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Wachstum und Stabilität in der EU:
Perspektiven der Agenda von Lissabon

Growth and Stability in the EU:
Perspectives from the Lisbon Agenda

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Klaus Liebscher

Klaus Liebscher
Gouverneur
Oesterreichische Nationalbank

Tagungseröffnung

Ich heiße Sie alle zur diesjährigen Volkswirtschaftlichen Tagung der Oesterreichischen Nationalbank, die nunmehr bereits zum 32. Mal stattfindet, herzlich willkommen. Ich freue mich, dass Sie so zahlreich gekommen sind, um am Meinungsaustausch mit den vielen namhaften internationalen Fachleuten und österreichischen Experten, die wir für diese Tagung gewinnen konnten, mitzuwirken. Herzlichen Gruß auch an die zahlreichen Medienvertreter.

Eine besondere Auszeichnung für die Oesterreichische Nationalbank ist es, dass die diesjährige Volkswirtschaftliche Tagung in Vertretung von Herrn Bundeskanzler Dr. Schüssel, der durch eine Auslandsreise verhindert ist, von Herrn Bundesminister Dr. Bartenstein eröffnet wird – ich darf dich, Herr Bundesminister, sehr herzlich begrüßen! Erstmals konnten wir auch Herrn Kommissar Monti als Vortragenden gewinnen. Herr Kommissar, es ist mir eine große Ehre und Freude, Sie hier in Wien willkommen zu heißen, und ich bin Ihnen sehr dankbar für Ihre Teilnahme an unserer Volkswirtschaftlichen Tagung. Herzlichen Dank für Ihr Kommen, Herr Kommissar, und ein herzliches Willkommen!

Dem Anliegen früherer Volkswirtschaftlicher Tagungen folgend, stellt die diesjährige Tagung wiederum ein bedeutsames und – wie ich meine – zugleich höchst aktuelles wirtschaftspolitisches Thema zur

Diskussion: „Wachstum und Stabilität in der EU: Perspektiven der Agenda von Lissabon“.

Europa hat in den letzten Jahrzehnten bereits erhebliche und erfolgreiche Anstrengungen unternommen, um einen modernen und wettbewerbsfähigen Wirtschaftsraum für seine Bürger aufzubauen. In diesem Zusammenhang möchte ich insbesondere die Liberalisierung der Güter-, Dienstleistungs- und Kapitalmärkte sowie die erfolgreiche Einführung unserer gemeinsamen Währung betonen.

Mit der Erweiterung der Europäischen Union (EU) am 1. Mai 2004 um zehn neue Mitgliedstaaten wurde ein weiterer historischer Meilenstein der europäischen Integrationspolitik gesetzt. Diese Erweiterung eröffnet neue Handels- und Investitionsmöglichkeiten für alle Länder unseres gemeinsamen Europa. Wenn diese Möglichkeiten entsprechend genützt werden, dann werden von dieser Erweiterung sowohl für die neuen als auch für die alten Mitgliedstaaten merklich positive Wachstumsimpulse ausgehen.

Eine andere wichtige, wenn vielleicht auch nicht immer gebührend beachtete Entscheidung fiel für die EU jedoch bereits im März 2000. Damals trat der Europäische Rat in Lissabon zu einem Sondergipfel zusammen. Das Ergebnis dieses Gipfels war der Beschluss einer neuen globalen wirtschafts- und sozialpolitischen Strategie für die EU, die unter dem Namen „Lissabon-Strategie“ bzw. „Lissabon-Agenda“ bekannt wurde. Sie setzte sich damit das Ziel, „die Union zum wettbewerbsfähigsten und dynamischsten wissensbasierten Wirtschaftsraum der Welt zu machen – einem Wirtschaftsraum, der fähig ist, ein dauerhaftes Wirtschaftswachstum mit mehr und besseren Arbeitsplätzen und einem größeren sozialen Zusammenhalt zu erzielen“. Mit dieser Strategie, die für einen Zeitraum von zehn Jahren festgelegt wurde, reagierte man auf die bereits damals deutlich spürbaren vielseitigen Herausforderungen, die eine zunehmend global agierende, wissensbasierte Wirtschaft mit sich bringt oder noch erwarten lässt.

