

About the GGDC

The Groningen Growth and Development Centre (GGDC) was founded within the Economics Department of the University of Groningen in 1992. It was originally set up by a group of researchers working on comparative analysis of economic performance over time and across countries in the tradition of Angus Maddison. More recently, it has grown into a research centre that studies the interactions of globalisation, technology and institutional change, and its impact on long-run economic growth, structural change, productivity and inequality.

The GGDC provides unique information on comparative trends in the world economy in the form of easily accessible datasets, along with comprehensive documentation. These data are made publicly available, which enables researchers and policy makers from all over the world to analyse productivity, structural change and economic growth in detail. This includes the Penn World Table, the World Input-Output Database (WIOD) and the Maddison Historical Statistics.

An important aim of the GGDC is to carry out and encourage new empirical research, that is innovative and policy relevant at the same time. This is done through the GGDC's own research, by compiling comprehensive databases for public use and submitting (joint) proposals to finance collaborative research in this field. International cooperation is key given the comparative nature of the research. The centre also organises seminars, summer schools and conferences, such as the annual Maddison lecture series.

The GGDC consists of a dedicated group of senior and junior staff members, PhD students and support staff, with a large collaborating network of local, national and international affiliates. Its current director is Marcel Timmer.



Angus Maddison (1926-2010), GGDC co-founder

partners

Besides research for academic purposes, the GGDC also carries out research for corporate partners. Examples include:

- European Union commission services
- World Bank
- Asian Development Bank
- OECD
- Dutch Ministry of Economic Affairs
- UK Overseas Development Institute
- Sweden Tillvaxtanlys
- ING Bank
- McKinsey



Faculty of Economics and Business



The Faculty of Economics and Business (FEB) offers a wide range of Bachelor's, Master's and PhD degree programmes. Our staff and students work closely together on innovative research projects, often at an international level. Students acquire the knowledge they need to excel in their field, and skills that will prove crucial in the internationally oriented organisations of the future. Our faculty is part of the University of Groningen, a dynamic academic environment founded in 1614, famous for its rich tradition of research.

Our centres of expertise

Developing and applying knowledge is something you do as a team, which is why FEB is keen to work with companies, local government and other organisations. Collaboration means that our partners benefit from our academic knowledge and we benefit from their practical expertise. For an overview of collaboration opportunities with FEB, please refer to www.rug.nl/febforbusiness.

FEB has eleven centres of expertise, in which clusters of researchers focus on a specific topic. You can ask the relevant expertise centre to carry out research into an issue specific to your organisation or you can participate in one of our ongoing research projects. Working with one or more of our centres of expertise also gives you access to recent research, courses and conferences.



Our FEB alumni and researchers

Dr. Wim Duisenberg † *First President of the European Central Bank* **Annemiek Fentener van Vlissingen MSc.** *President-Commissioner of SHV Holdings* **Prof. Klaas Knot** *President of De Nederlandsche Bank* **Prof. Peter Leeflang** *Frank M. Bass Professor in Marketing* **Prof. Angus Maddison** † *Emeritus Professor in Economic Sociology* **Paul Polman MSc.** *CEO of Unilever* **Jeroen Smit MSc.** *Journalist and author* **Ernest Yonli PhD** *Ambassador to the US, former Prime Minister of Burkina Faso*

These are our centres of expertise:

- CIBIF: Centre for International Banking, Insurance and Finance
- CEER: Centre for Energy Economics Research
- CIC: Customer Insights Centre
- COELO: Centre for Research on Local Government Economics
- COPE: Centre for Operational Excellence
- GGDC: Groningen Growth and Development Centre
- Healthwise
- HRM&OB: Centre for Human Resource Management and Organisational Behaviour
- iGOR: Institute for Governance and Organisational Responsibility
- In the LEAD
- VinCI: Value in Collaborative Innovation



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 and business

Groningen Growth and Development Centre data driven



Making research data widely available

Marcel Timmer - Professor of Economic Growth and Development
 Reitze Gouma - Database Manager GGDC
 Jutta Bolt - Associate Professor of Economics

