

FOCUS

■ *Linkages Between Trade Integration and Monetary Integration*

Several recent empirical studies have shown that exchange rate volatility has a negative impact on the volume of trade and on foreign direct investment, but also on domestic investment. Such an effect is all the more pronounced with geographical and economic proximity. These studies thus provide new arguments relating to the choice of a monetary peg, underlying the benefits of overlapping trade and currency areas.

The regionalisation of the world economy is taking two forms. It occurs as trade regionalisation, which is already quite advanced. It is also taking the form, though more slowly, of monetary regionalisation, as with the emergence of a European monetary zone which could balance the current dollar-orientation of most developing countries. This process implies that geographically proximate countries choose, separately or in co-ordination, to manage their currencies with respect to a common reference, which may be one currency or a basket. This involves monitoring both the real-exchange rate level (as the key determinant of competitiveness) and nominal exchange-rate volatility (which may also impact on the real economy).

In theory, exchange rate volatility may favour exports or foreign direct investment (FDI) if agents expect it to lead to a very favourable exchange rate. However, when agents are risk averse or when they are involved in partially irreversible projects, greater uncertainty reduces international trade and investment flows. Recent empirical studies, generally

based on gravity models, suggest that volatility does indeed have a significant negative impact on the volume of international trade, but also on the volume of FDI entering a country. Consequently, stabilising exchange rates should raise trade and financial integration for economies which are geographically close.

Stabilising exchange rate movements should raise trade and financial integration, favouring intra-industry trade in particular.

In as far as domestic firms export and use imported intermediate goods, uncertainty about the exchange rate may also affect domestic investment. Indeed, profit margins have to absorb the exchange-rate volatility as long as prices do not react, at least in the short run, to exchange rate fluctuations. As a result, profits become unpredictable and investment is lowered: volatility is all the more disruptive when profit margins are small.

At a macroeconomic level, market structures partly reflect the nature of trade. When trade is horizontally differentiated, prices are by definition very similar. Firms have little scope for passing on exchange rate variations in their prices, and they will be all the more sensitive to the effects of exchange rate instability. When trade is vertically differentiated, the spreads in prices may be greater and companies specialising in high quality products may have greater market power. They will then be able to absorb exchange rate volatility in their margins more easily. These mechanisms are confirmed by an empirical study conducted by the CEPII for countries of the European Union, which shows that exchange rate volatility penalises investment the more a country is open to trade and engaged in horizontal, intra-industry trade.

CONTENTS

• FOCUS	1
LINKAGES BETWEEN TRADE INTEGRATION AND MONETARY INTEGRATION	
• RESEARCH SUMMARY	3
MARMOTTE	
• ON THE RESEARCH AGENDA	5
• RECENT PUBLICATIONS	6
•• EVENTS	6
• NEWS IN BRIEF	6
• FORTHCOMING	7
• THE CHELEM DATABASE	8

Given the impact of exchange rate volatility on real variables, the design of an exchange rate policy should not only take into account the exchange-rate level but also its *volatility*.

Table 1: The Nature of Trade Between the CEECs* and the EU, 1996

	Inter-Branch Trade	Intra-Branch Trade	
		Vertical	Horizontal
Czech Republic	52.3	38.1	9.6
Hungary	62.7	30.9	6.4
Slovenia	67.9	27.3	4.8
Poland	76.6	20.6	2.7
Estonia	95.7	3.5	0.8

* Countries in the "first wave" of membership negotiations.

Source: M. Freudenberg and F. Lemoine (1999), "Central and Eastern European Countries in the International Division of Labour in Europe", *CEPII Working Paper*, No 1999-05, April.

In practice, most emerging countries seek a trade-off between stabilising their nominal exchange rate and maintaining their competitiveness by adopting flexible currency pegs. The choice of the nominal anchor - be it a single currency or a basket - is crucial. The study quoted previously stresses the advantage of ensuring that trade and monetary areas overlap: the geographic proximity of partners reinforces the usefulness of joint currency stabilisation.

In practice, most emerging countries adopt flexible currency pegs to balance the need for nominal exchange rate stability and competitiveness.

Furthermore, this stabilisation is more likely to favour investment in countries exchanging similar goods. This is particularly relevant in understanding the European monetary union. *A priori*, this last point should mostly concern the industrialised countries. However, stabilisation should also be considered with respect to emerging countries that are close to the major developed-country zones, or to emerging countries that are strongly integrated at a regional level.

