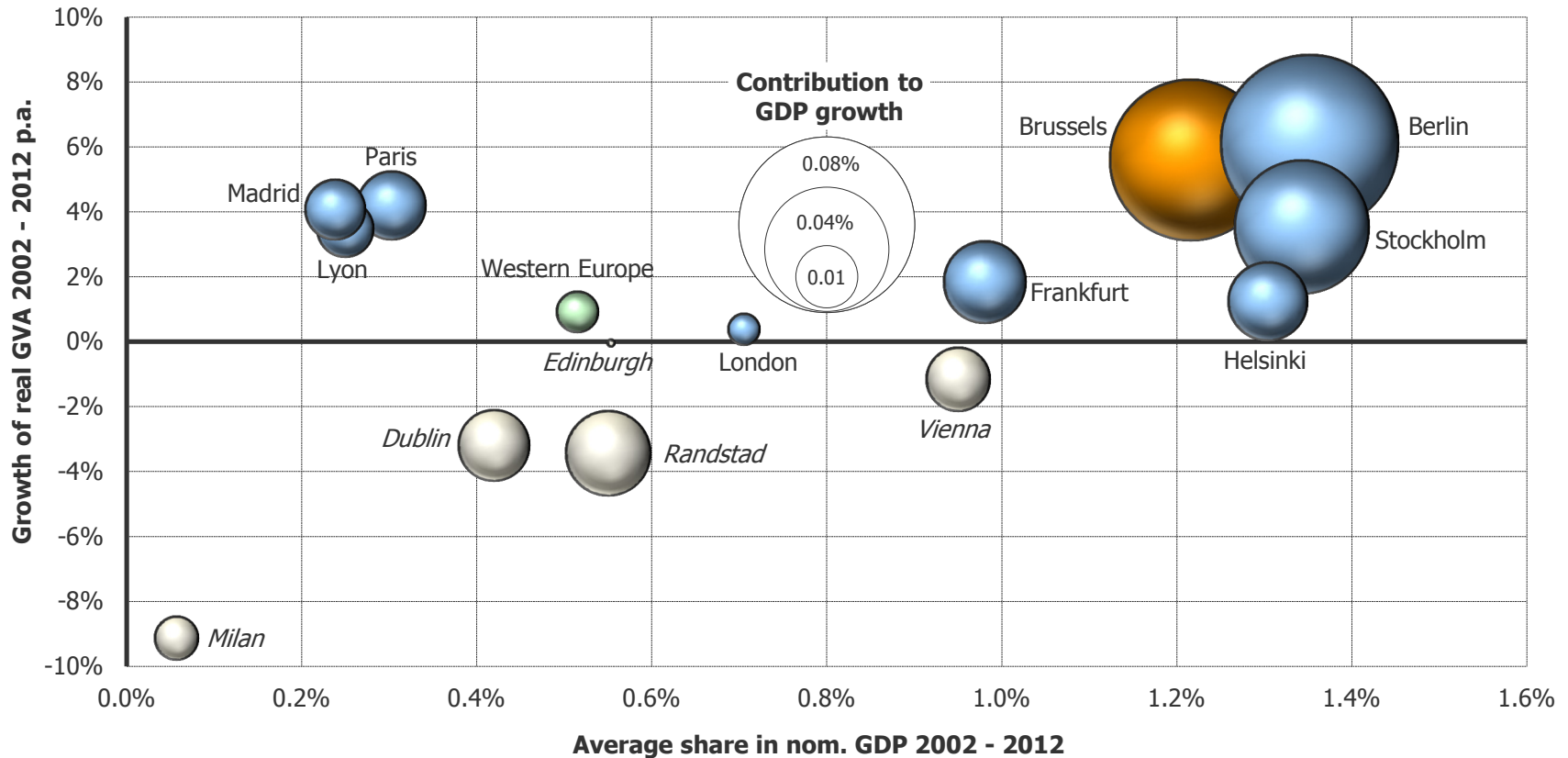
Chemicals: Contribution to real GDP growth 2002-2012



Note Gross Value Added; horizontal: average share in % (based on US\$ at current prices and exchange rates); vertical: in % p.a. (based on US\$ at constant prices and exchange rates, PPP corrected); *italics: negative contribution to growth*

Source BAKBASEL

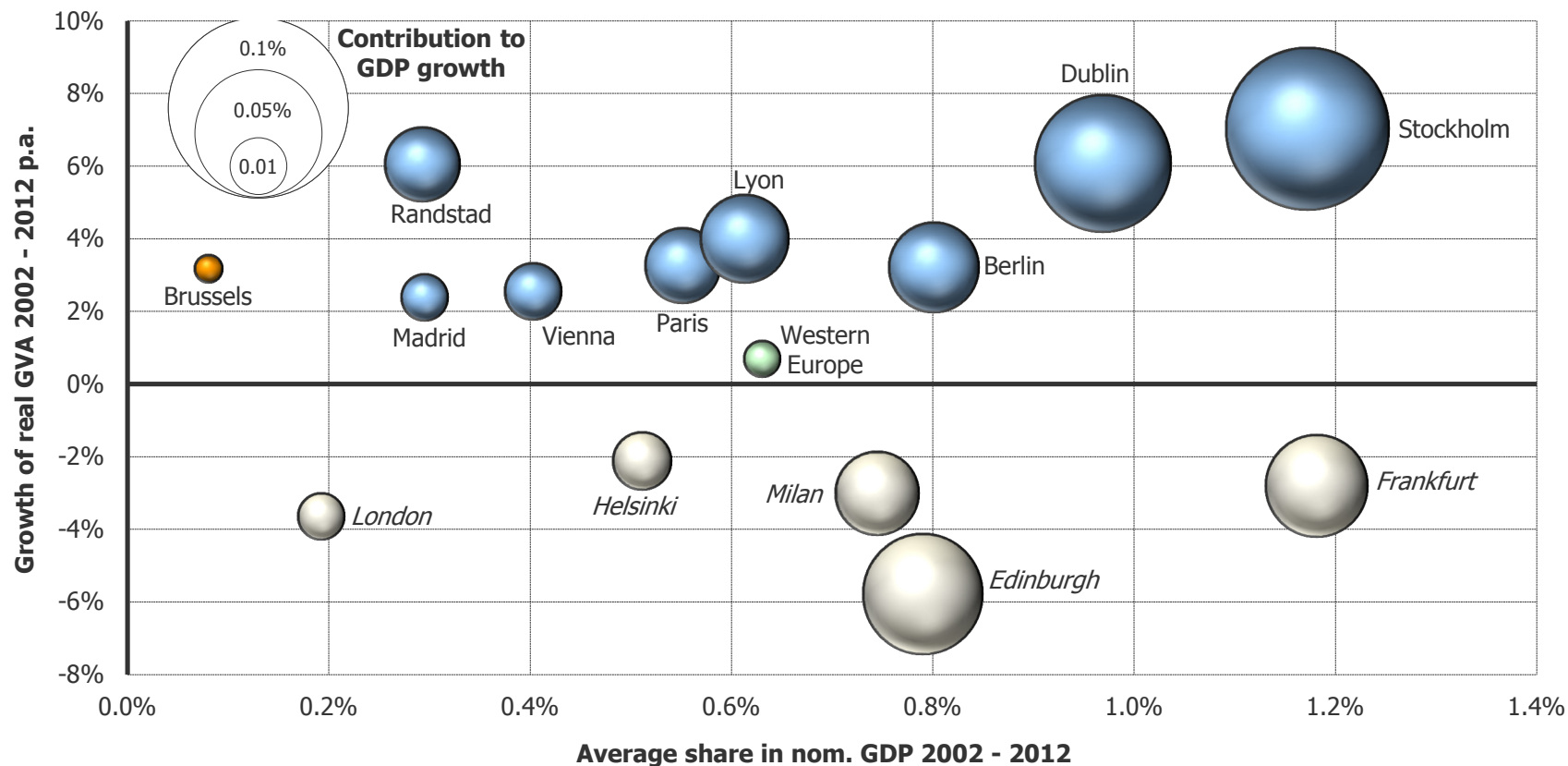
Interest Groups and other Associations: Contribution to real GDP growth, 2002-2012