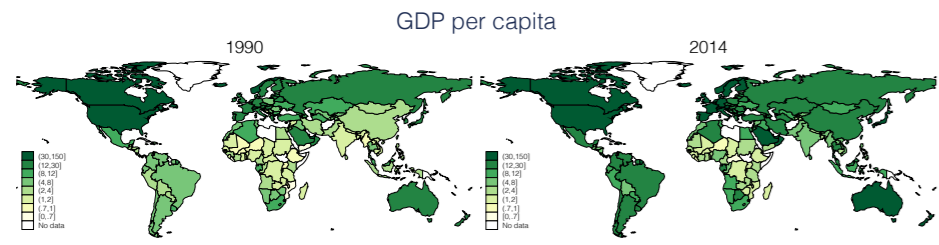
Productivity and Welfare

Penn World Table

The Penn World Table (PWT) is the most widely used database for economic research in the world. It has been providing information on country income levels for 182 countries since 1950. In addition to income levels, the database covers information on relative prices, quantities of major expenditure categories, measures of capital and labour inputs, as well as productivity indicators. This allows for a comprehensive assessment of cross-country growth and

development. The maps below show how comparative income levels have changed over the past quarter century, with rapid growth (indicated by darker greens) across Asia and in Latin America, but much more localised progress against poverty across Africa.

Understanding the large income differences between the very poorest countries and high-income countries remains one of the most important challenges in economics.



Note: GDP per capita is in 1000s of 2011 US dollars. Category up to \$700 corresponds to absolute poverty.



Robert Inklaar
Penn World Table
Coordinator
Associate
Professor of
Economics

"PWT is the most widely used dataset for economic research for its comprehensive and authoritative overview of economic performance around the world."

relative

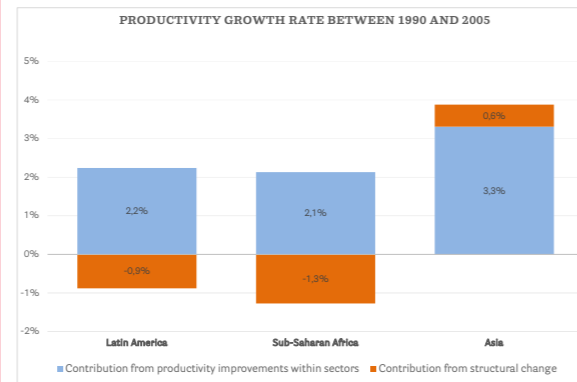
10-Sector Database

The GGDC 10-Sector Database provides a long-run harmonised dataset on sectoral output, input and productivity performance for about 50 countries in Europe, Africa, Asia and Latin America. Variables covered in the dataset are annual series of added value, output deflators and persons employed for 10 broad sectors covering the

total (formal and informal) economy. This database is widely used to study structural change, the movement of workers from agriculture into modern economic activities, contributing to productivity increases and expanding income.

The speed with which this structural transformation takes place is the key

factor that differentiates successful countries from unsuccessful ones. The figure illustrates that between 1990 and 2005, workers in Asia have been moving into more productive activities, contributing to economic growth. In contrast, structural change has been growth-reducing in Latin America and Sub-Saharan African countries.



Structural change helps growth only in Asia

transform

"The 10-Sector Database is the first dataset to provide information on output and labour input at the sector level for about 50 countries in Europe, Asia, the Americas and Africa. It is a unique dataset that allows researchers to analyse African development in a comparative cross-country setting."

