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**TOPICS IN FACTOR SUBSTITUTION AND ECONOMIC GROWTH**

This master level course deals treats theoretical and empirical aspects of economic growth with a special focus on the ease of substitution between factors of production. Generally, models of economic growth work with production functions of Cobb-Douglas type that do not adequately mirror the essential role of factor substitution for different patterns of long-term growth. Making use of the more general form of CES production functions and introducing an explicit normalization procedure has more recently opened the door for new analyses in almost all areas of economic growth theory and empirics pointing out the decisive role of factor substitution for long-term development. This includes studies of monetary growth, of biased technical change and of the differences in the long-term growth patterns between major economic players in the 21st century.

**Basic literature:**

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De La Grandville, O. (2016), “Economic Growth. A Unified Approach”, 2. ed., Cambridge.

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1. *Factor substitution and models of economic growth*

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1. Income distribution, firm size and growth

Aquilina, M. / Klump, R. / Pietrobelli, C. (2006), “Factor substitution, average firm size and economic growth”, in: Small Business Economics 26, 203-214.

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1. *Factor substitution and monetary growth theory*

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1. *Factor substitution and directed technical change*

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Klump, R. / Miralles Cabrera, C. (2008), “Biased technological change in agriculture: the Hayami-Ruttan hypothesis revisited”, Working Paper, Goethe-University Frankfurt / Main.

1. *Long-term growth patterns in the US, the Eurozone and China: A comparison*

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Manu, A.-S. / McAdam, P. / Willman (2018), “The role of factor substitution and technical progress in China’s great expansion”, ECB Working Paper No. 2180.

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