Note Gross Value Added; horizontal: average share in % (based on US\$ at current prices and exchange rates); vertical: in % p.a. (based on US\$ at constant prices and exchange rates, PPP corrected); *italics: negative contribution to growth*

Source BAKBASEL

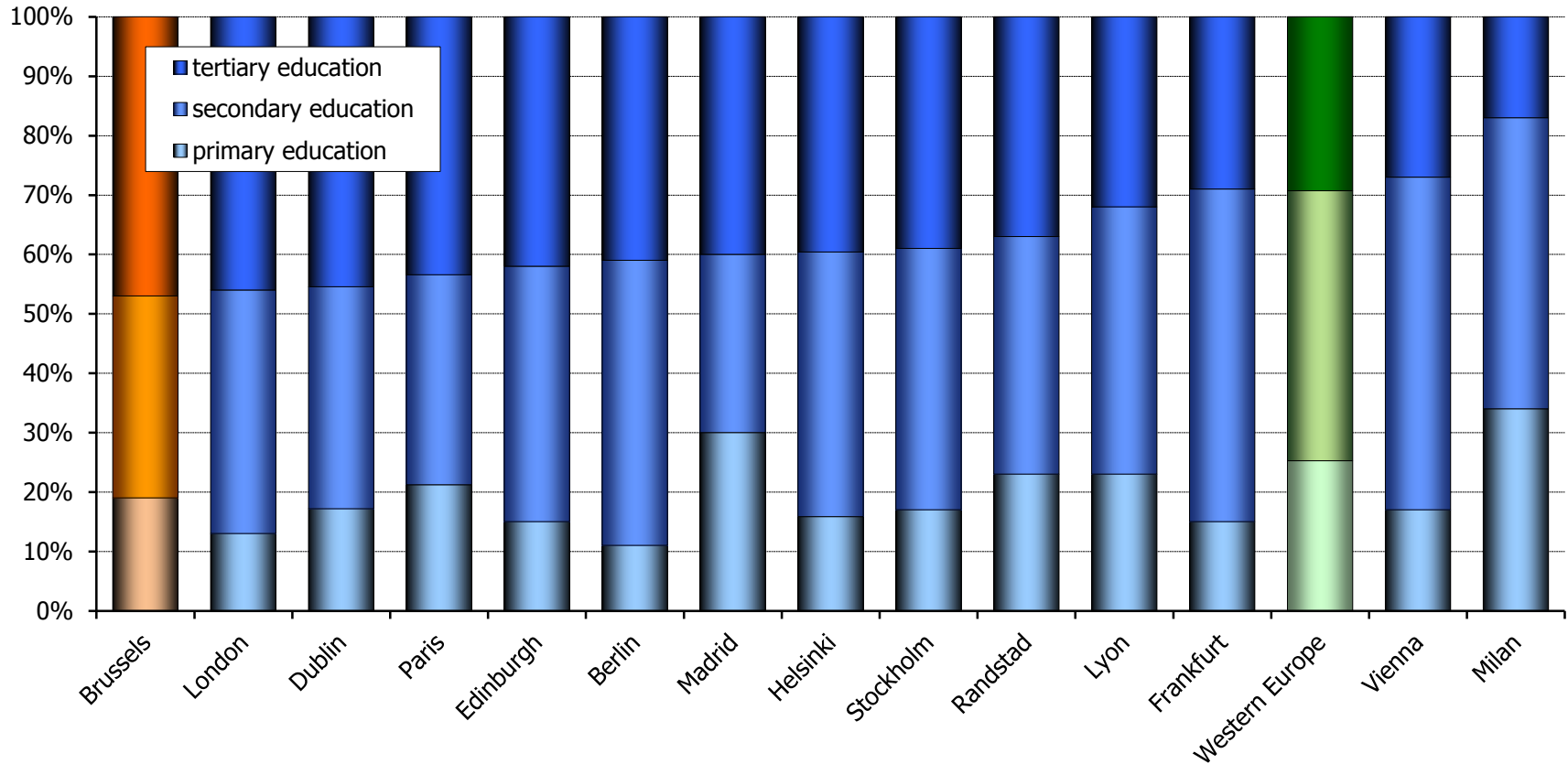
Medical & Precision Instruments: Contribution to real GDP growth, 2002-2012



