

Curriculum Vitae

Personal Information



First names / Surname **Michael Gregor Miess**

Address Welthandelsplatz 1, 1020 Vienna, Austria (WU Wien)
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<http://www.iiasa.ac.at/staff/staff.php?type=auto&visibility=visible&search=true&login=miess>

Nationality Austria

Date of birth September 25, 1983

Gender male

Occupational field **Researcher in Economics**

Work experience

Dates 04/2014 – 12/2015; 10/2017 - current

Occupation or position held **Research Associate**

Main activities and responsibilities Model Development (Stock-flow Consistent Macroeconomic Modelling) and Scientific Research for the Projects "Smoothing the low-carbon transition" (10/2019 - current), "Policy Options for Sustainable Growth in the Presence of Complex Financial Markets" (09/2017 – 12/2019), "Financialization, Economic Growth and Biophysical Limits" (04/2014 – 12/2015), all funded by the OeNB (Austrian Central Bank) Jubiläumsfonds.

Name and address of employer **Vienna University of Economics and Business (WU Wien)**, Institute for Ecological Economics, Welthandelsplatz 1, 1020 Vienna, Austria

Type of business or sector Research and Education

Dates 07/2008 – current

Occupation or position held **Researcher**, Group Macroeconomics and Economic Policy

Main activities and responsibilities	<p><i>Stock Flow Consistent (SFC) Modelling:</i> (1) development and construction of a stock-flow consistent model to feature active financial markets and a nexus between finance and the real economy leading to an endogenous explanation of financial (business) cycles, (2) construction of an empirical SFC model for Austria with policy application.</p> <p><i>Computable General Equilibrium (CGE) Models:</i> Model formulation, programming, scenario development and database construction of Energy, Economy, and Environment CGE models (dynamic and static); applied economic analysis with these models, construction of data base for and data acquisition for labour market model for European Commission.</p> <p><i>Project Coordinator</i> for EU ERA-NET Transport electromobility+ project DEFINE (Development of an Evaluation Framework for the Introduction of Electromobility, with 5 Partners from 3 countries: Austria, Germany and Poland), for further information see https://www.ihs.ac.at/projects/define/; participation in other EU-projects, e.g. PROMITHEAS-4 (greenhouse gas emission reduction scenarios for emerging economies).</p> <p><i>Consultancy and economic studies</i> for Austrian government ministries and other institutions.</p>
Name and address of employer	Institute for Advanced Studies in Vienna (IHS Wien), Josefstädter Straße 39, 1080 Vienna, Austria.
Type of business or sector	Economics and Social Science Research Institute / Think tank
Dates	09/2017 – 09/2018
Occupation or position held	Researcher
Main activities and responsibilities	<i>Agent-based Big-data Modelling</i> of an entire national economy (Austria) with applications to economic forecasting and policy analysis. The model is estimated to Austria as an example for a small open economy using macroeconomic data from national accounts and selected information from micro-level datasets. It can compete with conventional time series models in forecast comparison for the most important macroeconomic aggregates.
Name and address of employer	Complexity Science Hub Vienna (CSH) , Josefstädter Straße 39, 1080 Vienna, Austria.
Type of business or sector	Scientific Research Institute
Dates	10/2016 – 09/2017; 01/2018 – 12/2018
Occupation or position held	Research Assistant; Guest Research Assistant , Departments Risk and Resilience and Advanced Systems Analysis
Main activities and responsibilities	Agent-based big-data modeling of systemic financial risk in very large financial networks; development of a computational methodology to quantify systemic risk from financial contracts in an entire national economy (Austria) - using macroeconomic data from national accounts complemented by detailed information on financial and non-financial firms from micro-level datasets.
Name and address of employer	International Institute for Applied Systems Analysis (IIASA) , Schlossplatz 1, 2361 Laxenburg, Austria.
Type of business or sector	Scientific Research Institute
Education and training	
Dates	March 2013 – November 2019
Title of qualification awarded	Doctorate in Economics (Dr. rer. soc. oec.)
Principal subjects/occupational skills covered	Economics
Name and type of organisation providing education and training	Vienna University of Economics and Business (WU Wien)
Level in national or international classification	PhD
Dates	2005 – May 2012
Title of qualification awarded	Diploma in Economics

Principal subjects/occupational skills covered
 Economics
 Name and type of organisation providing education and training
 University of Vienna
 Level in national or international classification
 Master of Science

