

# List of Projects

## Roman Stöllinger

### **Research Centre International Economics (Forschungsschwerpunkt Internationale Wirtschaft, FIW)**

*Austrian Federal Ministry of Education, Science and Research*

*October 2013 - February 2025*

wiiw is part of a consortium which is setting up a "Centre of Excellence on International Trade". It provides the appropriate infrastructure and assistance for a research community in international trade. Thus it can achieve a sustainable coordination among different research projects, research institutes and other activities in the broad field of economics of international trade (FIW German abbreviation). This project will also create a network of experts and assure the integration of international projects. The Centre of Excellence fulfils the following tasks: (1) to develop a research programme which assists external political decisions and activities concerning the European Union and other multinational organisations in a sustainable fashion, (2) to provides access to relevant databases in an easy and transparent way, and (3) to encourage and enhance the development of know-how with regard to foreign economic affairs in Austria. This Centre of Excellence will be an important source of information for the research community in Austria, the Austrian government with regard to foreign affairs as well as the social partnership. It collects and increases the knowledge of the given research institutes and provides it to the public in a user-friendly manner.

<http://www.fiw.ac.at/>

### **Entwicklung, Organisation, Durchführung und Evaluierung von Seminaren am Joint Vienna Institut (JVI)**

*Oesterreichische Nationalbank/Austrian Ministry of Finance*

*January 2023 - December 2023*

Das wiiw hat im Rahmen des Joint Vienna Institute (JVI) mehrere Kurse konzipiert und durchgeführt. Diese Kurse richten sich an Entscheidungsträger des öffentlichen Sektors aus den Transformationsländern Südosteuropas und der GUS und haben zum Ziel, aktuelle wirtschaftspolitische Themen zu vermitteln.

### **Comparative Advantage in the Digital Era: New insights into trade in digital tasks and ICT capital (wiiw**

*Team Leader)*

*Anniversary Fund of the Oesterreichische Nationalbank*

*March 2021 - February 2023*

Comparative advantage remains one of the basic principles of international trade theory. This also holds true in times of globalisation and digitalisation. Taking into account the existence of international value chains and productivity differences across countries, this project identified comparative advantage of EU member states in the 'digital endowments', comprising 'digital tasks' and ICT capital. A major finding of the research is that the Heckscher-Ohlin-Vanek theorem is capable of predicting endowment-based comparative advantage in 'digital tasks' and ICT capital in the overwhelming majority of case. At the same time, the distribution of comparative advantage across EU member states does not seem to follow a clear pattern, in the sense, that EU innovation leaders necessarily have advantages in digital endowments as one might expect. Another hypothesis was conformed: in a comparison between the EU and the US, the latter emerged as holding comparative advantage in digital tasks, confirming the role of the US as a digital leader. Some of these results were also confirmed by additional competitiveness measures such as revealed comparative advantages (RCAs). Furthermore, econometric analysed showed that investment in R&D, in combination with industrial policies, are capable of shaping comparative advantage were investigated.

Funded by the [Anniversary Fund of the Oesterreichische Nationalbank](#) (Project No. 18641).

## **Functional division of labour in EU value chains** (*wiiw Team Leader*)

*Hans Böckler Stiftung*

*January 2022 - December 2022*

The emergence of global value chains has radically changed the organisation of production in the EU economy. In particular, the increasingly fine-grained international division of labour has made it possible for countries to specialise in individual business functions of the value chain and thereby generate higher value added. This project examined the causes and effects of these "functional specialisation patterns" on the labour market, particularly on wage developments and working conditions. The project combined two existing methods for the analysis of functional specialisations in order to ensure the reliability of results. The determinants and implications of functional specialisation on the labour markets in European countries and regions have been analysed using, inter alia, cluster analyses, panel regression methods and binary choice models. Ultimately, the questions to be answered by this study were: Why do some countries become locations for corporate headquarters and research laboratories, while others end up as "extended workbenches" within the European division of labour? What are the effects of these "functional specialisations" for labour markets in Europe?

## **Capacity building for Central, East and Southeast Europe: Joint Vienna Institute**

*Oesterreichische Nationalbank/Austrian Ministry of Finance*

*January 2014 - December 2022*

For more than two decades, wiiw has been organising courses within the framework of the Joint Vienna Institute (JVI). These courses are aimed at decision-makers in the public sector and policy-makers from transition countries in Southeastern Europe and the CIS. wiiw organised six courses in 2022 and was responsible for the entire conception and implementation of these seminars as well as for the selection of the participants.