Note Gross Value Added; horizontal: average share in % (based on US\$ at current prices and exchange rates); vertical: in % p.a. (based on US\$ at constant prices and exchange rates, PPP corrected); *italics: negative contribution to growth*

Source BAKBASEL

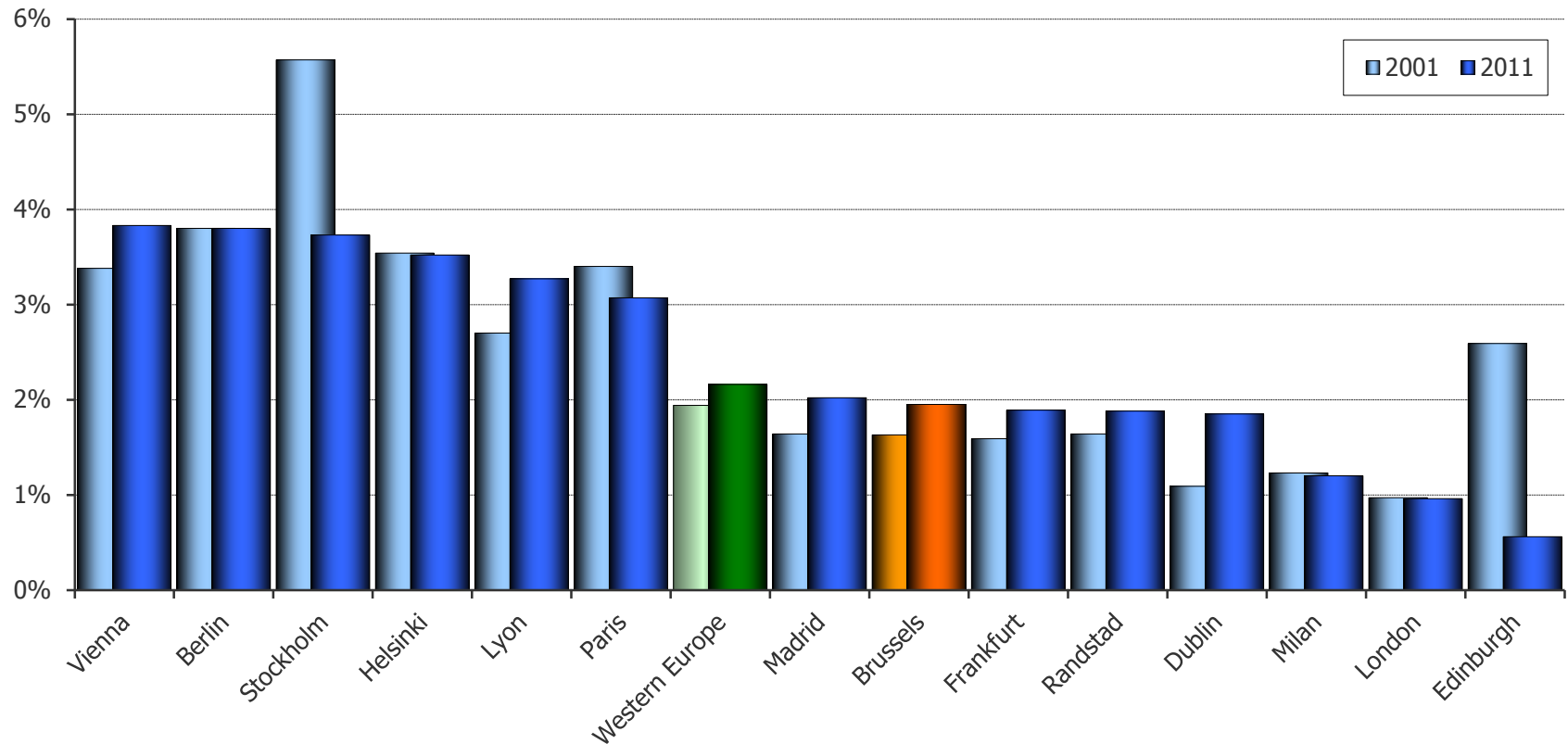
Share of highly qualified employment in total employment, 2011