Table 2: The Nature of Trade Between Argentina and its Main Trading Partners, Average 1997-1999

	Inter-Branch Trade	Intra-Branch Trade	
		Vertical	Horizontal
Argentina/Brazil	55.0	24.7	20.3
Argentina/US	87.1	10.4	2.5
Argentina/EU	90.9	6.4	2.6

Source: UN, COMTRADE, calculations by S. Zignago and S. Montout.

Two groups of emerging countries are especially sensitive to exchange rate volatility: the Central and East European countries (CEECs) and the Mercosur.

The regionalisation of trade on the periphery of the EU will be accompanied by the constitution of a European monetary area, which should provide gains to the CEECs in terms of trade and FDI.

However, in the immediate future, and given the present (inter-industry) nature of their trade, these countries should not expect considerable gains in terms of domestic investment. But over the longer term, their adoption of the euro should stimulate horizontal, intra-industry trade, by reducing exchange rate volatility. In this case, the positive impact of their integrating the eurozone could be more important *ex post* than it seems to be *ex ante*.

Argentina's economic difficulties highlight the problems of pursuing monetary and trade integrations which are not overlapping.

The case of Mercosur is different. Argentina's choice of a currency board with the dollar increased its dependency on American capital inflows, which in turn for a long provided an incentive to maintain the dollar peg time. However, Argentina's trade is far more integrated with Mercosur, or even with the EU, than it is with the US. The Brazilian currency crisis of 1999 underlined the exposure of the Argentinean economy to exchange rate shocks from its main trade partner. In the future, managing this problem will require some form of exchange rate policy co-ordination between the two countries. Over the longer term, the creation of a regional currency could provide a means for consolidating the Mercosur. In any case, it is clear that the present dichotomy between a monetary peg and regional integration is part of Argentina's current difficulties. This example stresses the problems of pursuing monetary and trade integrations which are not overlapping.

Jean-Louis Guérin
GUERIN@CEPII.FR

Amina Lahrière-Révil
LAHRECHE@CEPII.FR

FOR FURTHER INFORMATION SEE:

- 'EXCHANGE RATE STRATEGIES IN THE COMPETITION FOR ATTRACTING FDI', A. BÉNASSY-QUÉRÉ, L. FONTAGNÉ AND A. LAHRÈCHE-RÉVIL *JOURNAL OF THE JAPANESE AND INTERNATIONAL ECONOMIES*, 15, 178-198.
- 'EXCHANGE RATE VOLATILITY AND INVESTMENT', A. LAHRÈCHE-RÉVIL AND J.-L. GUÉRIN *CEPII WORKING PAPER*, FORTHCOMING (Available at www.cepii.fr).

MARMOTTE, the multi-country macro-econometric model of the CEPII and the CEPREMAP, is an annual model focusing on the medium-term. It has strong microeconomic foundations and economic agents are assumed to have perfect foresight. Given these characteristics, MARMOTTE can be used to simulate the consequences of changes in the economic environment and in economic policies in an interdependent world.

Presentation of the Marmotte Model

Macro-econometric models give valuable insights into the effects of shocks and national policies in an interdependent world. MARMOTTE, the multi-country macro-econometric model of the CEPII and the CEPREMAP, is an annual model focusing on the medium-term. It includes sub-models for the European economies¹, and as such it can take into account the structural differences between these countries and their consequences for the EU economic integration process.

MARMOTTE has strong microeconomic foundations as most of the behavioural equations result from inter-temporal optimisation. Another feature is that the economic agents have perfect foresight. Each country is modelled using about 50 equations, with parameters that may differ between countries. Many are estimated by econometric methods, while others, in particular those of the supply-side equations, are calibrated. MARMOTTE allows for four kinds of differences between countries: size and ratios of national macroeconomic aggregates; openness and the geography of the trade flows; the exchange rate regime and the structure of the economy.

The most original feature of MARMOTTE is the supply side, modelled with a putty-clay technology. Each year, a new vintage of capital is installed, whose capital-labour ratio is chosen from the technology available and remains unchanged until its scrapping date. The capital intensity and expected life time of the new production unit result from an inter-temporal optimisation of its discounted expected profitability.

This technology is especially adapted to the analysis of medium term changes in the allocation of national income to wages and profits. It can explain the stickiness of employment and investment, as well as the way a change in the labour market will affect the production technology progressively. Output is affected as a result of a change in the age of the oldest capital vintages in production, and/or changes in investment.

Another specific feature of MARMOTTE is that consumers optimise inter-temporally with a non-separable utility function, which takes into account the formation of habits. This introduces some stickiness in consumption behaviour.

