

# Doctoral Program in Economics



Academic year 2020/21

## MACROECONOMICS II

**Period:** III TERM

**Course hours:** 30

**Teachers:** Petri (6 hours), Cesaratto (12 hours), Caminati (12 hours)

**Exam methods:** Normally written (open questions); oral in case of lock downs.

**Prerequisites:** Standard micro and macroeconomics; preferably basic knowledge of the classical theory of surplus and criticism of the marginalist theory of capital.

### Petri (6)

#### Program

Lecture 1: Degree of capacity utilization is variable and always far from max; hence plausibility of influence of aggregate demand on output. Keynes and Garegnani. Brief history of how macroeconomics has evolved from Keynes to DSGE.

Lecture 2: Theory of aggregate investment, relevance of criticism of neoclassical treatment of capital, mistakes in recent neoclassical theories of investment, empirical evidence. Disagreements on NAIRU.

Lecture 3: Deficit spending and public debt in a Keynesian perspective (Lerner, Ciccone). Some radical views on the tendencies of contemporary capitalism (Pivetti, Screpanti, Zingales, Mason).

#### Educational objectives

To introduce students to the classical-Keynesian approach to employment and aggregate output as determined by aggregate demand, and to the reasons why the alternative neoclassical approach appears indefensible; to illustrate in particular the differences on investment theory and on public debt.

#### Bibliographical references

P. Garegnani, "Notes on Consumption, Investment and Effective Demand", Cambridge J. of Eds. 1978, 1979;

F. Petri, "Should the theory of endogenous growth be based on Say's Law and the full employment of resources?", in N. Salvadori, ed., *The Theory of Economic Growth. A Classical Perspective*, Edward Elgar, 2003;

F. Petri, "Neglected Implications of Capital-Labour Substitution for Investment Theory: Another Criticism of Say's Law", *Review of Political Economy*, 2015;

Roberto Ciccone, papers in Italian on public debt (translated into English by F. Petri).

## **Cesaratto (12)**

### **Program**

The lectures concern the criticism to mainstream growth theory, heterodox growth theory in a classical-Kaleckian perspective, and endogenous money. The "red thread" of the lectures is that growth is demand-led, and that capitalism is inherently contradictory since an unequal income distribution is unable to sustain demand.

**Lectures 1 Harrod & Domar: the fathers of modern growth theory.**

**Lecture 2: The problems with Solow's model and Endogenous Growth Theory**

**Lectures 3: Endogenous money, payment systems, monetary policy**

**Lectures 4: Post-Keynesian theories: Cambridge Equation model**

**Lectures 5: Neo-Kaleckian models**

**Lectures 6: Supermultiplier and endogenous money**

### **Educational objectives**

Make students aware of the existence of alternative growth theories based on the role of aggregate demand in the face of the weakness of mainstream supply-led theory based on Say's Law.

### **Bibliographical references**

#### **Pre-requisites**

Garegnani, P. (1983), Notes on Consumption, Investment and Effective Demand, in Eatwell J. and M. Milgate (eds.) (1983), *Keynes's Economics and the Theory of Value and Distribution*, London: Duckworth. (also in the *CJE* 1978-9)

Cesaratto, S. (2020), *Heterodox Challenges in Economics – Theoretical Issues and the Crisis of the Eurozone*, Springer, chapters 1, 2, 3.

#### **Lectures 1**

Lecture notes

#### **Lecture 2**

Lecture notes

S. Cesaratto (2010), Endogenous growth theory twenty years on: a critical assessment, *Bulletin of Political Economy*, vol.4, n.1, working paper version *Quaderni del Dipartimento di Economia politica*, Università di Siena, n.559

ID (con F.L.Serrano) (2002), As Leis de rendimento nas teorias neoclasica de crescimento: Una critica Sraffiana, *Revista Ensaio FEE*, vol.23. (English version [www.networkideas.org](http://www.networkideas.org) – International Development Economics Association).

ID (1999), Savings and economic growth in neoclassical theory: A critical survey, *Cambridge Journal of Economics*, vol.23.

### **Lectures 3**

McLeay M., Amar, R. Ryland, T. (2014): 'Money creation in the modern economy', Bank of England, *Quarterly Bulletin*, No. 1, pp. 1-14.