Note
Source

Share in %
BAKBASEL

Share of expenditure on R&D in nominal GDP 2001 and 2011

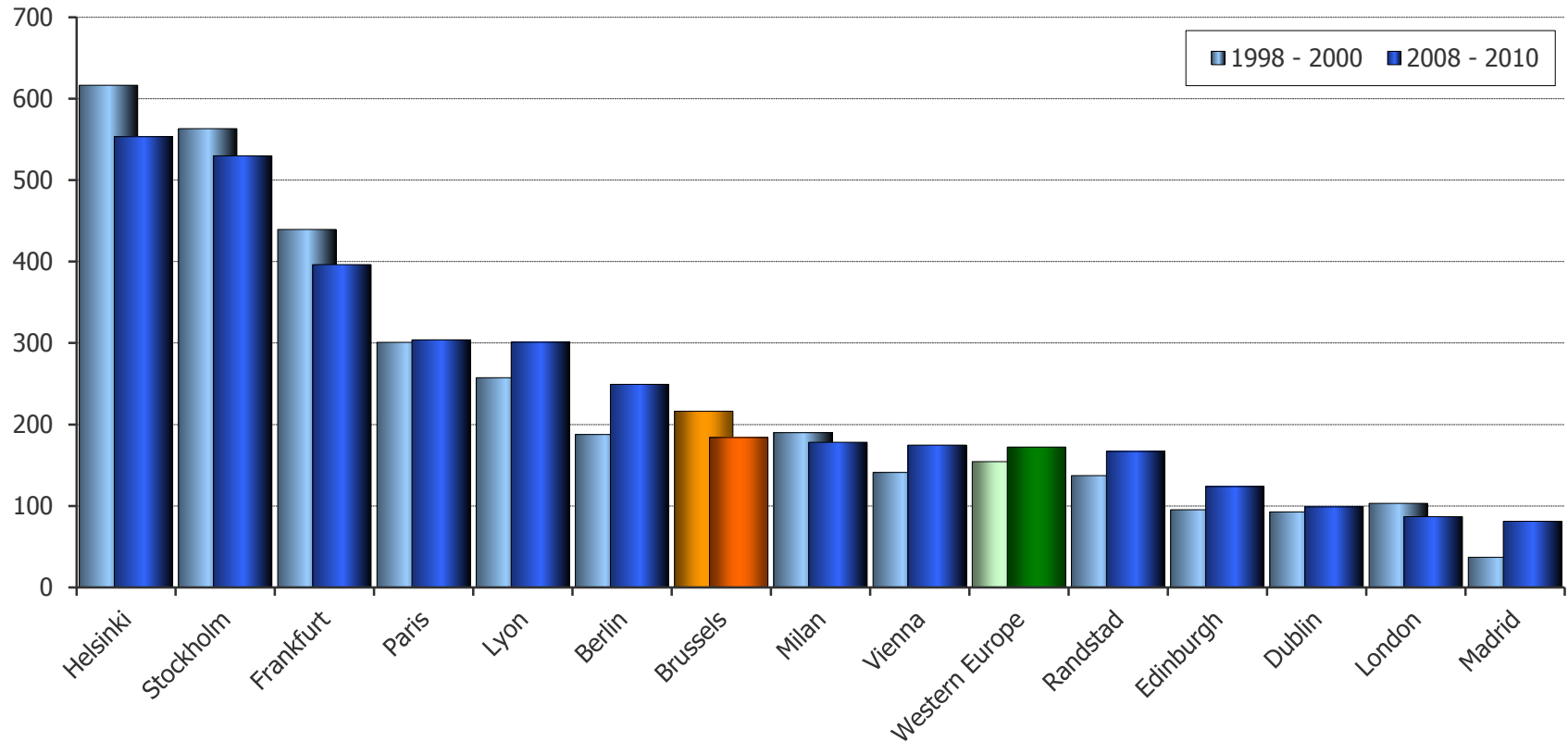


Note
Source

Share in %
BAKBASEL

Patent density

1998-2000 and 2008-2010

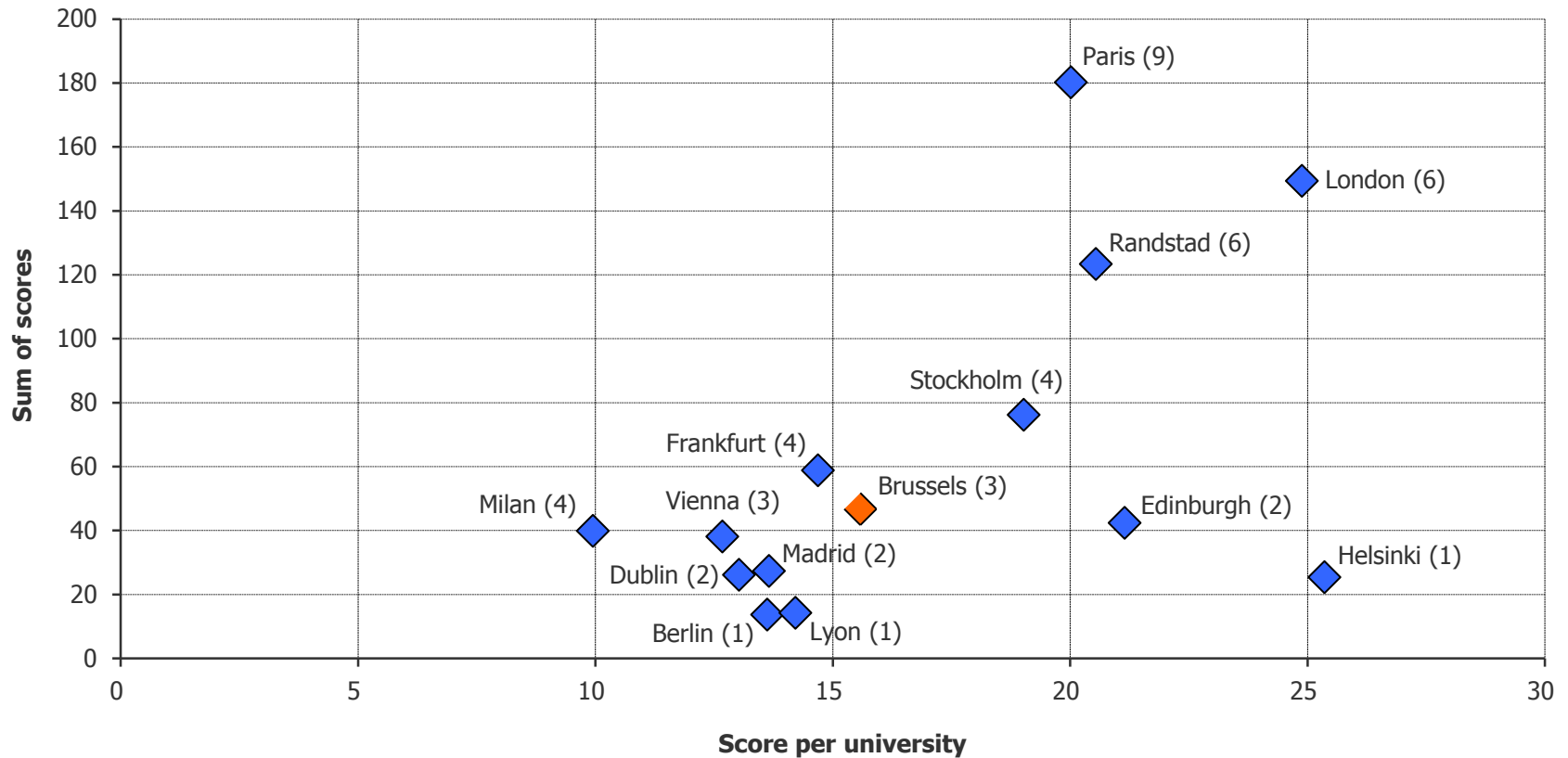


Note
Source

Average number of patents per 1 million inhabitants
BAKBASEL, OECD Regpat.