## **Export bonus: Significance and performance of Austrian exporters**

*Austrian Ministry for Digital and Economic Affairs*

*October 2021 - April 2022*

In view of the importance of the export economy for Austria, in 2009 the Ministry of Economics commissioned that examined the characteristics (e.g. size distributions, productivity) of export enterprises. Due to the already long time horizon since the study has been undertaken - the data used in the study goes back to 2006 - the results are now outdated and it is no longer possible to use them without a certain degree of caution. However, the present study project will not only update these results, it is also intended to provide scope for expanding the factors considered (e.g. including R&D performance, ownership dimension). In addition, the methods used should also be brought up to date and additional data will be included.

## **The Effect of Digitisation on Work in Europe**

*Anniversary Fund of the Oesterreichische Nationalbank*

*April 2020 - March 2022*

The project analyses digitisation and its impact on work from two different perspectives. On the one hand, it not only sheds light on regional digitisation patterns but also examines the effect of digitisation on employment in EU countries at the NUTS-2 level. Methodologically, it goes beyond standard approaches applied in the empirical literature and provides novel insights into regional and industry spillovers as well as non-linearities in the employment effects of digitisation. On the other hand, it explores the effects of digitisation on workers' well-being. It takes an integrated approach and simultaneously determines both positive and negative psychological effects of ICT use, as captured by work engagement and burnout, respectively. It also sheds light on the role of other (job and/or personal) characteristics in either reinforcing or mitigating the positive or negative effects of ICT use on workers' psychological well-being.

## **The production side of 'digitalisation' and its impacts**

*Anniversary Fund of the Oesterreichische Nationalbank*

*September 2019 - October 2021*

The project comprised four main tasks linking the production and use side of the digital sector. In the first task the production and supply side of the ICT goods and services sectors was studied. An overview of the ICT industry across countries was provided based on various data sources at the industry and firm level. Determinants of ICT industries' performance and drivers of investment by ICT superstars across the European Union and the globe were analysed. The second task then focused on the patterns of trade of ICT goods and services linking the supply side of

the digital sector to its demand. Furthermore, the impact of technical regulations and standards embedded within Technical Barriers to Trade (TBT) on patterns of trade flows of ICT goods were analysed. Task three focused on the investment in ICT capital assets and building up of an ICT capital stock across countries and industries. Gross capital formation and capital stocks in different asset types and their contribution to employment and value added growth were studied. The fourth task was devoted to the role of patenting in productivity and market share of firms active in the global ICT sectors. Finally, in the last part of task we studied whether and how ICT driven technical change impacts on structure of labour demand by various groupings.

Funded by the [Anniversary Fund of the Oesterreichische Nationalbank](#) (Project No. 18128).

### **A new growth model in EU-CEE**

*Friedrich Ebert Stiftung*

*August 2020 - May 2021*

The eleven EU member states from Central, East, and Southeast Europe (EU-CEE) have undergone three decades of transition to market capitalism and convergence with Western Europe. There have been many successes and challenges, and the level of economic and social development varies widely across the region. The study finds that the convergence process, especially for the more advanced countries, has slowed since 2007 and that the current growth model may well be reaching its limit. The authors find that it will take decades for EU-CEE's more developed countries to halve the remaining gap to Germany and other rich countries in Western Europe. This implies that it is high time to think about a new growth model for the region. The study outlines the main priorities for a strategic transition to a new growth model of EU-CEE and shows substantial opportunities in a greener, digitised, automated world.

### **Industrial Diagnostic Study Rwanda 2020** (*wiiw Team Leader*)

*UNIDO*

*August 2020 - April 2021*

The Programme for Country Partnership (PCP) is one of UNIDO's key assistance programmes for Member States. It is a process aligned to the national priorities and strategies of countries thereby maintaining full ownership of beneficiary countries of the complete process by defining its needs and required support. The first step in the PCP Rwanda is a diagnostic report which wiiw staff supports in their role as international consultants. Based on a thorough analysis of the industrial development at the macro-economic, industry level and firm-level, the PCP diagnostic report reveals the major bottlenecks as well as the major areas and priority sectors for interventions. wiiw's contribution to the project is anchored in the macro-economic analysis of the industrial development in which five thematic components with high potential for fostering inclusive and sustainable industrial development were identified. These thematic components are integrated value chain development in agro-business and food processing; integrated value chain development in textiles and garments; development of sustainable energy, value added creation in a circular economy and adequate skills for industry 4.0.

### **How EU funds tackle economic divide in the European Union**

*European Parliament*

*January 2020 - April 2020*

This analytical study aims to provide data and related analysis on the topic of operating budgetary balance, its failures and limitations and to deliver evidence of the positive outcomes that Member States' experience from belonging to the EU, notwithstanding the status of their operating budget balance. wiiw is collaborating in this study with WIFO and Blomeyer&Sanz.