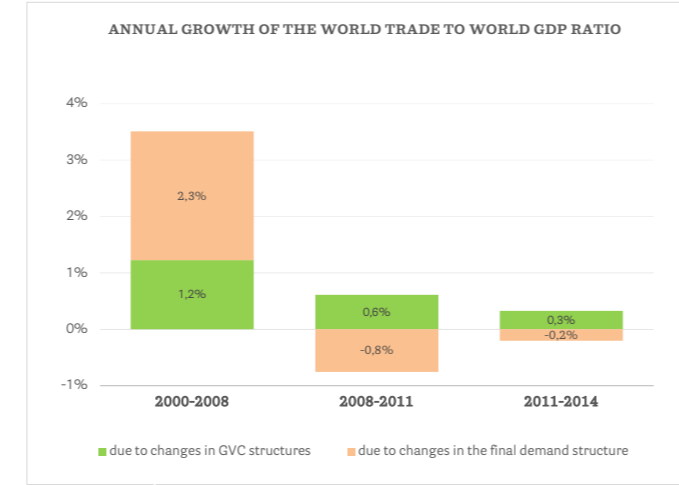
Gaaitzen de Vries
10-Sector Database Coordinator
Assistant Professor of Economics

Global Value Chains

World Input-Output Database

The World Input-Output Database (WIOD) contains information on transactions between producers and consumers within and across countries. We used it to answer the question why global trade has recently slowed down. Is it due to reorganisation of global supply chains, such as reshoring by multinationals after a long period of international fragmentation?

In a recent study we have presented WIOD-based evidence, stating that only about 27% of the global trade slowdown can be attributed to the slowdown in offshoring. Instead, a major part of the explanation relates to fast growth of the United States, which tends to consume products that generate less international trade than products consumed in the more sluggishly growing European countries. The relative growth rates of the EU, Japan and the US will most likely remain important determinants of global trade growth in the near future as well.



Explaining 'Peak Trade' is not a single story

worldwide

"The WIOD is a truly unique database, as it gives the researcher an in-depth view of the global production network, linking economic activity levels to trade. It does not just provide a snapshot, but a 'time-lapse' of globalisation during the past two decades."

Bart Los
Value Chain Expert
Professor of the Economics of
Technological Progress and
Structural Change

events

Since 2011 the Groningen Growth and Development Centre (GGDC) has organised the Maddison Lectures at the University of Groningen. The aim is to bring leading scholars from around the world to Groningen to present on major topics of economic history, growth and development. Past and current issues are on the agenda, always with a long-term perspective, following the footsteps of Angus Maddison, who laid the foundations of research in this discipline at our university.



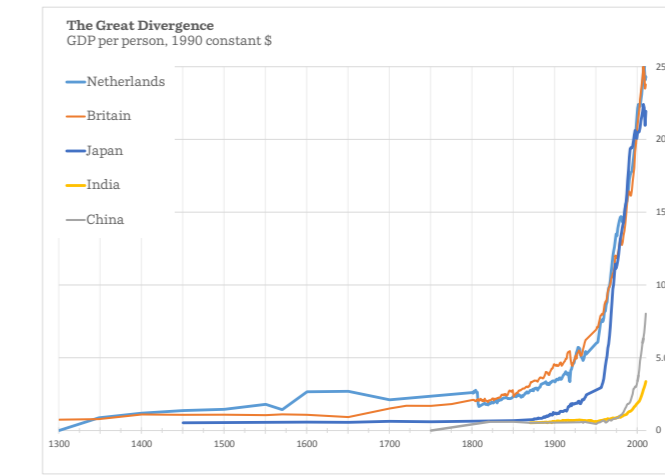
Historical Developments

The Maddison Project Database

The Maddison Project Database provides income estimates for a global set of countries from the Roman times until the present. This database can be used to study growth dynamics in order to see when some countries forged ahead of others; in other words, when divergence or convergence between countries took place. Additionally, the database can be used to study what factors are driving long-term economic growth.

"The Maddison Project continues the great work of the late Angus Maddison, who was the first to quantify long run economic performance for all regions in the world in a consistent framework. We are proud to follow in his footsteps and carry on this important work."

long term



How the West raced ahead of the Rest



research memoranda

Apart from publishing in academic journals, GGDC researchers also publish working papers in our Research Memoranda series. These working papers allow the researcher to publish specific datasets in spreadsheet data appendices.

Herman de Jong
Professor of Economic History