The research quality of universities

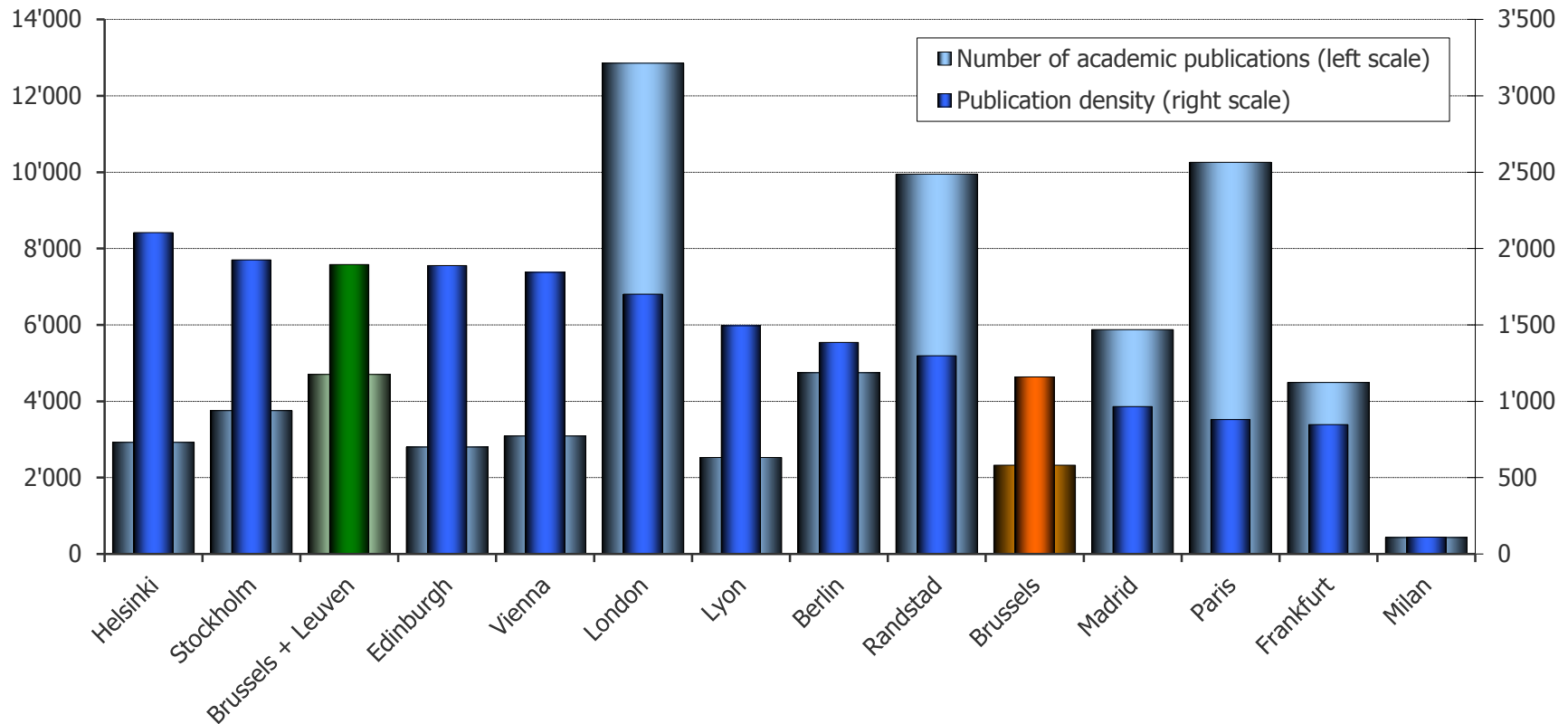
2012



Note
Source

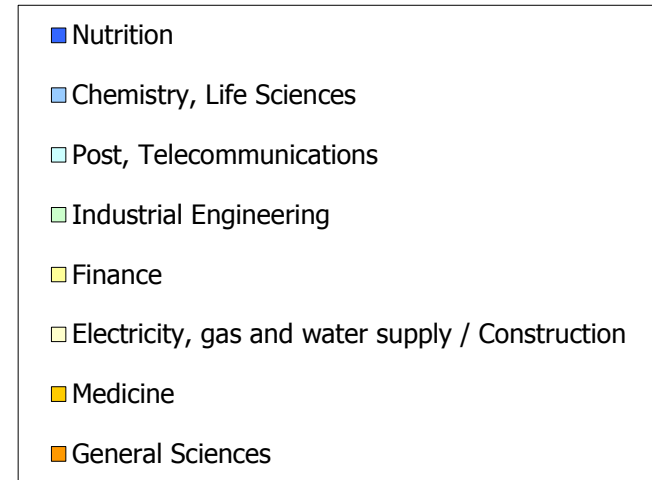
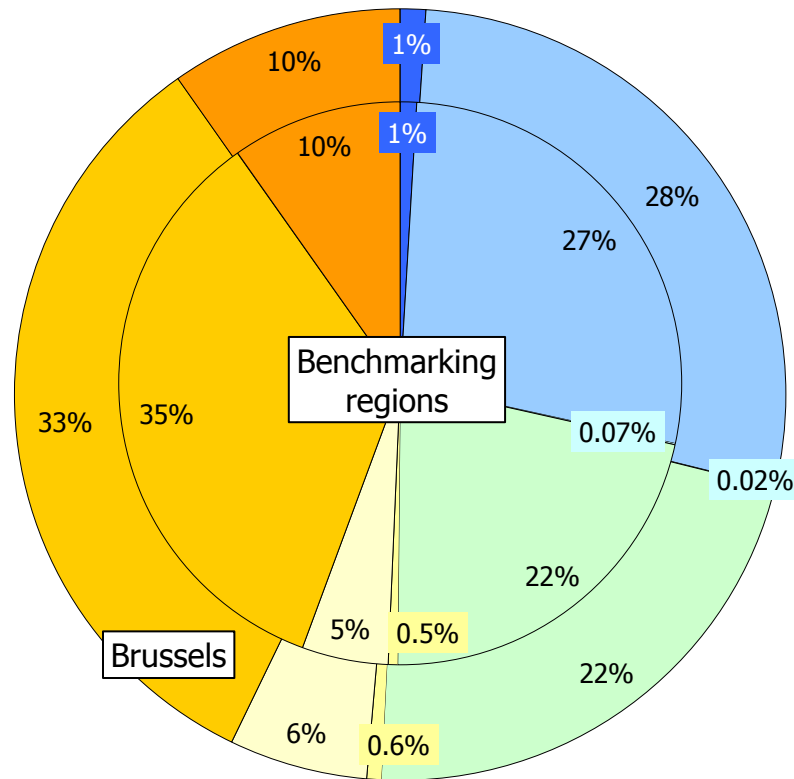
Shanghai index of the 500 best universities of the world, number of universities in brackets
BAKBASEL, Shanghai Jiao Tong University