### **Wanted! Free Trade Agreements in the Service of Environmental and Climate Protection**

*Austrian Ministry for Digital and Economic Affairs*

*October 2019 - March 2020*

The effects of international trade and investment on the planet's climate and environment are manifold and complex. This makes the assessment of Free Trade Agreements (FTAs) that the EU has been concluding in great numbers since the stalemate in WTO negotiations a delicate issue. The project aims at informing the discussion on the appropriate design of FTAs to make them serve environmental and climate protection: It is going to (i) provide an overview of the prevalence and development of sustainability chapters in EU FTAs and experiences with these provisions, (ii) highlight specific environmental issues related to EU FTAs that arose repeatedly in different agreements and (iii) zoom into the EU-Mercosur FTA and will contrast the expected cost of increased CO2 emissions

with the expected 'gains from trade'.

### **Report on Industrialization as the driver of growth, poverty reduction and prosperity (wiiw Team Leader)**

UNIDO

August 2019 - February 2020

The project investigates the role of industrialization for growth, poverty reduction and the achievement of the UN Sustainable Development Goals (SDGs) more generally. wiiw's task in this context is to present theoretical and empirical evidence on the key role that industrialization plays in economic development relative to other paths.

### **Of Smile Curves and Global Value Chains: The Role of Functional Specialisation for Economic Growth**

(wiiw Team Leader)

Anniversary Fund of the Oesterreichische Nationalbank

January 2018 - June 2019

The central insight of the smile curve is that different functions (or 'tasks') that need to be performed along a firm's value chain have different potentials for generating value added, with the production stage often being the least promising one. Project-level data on greenfield crossborder investments with information on both the industry and the function they serve are used to identify countries' functional specialisation. A metric labelled 'relative functional specialisation in global value chains' and a related measure, the 'relative production specialisation index', are developed. The descriptive part of the project will use these indicators to create 'portraits' of functional specialisation of EU Member States, NAFTA and the South East Asian region. In a second step, the implication of the smile curve, i.e. that countries specialised in the pre-production and post-production tasks of the value chain should capture higher value added, is tested econometrically. To this end the relative function specialisation measure and the relative production specialisation index are embedded into an empirical endogenous growth model.

### **Background paper contribution for the Industrial Development Report 2020 'The Future of Industrialization'**

UNIDO

November 2018 - March 2019

There is a general expectation that the global economy is currently facing a new wave of technological change - Industry 4.0 - that is based on digitalisation and information and communication technologies (ICT) such as artificial intelligence, additive manufacturing and blockchain. As a background paper to UNIDO Industrial Development Report 2020, this project initially analyses the impact of total factor productivity (TFP) growth (i.e. a measure on technological progress) on employment, labour share, and value added growth of industries in emerging and transition countries. The analysis will take in to account the direct industry-own effects in addition to indirect impact across both national and international backward and forward linkages. Furthermore, wiiw analyses the corresponding impacts on employment, the labour share, and value added that arise from introduction of industrial robots, a prominent phenomenon in Industry 4.0.

### **Diagnostic Report for the Programme for Country Partnership (PCP): Morocco (wiiw Team Leader)**

UNIDO

June 2018 - August 2018

The Program for Country Partnership (PCP) is the new type of UNIDO assistance for Member States. It is a process aligned to the national priorities and strategies of countries thereby maintaining full ownership of beneficiary countries of the complete process by defining its needs and required support. As usual, the first step in the PCP Morocco is a diagnostics report which wiiw staff supports in their role as international consultants. The PCP diagnostic report reveals the major bottlenecks as well as opportunities for an inclusive and sustainable industrial development (ISID). The growth diagnostics is undertaken in continuous reference to Morocco's industrial development plan, the Plan d'Accélération Industrielle (PAI). The diagnostics is based on a thorough portrays Morocco's macroeconomic situation as well as the key structural developments. In a next step promising manufacturing industries for Morocco's industrial development are identified. Moreover, the identified key manufacturing industries, such as agri-business, are analysed in depths as are important horizontal issues relevant for ISID such as the switch to a circular economy; the development potential of Moroccan industrial parks, the potentially disruptive impact of technologies related to Industry 4.0 and E-commerce. The entire growth diagnostics are yielding a set of policy recommendation that are intended to help Morocco achieving the objectives set out in their industrial development plan.

