

RESEARCH

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Editorial

In discussions on the reasons for slow growth in the euro area, reference is very often made to the undeveloped nature of financial markets, a lack of harmonisation in regulatory systems, and more generally, to insufficient financial integration and the resulting low level of competition. This kind of claim is highly understandable and justifiable at least in the sense that it is supported by academic research on the connection between the level of development of financial markets and economic growth. On the other hand, economic policy discussions, in particular, have clearly less focused on the role of product and production factor markets in economic growth. By contrast, recent academic research has strongly argued that the slow productivity

and economic growth in the euro area is due to the fragmentation and low level of competition in product and, in particular, labour markets. The low level of competition in these markets as well as non-harmonised and in some researchers' view even excessive regulation are the main reasons why productivity growth in the euro area has in the past ten years lagged clearly behind productivity growth in the United States: in that period, the adoption of new organisation structures and innovations has been strikingly rapid particularly in the US retail sector. Discussion and particularly research on the growth effect of competition and regulation in the product and production factor markets must hence be continued and deepened.

Jouko Vilmunen

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Increased competition to dampen pressure to increase taxes?

In their research paper "Labour and product market competition in a small open economy - simulation results using a DGE model of the Finnish economy" awarded in autumn 2005 and published in the Bank of Finland's discussion paper series (5/2006), Juha Kilponen and Antti Ripatti study the macroeconomic impact of increased competition in the product and labour markets, by using a Dynamic General Equilibrium (DGE) model of the Finnish economy. The model of a small open economy used in the quantitative analyses is at its core a neoclassical growth model. In the model, the pricing behaviour of product and labour markets and the structure of the population were modified. A non-trivial tax and social security system was also incorporated into the model because it is a key factor for the structure of public sector balances. The model was fitted to the macroeconomic data on Finland mainly by calibration.

In the model, competition in the intermediate goods market of product markets and the labour market is imperfect, and economic agents operating in these markets adjust their prices when given the opportunity. Economic agents cannot control the point of time of price adjustment; instead it is unmodelled and exogenously determined. This type of Calvo pricing is one of the basic features of several modern dynamic macroeconomic models used in monetary policy research. As a result, prices in the model do not immediately adjust. In other words, it is a simple analytic tool for modelling nominal price stickiness. The modelling of tax and social security systems is broadly based on the current Finnish systems. The key feature of the demographic structure of the model is the division of the population into active working-age individuals and retirees. In the model, retirees do, however, also make decisions on labour supply. These two population groups differ in terms of

productivity of labour: labour efficiency falls in retirement. The model has several special features, and therefore the results may differ from those produced by a standard dynamic general equilibrium model, in which an economic agent makes decisions in a market with a maximum level of competition and in an environment of fully flexible prices.

In Kilponen's and Ripatti's model, increased competition in the product and labour markets is modelled as an increase in the price elasticity of product and labour demand. As a result, price and wage mark-ups will decline by 2 and 5 percentage points, respectively. Private consumption, investment and production, as well as capital stock, will increase by approximately 3% in the long term, and employment and real wages will grow by 2%. In addition, the income tax rate and pension contributions will decrease by a total of 1.5%. This macroeconomic impact is significant and underlines the fact that increased competition improves the allocation of resources in the economy, which in turn has a positive macroeconomic impact. Importantly, these positive activity and growth impacts also lead to the reduction of the total tax burden of the economy. Reforms supporting competition in the economy hence contribute to dampening the pressure to increase taxes as a result of demographic ageing.

Shared payments infrastructure – commercially unsustainable?

Alistair Milne's study "What's in it for us? Network effects and bank payment innovation" (Bank of Finland Discussion Paper 16/2005) examines the factors affecting banks' incentive to adopt payment services innovations. Milne's study focuses on the adoption of innovations that lower the operating costs or improve the services of existing payment systems, not on issues concerning the selection of payment

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instruments or the pricing of payment services. The examination is based on cross-country differences in the quality and prices of payment services. The key question is why banks in various countries have not invested in a system with the best price-quality ratio. Can banks' evident lack of incentive to introduce these system investments be explained by the lack of sufficient financial incentives?

In industrial organisation research, traditional theoretical models show that banks' incentives to utilise innovations are strongest in more competitive markets. International findings on banking fees apparently do not, however, support this claim: the adoption of the newest payment technologies appears to be most widespread in small countries with a highly concentrated banking system. To examine the issue in more detail Alistair Milne builds a simple model of the selection of a payment service provider. The model encompasses two features of network effects that distinguish banking from other network industries: the impact of shared infrastructure and account externalities. The latter feature concerns the benefits to customers in terms of the quality of payment services when the bank's market share is large enough. These account externalities are incentives for individual banks to adopt innovations that reduce payment costs or improve the quality of payments. On the other hand, the lack of a competitive advantage, ie a low level of commercial benefits is not an incentive for an individual bank to invest in a shared payment services infrastructure. A board member of any bank, faced with an investment proposition of this kind, could ask 'what's in it for us? Milne's analysis can, however, also be used for drawing policy-related conclusions. Firstly, policy measures that reduce the role of shared payments infrastructure and encourage competition between service providers can increase incentives for the adoption of payment system innovations. On the other hand, if the payments infrastructure were to

remain a shared monopoly, policy measures would have to encourage banks to adopt commercially sustainable innovations at a more rapid pace.

