Econ 2410: Innovation, Firm Dynamics and Economic Growth

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Abstract

This class will focus on the Schumpeterian approach to growth, on some of its applications. We shall discuss: (i) the relationship between growth and competition and its applications to trade; (ii) the relationship between growth and firm dynamics; (iii) directed technical change and climate change; (iv) artificial intelligence; (v) the debate on secular stagnation and the issue of growth measurement; (vi) the debate on growth, inequality, and social mobility; (vii) the role of macroeconomic policy in fostering innovation-led growth.

1 Lecture 1: The Basics of Schumpeterian Growth Theory

- *Aghion, P, and Howitt, P (2009), *The Economics of Growth,* Chapters 4 and 7
- *Acemoglu, D (2008), *Introduction to Modern Economic Growth,* Chapter 14
- *Aghion, P., Akcigit, U., and Howitt, P (2014), "What Do We Learn From Schumpeterian Growth Theory?", in Handbook of Economic Growth, ed. by P. Aghion and S. Durlauf, Vol. 2, 515-563.

2 Lecture 2: Competition

- *Aghion, P, and Howitt, P (2009), *The Economics of Growth,* Chapters 12 and 15
- *Acemoglu, D (2008), *Introduction to Modern Economic Growth,* Chapter 14
- *Aghion, P., Akcigit, U., and Howitt, P (2014), "What Do We Learn From Schumpeterian Growth Theory?", in Handbook of Economic Growth, ed. by P. Aghion and S. Durlauf, Vol. 2, 515-563.

- Aghion, P, Harris, C., Howitt, P., and Vickers, J (2001), "Competition, Imitation and Growth with Step by Step Innovation", *Review of Economic Studies*
- Aghion, P, Bloom, N, Blundell, R, Griffith, and Howitt, P (2005), "Competition and Innovation: An Inverted-U Relationship", *Quarterly Journal of Economics*
- Aghion, P., Bergeaud, A., Lequien, M., and Melitz, M (2018), " The Impact of Exports on Innovation: Theory and Evidence"
- Bloom, N., Draca, M., and Van Reenen, J (2015), "Trade Induced Technical Change: The Impact of Chinese Imports on Innovation, Diffusion and Productivity", *Review of Economic Studies*
- Autor, D., Dorn, D. Hanson, G., Pisano, G. and Shu, P (2017), "Foreign Competition and Domestic Innovation: Evidence from US Patents"
- Akcigit, U., Ates, S, and Impulliti, G (2017), "Innovation and Trade Policy in a Globalized World".

3 Lecture 3: Firm Dynamics

- *Klette, T, and Kortum, S (2004), "Innovating Firms and Aggregate Innovation", *Journal of Political Economy*
- *Aghion, P., Akcigit, U., and Howitt, P (2014), "What Do We Learn From Schumpeterian Growth Theory?", in Handbook of Economic Growth, ed. by P. Aghion and S. Durlauf, Vol. 2, 515-563.
- *Acemoglu, D., Akcigit, U., Bloom, N., and Kerr, W (2016), "Innovation, Reallocation and Growth", forthcoming in the *American Economic Review.*
- Aghion, P., Bergeaud, A., Cette, G., Lecat, R., and Maghin, H (2018), "The Inverted-U Relationship Betweenn Credit Access and Productivity Growth", forthcoming in *Economica*
- Akcigit, U. and Kerr, W (2010), "Growth through Heterogeneous Innovation", *Journal of Political Economy*
- Akcigit, U., Baslandze, S., and Lotti, F (2018), "Connecting to Power: Political Connections, Innovation, and Firm Dynamics".

4 Lecture 4: Secular Stagnation and Growth Measurement

- Gordon, R (2012), "Is US Economic Growth Over? Faltering Innovation Confronts The Six Headwinds", *NBER Working Paper #18315*

- *Aghion, P., Bergeaud, A., Boppart, T., Klenow, P., and Li, H (2017), "Missing Growth from Creative Destruction".
- Syverson, C (2016), "Challenges to Mismeasurement Explanations for the US Productivity Slowdown", *NBER Working Paper #21974*
- *Bloom, N., Jones, C., Van Reenen, J., and Webb, M (2018) "Are Ideas Getting Harder to Find?"
- Aghion, P. Bergeaud, A., Boppart, T., Klenow, P., and Li, H (2019), " A Theory of Falling Growth and Rising Rents".

5 Lecture 5: Directed Technical Change and Climate

- Aghion, P, and Howitt, P (2009), *The Economics of Growth,* Chapters 8 and 15
- *Acemoglu, D, Aghion, P, Bursztyn, L, and Hemous, D (2012), "The Environment and Directed Technical Change", *American Economic Review*
- *Aghion, P, Dechezlepretre, A, Hemous, D, Martin, R, and Van Reenen, J (2017), "Carbon Taxes, Path Dependence and Directed Technical Change: Evidence from the Auto Industry", *Journal of Political Economy*
- Acemoglu, D, Akcigit, U, Hanley, D, and Kerr, W (2017), " Transition to Clean Technology", *Journal of Political Economy*

6 Lecture 6: Artificial Intelligence and Economic Growth

- Hemous, D. and Olsen, M (2014), "The Rise of the Machines: Automation, Horizontal Innovation and Income Inequality", CEPR discussion paper 10244.
- *Acemoglu, D., and Restrepo, P (2016), "The Race between Man and Machine: Implications of Technology for Growth, Factor Shares and Employment", mimeo MIT
- Acemoglu, D., and Restrepo, P (2017), "Robots and Jobs: Evidence from US Labor Markets", NBER Working Paper 23285
- *Aghion, P., Jones, B., and Jones, C (2017), "Artificial Intelligence and Economic Growth", NBER Working Paper 23928.
- *Aghion, P, Antonin, C, Bunel, S, and Jaravel, X (2020), "Automation and Employment: Evidence from French Firm-Level Data", mimeo College de France

7 Lecture 7: Growth, Inequality, and Social Mobility

- Chetty, R, Hendren, N, Kline, P, and Saez, E (2014), "Where Is the Land of Opportunity? The Geography of Intergenerational Mobility in the US", *Quarterly Journal of Economics,*
- *Aghion, P, Akcigit, U, Bergeaud, A, Blundell, R, and Hemous, D (2015), "Innovation and Top Income Inequality", NBER Working Paper 21247
- Jones, C and Kim, J (2014), "A Schumpeterian Model of Top Income Inequality", NBER Working Paper 20637
- *Aghion, P, Akcigit, U, Hyytinen, A and Toivanen, O (2018), " The Social Origins of Inventors"
- *Bell, A, Chetty, R, Jaravel, X, Petkova, N, and Van Reenen, J (2018), " The Lifecycle of Inventors"