## **Austria's Economic Competitiveness in a Neighbourhood Context**

*Anniversary Fund of the Oesterreichische Nationalbank*

*August 2016 - July 2018*

Since the Eastern enlargement of the EU in 2004, Austria has lost global export market shares. At the same time exports to Central, East and Southeast Europe have gained a significant portion of Austria's total exports. Moreover, in recent years Austrian GDP growth has slowed down and unemployment increased. In this context our main research question is whether the opening to the East had a structural lock-in effect for Austria's economy. In a novel approach on the territorial lock-in effect we will apply a multi-perspective view from a microeconomic (firm-level), mesoeconomic (industry-level) and macroeconomic (country-level) perspective. As regards data, we will have exclusive access to an update of the world input-output database including data for the Western Balkans. The new data will add substantially to the project, the current discussion on Austria's competitiveness and the development of policy recommendations.

## **Competitiveness drivers and obstacles, intra-EU linkages and European value chains in GVCs** (*wiiw Team Leader*)

*European Commission, DG Grow*

*January 2017 - January 2018*

The emergence of international value chains (VCs) and the implied cross-border production sharing between countries has dramatically altered the international trading system. In view of the joint cross-border production processes numerous products would deserve the designation of origin 'Made in the World', as suggested by the WTO initiative of the same name – although in general there is the perception that international value chains are predominantly regional in scope. Since the Great Recession, however, there are concerns that the trend towards geographically-dispersed production has come to a halt with, among other factors, re-shoring initiatives and protectionist tendencies. Against this background this report analyses some of the key issues related to international VCs with data from the World Input-Output Database (Release 2016) which covers the period 2010-2014. Based to a large extent on a measure of international value chain (VC) trade termed re-exported domestic value added, which comprises exports of intermediates that cross international borders at least twice, the question whether the world has reached 'peak value chain trade' and to what extent VCs have contributed to the decline in the income elasticity of trade is addressed. The research also re-examines whether value chains are predominantly global or regional in scope both worldwide and at the EU level. Furthermore, the extent of regional VC integration across the major regional trading blocs is compared. Finally, some of the implications of value chain trade for structural change and competitiveness are investigated.

## **Technical Assistance for the Preparation of CEFTA Investment Report**

*Central European Free Trade Agreement (CEFTA)*

*October 2016 - December 2017*

The aim of this Service Contract is to provide technical assistance for the preparation of a CEFTA Investment Report. Beneficiaries are the Parties of the Central European Free Trade Agreement (CEFTA) 2006. The Report will support the CEFTA Parties in fostering FDI in order to meet common development goals and promote the region as an attractive investment site. Systematic collection and methodologically sound assessment of FDI-related data including those on foreign affiliates (FATS) is an indispensable tool in the hands of policy-makers to stimulate and, if necessary, direct the foreign direct investment process for achieving the expected positive effects. To this end, the CEFTA Working Group on Trade in Services Statistics, FATS and FDI Statistics has set the objective to improve the quality of statistics across the CEFTA region and harmonise statistics with those of the European Union. Part A will present and analyse FDI trends in CEFTA Parties. This part deals with the current trends of FDI in the Region with reference to the period 2009-2015. Part B will provide a detailed analysis of the pattern of multinational enterprises' (MNEs) involvement in the manufacturing sector and its impact on local economies.

## **Diagnostic Report for Partner Country Programme (PCP) Kyrgyzstan** (*wiiw Team Leader*)

*UNIDO*

*August 2017 - November 2017*

At the moment, Kyrgyzstan's manufacturing sector is dominated by gold production, creating only a limited number of jobs but putting a heavy burden on the natural environment. Meanwhile, strong and inclusive growth, which would be consistent with the country's long-term objectives (such as those envisaged in the "40 steps to the New Era" government programme) and the UN Sustainable Development Goals, would require a stronger emphasis on manufacturing industries such as food and beverages, textiles, and wearing apparel. Their labour-intensive

production processes and strong linkages with other sectors, particularly agriculture, could generate badly needed formal jobs and make the country less dependent on the informal sector and the inflow of remittances from abroad. Kyrgyzstan's inexpensive, trainable labour as well as low energy costs are internationally competitive, and represent clear advantages for the growth of such industries. However, these advantages are offset by the low productivity of firms, which tend to be too small and fragmented to reach a productivity level required to compete internationally and still suffer from insufficient access to credit. Besides, the country suffers from major logistical problems for trade, which were found to be greater than in other landlocked countries at a similar development level, such as Moldova and Laos.