Was waren die wichtigsten Ursachen, die zum Beschluss der Lissabon-Strategie führten? Die positiven makroökonomischen Perspektiven für die Wirtschaftsentwicklung Europas im Jahr 2000, die nicht zuletzt einer stabilitätsorientierten Geldpolitik und einer soliden Fiskalpolitik in den EU-Mitgliedstaaten zu verdanken waren, konnten nicht über vorhandene Defizite in verschiedenen Bereichen hinwegtäuschen.

So wurden Schwächen im Informations- und Telekommunikationssektor offenkundig. Aufgrund von Qualifikationsdefiziten blieben in diesen Sektoren viele Stellen unbesetzt. Im Bereich der Arbeitsmärkte wurde auf deren zu geringe Flexibilität und die zu niedrige Beschäftigungsquote hingewiesen.

Die im Vergleich zu den USA zu geringen Ausgaben für Forschung und Entwicklung sowie ungenügend vorhandenes Risikokapital zur Finanzierung neuer innovativer Unternehmen wurden als weitere Schwachpunkte identifiziert.

Auch das gerade in letzter Zeit viel beachtete Problem unserer *Ageing Society* und die dadurch notwendigen Strukturanpassungen in den Pensionssystemen vieler Länder wurden thematisiert.

Die Lissabon-Strategie zielt nun darauf ab, diesen strukturellen Schwächen mit einem Bündel von

Maßnahmen entgegenzutreten. Kurz umrissen umfassen diese Maßnahmen Reformen zur Erhöhung der Innovationstätigkeit innerhalb der EU, Strategien zur Stärkung der Wettbewerbsfähigkeit der EU und geeignete Ansätze für einen Übergang zu einer wissensbasierten Wirtschaft. Ein ebenso wichtiges Ziel der Lissabon-Strategie ist die Modernisierung des europäischen Gesellschaftsmodells. Diese Modernisierung beinhaltet insbesondere die verstärkte Investition in das Humankapital und die Bekämpfung von sozialer Ausgrenzung. Letztendlich soll durch die Umsetzung der Lissabon-Strategie ein nachhaltiges und dauerhaftes Wirtschaftswachstum in Europa mit einer hohen Beschäftigungsquote (eine Quote von 70% wird angestrebt) und einer gesicherten Altersversorgung erreicht werden.

Im Jahr 2000 war die ökonomische Ausgangslage zur In-Angriff-Nahme der in Lissabon geplanten – und ich meine auch absolut notwendigen – Strukturreformen günstig. Ein Wirtschaftswachstum von 3% über die Jahre 2000 und 2001 wurde damals für die EU prognostiziert. Seither sind vier Jahre vergangen, und eine Reihe von wirtschaftspolitischen, aber auch geopolitischen Schocks haben dazu geführt, dass die wirtschaftliche Entwicklung in der EU unter den Erwartungen des Jahres 2000 blieb.

Ich erinnere an dieser Stelle an die scharfen Kurskorrekturen auf den Aktienmärkten, an gestiegene Erdölpreise und nicht zuletzt an die Ereignisse des 11. September 2001 und deren Folgen. Diese ungünstiger als erwartet ausgefallene, wirtschaftliche Entwicklung belastete nicht nur die Budgets vieler Mitgliedstaaten, sondern behinderte sicherlich auch die Verwirklichung der Ziele, die in der Lissabon-Strategie verankert wurden.

Gewiss wurden seit dem Jahr 2000 auch beachtliche Fortschritte erzielt. Man denke nur an die Öffnung der Elektrizitäts- und Gasmärkte, den Aktionsplan Finanzdienstleistungen, die Ausweitung der Befugnisse unabhängiger Wettbewerbsbehörden oder an Pensions- und Arbeitsmarktreformen in einer Reihe von Mitgliedstaaten. Dennoch,

das Reformtempo ist insgesamt unbefriedigend. Die Glaubwürdigkeit des Reformprozesses in Experten- und Marktkreisen ist verbesserungsbedürftig. Den Bevölkerungen konnten die günstigen Auswirkungen der langfristig wirkenden Reformen bislang nicht überzeugend vermittelt werden. Positive Vertrauenseffekte, die von wachstums- und beschäftigungsfördernden Strukturreformen ausgehen können, treten daher nicht ein.