Personal skills and competences

Mother tongue(s) **German**

Other language(s) **English, Russian, Italian**

Self-assessment
European level ()*

English

Russian

Italian

Understanding		Speaking		Writing			
Listening		Reading		Spoken interaction		Spoken production	
	C2		C2		C2		C2
	B2		B2		B2		B1
	C1		C1		C1		C1

(*) *Common European Framework of Reference for Languages*

Social skills and competences
 Mediation skills, group leading, networking

Organisational skills and competences
 Project and Team Coordination (German/English)

Technical skills and competences
 Development and use of economic models and empirical methods for basic research and applied policy analysis. Database development for various macroeconomic modelling approaches (agent-based models, stock flow consistent models, CGE models). Scenario development for these different modelling paradigms for both theoretical and applied research questions.

Computer skills and competences
 MS-Office package, LaTeX, Matlab, STATA, GAMS, R

Annexes Selected List of Publications/Projects and Presentations

Selected List of Publications and Projects

Poledna, S., Miess, M., and Hommes, C. (2020). Economic forecasting with an agent-based model. Under review. For the working paper version, please see SSRN: <http://dx.doi.org/10.2139/ssrn.3484768>.

Schmelzer, S., Miess, M., Kopečna, V. and Scasny, M. (2020). Abatement technologies and their social costs in a hybrid general equilibrium framework. Under Review. For the working paper version (2018), please see: Working Papers IES 2018/16, Charles University Prague, https://ideas.repec.org/p/fau/wpaper/wp2018_16.html.

Poledna, S., Rovenskaya, E., Crespo Cuaresma, J., Kaniovski, S., Miess, M., 2020. Recovery of the Austrian economy following the COVID-19 crisis can take up to three years. IIASA Policy Brief #26, <https://iiasa.ac.at/web/home/resources/publications/IIASAPolicyBriefs/pb26.pdf>.

Campiglio, E., Cahen-Fourot, L. Miess, M. (2019 - current). WINDOW: Smoothing the low-carbon transition. Project Funded by the Jubiläumsfonds of the Austrian National Bank.

Miess, M. (2019). Expanding the technological frontier of macroeconomic modelling. An empirical comparison of an estimated agent-based model to standard modeling techniques. Dissertation, Vienna University of Economics and Business (WU Wien), November 2019.

Miess, M. (2019). Unconditional and conditional forecasting for a small open economy in a two-country DSGE model. In preparation.

Poledna, S., Hochrainer-Stigler, S., Miess, M., Klimek, K., Schmelzer, S., Shchekinova, E., Rovenskaya, E., Linnerooth-Bayer, J., Dieckmann, U., Pflug, G., Thurner, S. (2018). When does a disaster become a systemic event? Estimating indirect economic losses from natural disasters, <https://arxiv.org/pdf/1801.09740.pdf>.

Miess, M. and Schmelzer, S. (2016b). Extension of the Empirical Stock-Flow Consistent (SFC) Model Rezai, A., Miess, M., Schmelzer, S., Ederer, S. (2017 - 2019). Options for Sustainable Growth in the Presence of Complex Financial Markets. Project Funded by the Jubiläumsfonds of the Austrian National Bank.

Miess, M. and Schmelzer, S. (2016b). Extension of the Empirical Stock-Flow Consistent (SFC) Model for Austria. Materialien zu Wirtschaft und Gesellschaft 163, Austrian Chamber of Labour, see <https://emedien.arbeiterkammer.at/viewer/resolver?urn=urn:nbn:at:at-akw:g-1522902>.

Miess, M., Raza, W., Reiner, C., Schmelzer, S., Tröster, B. (2016). Auswirkungen von TTIP auf die österreichische Landwirtschaft und Nahrungsmittelproduktion - Beschäftigungs- und Struktureffekte (Effects of TTIP on the Austrian Agriculture and Food Production Sectors – Employment and Structural Effects). Study commissioned by SPAR, BioAustria, NÖM and Greenpeace. See <http://irihs.ihs.ac.at/id/eprint/3912>.

Miess, M., Schmelzer, S (2016a). A Stock-flow consistent model of financialisation and shadow banking: Financial fragility in a modern capitalist economy. Working Paper. See http://www.boeckler.de/pdf/v_2015_10_23_miess.pdf.

Stagl, S., Rezai, A., Miess, M., Schmelzer, S., Zwickl, K. (2014 - 2015) Financialization, economic growth and biophysical limits. Project Funded by the Jubiläumsfonds of the Austrian National Bank.