### **Über die Wirkungen von Freihandel - Eine Bestandsaufnahme der ökonomischen Literatur**

*Federation of Austrian Industries*

*June 2017 - November 2017*

The discussions about globalisation, and free trade in particular, have gained momentum in recent years. For a comprehensive and rational debate about the mechanisms and effects of free trade, an analysis based on theoretical arguments and empirical facts is needed. The related topics encompass the effects of trade on real income, inequality, employment, macroeconomic outcomes and the way free trade is governed. This contribution summarises the most important theoretical arguments concerning these topics and confronts them with recent empirical research results.

### **Durchführung einer Analyse zu volkswirtschaftlichen Aspekten von Infrastrukturinvestitionen**

*Ministry for Transport, Innovation and Technology (BMVIT)*

*February 2017 - September 2017*

The aim of the project is on the one hand to calculate a possible lack of investment for Austria and other EU member states in the area of strategic important infrastructure like for example street, rail or broadband internet connection. And on the other hand to develop a concrete suggestion for a "golden rule" for infrastructure investment on EU level. The project is based on actual research, is broadening it and puts a focus on the macroeconomic approach of infrastructure investments, whereas structural, cyclical and regional aspects of the topic will be treated.

### **Tradability of Output and the Current Account in Europe (wiiw Team Leader)**

*Anniversary Fund of the Oesterreichische Nationalbank*

*July 2015 - December 2016*

One aspect in the debate about current account imbalances in Europe is the consequence of 'de-industrialisation' observable in several European countries. This project highlights the role of tradability of output as a key determinant of the current account balance. The relationship between a country's specialisation in the production of tradables will be investigated empirically for 46 European countries over the period 1995-2014. To this end a tradability index is developed which can be understood as a country's expected degree of openness given its economic structure. The tradability hypothesis to be tested in this project suggests that countries specialising in the production of relatively more tradable output have a tendency to run current account surpluses. It is shown that this relationship is also predicted by intertemporal models of the current account. The tradability hypothesis is tested using both panel regressions and cross-country regression techniques.

### **Asian Experiences with Global and Regional Value Chain Integration and Structural Change (wiiw Team Leader)**

*UNIDO*

*July 2016 - November 2016*

This study was part of a larger research project on global and regional value chains in South and South East Asia undertaken by UNIDO and a Chinese partner (UIBE). Its main objective was to investigate the relationship between the intensification of global and regional value chains and structural indicators as well as export-related performance measures in South-East Asia and South Asia. The research was based on OECD's Inter-Country Input-Output Tables covering more than 60 countries over the period 1995-2011.

### **The evolving composition of intra-EU trade over time**

*European Commission, DG Grow*

*January 2016 - July 2016*

Global trade in goods and services was severely hit by the economic crisis in 2008, which initiated a pronounced but short-lived trade collapse. Until 2011 trade flows recovered relatively quickly, but since then global trade in goods has been rather anaemic. This development is partly the result of the low dynamics of EU-related trade which accounts for a large share of global trade flows. Regarding intra-EU trade a strong increase in overall bilateral trade intensities is observed. The process of EU integration before the crisis and differentiated growth patterns of goods and services exports implied that exporting activities became slightly less concentrated across EU Member States. However, specialisation dynamics implied an increasing geographic clustering and specialisation of goods and services exports across Europe. These changes in the geographical patterns of intra-EU trade activities were mostly driven by changes in the patterns of trade in the medium-quality segment which can be interpreted as a 'climbing up' phenomenon of less advanced countries. Results from a gravity framework suggest a structural break of these trends after the crisis. Another aspect of the increasing trade intensity is the role and magnitudes of intra-firm trade and potential determinants thereof. However, research on this is hampered by a severe lack of data and only a few insights can be gained, mostly for extra-EU trade. Results based on foreign affiliates' trade statistics (FATS) data indicate that intra-firm trade flows were responsible for more than half of total trade between the EU and the US in 2012. Results also suggest that intra-firm trade has been more resilient to the trade crisis despite the more difficult global environment for foreign direct investment and export activities. Based on a gravity approach, overall EU intra-firm trade is estimated to be lower, though these results need to be interpreted with caution. In a case study based on Irish firm-level data it is shown that intra-firm trade accounts for 30% of exports and 25% of imports.