Der Europäische Rat, der am 25. und 26. März 2004 in Brüssel tagte, hat daher richtigerweise zwei Initiativen zur Beschleunigung des Reformfortschritts gesetzt. Erstens wurde betont, dass es nun darum gehe, auf Ebene der Mitgliedstaaten die vereinbarten Reformen umzusetzen.

Zweitens sollen in den Mitgliedstaaten im Rahmen von Reformpartnerschaften die Sozialpartner, die Zivilgesellschaft und die Behörden aktiv involviert werden, um eine

bessere Reformakzeptanz zu erreichen.

Die sich abzeichnende wirtschaftliche Erholung, die im zweiten Halbjahr 2003 eingesetzt hat, sollte uns nun – wenn auch vorsichtig – optimistisch stimmen. Eine dem Stabilitäts- und Wachstumspakt entsprechende Fiskalpolitik und eine Geldpolitik, die ein günstiges, nicht-inflationäres ökonomisches Umfeld und einen stabilen Euro gewährleisten, sind jedenfalls notwendige Voraussetzungen zur Unterstützung und Verwirklichung der ambitionierten Ziele, die damals in Lissabon ins Auge gefasst wurden.

Für eine erfolgreiche Umsetzung der Lissabon-Agenda sind meines Erachtens einige wenige Punkte – dafür aber solche grundsätzlicher Natur – zu betonen:

- **Klare Handlungsnotwendigkeit:**
  Es sind keine weiteren Reformpapiere notwendig, sondern es bedarf der Implementierung bereits bestehender Reformüberlegungen und -projekte.
- **Setzung klarer Prioritäten:**
  Andernfalls werden die Politik wie auch die Bevölkerungen der Mitgliedstaaten überfordert und letztendlich entmutigt.
- **Schaffung klarer Verantwortlichkeiten:**
  Es genügt nicht, durch die europäischen Regierungen ständig Deklarationen zu entwickeln mit Hinweis darauf, was die Gemeinschaft zu tun hat. Vielmehr sind konkrete und verbindliche Maßnahmen der Mitgliedstaaten erforderlich, welche Reformschritte bis zum Jahr 2010 umgesetzt werden.
  Die Maastricht-Konvergenzkriterien wären wahrscheinlich nie erfüllt worden, wären nur allgemeine Absichtserklärungen abgegeben worden, dass die EU z. B. Preisstabilität oder gesunde öffentliche Haushalte brauche. Die vom Europäischen Rat in Madrid im Dezember 1995 beschlossenen Schritte bis zur Einführung des Euro am 1. Jänner 1999 und die damit verbundenen klaren und verbindlichen Regeln – verbindlich für jeden Mitgliedstaat, der die Teilnahme an der Währungsunion anstrebte – zeugten von „politischer Leadership“ und forcierten die notwendigen Arbeiten auf den verschiedensten Ebenen für die Vorbereitung der Währungsunion. Sie gaben aber auch Vertrauen in die europäische Integrationspolitik und in deren Problemlösungskompetenz.
- **Bessere Kommunikation:**
  Schließlich ist für die EU eine bessere Kommunikation der Lissabon-Agenda erforderlich. Die Regierungen müssen ihre Bevölkerungen vom enormen Potenzial und den Möglichkeiten der strukturellen Reformen besser informieren, um sie von den Chancen, die sich daraus ergeben, zu überzeugen.

Es wird durch all diese Reformen, die natürlich manchmal auch unerfreulich oder auch schmerzhaft sind, letztlich doch eine Verbesserung unserer Wettbewerbsfähigkeit (z. B. durch Forcierung von Forschung und Entwicklung, Investitionen in Humankapital u. Ä.) und die Absicherung unserer sozialen marktwirtschaftlichen Standards, deren Notwendigkeit sich durch die demografischen Herausforderungen zwangsläufig aufdrängt, erreicht. Dafür sind jedoch eine breit angelegte Informations- und Kommunikationspolitik sowie die Einbindung aller gesell-

schaftspolitisch relevanten Gruppierungen erforderlich.