Research on transition economies

High-level seminar on the Russian economy On 7-8 April 2006, the Institute for Economies in Transition (BOFIT) arranged in Helsinki an international academic seminar on Russia and other economies in transition. The seminar was arranged in cooperation with the Moscow-based Centre for Economic and Financial Research (CEFIR), as previously. This meeting has over the years become the clearly most popular seminar in Europe focusing on Russian macroeconomic and financial market issues. This year, approximately 30 researchers attended the two-day seminar held at the Bank of Finland. The keynote speaker was Professor Stephen G. Cecchetti (Brandeis University). He discussed the macroeconomic impact of asset price booms and crashes. According to Professor Cecchetti's analysis, a housing boom often forecasts a recession or even a depression. This is a very topical issue in several Eastern and Central European countries, where a fall in interest rates and favourable economic developments have led to an increase in lending and a significant rise in housing prices.

The focus of the seminar was on the Russian economy. However, research on China and Ukraine, as well as Eastern and Central European countries was also discussed. A study on the Chinese economy by Aaron Mehrotra (BOFIT) found that there is a fairly stable relationship between broad money M2 and inflation. The results hence support the People's Bank of China's (PBoC) target for money growth. It should, however, also be noted that in the Chinese economy, also exchange rate developments have a significant impact on demand for money.

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Energy and the economy

BOFIT has launched a number of research and study projects, which focus on the Russian energy sector and the impact on the global economy of changes in the energy sector, as well as on the impact of energy prices on exchange rate developments in Russia and the other CIS countries. In her forthcoming online article, Tuuli Juurikkala considers the lessons of the natural gas dispute between Russia and Ukraine in winter 2005-2006. Will there be enough Russian gas for all the export projects currently being planned? What is the role of Central Asian gas producers in the shadow of Russia? It seems that EU members and other countries dependent on imported energy must quickly find alternative sources of energy in order to ensure their energy security because, eg, growth in natural gas production will not reach the expected level of demand growth.

In another project, Iikka Korhonen and Tuuli Juurikkala are studying the impact of the real price of oil on the exchange rates of energy exporting countries. Data based on, eg, OPEC countries suggests that a 10% increase in the real price of oil will lead to a 5–10% rise in the real exchange rate of an average oil exporting country. In analysing the exchange rates and exchange rate policies of these countries, the impact on equilibrium exchange rates of changes in the real price of oil must therefore always be taken into consideration. The rouble's appreciation in real terms is not surprising at all, considering the rise in oil prices in recent years.

Using survey data in monitoring the Chinese economy

Aaron Mehrotra and Jouko Rautava have launched a study on the recent developments of barometric variables in the Chinese economy and on causality between

barometric variables and various indicators of the Chinese real economy. The objective is to examine whether barometric variables can be used to forecast developments in the Chinese economy. The study focuses on the diffusion index published by the People's Bank of China (PBoC). The index is based on a quarterly survey on the financial situation of 5,000 manufacturing companies. Statistical tests indicate that some of the 15 components of the diffusion index anticipate developments in the real economy. It should, however, be taken into consideration that the suitability of barometric variables for forecasting and the strength of causality vary considerably between various variables.

Structural changes

The focus of BOFIT's research is on the macroeconomic issues of the target countries. It nevertheless also monitors structural changes in these countries. Monitoring these changes is important as the countries develop into market economies. Tuuli Juurikkala and Pertti Haaparanta (Helsinki School of Economics and Business Administration) are about to publish a study which examines Russian companies' involvement in the production of infrastructure services and the bribes these companies pay. Russian manufacturing companies continued the Soviet tradition of participating in the production of local social and infrastructure services. Several companies are still actively participating in services production and infrastructure maintenance. At the same time, budgetary irregularities between various administrative levels, as well as corruption, cause problems. This study examines whether there is a link between insufficient financial incentives, services production by companies and bribes. The research data cover over 400 large and medium-sized companies in 40 regions in Russia. The data show that the higher the economic independence of the municipality – ie, the higher the proportion of the municipality's income comes from its own

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sources – the higher the number of companies reported as having paid bribes. The study also shows that the higher the economic independence of the municipality, the lower the companies' involvement in the production of infrastructure services. In these cases, the number of companies reporting as having paid bribes is also higher.

Events

The Bank of Finland is organising an international academic meeting to be held on 5 – 7 June 2006 titled "Practical Issues in DSGE modelling in Central Banks", together with Andrew Levinin (Board of Governors of the US Federal Reserve System). The meeting will

focus on the practical problems encountered by central banks in the introduction of a dynamic stochastic general equilibrium model, and in policy preparations and research activities.