The other equations of the model, related to imports, exports, wages, prices, interest rate parities, monetary rules, etc. are quite classical. In the wage equations (pseudo-supply of labour), the real cost of labour falls with the inflation rate (stickiness of the nominal wage rate), as well as the ratio between the production and consumption price; whereas it increases with the employment rate and the current productivity of labour.

A key feature of MARMOTTE lies in the supply-side, modelled with a putty-clay technology.

The model assumes inter-temporal equilibrium of the government budget and the balance of payments of all countries. To stabilise the model, a risk premium has been added to the uncovered interest rate parity, such that it will "punish" or "reward" a country for its greater (lesser) impatience, and so for its tendency to over-borrow (over-lend). This premium is related to the country's external asset position. An increase in the external indebtedness raises the risk premium attached to a currency. This leads to an exchange rate depreciation which lowers imports and boosts exports, and as such reduces the external indebtedness.

Monetary policy is implemented for each non-EMU country by the central bank and for the eurozone countries by the European Central Bank. All central banks aim to stabilise inflation around a target, according to a Taylor type monetary rule.

Finally, MARMOTTE assumes some stickiness of producer prices to introduce Keynesian features in the short run. Aggregate demand determines effective production whereas supply determines potential production. In the long run, effective and potential production are equal.

Simulation of a total factor productivity shock in the USA

The permanent increase in total factor productivity in the United States, a phenomenon observed in the 1990s, has been simulated with MARMOTTE. With its putty-clay technology, the

(1) It covers the 14 members of the European Union (Belgium and Luxembourg are merged), the United States, Japan and Canada.

model is well adapted to simulate such a productivity shock, as it only affects the new vintage of capital, and leaves the productivity of old vintages unchanged. So, the productivity gains diffuse progressively to the entire stock of capital.

- As the Table shows, US investment increases substantially and quickly as a result of the productivity shock. Firms invest strongly in the short run (2.73% in Year 1), as well as in the medium term (1.57% after 10 years).

- The productivity shock has inflationary effects in the short and medium run: supply rises progressively, but demand (especially investment demand) increases immediately. US monetary policy reacts to inflation by increasing the nominal interest rate.

Table: Effects of a Total Productivity Shock in the United States*

Variables of Interest	United States			Germany			France		
	Year 1	Year 5	Year 10	Year 1	Year 5	Year 10	Year 1	Year 5	Year 10
Effective Production	0.58	0.53	0.67	0.01	0.10	0.26	0.02	-0.01	0.10
Consumption	-0.04	0.07	0.26	0.28	0.67	0.72	0.18	0.47	0.53
Investment	2.73	2.50	1.57	0.68	1.74	1.46	0.64	1.32	1.04
Employment	-0.02	0.28	0.46	0.00	0.10	0.29	0.00	0.09	0.20
Real Wages	0.05	0.26	0.52	-0.01	0.03	0.13	-0.01	0.02	0.13
Producer Price	0.18	0.42	0.13	0.00	-0.04	-0.23	0.01	-0.11	-0.39

* Which permanently raises its effective production by 1%.
Note: table entries are % deviations from the baseline.

- The upward pressure on the price and the temporary increase in the interest rate dampen the increase in investment and depress consumption for two years. However, consumption increases from the third year after the shock, as the income of constrained households increases and as the inflationary effect of the shock loses pace.

- The real labour cost increases, and labour becomes more expensive relative to capital. As a result, the new units of production become more capital intensive than the older ones. The employment increase just matches the need for labour induced by the new units of production. In the long run, both factors are more productive: investment increases by 0.15% and employment by 0.36%, whereas output grows by 1% (these results are not shown in the table). The increased supply of US goods reduces their price relative to foreign goods, that is the US real exchange rate depreciates².

- In the short and medium run, the supply of American goods is constrained by the putty-clay technology. This limits the real depreciation of the US dollar in the short run (0.32% in the first year and 0.62% in the tenth year (not shown in the table)).

- The appreciation of the euro has a deflationary effect, via the import prices, on the European producer price level. In Germany, prices fall two years after the shock (-0.04% in Year 5) and that fall is significant 10 years after the shock (-0.23%). The results for France are similar (-0.11% in Year 5

and -0.39% in Year 10). This affects demand positively as it raises consumption. Moreover, the increase in the real cost of labour in the medium run and the fall in the interest rate strengthen the positive effect on both consumption and investment. The immediate effect on investment in Germany is a rise of 0.68% (in the Year 1) and 1.46% in the Year 10. The effects on French investment are somewhat smaller: the effect in the Year 1 is 0.64% and 1.04% in the Year 10. However, in the very long run, the US productivity shock has little effect on the European supply.