### **Neighbourhood cooperation for a sustainable trade and investment policy**

*Federal Ministry of Science, Research and Economy*

*October 2015 - January 2016*

This study focuses on the potential for cooperative activities of trade and foreign direct investment (FDI) policies with Austria and its neighbouring countries to further promote competitiveness of all countries and firms involved on the world markets, with a particular focus on oversea destinations. First, a detailed analysis of actual trends and patterns of trade and FDI at the global level and with a focus on the neighbouring countries is provided. Particularly, the study presents evidence on commonalities and differences of these countries in geographical patterns of trade and foreign direct investment both in Europe and more distant markets like Asia, Africa and America. Second, based on these findings a rationale for potential cooperative activities at the institutional level and the trade-off between benefits of cooperation on the one hand and the issue of competition amongst involved parties on the other hand are discussed. The study finally outlines some suggestions for concrete cooperative activities that were developed on the basis of discussions with practitioners. An appendix lists institutions involved in export promotion in the neighbouring countries and outlines existing activities in Austria that might serve as a starting point for developing cooperative activities, which in the future might be integrated into a policy framework promoting a competitive position in world markets for all partners.

### **The future development of EU industry in a global context**

*European Commission, DG Enterprise and Industry*

*December 2014 - March 2015*

The objective of this study was to assess the future development of EU exports. By applying advanced econometric techniques, the future development of export performance of manufacturing and services sectors have been examined under various assumptions. In particular, the study aimed to identify future strengths and weaknesses in EU exports, in order to derive policy recommendations for Member States and EU institutions. Results of this exercise have been used to assess future developments of sectors classified by technological intensity, value added intensity, and growth impacts as well as other measures.

### **Agglomeration, international linkages and the location choices of European foreign direct investors (wiiw Team Leader)**

*Anniversary Fund of the Oesterreichische Nationalbank*

*January 2013 - June 2014*

This project investigated the location decision of multinational companies from six European countries in the EU over the period 2003-2010. A conditional logit model was used to estimate the impact of agglomeration effects on location choices of FDI investors. In addition, we included international inter-industry linkages which reflect the openness of a host country. This framework allowed us to compare the importance of two potentially opposing factors relevant for FDI decisions.

## **The Central European Manufacturing Core: What is Driving Regional Production Sharing?** (*wiiv Team Leader*)

*Austrian Ministry of Economy, Family and Youth  
October 2013 - June 2014*

There is evidence that Europe's manufacturing activity is increasingly concentrated in a Central European (CE) Core which the IMF in a recent publication also refers to as the German-Central European supply chain. This CE Manufacturing Core is centred on Germany and comprises Austria as well as the four Visegrád countries. In this study we provide further empirical evidence concerning this CE Manufacturing Core and explore in detail the structure and development of the regional supply chains at the industry level over the period 1995-2011. This will shed light on which industries build the backbone of this regional manufacturing cluster. We will further investigate which of the potential factors (such as FDI, the wage level, availability of industrial workers, R&D capacity etc.) are related to the intensification of vertical specialisation. Throughout the analysis our primary interest is the role of Austria in the Central European Manufacturing Core. The case of Austria is particularly interesting because it is neither the primary technology leader within the country group, nor is it an offshoring destination and therefore takes an intermediate position. For this reason we also examine in-depth how Austria's revealed comparative advantages in the manufacturing sector have developed over time and whether structural change in the Austrian manufacturing sector can be related to vertical specialisation and participation in the CE Manufacturing Core.

## **Die Sachgüterproduktion Österreichs: Entwicklung und gesamtwirtschaftliche Bedeutung im internationalen Vergleich**

*The Chamber of Labour (AK Wien)  
November 2013 - March 2014*

The employment and income situation in the manufacturing sector of a country - especially in small and open economies - is driven by different and partly opposing economic factors. This includes different productivity developments (e.g. catching-up of emerging countries), wage developments that may reflect the economic conditions of other sectors of the economy or the economy as a whole, exploiting innovation potential and specialisation in relevant industries and the opportunities and challenges of internationalisation of production and trade. Individual countries positioned their manufacturing industries differently. This study analyses the development of the Austrian manufacturing industry compared to other countries, the potential determinants of this development and the importance of the manufacturing industry in terms of value added and employment in the Austrian economy.

## **A manufacturing imperative in the EU - Europe's position in global manufacturing and the role of industrial policy (Competitiveness Report 2013)** (*wiiv Team Leader*)

*European Commission, DG Enterprise and Industry  
November 2012 - June 2013*

This study served as a background report for the annual European Competitiveness Report of the European Commission (DG ENTR). The objective was (i) to detect the structural changes that have occurred in the European economy in order to identify the major challenges that lie ahead European manufacturing and (ii) to analyse and evaluate past and current approaches to industrial policies (and instruments) at the European and the EU Member State level. Based on the structural challenges for the EU economy and experiences with industrial policies the study formulated suggestions for potential elements of a renewed European industrial policy. The policy conclusions took into account the interaction of industrial policy with related policies such as competition rules, innovation policies and trade policies. The study contains both qualitative and quantitative analyses, including cluster analysis and various econometric techniques and made use of numerous data sources such as the World Input-Output Database (WIOD), OECD ANBERD, Eurostat, European Commission State Aid Scoreboard database and the Community Innovation Survey (CIS).