Number of academic publications and publication density 2007



Note
Source Publications per 1 million inhabitants, no data available for Dublin
BAKBASEL, Thomson

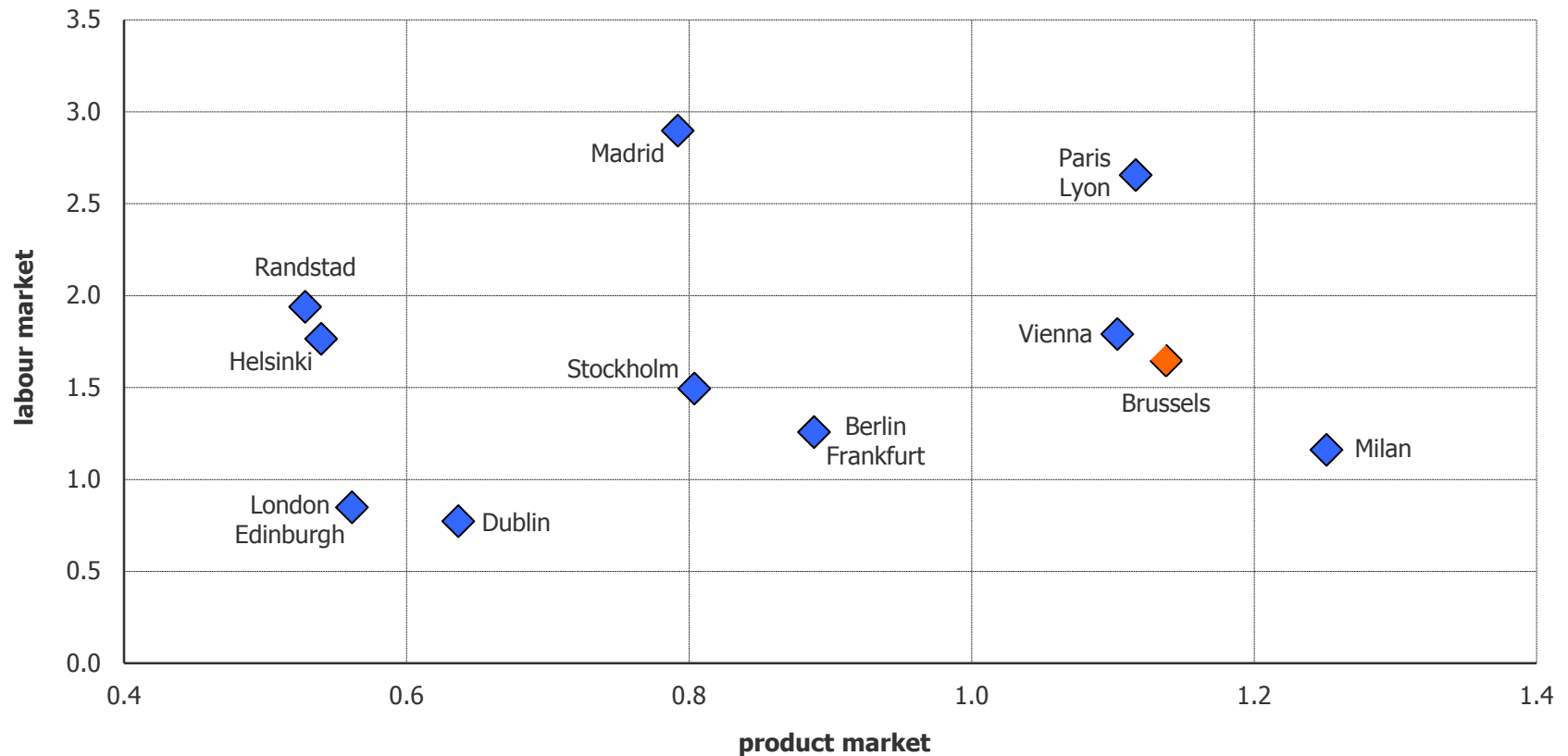
Academic publications per sector 2007



Note
Source