The simulated outcomes of the shock on the US effective production, investment, employment and real wages seem to be compatible with four major economic developments in the American economy in the 1990s:

the unusual, high growth rates of GDP, the huge private investments by American firms, the historic low level of unemployment, and the real wage gains reflecting productivity gains. On the other hand, although consumption

is positively affected, it does not fully reflect the strong growth of consumption in 1990s, which is argued to be one of the main factors behind the US demand growth.

Within the framework of the European Forecasting Network, MARMOTTE will be used to analyse the effects of economic policy in the euro area and especially to assess the stabilising role of the monetary and fiscal policy in the European monetary union.

*The Marmotte Research Team*³
Corresponding author: RZEPKOWSKI@CEPII.FR

FOR FURTHER INFORMATION SEE:

• 'MARMOTTE: MULTINATIONAL MODEL'
L. CADIOU, S. DÉES, S. GUICHARD, A. KADAREJA,
J.-P. LAFFARGUE AND B. RZEPKOWSKI,
CEPII WORKING PAPER, N° 2001-15, DECEMBER 2001.

• 'A COMPUTATIONAL GENERAL EQUILIBRIUM MODEL WITH VINTAGE CAPITAL'
L. CADIOU, S. DÉES, J.-P. LAFFARGUE,
JOURNAL OF DYNAMIC ECONOMICS AND CONTROL,
2001, FORTHCOMING.

(2) Marmotte is a one sector model. Thus, it cannot generate a Balassa-Samuelson effect, according to which an increase in the productivity of the tradable goods sector increases the demand for non-tradable goods, the supply of which is sticky, which in turn appreciates the real exchange rate.

(3) Arjan Kadareja, Jean-Pierre Laffargue and Bronka Rzepkowski.

LABOUR PRODUCTIVITY IN MEDITERRANEAN MANUFACTURING INDUSTRIES¹

This project is part of the CEPII's ongoing research on international comparisons of productivity in manufacturing. It aims to assess the performance of manufacturing in five countries in the Euro-Mediterranean region which are very different in terms of income levels and the degree of integration with the European Union: Spain, Portugal, Turkey, Morocco and Egypt are compared with France. National surveys are used to construct a database with a common industrial classification. The work is carried out using the International Comparisons of Output and Productivity (ICOP) method, which compares a representative basket of goods produced for each set of two countries. The ratio of the values of the baskets in national currencies provides a factor for converting national currencies into French francs, also referred to as an index of manufacturing output price parities (MOPPs). The MOPPs are used to assess "real" levels of production and labour productivity. The MOPPs, when divided by the nominal exchange rate, also indicate relative price levels, and point to possible exchange rate misalignments which may impair the price-competitiveness of manufacturing in some countries.

Labour Productivity: Yearly Average Growth Rates (%) 1997/1981*

	France	Spain	Portugal
All sectors			
GDP	2.0	2.6	2.9
Labour Force	0.6	1.0	0.4
GDP / Labour Force	1.3	1.6	2.4
Manufacturing sector			
Value added	1.6	2.3	1.6
Employees	-1.7	-0.7	-1.0
Value Added per Employee	3.4	3.0	2.6
	Turkey	Morocco	Egypt
All sectors			
GDP	4.9	2.5	4.9
Labour Force	2.7	2.4	2.7
GDP / Labour Force	2.1	0.1	2.2
Manufacturing sector			
Value added	6.5	5.9	5.4
Employees	2.2	4.6	1.8
Value Added per Employee	4.2	1.2	3.6

* 1997/1986 for Morocco.

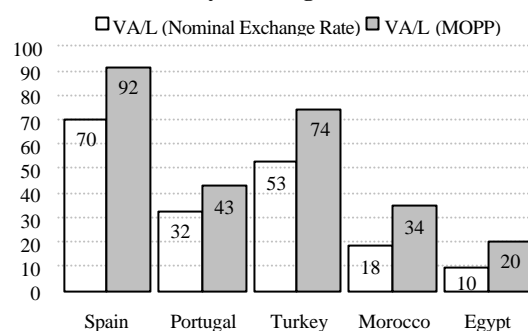
Source : A. Chevallier and D. Ünal-Kesenci, 2001.

Results show that the gaps in labour productivity levels between each country and France, although very large for Morocco and Egypt, are smaller than the gaps in GDP per capita. But, in contrast to the convergence of GDP per capita levels of each country and France, productivity gaps in manufacturing have widened over the past 15 years. The only exception is Turkey, which has managed to improve its relative productivity performance, despite the large increase in employment in manufacturing.