## **Austria's 'trade in value added'**

*Austrian Ministry of Economy, Family and Youth  
October 2012 - June 2013*

In this study we use the recently developed World Input-Output Database (WIOD) to calculate a series of indicators shedding light on trade patterns from this perspective of global production. With these indicators we develop a 'country trade statistical profile' for Austria which will provide a complete picture of Austria's position in the global economy and changes in this position over time (1995-2009 with a potential update until 2011) both at the aggregate and industry level. Austria's trade statistical profile includes inter alia Austria's degree of vertical



specialisation in exports and imports, Austria's export market shares in terms of value added trade as well as domestic employment effects associated with international production sharing and offshoring. All results are compared to peer countries and in all cases developments over time are tracked. Finally, the crisis-related trade collapse starting in 2009 is re-calculated at the basis of value added exports and compared with the registered slump in standard trade data.

### **The world and Europe in 2030 (AUGUR)**

*European Commission, 7th Framework Programme*

*October 2010 - January 2013*

The challenge of this project was to capture, within a set of scenarios, the characteristics and implications of a variety of patterns that may occur in 2030 in all domains, be it political, economic, social, environmental or technological in Europe and in the world. The project attempted to take stock of medium to long-term trends identified in demography, environmental changes as well as to feature some of the effects of likely changes in technology and behaviours, but it also took into account important institutional transformations. wiiw was one of seven project partners and acted as the leader of a work-package on the effects of innovation and technology diffusion on growth. wiiw contributed to the elaboration of policy scenarios for EU policy makers, designed to deal with the different economic trajectories. In particular, wiiw contributed papers on foreign direct investment, intellectual property rights, trade specialisation, trade in services and macroeconomic issues.

<http://www.augurproject.eu>

### **Study on potential investors for settlement in Vienna**

*Vienna Business Agency*

*September 2012 - January 2013*

This study addresses the question from which countries and from which economic sectors do potential investors, that would be suitable for settlement in Vienna, come from.

### **Workshop on competitiveness in Azerbaijan: concepts, measurement and analysis**

*Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)*

*September 2012 - October 2012*

The aim of this project was to provide Azerbaijani members of government and non-government organisation with an in-depth training in analysing the competitiveness of their economy. In this context, wiiw prepared a 1-day seminar on various aspects of competitiveness for 50 participants in Baku. The workshop was structured into three sessions. The first session presented a concept for measuring competitiveness (e.g. real exchange rates, unit labour costs, revealed comparative advantages, market share analysis). The second session familiarised the participants with issues of trade competitiveness and industrial policy, the final session with foreign direct investment and privatisation policies and restructuring.

### **FDI flows and impacts on the competitiveness of the EU industry (Competitiveness Report 2012) (wiiw**

*Team Leader)*

*European Commission, DG Enterprise and Industry*

*October 2011 - May 2012*

This study investigates the international competition in Foreign Direct Investment (FDI), especially in the context of the growing importance of emerging and developing countries as recipients of FDI. The study analyses both inbound and outbound FDI and their impact on the competitiveness of the European Union. It also focuses on the role of internationalisation of firms (especially SMEs) within and outside the EU and their access to international markets and global value chains. Furthermore, the competitiveness of industries within the EU and the role of FDI in reaching the goal of a common European investment policy are investigated. The study highlights recent developments and impacts of FDI that form the basis for further development of European policy. wiiw conducted this study in cooperation with WIFO.

[http://ec.europa.eu/enterprise/policies/industrial-competitiveness/competitiveness-analysis/european-competitiveness-report/index\\_en.htm](http://ec.europa.eu/enterprise/policies/industrial-competitiveness/competitiveness-analysis/european-competitiveness-report/index_en.htm)

### **The European neighbourhood - challenges and opportunities for EU competitiveness (Competitiveness Report 2012)**

*European Commission, DG Enterprise and Industry*

November 2011 - May 2012

This study serves as a background report for the yearly Competitiveness Report of the EC. In order to assess the differences between neighbouring countries with respect to their importance for EU competitiveness, the study first maps the economic situation and competitiveness of each of the Eastern and Southern ENP partner countries, non-candidate EFTA countries, potential candidate countries as well as Russia. The study describes and analysed the economic importance of institutional arrangements and instruments for cooperation between the EU and the above countries. It also explores the economic and trade impact of bilateral agreements and related trade and investment flows including energy, raw materials and other resources between EU Member States. The final part of the study contains a discussion of the challenges and opportunities for EU competitiveness resulting from its different economic relations, institutional arrangements and instruments with its immediate neighbours, as well as the bilateral relations between EU member states and neighbouring countries. The prospects for EU SMEs to expand their activities into neighbouring countries are discussed and conclusions drawn on the basis thereof. The study concludes with policy recommendations stemming from the discussion of challenges and opportunities. wiiw coordinated the study.