On 8 May 2006BOFIT organised at the House of the Estates (Säätytalo) an annual seminar on the Russian economy. This year's seminar was entitled "Is Russian growth sustainable? – What about Ukraine in 2006?". In the seminar, aimed at the general public, BOFIT's economists presented their views on developments in the Russian macro and regional economy, financial markets and the banking sector. The seminar also discussed economic developments in Ukraine. The seminar programme is available on the BOFIT website (www.bof.fi/bofit).

Recent Bank of Finland research publications

Bank of Finland Discussion Papers

Juha Kilponen – Antti Ripatti: Labour and product market competition in a small open economy – Simulation results using a DGE model of the Finnish economy, BOF DP 5/2006

Juha Kilponen – Kai Laitemo: Robustness in monetary policymaking: a case for the Friedman rule, BOF DP 4/2006

Iftekhar Hasan – Cristiano Zazzara: Pricing risky bank loans in the new Basel II environment, BOF DP 3/2006

Pierre Siklos – Martin Bohl: Policy words and policy deeds: the ECB and the euro, BOF DP 2/2006

Juha-Pekka Niinimäki – Tuomas Takalo – Klaus Kultti: The role of comparing in financial markets with hidden information, BOF DP 1/2006

Tommi A. Vuorenmaa: A wavelet analysis of scaling laws and long-memory in stock market volatility, BOF DP 27/2005

Mikko Puhakka: The effects of aging population on the sustainability of fiscal policy, BOF DP 26/2005

Matti Virén: Inflation expectations and regime shifts in the euro area, BOF DP 25/2005

Yehning Chen – Iftekhar Hasan: The transparency of the banking industry and the efficiency of information-based bank runs, BOF DP 24/2005

Alistair Milne: Standard setting and competition in securities settlement, BOF DP 23/2005 Maritta Paloviita: Comparing alternative Phillips curve specifications: European results with survey-based expectations, BOF DP 22/2005

Hanna-Leena Männistö: Forecasting with a forward-looking DGE model – combining long-run views of financial markets with macro forecasting, BOF DP 21/2005

Kai Leitemo – Ulf Söderström: Robust monetary policy in a small open economy, BOF DP 20/2005

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Kari Kemppainen: Assessing effects of price regulation in retail payment systems, BOF DP 19/2005

Juha Tarkka – Mika Kortelainen: International economic spillovers and the liquidity trap, BOF DP 18/2005 Hilde C Bjørnland – Kai Leitemo: Identifying the interdependence between US monetary policy and the stock market, BOF DP 17/2005

Alistair Milne: What's in it for us? Network effects and bank payment innovation, BOF DP 16/2005

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Tuuli Juurikkala – Olga Lazareva: Non-wage benefi ts, costs of turnover and labour attachment: Evidence from Russian firms, BOFIT 4/2006

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Laura Solanko: Coping with missing public infrastructure: An analysis of Russian

industrial enterprises, BOFIT 2/2006
Wojciech W. Charemza – Svetlana Makarov:
Ex-ante dynamics of real effects of monetary
policy: Theory and evidence for Poland and
Russia, 2001–2003, BOFIT 20/2005
William Pyle: Collective action and postcommunist enterprise: The economic logic of
Russia's business associations, BOFIT
19/2005

Jiao Wang – David Mayes –Guanghua Wan: Effects of WTO membership on income distribution and labour movement in China – A CGE analysis, BOFIT 18/2005 Aaron Mehrotra: Exchange and interest rate channels during a deflationary era – Evidence from Japan, Hong Kong and China, BOFIT 17/2005

Vlad Ivanenko: Markets and democracy in Russia, BOFIT 16/2005 Anna Dorbec: Choice of the substitution currency in Russia: How to explain the dollar's dominance?, BOFIT 15/2005

E research publications

Jukka Railavo: Essays on macroeconomic effects of fiscal policy rules, E:33, 2006 (doctoral thesis)

Forthcoming publications

Bank of Finland Discussion Papers

Michal Kempa: Money market volatility – a simulation study BOF DP

Jan Toporowski: Open market operations: beyond the new consensus, BOF DP

Mikael Bask: Announcement effects on exchange rate movements: continuity as a selection criterion, BOF DP

Mikael Bask: Adaptive learning in an expectional difference equation with several lags: selecting among learnable REE, BOF DP

Mikael Bask: Exchange rate volatility without

the contrivance of fundamentals and the failure of PPP, BOF DP

Mikael Bask – Tung Liu – Anna Widerberg: The stability of electricity prices: estimation and inference of the Lyapunov exponents, BOF DP

Mikael Bask – Jarco Fidrmuc: Fundamentals and technical trading: behavior or exchange rates in the CEECs, BOF DP Juuso Vanhala: Labor taxation and shock propagation in a new Keynesian model with

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Tuuli Juurikkala – Olga Lazareva: Non-wage benefits, costs of turnover and labour attachment: Evidence from Russian firms, BOFIT DP

Olena Havrylchyk – Emilia Jurzyk: Profi tability of foreign banks in Central and Eastern Europe: Does the entry mode matter? BOFIT DP

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