In this respect, there are large differences between France, Spain and Portugal on the

one hand and Turkey, Egypt and Morocco on the other. During the 1980s and 1990s, employment in manufacturing fell in the first group whereas it increased in the latter. These diverging trends result from contrasting macroeconomic conditions and opposite specialisation processes. Labour intensive industries lost ground in the first group, whereas they became more important in the second, stimulated by export promotion policies.

Manufacturing Labour Productivity, 1997 at Nominal and Manufacturing Output Price Parity Exchange Rates



Source : A. Chevallier and D. Ünal-Kesenci, 2001.

Regional trade between the European Union and its South- and East-Mediterranean partners, based on the complementarity of production processes, has contributed to differentiate the composition of the manufacturing between the two groups. This has led to a widening of the labour productivity gaps. For Egypt and Morocco, regional free-trade included in the Euro-Mediterranean Association Agreements does not so much come at the end of a convergence process in manufacturing performance, but will hopefully lead to such convergence.

Price level series show that the large exchange rate misalignments, which were registered in some cases in the 1980s or the first half of the 1990s, have been reduced. These time series also demonstrate how price competitiveness can be wiped out when real appreciation exceeds economic catching-up. For some countries, their membership of the euro-zone or their nominal exchange rate pegging to the euro may constitute a macroeconomic constraint likely to jeopardise this catching-up.

These results and analyses for the whole of the manufacturing industry are being completed by sectoral analyses.

Agnès Chevallier and Deniz Ünal-Kesenci

A.CHEVALLIER@CEPII.FR

D.UNAL-KESENCI@CEPII.FR

FOR FURTHER INFORMATION SEE:

- LA PRODUCTIVITÉ DES INDUSTRIES MÉDITERRANÉENNES,
A CHEVALLIER AND D. ÜNAL-KESENCI,
CEPII WORKING PAPER, N°2001-16 DECEMBER 2001.

(Available at www.cepii.fr)

(1) This research has been supported by FEMISE (European Commission), see: www.femise.org.

Recent Publications

LA LETTRE DU CEPII, MONTHLY

- *'National Frontiers are Important... but Less and Less so'*, Thierry Mayer
No 207, DECEMBER 2001
- *'Protection(ism): the Environment and the WTO'*, Lionel Fontagné
No 206, NOVEMBER 2001
- *'New Thoughts on the South's Openness'*, I. Bensidoun, A. Chevallier,

- G. Gaulier
No 205, OCTOBER 2001
- *'Trade Integration and Monetary Integration'*, J.-L. Guérin, A. Lahrière-Révil
No 204, SEPTEMBER 2001
- *'Good Taxes Make Good Friends'*, A. Bénassy-Quéré, L. Fontagné
No 203, JULY-AUGUST 2001

LA LETTRE DU CEPII is published in French.

Price: FF 312 (47.50 euros) outside France.

Publisher: la Documentation française.

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Equipe Ingénue
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- *'La productivité des industries*

- méditerranéennes'*
A. Chevallier, D. Ünal-Kesenci
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- *'MARMOTTE: A Multinational Model'*
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- *'The French-German Productivity Comparison Revisited: Ten Years after the German Unification'*
L. Nayman, D. Ünal-Kesenci
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- *'The Nature of Specialization Matters for Growth: an Empirical Investigation'*
I. Bensidoun, G. Gaulier, D. Ünal-Kesenci
No 01-13, DECEMBER
- *'Political Economy of the Nice Treaty: Rebalancing the EU Council'* and *'The Future of European Agricultural Policies'*
French-German Economic Forum
No 01-12, NOVEMBER
- *'Sector Sensitivity to Exchange Rate Fluctuations'*
M. Fouquin, J. Malek Mansour, N. Mulder, L. Nayman, K. Sekkat

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- *'A First Assessment of Environment-Related Trade Barriers'*
L. Fontagné, F. Von Kirchbach, M. Mimouni

No 01-10, OCTOBER

- *'International Trade and Rent Sharing in Developed and Developing Countries'*

No 01-09, OCTOBER

- *'Economie de la transition : le dossier'*
G. Wild

No 01-08, OCTOBER

- *'Exit Options for Argentina with a Special Focus on Their Impact on External Trade'*
S. Chauvin

No 01-07, OCTOBER

- *'Effet frontière, intégration économique et "Forteresse Europe"'*
K. Head, T. Mayer