Share in %, no data available for Dublin
BAKBASEL, Thomson

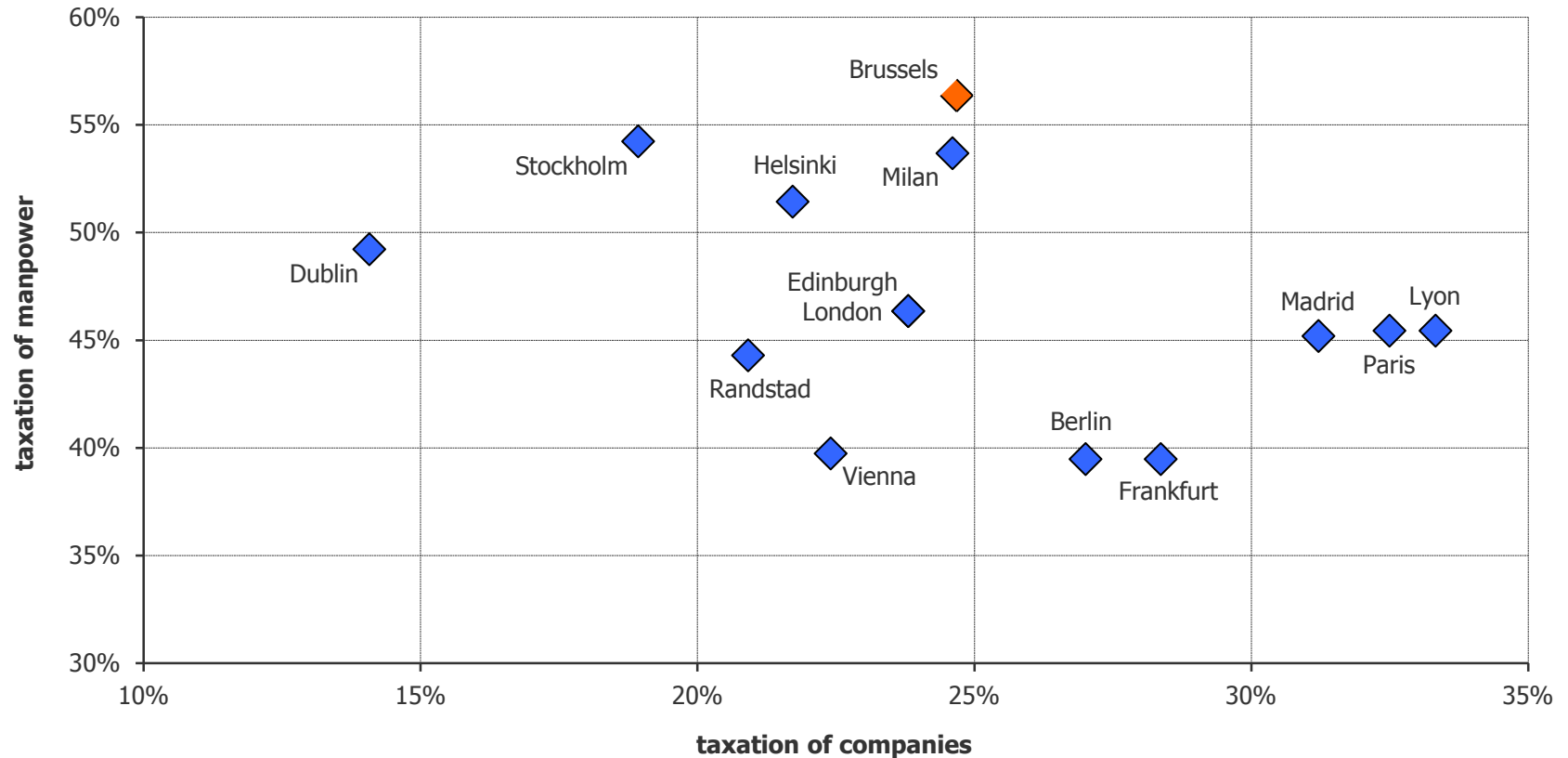
Regulation of labour and product markets 2011



Note
Source

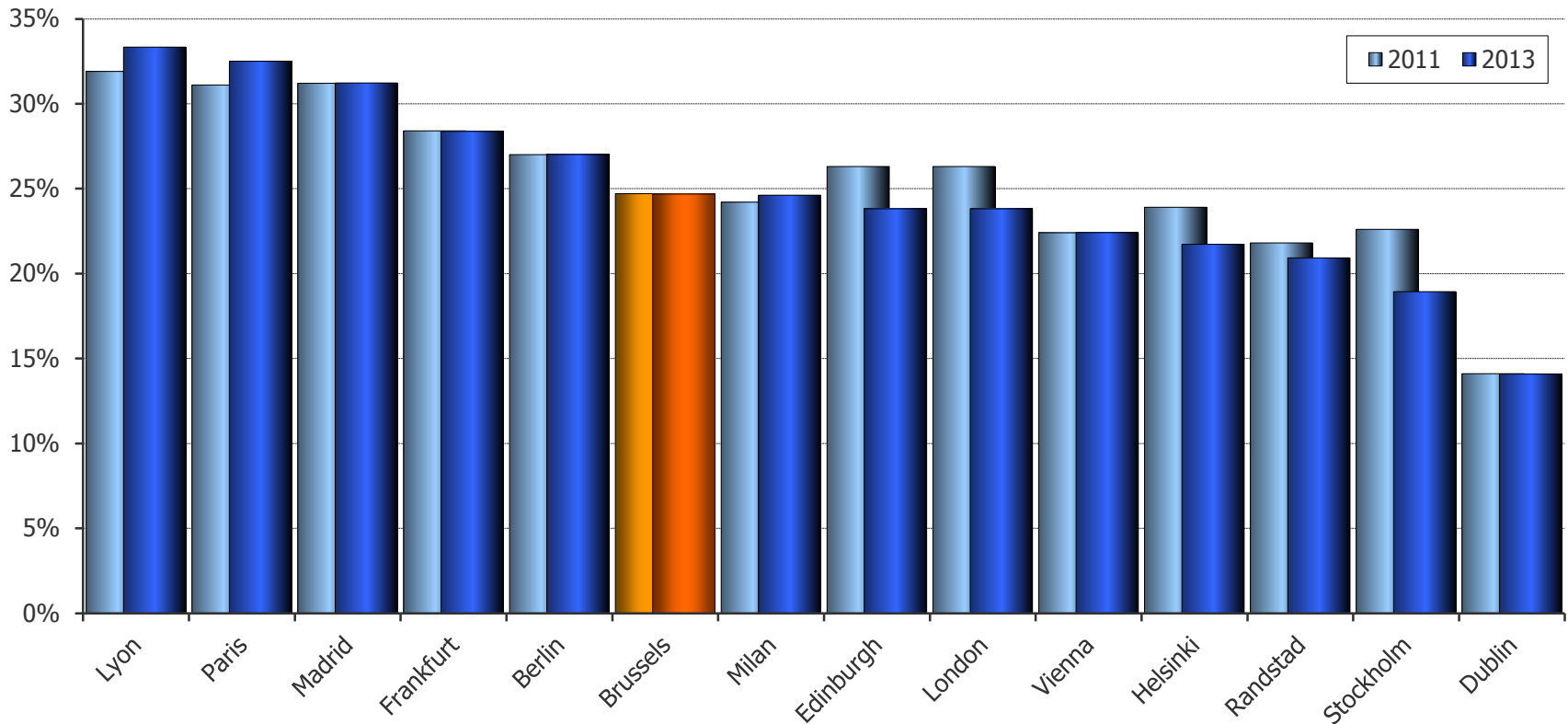
Index (0 = very liberal, 6 = very restrictive)
BAKBASEL, OECD, Cato Institute