Schmelzer, S. Miess, M. (2015a). The Economic Costs of Electric Vehicles. DEFINE Working Paper, see https://www.ihs.ac.at/projects/define/files/11_1_IHS_WorkingPaper_EconomicCostsEVs.pdf.

Hofer, H., Davoine, T., Hye, R., Miess, M., Müllbacher, S. and Poyntner, P. (2015). Ex Ante Evaluation der Steuerreform 2015/2016 (Ex Ante Evaluation of the Austrian Tax Reform 2015/2016). Study commissioned by the Austrian Ministry of Finance.

Schmelzer, S. and Miess, M. (2015b) Report Work Package 6 - Report on the Calibrated and Validated CGE Model with Implemented Scenarios Ready for Use; A Set of Simulation Results and Case Studies. DEFINE Project report. See http://www.ihs.ac.at/projects/define/files/Deliverable_6_1_and_6_2.pdf

Janke, J., Grussmann, S., Miess, M., Schmelzer, S. (2015). Volkswirtschaftliche Kosten des Klimawandels in Österreich durch Klimawandeleffekte in Landwirtschaft, Wintertourismus und der Energiewirtschaft (Economic Costs of Climate Change

caused by Climate Change Effects in Agriculture, Winter Tourism and the Energy Economy). Study commissioned by the Austrian Ministry of Finance, see <https://irihs.ihs.ac.at/id/eprint/3417>.

Ščasný, M., Máca, V., Weinzettl, J., Miess, M., Schmelzer, S. (2015). Report Work Package 9: Quantification of Environmental Benefits. DEFINE Project Report. See http://www.ihs.ac.at/projects/define/files/CASE_WP9_Benefits.pdf

Miess, M. and Schmelzer, S. (coordinators). ERA NET Transport electromobility+ project DEFINE (Development of an Evaluation Framework for the Introduction of Electromobility, 2012 - 2014). Project Co-funded by the European Commission. See <https://www.ihs.ac.at/projects/define/>

Miess, M., Schmelzer, S., Janke, J. (2014). Report on Improvements in the Hybrid General Equilibrium Core Model. DEFINE Project Report. See http://www.ihs.ac.at/projects/define/files/Deliverable_1_1_CGEcoremodel_report_DEFINE_v02_w0d17f7t.pdf.

Bliem, M., Aigner-Walder, B., Brandl, B., Grussman, S., Klinglmair, A., Miess, M., Paterson, I., Rodiga-Laßnig, P., Schmelzer, S. (2014). Das Potenzial von Öko-Innovationen für den Standort Österreich (The Potential of Eco-Innovations for Austria). Study commissioned by the Austrian Ministry of Economy, Family and Youth. See <https://irihs.ihs.ac.at/id/eprint/3011/>

Friedl, B., Bliem, M., Miess, M., Schmelzer, S., Aigner, M., Haber, A., Schmutzner, E. (2013). Wertschöpfungs- und Beschäftigungseffekte von Smart-Grids-Lösungen (Value added and employment effects of smart grid solutions). Presented at: International Energy Economics Conference at Vienna University of Technology (IEWT), 2013.

Schuster, P., Davoine, T., Miess, M. (2013). Mittel- bis langfristige Effekte der Einführung einer Flat Tax (Medium- to Long-term effects of the Introduction of a Flat Tax). Study commissioned by the Austrian Ministry of Finance.

Bliem, M., Friedl, B., Miess, M., Rauter, B. und Schmelzer, S. (2012). Erneuerbare Energie in Oberösterreich: Förderung, Beschäftigung, Wertschöpfung (Renewable Energy in Upper Austria: Subsidies, Employment, Value Added). Klagenfurt, November 2012.

Miess, M. (2012). Computable General Equilibrium Models: Hybrid Top-Down Bottom-Up Energy Policy Modelling. Theory and Application. Diploma thesis, University of Vienna. See <http://othes.univie.ac.at/20019/>

Miess, M., Schmelzer, S. und Schnabl, A. (2011). Evaluierung der regionalen Beschäftigungs- und Wachstumsinitiative 2005/2006 (Evaluation of the Regional Employment and Growth Initiative). Study commissioned by the Austrian Ministry of Economy, Family and Youth.

Berger, J., Gstrein, M., Keuschnigg, C., Miess, M., Müllbacher, S., Strohnner, L., Winter-Ebmer, R. (2011). Development/Maintenance of the Labour Market Model. Project on behalf of DG EMPL of the European Commission, Contract No. VC/2010/0068.