Jakab, Z., Kumhof, M. (2015): 'Banks are not intermediaries of loanable funds - and why this matters', Bank of England, Working Paper No. 529. (the initial 14 pages)

Bindseil, U. (2004b) The Operational Target of Monetary Policy and the Rise and Fall of Reserve Position Doctrine. European Central Bank (ECB), working paper series, No. 372

The main reference on endogenous money and monetary policy is Basil Moore (1988): *Horizontalists and Verticalists. The Macroeconomics of Credit Money*, Cambridge University Press, Cambridge, UK. If interested, read some chapters.

Piti Disyatat, Monetary policy implementation: Misconceptions and their consequences, BIS Working Papers No 269, December 2008

Fullwiler, S.T. (2008) Modern Central Bank Operations – The General Principles, [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1658232](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1658232)

Lavoie, M. "The Monetary and Fiscal Nexus of Neo-Chartalism: A Friendly Critical Look." *Journal of Economic Issues*, 42, 2013: 1-32. Working paper version (2011) available at: [http://www.boeckler.de/pdf/v\\_2011\\_10\\_27\\_lavoie.pdf](http://www.boeckler.de/pdf/v_2011_10_27_lavoie.pdf)

Cesaratto, S. (2020), *Heterodox Challenges in Economics – Theoretical Issues and the Crisis of the Eurozone*, Springer, chapter 4.

### **Lectures 4**

Lecture notes

Cesaratto S. (2015): 'Neo-Kaleckian and Sraffian controversies on the theory of accumulation' *Review of Political Economy*, 27 (2), pp. 154-182.

### **Lectures 5**

Lecture notes

Lavoie M. (2006) *Introduction to Post-Keynesian Economics*, Palgrave Macmillan, cap. 5\*

Cesaratto S. (2015): 'Neo-Kaleckian and Sraffian controversies on the theory of accumulation', *Review of Political Economy*, 27 (2), pp. 154-182.

### **Lecture 6**

Kalecki, M. (1967) The problem of effective demand with Tugan-Baranowski and Rosa Luxemburg, in: *Selected Essays on the Dynamics of the Capitalist Economy 1933 – 1970* (Cambridge: Cambridge University Press, 1971).

ID (con Serrano F., Stirati A.) (2003), Technical Change, Effective Demand and Employment, *Review of Political Economy*, vol.15.

Freitas F., Serrano F. (2015): 'Growth rate and level effects, the adjustment of capacity to demand and the Sraffian Supermultiplier, *Review of Political Economy*, 27(3), pp. 258-281.

Cesaratto S. (2015): 'Neo-Kaleckian and Sraffian controversies on the theory of accumulation', *Review of Political Economy*, 27 (2), pp. 154-182.

Cesaratto, S. (2017) Initial and final finance in the monetary circuit and the theory of Effective Demand. 2016, *Metroeconomica*, Volume 68, Issue 2, May , Pages: 228–258.

Cesaratto, S., & Di Bucchianico, S. (2020). Endogenous money and the theory of longperiod effective demand. *Bulletin of Political Economy*, 14(1).

## **Caminati (12)**

### **Program**

The lectures present alternative approaches to innovation-driven endogenous growth. The mainstream supply-side quality-ladder model and some of its applications are discussed first. The lectures will then consider recent examples of demand-led super-multiplier models, where endogenous growth is triggered by research or some other form of semi-autonomous expenditure. Issues related to agents' heterogeneity in demand-led models of endogenous growth are finally discussed, with a special focus on Harrodian instability.

**Lecture 1. An introduction to the Neo-Schumpeterian quality ladder model**

**Lecture 2. TFP growth and cross-country convergence/divergence: theory and predictions**

**Lecture 3. The relation between competition and innovation: theory and facts**

**Lecture 4. Is R&D a 'semi-autonomous expenditure'? Cyclical and long-term features of firms' R&D**

**Lecture 5. Demand-led growth through endogenous semi-autonomous expenditure**

**Lecture 6. Harrodian instability and agents' heterogeneity.**

### **Educational objectives**

The lectures aim at post-graduate level understanding of the full-employment and demand-led models of innovation-driven growth, together with a discussion of their predictions and of some open research areas. These comprise issues raised by the recent diffusion of heterogeneous-agent models coupling the legacy of Schumpeter and Keynes.

