

OESTERREICHISCHE NATIONALBANK Stability and Security.

WORKSHOPS

Proceedings of OeNB Workshops

Strategies for Employment and Growth in Austria

March 3, 2006



No. 10

Comment on "Will Further Market Integration and Intensified Competition Lead to Higher Growth in Austria?"

Harald Badinger

Vienna University of Economics

1. Introduction

The question posed by Michael Böheim was whether there is potential for enhancing Austria's economic growth by further market integration and intensifying competition and his answer was largely in the affirmative. He provides an overview of the recent literature on the relation between competition and growth and an interesting case study on the European and Austrian electricity industry.

I largely share the views expressed in his paper. Hence, my task here is not to challenge his conclusions, but to supplement his treatment of the topic by selected points I regard as particularly important. To provide some structure I group my arguments under three main headings:

- Integration and economic performance
- Integration and competition
- Competition and employment

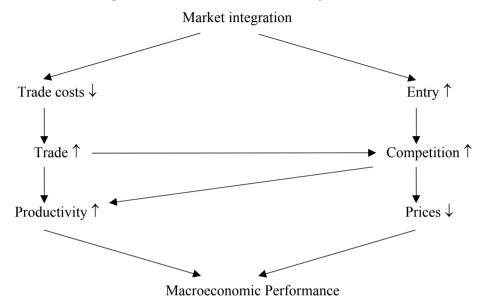
2. Integration and Economic Performance

The chart provides an overview of the main channels via which integration affects macroeconomic performance. Michael Böheim focussed on the effects of enhanced competition, resulting from i) an increase in entry and the threat of entry due to the reduction of entry barriers and start-up costs, and ii) an increase in international trade (import competition) due to a reduction in trade costs. Ultimately, we expect the increase in competition to translate into higher

¹ FDIs are an important further channel, which I do not discuss here for space constraints.

productivity and lower prices, a point nicely formalized in the model by Melitz and Otttaviano (2005).

Chart: Market Integration and Macroeconomic Performance



It should be added that international trade affects productivity not only via the detour of enhanced competition, but also 'directly' through the increased potential for exploiting economies of scale (Balassa, 1961), international specialization according to comparative advantage, and an improvement of international knowledge diffusion (Coe and Helpman, 1995).

There is sound empirical support for the hypothesis that trade raises productivity. Frankel and Romer (1999) or Alcalá and Ciccone (2004) are two well known studies at the aggregate level (for GDP per worker) using large cross sections of countries; Badinger and Breuss (2006) obtain similar results, although smaller in magnitude, for a sample of OECD countries using industry level data from manufacturing. Moreover, the results by Badinger (2006) suggest that the pro-competitive effect of trade accounts for less than one third of trade's total effect on productivity, emphasizing the independent role of trade in generating integration effects, which is illustrated in the left part of the chart.

² These findings do not carry over to services without qualification. While Badinger and Breuss (2006) identify an effect of trade on productivity for aggregate services (although less robust), this does not hold up for a disaggregated specification (Breuss and Badinger, 2006). This remains a puzzle, which deserves further investigation.

Table: Exports Plus Imports as Percent of Production, 2002

Industry	Austria	EU-5 1)	EU-14 ²⁾
Total Manufacturing	126.9	137.0	106.7
Food products and beverages	62.2	57.5	42.7
Tobacco products	58.2	58.2	84.4
Textiles and textile products	191.8	293.2	200.4
Leather, leather products and footwear	243.3	748.5	457.4
Paper and paper products	105.3	115.9	93.3
Publishing, printing, reprod. of recorded media	52.4	23.2	20.5
Coke, ref. petroleum products, nuclear fuel	75.2	89.5	62.5
Chemicals and chemical products	221.2	191.1	153.8
Rubber and plastics products	129.8	138.6	104.2
Other non-metallic mineral products	52.5	59.2	45.0
Basic metals	115.4	155.3	141.4
Fabricated metal products	69.9	51.3	47.2
Machinery and equipment, nec	140.5	158.5	149.5
Electrical and optical equipment	201.1	279.3	210.8
Motor vehicles, trailers and semi-trailers	200.2	327.5	321.3
Other transport equipment	185.8	141.8	186.1
Manufacturing nec	99.4	143.1	94.3

Note: 1) EU-5 (BE, DK, NL, FI, SE), 2) EU-14 ("Old" EU members except Luxemburg), simple arithmetic averages

Source: OECD, Structural Analysis Database (STAN).

With a particular view to Austria, one could ask whether there is still room for increasing openness and trade and thus for gains from trade. From an aggregate perspective Austria is a fairly open economy. However, if we differentiate by industry and compare Austria's openness with that of other EU members, it becomes apparent that Austria is still lagging behind in several industries (see table above). Of course, a more disaggregated view would be more illuminating; but the crude overview given in the table already suggests that there are several industries in which Austria could increase openness by removing remaining barriers to trade and by supporting small and medium sized enterprises (the bulk of producers on Austria) in improving export performance.