An dieser Stelle möchte ich betonen, dass auch in Österreich trotz zahlreich eingeleiteter und positiver Reformmaßnahmen weiterer Handlungsbedarf besteht. Daher hat die Oesterreichische Nationalbank erst kürzlich eine koordinierte Wachstumsstrategie für unser Land angeregt. Die grundlegenden Maßnahmen zur Förderung unseres Wirtschaftswachstums, die aus einer solchen Strategie resultieren, sollten dabei außer Streit stehen. Daher halte ich es für wichtig, dass eine Wachstumsstrategie für Österreich – wie vom Europäischen Rat empfohlen – auch von den politischen Parteien und den Sozialpartnern getragen wird und auf einer umfassenden Information der Öffentlichkeit beruht.

Vor diesem Hintergrund beschäftigt sich unser erster Tagungsblock mit Strategien zur Erreichung der in Lissabon festgelegten Ziele. Ich freue mich auf die Ausführungen dazu von Bundesminister Dr. Bartenstein und Kommissar Professor Monti. Die darauf folgende Podiumsdiskussion gibt uns die Gelegenheit, aus erster Hand einen Überblick über die Erfahrungen, die in Schweden, Finnland und Dänemark bei der Umsetzung ihrer Strukturreformen gewonnen wurden, zu erlangen.

Als explizites Ziel nennt die Lissabon-Strategie die Schaffung eines günstigen Umfelds zur Gründung und Entwicklung innovativer Unternehmen, insbesondere von Klein- und Mittelbetrieben (KMUs). Edgar Meister, Mitglied des Vorstands der Deutschen Bundesbank, wird heute Nachmittag in seinen Ausführungen auf die Frage eingehen, ob und inwieweit die unter dem Schlagwort „Basel II“ bekannt gewordenen geplanten Veränderungen bzw. Neuerungen für das Bankwesen, insbesondere im Bereich des Kreditrisikos, in Konflikt mit der Lissabon-Agenda stehen.

Mit Gedanken zum monetären Transmissionsmechanismus vor dem Hintergrund von Strukturänderungen auf den Finanzmärkten und möglichen Auswirkungen der Aktivitäten von Pensionskassen auf die Stabilität von Finanzmärkten und die Währungspolitik widmet sich eben-

falls am Nachmittag der zweite Themenblock der diesjährigen Volkswirtschaftlichen Tagung einer Reihe von wichtigen finanzwirtschaftlichen Fragen, die sich aus der Lissabon-Agenda ergeben.

Nach der Verleihung der Franz-Weninger-Stipendien durch meinen Kollegen, Direktor Josef Christl, gibt uns Finanzminister Karl-Heinz-Grasser heute Abend im Kamingespräch die Gelegenheit, mit ihm aktuelle Themen zur europäischen und österreichischen Budget- und Fiskalpolitik zu diskutieren.

Morgen stehen dann Herausforderungen, die sich aus dem in Lissabon eingeleiteten Reformprozess ergeben, im Mittelpunkt. Otmar Issing, Mitglied des Direktoriums der Europäischen Zentralbank, wird dabei in seiner Keynote-Speech auf die Rolle des Euro vor dem Hintergrund der Lissabon-Agenda eingehen.

Gewiss können im Rahmen dieser Volkswirtschaftlichen Tagung

nicht alle Fragen und Aspekte, die die Lissabon-Agenda aufwirft, erschöpfend abgehandelt werden. Dennoch hoffe ich, dass es uns auch heuer wieder gelungen ist, ein sehr anspruchsvolles Programm zu gerade dieser sehr aktuellen Thematik anzubieten. Daher möchte ich allen Vortragenden und Diskutanten, die wir für diese Tagung gewinnen konnten, sehr herzlich für ihre wertvollen Beiträge danken. Ohne ihr profundes Fachwissen könnte diese 32. Volkswirtschaftliche Tagung nicht dem hohen Anspruch gerecht werden, den wir in sie setzen. Ihnen allen wünsche ich einen erfolgreichen Tagungsverlauf.