Berger, J., Hofer, H., Miess, M., Schuh, U., Strohnner, L., Biffl, G. (2011). Auswirkungen der Arbeitsmarktöffnung am 1. Mai auf den Wirtschafts- und Arbeitsstandort Österreich (Effects of Opening the Austrian Labour Market on the 1st of May on business and employment location Austria). IHS, DUK. Study commissioned by the Austrian Ministry of Economy, Family and Youth.

Balabanov, T., Friedl, B., Miess, M., and Schmelzer, S. (2010). Mehr und qualitativere Green Jobs (Green Jobs for a Sustainable, Low-carbon Austrian Economy). Study for the Ministry for Labour, Social Affairs and Consumer Protection, <https://irihs.ihs.ac.at/id/eprint/2027/>

Berger, J., Keuschnigg, C., Keuschnigg, M., Miess, M., Strohnner, L., Winter-Ebmer, R. (2009). Modelling of Labour Markets in the European Union. Final Report. Project Report for the European Commission as part of the European Community Programme for Employment and Social Solidarity (2007 - 2013), DG for Employment, Social Affairs and Equal Opportunities, Ref. No. VC/2007/0344.

Bock-Schappelwein, J., Bremberger, C., Hierländer, R., Huber, P., Knittler, K., Berger, J., Hofer, H., Miess, M., Strohnner, L. (2009). Die ökonomischen Wirkungen der Immigration in Österreich 1989 – 2007 (The Economic Effects of Immigration in Austria 1989 - 2007). WIFO, IHS. Study Commissioned by Austrian Federal Ministry of Economics and Labour.

Selected List of Presentations and Conference Contributions

Expanding the Technological Frontier of Macroeconomic Modeling. Presentation at Workshop “Agent-based economics” at Graz Schumpeter Centre, October 2019

An Empirical SFC Model of Real-Financial Cycles and Balance Sheet Dynamics for the Euro Area. Presentation at annual FMM conference in Berlin, October 2019.

An Empirical SFC Model of Real-Financial Cycles and Balance Sheet Dynamics for the Euro Area. Presentation at annual EAEPE conference in Warsaw, September 2019.

When does a disaster become a systemic event? Estimating indirect economic losses from natural disasters. Presentation at annual CEF Conference in Milan, June 2018.

Economic Forecasting with an Agent-based Model. Presentation at annual FMM conference in Berlin, November 2017.

Economic Forecasting with an Agent-based Model. Presentation at annual EAEPE conference in Budapest, October 2017.

An SFC Model of Real-Financial Cycles and Financial Market Regulation. Presentation at Momentum Conference, October 2016, Hallstatt, Austria.

An Empirical Stock-Flow Consistent Modelling Framework for Real-Financial Cycles and Balance Sheet Dynamics. Presentation at EUROFRAME conference, June 2016, Utrecht.

A Stock-flow Consistent Model of Financialisation and Shadow Banking: Financial Fragility in a Modern Capitalist Economy. Presentation at annual FMM conference in Berlin, October 2015. See http://www.boeckler.de/pdf/v_2015_10_23_miess.pdf.

A Stock-flow Consistent Model of Financialisation and Shadow Banking: Financial Fragility in a Modern Capitalist Economy. Presentation at annual EAEPE (European Association for Evolutionary Political Economy) conference in Genova, September 2015. See http://eaepe.org/content/uploads/Submitted_Papers_2015/EAEPE2015_PAPER_%5BJ%5D_Michael-Miess_872863_1441384794.pdf.

DEFINE - Evaluating Costs and Benefits of Electromobility. Presentation at “EEVC (European Electric Vehicle Congress) 2014”. Brussels, December 2nd 2014. In: Proceedings EEVC 2014, ISSN - 0774-5036.

Erdgas, erneuerbare Energien und Energieeffizienz: Industriepolitische Herausforderungen im Spannungsfeld der Energiewende (Natural gas, renewable energies and energy efficiency: challenges in industrial policy for the area of tension in the German ,Energiewende’). Presentation at ECONGAS Konferenz “Was war – was kommt: 10 Jahre Erdgasmarktliberalisierung“ (What has been, what will be: 10 years of liberalising the market for natural gas in Austria), Vienna, November 6th 2012.

Recent Teaching

Green Economics. Master’s course at the IMC University of Applied Sciences, Krems. WS 2019/2020.