No 01-06, SEPTEMBER

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6

Events

SEMINARS AND MEETINGS

- **Financial Markets Versus Growth**
A. Brender (CPR), F. Pisani (CPR), L. Fontagné (CEPII)
18 December 2001
- **France's Transport Productivity in an International Context**
A. Sauvant (SES), B. Chane-Kune (MEDA TEAMS), N. Mulder (CEPII), K. Briard, A. Rémy (SES), F. Jeger (SES)
21 November 2001
- **Tourism : the Short-Term Outlook and Issues for Sustainable Development**
A. Cachin (Havas Voyages), P. Dubrulle (Accor),

- M.-C. Kovacschazy (CNT), J.-O. Pesme (ESC, Bordeaux)
20 November 2001
- **India's Outlook in the Global Economy**
F. Fleming (AMRO), O. Bomsel (CERNA), G. Sorman
13 November 2001
- **Global Economic Prospects and the Developing Countries, 2002**
U. Dadush (World Bank), B. Hoekman (World Bank), M. Fouquin (CEPII), F. Benaroya (DREE), J.-P. Cling (DIAL)
26 October 2001

• The Business Cycle and Financial Markets

R. Lescure (CDC Ixis), L. Fontagné (CEPII)
18 October 2001

• Growth and Productivity Performance of Chinese Industry

H. Wu (Polytechnic University, Hong Kong)
4 October 2001

• What Lies Behind the New Economy?

LN. Minsouri-Guilani (CGT), G. Cette (Banque de France)
12 July 2001

NEWS IN BRIEF

• Rahksat Slieman has been appointed temporarily to provide the CEPII with expertise in demographics, to work on the Centre's research into demographic ageing and pensions.

• Claire Hittier joined the CEPII's IT staff, in December 2001.

• Valérie Martin has joined the Centre's administrative personnel, as a secretary, replacing Brigitte Grion, who left the CEPII in October 2001.

■ CONFERENCES

• CHINA'S ECONOMY

Paris, 12 December, 2001

Opening: M. Fouquin (CEPII);
J.-F. Huchet (Uni. Rennes II).

Domestic Challenges: Opening Up and Regional Inequalities

M. Fouquin, Chair, L. Shantong (DRC, Beijing), J.-L. Guérin (CEPII), S. Démurger and Y. Chen (CERDI), T. Mayer (CEPII).

China's Integration in the World Economy

M. Bailly, Chair (World Bank), R. Ruoen (Uni. Beijing), A. Szirmai (Uni. Eindhoven), F. Lemoine and D. Ünal-Kesenci (CEPII), K. Fukasaku (OECD).

Exchange Rate Policy

G. Postel-Vinay, Chair (DGTIP), S. Déés (ECB), C. Baulant (Uni. Angers, CEPII), A. Bénassy-Quéré and A. Lahrière-Révil (CEPII), K. Sekkat (Free Uni. of Brussels).

• IMPACTS OF TRADE

LIBERALISATION AGREEMENTS ON LATIN AMERICA AND THE CARIBBEAN

Washington, 5-6 November, 2001,
Organised with the IDB

Opening Remarks: E.V. Iglesias (IDB)

Impacts of the FTAA and the EU-Mercosur

R. Devlin (IDB), Y. Decreux and J.-L. Guérin (CEPII), D. Roland-Holst (Uni. California), D. Van der Mensbrugge (World Bank), S. Robinson and E. Diaz-Bonilla (International Food Policy Research Institute), M. Bussolo (OECD), J. Schott (IIE), A. Bayar (Free Uni. Brussels), J.-M. Charpin (CGP), M. Watanuki and J. Monteagudo (IDB), L. Valls Pereira (Fundação Getúlio Vargas), M. Burfisher (USDA), A. Rossi (EU Commission), A. Mori Coelho (Uni. São Paulo & IPEA).

Other CGE Applications

J. José Taccone (INTAL), T. Hertel and B. Dimaranan (Uni. Purdue), J. Gilbert (Utah State Uni.),

T. Rutherford (Uni. Colorado), B. Hoekman (World Bank), L. Fontagné (CEPII), I. Terra (Uni. Republic of Uruguay), R. Hinojosa (Uni. California LA), F. von Kirchbach (UNCTAD/WTO), J. Zabludovsky (IDB).

Roundtable: Relevance and Usefulness of Policy Implications Emerging from the CG Simulations

N. Rey de Marulanda (IDB), G. Calvo (IDB), A. Sapir (EU Commission), M. Finger (American Enterprise Institute), W. Fritsch (Dresdner Bank), E. Iglesias (IDB)

Dinner speech: F. Bergsten (IIE).

Methodological Issues of Modeling

J. José Taccone (INTAL), T. Hertel and B. Dimaranan (Uni. Purdue), J. Gilbert (Utah State Uni.), T. Rutherford (Uni. Colorado), B. Hoekman (World Bank), L. Fontagné (CEPII), I. Terra (Uni. Republic of Uruguay), R. Hinojosa (Uni. California LA), F. von Kirchbach (UNCTAD/WTO), J. Zabludovsky (IDB).