Company taxation and taxation of highly qualified* manpower 2013



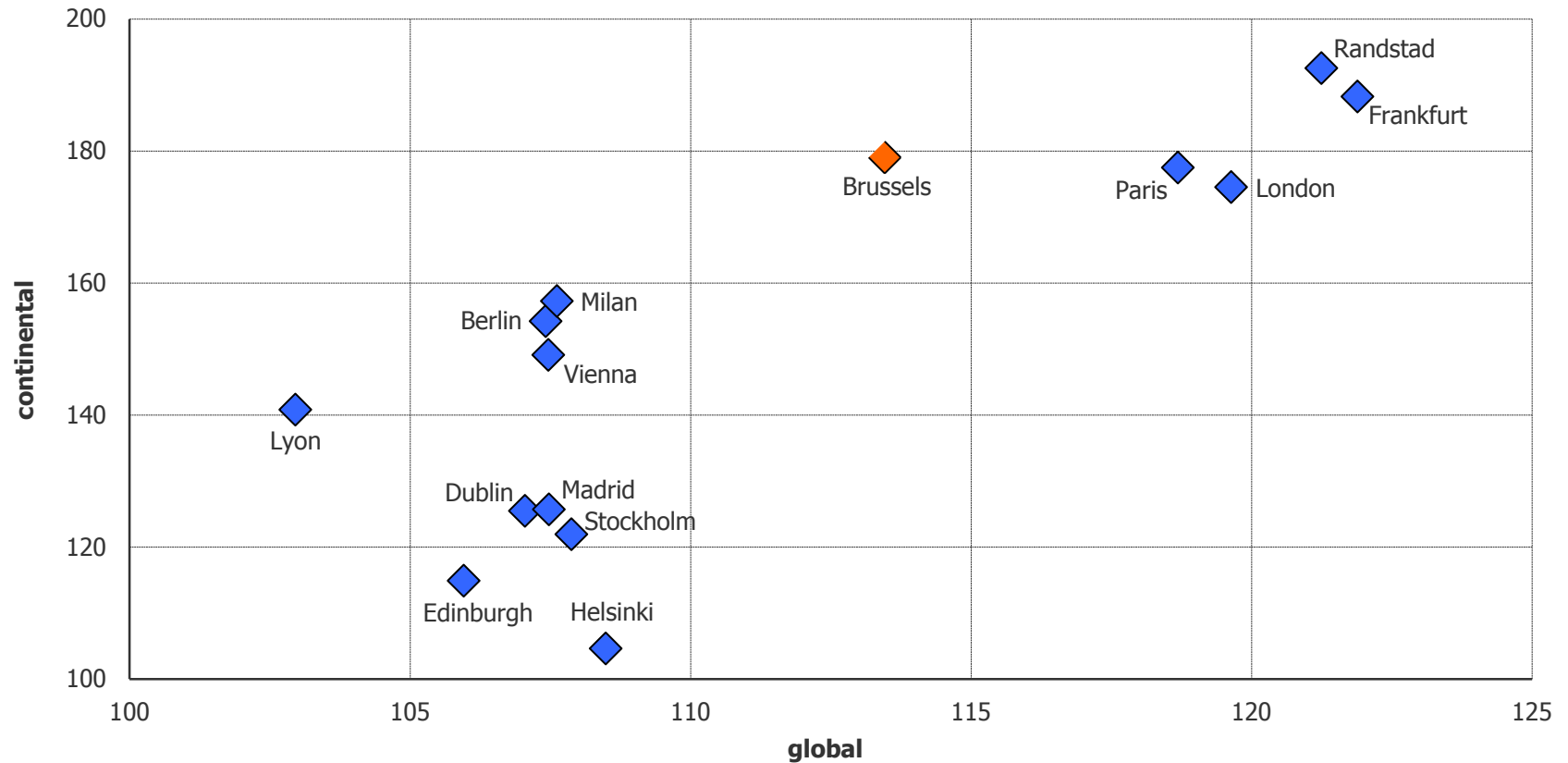
Note
Source Effective average tax rates (EATR) in %, *disposable income of EUR 100'000/single person
BAKBASEL, ZEW

Company taxation 2011 and 2013



Note
Source Effective average tax rates (EATR) in %
BAKBASEL, ZEW

Global and continental accessibility 2012



Note
Source

Index (average accessibility of regions 2002 = 100)
BAKBASEL, IVT

Definition Benchmarking Regions

| Region | IBC notation | Country | IB Key | Type | Delimitation |
|----------------|------------------------|---------|--------|-----------|---------------------|
| Brussels | Greater Brussels | BEL | BELMB | IB-Member | Metropolitan Region |
| Paris | Ile de France | FK | FK11 | NUTS | ZEAT |
| London | Greater London | UK | UKI | NUTS | Region of England |
| Berlin | Berlin | DE | BN | NUTS | Bundesland |
| Frankfurt | FrankfurtRheinMain | DE | RM | BAKBASEL | IB-Aggregat |
| Milan | Milano | IT | IT205 | NUTS | Provincie |
| Randstad | Randstad | NL | RD | BAKBASEL | Metropolitan Region |
| Vienna | Wien | AT | AT13 | NUTS | Bundesland |
| Dublin | Greater Dublin Area | IR | IRGD | BAKBASEL | Metropolitan Region |
| Stockholm | Stockholm | SE | SE01 | NUTS | Riksområden |
| Lyon | Rhône | FK | FK716 | NUTS | Département |
| Madrid | Comunidad de Madrid | ES | ES3 | NUTS | Agrupación de CCAA |
| Helsinki | Uusimaa | FI | FI181 | NUTS | Maakunnat |
| Edinburgh | Metropolitan Edinburgh | UK | UKME | BAKBASEL | Metropolitan Region |
| Western Europe | Western Europe (17) | | WE17 | BAKBASEL | Group of countries |

Note: All regions are either official statistical regions (NUTS-classification) or an aggregate thereof

Sources

All data in this Chart-Set are from the «International Benchmarking Database 2013» by BAKBASEL. For the BAKBASEL list of data within the International Benchmarking Programme please consult the «International Benchmarking Report».

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The data included herein are taken or derived from various data sources, among them particularly:

- National and regional statistical offices, EUROSTAT
- International Comparisons of Output and Productivity (ICOP), University of Groningen
- Thomson Scientific Ltd. (TS), London, UK, © Copyright Thomson Scientific 2006
- Shanghai Jiao Tong University
- Organisation for Economic Cooperation and Development, Paris (OECD)
- Centre for European Economic Research, Mannheim (ZEW)
- Institute for traffic planning and transportation systems, Zürich (IVT)

For further Information please contact:

Marc Bros de Puechredon

Marc.puechredon@bakbasel.com