3. Integration and Competition

Evidence on the pro-competitive effects of integration, even of the ambitious EU Single Market programme, varies strongly across countries and industries. Still, there are two points that can be made regarding the EU experience in the 1990s (see Badinger, 2005): i) In manufacturing, the Single Market appears to be working quite well, which is reflected in a substantial increase in competition (decrease in firms' markups over marginal costs) since the early 1990s. ii) In contrast, the Single Market for services is still more a vision than reality; competition seems to have even decreased in the 1990s, a finding that fits well with the European Commission's assessment of the Single Market for Services (European Commission, 2002): There are still many impediments to the cross border provision of services within the EU and firms appear to have developed anticompetitive defence strategies in response to the Single Market Programme. Given that the Single Market is only working in a small part of the EU economy, we should not be too surprised that its macroeconomic effects are modest so far.

The lesson we should learn from this is that *de jure* liberalization does not necessarily imply *de facto* liberalization. The implication for policy making is twofold: First, the design of legal provisions is crucial, and further attempts to enhance market integration should reflect this insight by an improved co-operation between lawyers and economists. Blacklisting may be less appealing from a legal perspective, but it may be way more effective from an economic perspective than few abstract principles, which have to be eked out ex-post before the (European) Court of Justice. Second, an active competition policy, both at the EU and national level is of fundamental importance: "The Single Market and active competition policy remain the cornerstone of efforts at EU level to improve European growth performance. They represent a foundation without which other efforts would be wasted." (Sapir et al., 2004, p. 130).

4. Competition and Employment

I conclude with some remarks on the relation between competition and employment, taking a positive relation between competition and productivity as given. Basically, there are two opposite effects of higher productivity (triggered by more competition) on employment. Higher labour productivity obviously reduces the amount of labour required to produce a given level of output. On the other hand, marginal costs go down (due to improved efficiency) as do firms' markups over marginal costs (due to enhanced competition), which leads to lower prices and an increase in demand for products and thus labour. Which of the two effects dominates will depend on the from of the production function (technology), the magnitude of the reduction in prices, the extent to which the price cut it is due to

lower markups, and the elasticity of demand. Ultimately, this question has to be answered empirically.

In an interesting study, Nordhaus (2005) investigates the sources of the productivity rebound and its implications for employment in U.S. manufacturing. Since the mid 1990s, productivity growth has accelerated after two decades of dismal performance in the 1970s and 1980s. At the same time, the largest declines in employment have occurred in manufacturing. This has partly led to the presumption that increased efficiency has been an important cause for the inferior employment performance. But correlation should not be confused with causality. Nordhaus finds that the rapid productivity growth has rather increased than reduced employment in U.S. manufacturing, a result that shows up particularly sharply for the period since 1998. Overall, rapid productivity growth has led to a reduction in prices, thereby increasing demand and employment, but the partial effect of rapid domestic productivity growth has been more than offset by even more rapid productivity growth and price declines of foreign competitors.

Hence, the recent U.S. experience suggests that more competition and enhanced productivity may rather be friends rather than foes of employment. Of course, this result does not necessarily carry over to EU or Austrian industries, for which comparable evidence is missing. Given its high policy relevance this is a serious gap in the literature and more comprehensive empirical work on the relationship between productivity and employment seems warranted.

5. References

- Aghion, P., Bloom, N., Blundell, R., Griffith, R. Howitt, P. (2005). Competition and Innovation: An Inverted-U Relationship. *Quarterly Journal of Economics*, Vol. 120(2), 701–728.
- Alcalá, F. and Ciccone, A. (2004). Trade and Productivity. *Quarterly Journal of Economics*, 119(2), 613–646.
- Badinger, H. (2005). Has the EU's Single Market Programme Fostered Competition: Testing for a Decrease in Markup Ratios in EU Industries, unpublished manuscript.
- Badinger, H. (2006). Market Size, Trade, Competition, and Productivity. *Applied Economics*, forthcoming.
- Badinger, H. and Breuss, F. (2006). Trade and Productivity: An Industry and Aggregate Perspective, unpublished manuscript.
- Balassa, B. (1961). The Theory of Economic Integration. London: Allen & Unwin. Breuss, F. and Badinger (2006). The European Single Market for Services in the Context of the Lisbon Agenda: Macro-economic Effects, in BMWA (Ed.), *Deepening the Lisbon Agenda: Studies on Productivity, Services, and Technologies*, Vienna: Austrian Federal Ministry of Economics and Labour, 2006, 79–108.

- Coe, D.T. and Helpman, E. (1995). International R&D Spillovers. *European Economic Review*, 39(5), 859–87.
- European Commission (2002). The State of the Internal Market for Services. *Report from the Commission to the Council and the European Parliament*, COM(2002) 441 final, Brussels.
- Frankel, J.A. and Romer, D. (1999). Does Trade Cause Growth? *American Economic Review*, 89(3), 279–399.
- Griffith, R. and Harrison, R. (2004). The Link Between Product Market Reform and Macroeconomic Performance. *European Economy*, No. 209, August 2004.
- Melitz, M. and Ottaviano, G. (2005). Market Size, Trade, and Productivity. *NBER Working Paper*, No. 11393.
- Nordhaus, W. (2005). The Sources of the Productivity Rebound and the Manufacturing Employment Puzzle. *NBER Working Paper*, No. 11354.
- Sapir, A., Aghion, P., Bertola, G., Hellwig, M., Pisani–Ferry, J., Rosati, D., Vinals,
 D. and Wallace, H. (2004). An Agenda for a Growing Europe: The Sapir Report. Oxford: Oxford University Press.