Measurement and Database Issues

R. Devlin (IDB), M. Fouquin (CEPII), R. Koopman (USITC), J. Zabludovsky (IDB), L. Fontagné (CEPII).

• AGEING, SKILLS AND LABOUR MARKETS, ENEPRI colloquium,

Nantes, 7-8 September, 2001

Opening address : D. Bouget (MSH)

The Composition and Structural Impacts of Demographic

Evolution on Labour Markets

B. Gazier, chair (Uni. Paris I), J. Chateau, J.-L. Guérin and F. Legros (CEPII), T.-T. Dang and H. Oxley (OECD), D. Blanchet and P. Givord (INSEE), V. Büsch and M. Königstein (Uni. Humboldt), L. MacKellar & M. Spielauer (IIASA).

Social Security, Accumulation and Retirement Decisions

L. Fontagné, chair (CEPII), L. Arrondel, A. Masson and D. Verger (DELTA-CNRS), H. Cremer,

J.-M. Lozachmeur and P. Pestieau (Gremaq-Toulouse), C. Burricand, E. Klotz, P. Givord and B. Sédillot (INSEE), A. Simonovits (CEU), A. Wagener (Uni. Siegen).

Roundtable: Ageing, Skills and Labour Markets

F. Legros, Chair (CEPII), A. Jolivet (IRES), K.G. Shermann (ISSA), H. Nogues (CDU Gérontologie), L. McKellar (IIASA).

Lessons Drawn from Case Studies

M. Lambrecht, Chair (FPB), H.-W. Sinn and S. Ubelmesser (CESifo), B. Casey (OECD), M. Fall and M. Roger (ENS), P. Huovinen and H. Piekkola (ETLA), C. Borc (Uni. Wisconsin).

• SIMULATION PROPERTIES OF MACRO-ECONOMETRIC MODELS

ENEPRI colloquium, Royaumont, July 5-6, 2001

Session 1: P. McAdam, Chair (ECB), W. Roeger and J. int Veld (EC-QUEST II), D. Laxton (IMF-MULTIMOD Mark III), J. Henry (ECB-AWM).

Session 2: G. de Monchy, Chair, (DP), J.-P. Laffargue (CEPII, Uni. Paris I, Cepremap), S. Déés, A. Kadareja and B. Rzepkowski (CEPII), R. Barrel and K. Dury (NIESR-NIGEM), MARMOTTE.

Session 3: P. Malgrange, Chair (Cepremap), J.-L. Brillet (INSEE), P. Jacquinet and F. Mihoubi (Banque de France-MARCOS).

Session 4: International Transmission of Shocks - a synthetic comparison of the simulations of the 7 models M. Juillard (Uni. Paris VIII).

Roundtable: Econometric Modelling and the International Transmission of Shocks:

D. Laxton, J.-P. Laffargue, R. Barrel, W. Roeger, P.-Y. Hénin (Cepremap, Uni. Paris I), S. Déés

■ FORTHCOMING

• Together with the CEFI (Aix-en-Provence), the ECLAC (Santiago, Chile), and the CDC (Paris), the CEPII is organising an international conference entitled "Towards Regional Currency Areas", the 26-27 March 2002, in Santiago, Chile. The *Revue Economique* will publish the papers presented, in a special issue.

• The CEPII and the Institut d'Economie Publique are organising a forum entitled "Is money still important?", the 13 March 2002. Participants will include J.-C. Trichet (Governor of the Banque

deFrance), M. King (Deputy-Governor of the Bank of England), Z. Eckstein, (Uni. of Minnesota), P. Werner (BMS), E. Girardin (IDEP) and L. Fontagné. Contact: Fondation.rech@banque-France.fr

• The CEPII will again be one of the OECD's 'knowledge partners' for the OECD Forum 2002 on "Taking Care of the Fundamentals: Security, Equity, Education and Growth". The event will take place at the CNIT Conference Centre, Paris La Défense, on the 13-15 May 2002. For information see: www.oecd.org

• The CEPII is a co-organiser with the European Commission and CESifo of an international conference for EcoMod on "Policy Modelling", in Brussels, the 4-6 July. For information about the conference and the call-for-papers see: www.ecomod.net

• In July, the CEPII is organising a workshop on the modelling of asymmetric shocks in the eurozone on behalf of the European Forecasting Network. For further information contact: capet@cepii.fr