[http://ec.europa.eu/enterprise/policies/industrial-competitiveness/competitiveness-analysis/european-competitiveness-report/index\\_en.htm](http://ec.europa.eu/enterprise/policies/industrial-competitiveness/competitiveness-analysis/european-competitiveness-report/index_en.htm)

### **The EU industry and the global value chain (Competitiveness Report 2012)**

*European Commission, DG Enterprise and Industry*

*January 2011 - May 2012*

This study serves as a background report for the yearly Competitiveness Report of the EC. It identifies a number of policy measures that support the capability of firms in the EU to be competitive in a global market. Especially the changes in value chains within the last ten years, which have led to an extension of trade in the course of globalisation and to an increasing segmentation of the production process, have been analysed. Furthermore, the impact of the economic crisis on changes in trade patterns and potential disruptions of international supply chains as well as possible long-term dynamics of value chains on the competitiveness of firms in the EU and their internationalisation have been analysed. The results serve as an input for the re-formulation of measures in the EU's industrial policy. The study was coordinated by wiiw.

[http://ec.europa.eu/enterprise/policies/industrial-competitiveness/competitiveness-analysis/european-competitiveness-report/index\\_en.htm](http://ec.europa.eu/enterprise/policies/industrial-competitiveness/competitiveness-analysis/european-competitiveness-report/index_en.htm)

### **World Input-Output Database (WIOD)**

*European Commission, 7th Framework Programme*

*May 2010 - April 2012*

WIOD aimed to develop databases, accounting frameworks and models for policy-makers who are facing increasing and pressing trade-offs between socio-economic growth and environmental problems. The core of the database is a set of harmonised supply and use tables, alongside with data on international trade in goods and services. These two sets of data have been integrated into sets of inter-country input-output tables. Taken together with extensive satellite accounts with environmental and socio-economic indicators, these industry-level data provided the necessary input to several types of models used to evaluate policies aimed at striking a suitable balance between growth, environmental degradation and inequality across the world. wiiw led two work packages in this project: (1) WP2 „International Trade Data“ and (2) WP8: „Application of the database: Socio-Economic Aspects“. The institute also contributed to WP3 „Estimation of inter-country input output tables“ and to WP5 „Satellite Accounts: Socio-Economic Indicators“.

<http://www.wiod.org>

### **The Competitiveness of firms, regions and industry in the knowledge-based economy: What room for job-rich growth in Europe? (MICRO-DYN)**

*European Commission, 6th Framework Programme*

*October 2006 - January 2011*

MICRO-DYN dealt with growth, employment and competitiveness in the knowledge-based European economy through a micro-founded firm-based approach. The nature of the analysis was 'bottom-up' i.e. moving from the micro-entities of economic actions and strategies at the enterprise level to sectoral, regional, national and European levels. The rationale for such an approach was that understanding the microeconomic foundations of innovation, competitiveness and growth at the firm level, as well as the firms interactions with the labour market, is key to understanding the nature of these phenomena at a more aggregated (regional, sectoral or macro) level and of the

resulting aggregate economic performance. The analysis used as far as possible comprehensive data-sets across all European regions and industries. wiiw co-ordinated a consortium of 17 research institutions.

<http://www.micro-dyn.eu>

**Study on trade in intermediate products and EU manufacturing supply chains (Competitiveness Report 2010)**

*European Commission, DG Enterprise and Industry*

*December 2009 - January 2011*

The study analysed trade in intermediate products across several dimensions. First the volume, number of varieties and the quality of intermediates imported were analysed as well as the structure of EU exports and their competitive advantage. Additionally, the study investigated how increased trade in intermediate products impacts on manufacturing supply chains in terms of geographical sourcing. Secondly, the study looked at the inter-linkage between manufacturing and services using a case study on "EU Manufacturing value chains in the light of globalisation: The case of the ICT industry". Thirdly, the impact of the crisis as well as other possible factors (such as exchange rate movements or regional integration) on the trade in intermediate products have been compared with the impact on the final goods trade. Finally, policy implications have been derived from the results obtained.