Professor Dennis Novy University of Warwick December 2022 Kiel Advanced Studies Program

International Trade: Monopolistic Competition and Gravity

The objective of this course is to introduce some of the latest developments in the international trade literature. The course focuses on two main topics: models of monopolistic competition and the gravity model. The course discusses both theoretical and empirical research, with a number of practical applications. The course mainly builds on published articles and working papers. The below list contains some key references (however, it is not an exhaustive list).

1) Monopolistic Competition and International Trade

Behrens, K., Murata, Y., 2012. Trade, Competition, and Efficiency. *Journal of International Economics* 87, pp. 1-17.

Dixit, A., Stiglitz, J., 1977. Monopolistic Competition and Optimum Product Diversity. *American Economic Review* 67, pp. 297-308.

Feenstra, R., 2003. A Homothetic Utility Function for Monopolistic Competition Models, without Constant Price Elasticity. *Economics Letters* 78, pp. 79-86.

Hottman, C., Redding, S., Weinstein, D., 2017. Quantifying the Sources of Firm Heterogeneity. *Quarterly Journal of Economics* 131, pp. 1291-1364.

**Krugman, P., 1979. Increasing Returns, Monopolistic Competition, and International Trade. *Journal of International Economics* 9, pp. 469-479.

**Krugman, P., 1980. Scale Economies, Product Differentiation, and the Pattern of Trade. American Economic Review 70, pp. 950-959.

**Krugman, P., 1991. Increasing Returns and Economic Geography. *Journal of Political Economy* 99, pp. 483-499.

Matsuyama, K., Ushchev, P., 2017. Beyond CES: Three Alternative Classes of Flexible Homothetic Demand Systems. Centre for Economic Policy Research Discussion Paper 12210.

^{**} required

^{*} recommended

**Melitz, M., 2003. The Impact of Trade on Intra-Industry Reallocations and Aggregate Industry Productivity. *Econometrica* 71, pp. 1695-1725.

**Melitz, M., Ottaviano, G., 2008. Market Size, Trade, and Productivity. *Review of Economic Studies* 75, pp. 295-316.

*Melitz, M., Redding, S., 2014. Heterogeneous Firms and Trade. Chapter 1 in Gopinath, G., Helpman, E., Rogoff, K. (eds), Vol. 4 of the Handbook of International Economics, Elsevier, pp. 1-54.

Zhelobodko, E., Kokovin, S., Parenti, M., Thisse, J., 2012. Monopolistic Competition: Beyond the Constant Elasticity of Substitution. *Econometrica* 80, pp. 2765-2784.

2) Gravity

Allen, T., Arkolakis, C., 2014. Trade and the Topography of the Spatial Economy. *Quarterly Journal of Economics* 129, pp. 1085-1140.

Allen, T., Arkolakis, C., Takahashi, Y., 2014. Universal Gravity. National Bureau of Economic Research Working Paper 20787.

Anderson, J., 1979. A Theoretical Foundation for the Gravity Equation. *American Economic Review* 69, pp. 106-116.

*Anderson, J., 2011. The Gravity Model. *Annual Review of Economics* 3, pp. 133-160.

**Anderson, J., van Wincoop, E., 2003. Gravity with Gravitas: A Solution to the Border Puzzle. *American Economic Review* 93, pp. 170-192.

*Anderson, J., van Wincoop, E., 2004. Trade Costs. *Journal of Economic Literature* 42, pp. 691-751.

Baier, S., Bergstrand, J., 2001. The Growth of World Trade: Tariffs, Transport Costs and Income Similarity. *Journal of International Economics* 53, pp. 1-27.

Bergstrand, J., 1985. The Gravity Equation in International Trade: Some Microeconomic Foundations and Empirical Evidence. *Review of Economics and Statistics* 67, pp. 474-481.

Bergstrand, J., 1989. The Generalized Gravity Equation, Monopolistic Competition, and the Factor-Proportions Theory in International Trade. *Review of Economics and Statistics* 71, pp. 143-153.

Breinlich, H., Novy, D., Santos Silva, J., 2022. Trade, Gravity and Aggregation. *Review of Economics and Statistics*, forthcoming.

**Breinlich, H., Leromain, E., Novy, D., Sampson, T., 2022. Import Liberalization as Export Destruction? Evidence from the United States. CEPR Discussion Paper 17031.

*Chaney, T., 2008. Distorted Gravity: The Intensive and Extensive Margins of International Trade. *American Economic Review* 98, pp. 1707-1721.

Chen, N., Novy, D., 2011. Gravity, Trade Integration, and Heterogeneity across Industries. *Journal of International Economics* 85, pp. 206-221.

*Eaton, J., Kortum, S., 2002. Technology, Geography and Trade. *Econometrica* 70, pp. 1741-1779.

Evenett, S., Keller, W., 2002. On Theories Explaining the Success of the Gravity Equation. *Journal of Political Economy* 110, pp. 281-316.

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*Head, K., Mayer, T., 2014. Gravity Equations: Workhorse, Toolkit, and Cookbook. Chapter 3 in Gopinath, G., Helpman, E., Rogoff, K. (eds), Vol. 4 of the Handbook of International Economics, Elsevier, pp. 131-195.

Helpman, E., Melitz, M., Rubinstein, Y., 2008. Estimating Trade Flows: Trading Partners and Trading Volumes. *Quarterly Journal of Economics* 123, pp. 441-487.

Hummels, D., 2007. Transportation Costs and International Trade in the Second Era of Globalization. *Journal of Economic Perspectives* 21, pp. 131-154.

Jacks, D., Meissner, C., Novy, D., 2008. Trade Costs, 1870-2000. *American Economic Review* 98, pp. 529-534.

Jacks, D., Meissner, C., Novy, D., 2011. Trade Booms, Trade Busts, and Trade Costs. *Journal of International Economics* 83, pp. 185-201.

McCallum, J., 1995. National Borders Matter: Canada-U.S. Regional Trade Patterns. *American Economic Review* 85, pp. 615-623.

**Novy, D., 2013. Gravity Redux: Measuring International Trade Costs with Panel Data. *Economic Inquiry* 51, pp. 101-121.

**Novy, D., 2013. International Trade without CES: Estimating Translog Gravity. Journal of International Economics 89, pp. 271-282. *Santos Silva, J., Tenreyro, S., 2006. The Log of Gravity. Review of Economics and Statistics 88, pp. 641-658.

Textbook

Also consider the textbook by Feenstra, R., 2016. Advanced International Trade: Theory and Evidence (2nd edition). Princeton University Press. Chapters 5 and 6 on "Monopolistic Competition and the Gravity Equation" are particularly relevant. Exercises (both theoretical and empirical) are provided at the end of those chapters.