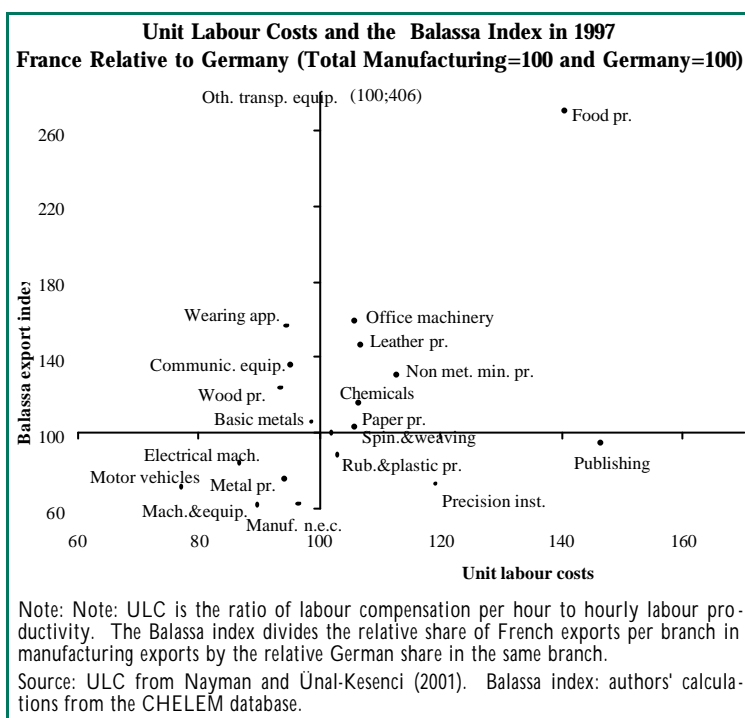
The Ricardian formulation of comparative advantages refers basically to autarkic, domestic, relative costs of products in each country, and then to an international comparison of these relative prices. Empirically, comparative advantages can be measured either by the comparison of domestic unit labour costs (ULC) or by a country's specialisation in international trade.

relative advantage relative to Germany and a value below 100 points to a comparative disadvantage.

The figure shows that both indicators do not cluster the branches in the same way. If both indicators pointed to comparative advantages (disadvantages), then branches should be concentrated in the fourth quadrant (second quadrant). But they are spread all over the graph. In other words, the trade

specialisation of a country can differ from the pattern of its unit labour costs. Comparative advantages are then not necessarily based on differences in relative labour costs.

The first quadrant shows those industries in which France benefits by comparative advantages in international trade though its unit labour costs are relatively high. Symmetrically, in the third quadrant, Germany demonstrates comparative advantages despite high unit labour costs (electrical machinery, motor vehicles, metal products, machinery and equipment). These two quadrants include branches in which the relative quality or technology differences prevail upon the comparative cost gap of both countries as a determinant of international specialisation.



A recent study by the CEPII compares French and German levels of ULC by branch (NACE-Rev.1) with the Balassa index for revealed comparative advantage of exports for 1997. Both indicators are relative to Germany and compared to the manufacturing average. An index of ULC above 100 means a comparative disadvantage relative to Germany and a value below 100 points out a comparative advantage. Conversely, regarding the Balassa index, a value above 100 indicates a compa-

Laurence Nayman, Deniz Ünal-Kesenci
D.UNAL.KESENCI@CEPII.FR
NAYMAN@CEPII.FR

FOR FURTHER INFORMATION SEE:

- 'THE FRENCH-GERMAN PRODUCTIVITY COMPARISON REVISITED: TEN YEARS AFTER THE GERMAN UNIFICATION' L. NAYMAN, AND D. ÜNAL-KESENCI CEPII WORKING PAPER No 01-14, NOVEMBER 2001.

For further information about the CHELEM database contact: Ms Colette Herzog at HERZOG@CEPII.FR

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ET D'INFORMATIONS
INTERNATIONALES

- *Publisher:* LIONEL FONTAGNÉ, *Director of the CEPII*
- *Editors:* NANNO MULDER and NICHOLAS SOWELS
- *Graphic Concept:* PIERRE DUSSE
- *DTP:* ISABELLE BARTOLOZZI

The CEPII Newsletter is a free publication, produced by the CEPII, launched with the support of the German Marshall Fund of the United States (Washington) and the *Direction des relations économiques extérieures* (Ministry of the Economy and Finance, Paris). It can also be downloaded from the CEPII's web page.

For copies of all CEPII publications contact: Sylvie Hurion, tel: (33) 1 53 68 55 14, E-mail: H.URION@CEPII.FR
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