### **Bibliographical references**

#### **Lecture 1**

Aghion P., Howitt P. (2009): *The Economics of growth*, Cambridge, Massachusetts, MIT Press, chapters 4, 5

Acemoglu D. (2009): *Introduction to Modern Economic Growth*, Princeton Univ. Press, Princeton, chap.14.

## Lecture 2

- Aghion P., Howitt P. (2009): *The Economics of growth*, Cambridge, Massachusetts, MIT Press, chapter 7
- Ha J. and Howitt P. (2007), "Accounting for Trends in Productivity and R&D: A Schumpeterian critique of semi-endogenous growth theory", *Journal of Money, Credit, and Banking*, 33 (June 2007): 733-74.
- Laincz C. A. and Peretto P. F. (2006) "Scale effects in endogenous growth theory: an error of aggregation not specification", *Journal of Economic Growth*, 11:263-288.
- Jones C. (2005), "Growth and Ideas", in Aghion P. and Durlauf S. (eds.), *Handbook of Economic Growth*, North Holland, Amsterdam.

## Lecture 3

- Aghion P., Howitt P. (2009): *The Economics of growth*, Cambridge, Massachusetts, MIT Press, chapter 12.
- Aghion P. and Griffith R. (2005): *Competition and Growth. Reconciling Theory and Evidence*, Cambridge, Massachusetts, MIT Press.
- Correa J.A. and Ornaghi C. (2014): Competition & innovation: evidence from U.S. patent and productivity data. *Journal of Industrial Economics*, LXII, 258-285
- Hashmi A. R. (2013): Competition and innovation: the inverted-U relationship revisited. *Review of Economics and Statistics*, 95, 1653-1668

## Lecture 4.

- Aghion, P., Askenazy, P., Berman, N., Cetto, G. and Eymard, L. (2012) Credit constraints and the cyclicity of R&D investment: Evidence from France. *Journal of the European Economic Association*, 10: 1001-1024.
- Barlevy, G. (2007) "On the cyclicity of Research and Development". *The American Economic Review*, 97, 1131-1164.
- Bond, S., Harhoff, D., Van Renen, J. (2003). Investment, R&D and financial constraints in Britain and Germany. London: LSE Research online, available at <http://eprints.lse.ac.uk/archive/00000771>
- Mulkay, B., Hall, B. H. & Mairesse, J. (2001) Investment and R&D in France and the United States, in: H. Heinz & R. Strauch (Eds) *Investing Today for the World of Tomorrow*, pp. 229–273 (Berlin: Springer Verlag).
- Kleinknecht, A., Verspagen, B. (1990). Demand and innovation: Schmookler re-examined. *Research Policy*, 19: 387-394
- Le Bas, C., Scellato, G. (2014). Firm innovation persistence: a fresh look at the frameworks of analysis. *Economics of Innovation and New Technology*, 23, 423–446, doi.org/10.1080/10438599.2014.895511
- Schmookler, J. (1966). *Invention and Economic Growth* (Harvard University Press, Cambridge.
- Rafferty, M. (2003) "Do Business cycles alter the composition of research and development expenditures?". *Contemporary Economic Policy*, vol. 21, n. 3, pp. 394-405
- Wyatt, G. (1986). *The Economics of Invention* (St. Martin's Press, New York).

## Lecture 5.

- Brochier, L., Macedo e Silva, A. C. (2019). A supermultiplier Stock-Flow Consistent model: the “return” of the paradoxes of thrift and costs in the long run? *Cambridge Journal of Economics* 2019, 43, 413–442, doi:10.1093/cje/bey008
- Caminati, M., & Sordi, S. (2019). Demand-led growth with endogenous innovation. *Metroeconomica*, 70, 405–422.
- Nomaler, Ö., Spinola, G. & Verspagen, B. (2020). Schumpeter and Keynes: Economic growth in a super-multiplier model. UNU-MERIT Working Paper #2020-049, ISSN 1871-9872

#### **Lecture 6.**

- Botte, F. (2018). Endogenous business cycles and Harrodian instability in an agent-based model, *Journal of Post Keynesian Economics*, DOI:10.1080/01603477.2018.1486206
- Franke, R. (2020). Heterogeneity in the Harrodian sentiment dynamics, entailing also some scope for stability, *Journal of Evolutionary Economics*, 30: 347–374
- Russo, E. (2020). Harrodian instability in decentralized economies: an agent- based approach. *Economia Politica*, doi.org/10.1007/s40888-020-00200-w