Nun ist es mir eine große Freude- und Ehre, Herrn Bundesminister Dr. Martin Bartenstein ans Rednerpult zu bitten. ❧

Martin Bartenstein

Martin Bartenstein
Austrian Federal Minister of Economics and Labour

Opening Address

Sehr geehrter Herr Gouverneur Liebscher, sehr geehrter Herr Kommissar Monti, meine sehr verehrten Damen und Herren, auch ich darf mich herzlich bedanken für die Einladung, heute zu Ihnen zu sprechen. Ich wurde gebeten, auf Englisch zu referieren, und komme diesem Wunsch gerne nach.

Governor Liebscher, I could abbreviate my speech and just say I agree with you on everything you said and let us listen to Commissioner Monti.

At the end of your speech on the four priorities we must focus on that you said we have had enough words, let us implement them. *"Es gibt nichts Gutes, außer man tut es"* – to quote a German guiding principle. "Saying is one thing, and doing is another" holds true for most of the issues as Commissioner Monti, one of the outstanding members of the European Commission, will confirm. We received proposals from the Commission but now it is up to the Member States to transpose and to implement them. You have referred to priorities and I can certainly agree with you on that. But we cannot do everything at the same time. Trying to do everything at the same time involves the risk of committing too many mistakes because people simply cannot cope with this. And we need European citizens to

identify themselves with the reforms you mentioned, Governor Liebscher.

As regards responsibility: Sure, we need clear responsibilities, our national governments need to bear in mind that homework has to be done, the "to-dos" have to be accomplished in both the European capitals and in Brussels and one should not look to Brussels and say: "What are those guys doing out there? They are not doing enough and that's the reason why Europe is lagging behind." We all can always improve information and communication; there is no doubt about that. So, in addition to what you have said, what is the status of the Lisbon process? We know that next year a mid-term review is coming up and I am not at all too optimistic that the results achieved so far will be very satisfactory.

Rhetorics are there, targets have been set, but what has been implemented is not sufficient, so far. Progress has certainly been made: as a minister, also responsible for labour, I would like to draw your attention to the 6 million new jobs which have been created. A fact that was also referred to in the report of this year's Spring Council. The employment rate has been going up during the past four years, utility markets have been opened up, also due to the very important work Commissioner Monti has been doing. We introduced the Internet in most schools in Europe. These and many other issues are proceeding in a way that one can be satisfied with. But on the other hand, when I talk about 6 million new jobs, which have been created, we also have to keep in mind in this context the 18 million unemployed in the EU-25, plus the dramatic lack of growth in the European Union, since this is the reason for the high unemployment rate.

Klaus Liebscher mentioned the 3% growth target written down in the Lisbon agenda. It might be interesting in this context that I was asked only yesterday in parliament for the sanctions stipulated for not reaching employment rates and/or not reaching growth rates? Well, if things would be that simple we would be lucky and happy to simply reach these targets and avoid sanctions. But Europe – once again – suffers a dramatic lack of growth and according to OECD figures recently presented in Paris by the OECD's Economics Department and also confirmed by other economic research institutes, the US' growth rate is expected to average 3.6% this year, Japan's 2.3% and I have heard figures above that for China. China's GDP growth in the first quarter of 2004 was close to 10% and growth in China for 2004 might average at around 8%. In contrast to this, the euro zone will grow at 0.6% according to OECD figures. Austria may be a little bit ahead of that. Figures vary between 1.5% and 2% depending on the institute which has been doing the research. But even these figures are not satisfactory. And one has to admit that things have changed and are different now in comparison to when we wrote down the Lisbon agenda and the target of being the most competitive market in the world by 2010. We have lost ground to our competitors. In 2000 we thought of the US as our main competitor. I think we should now also think again of our Asian friends, Japan, China, and others as also being not only markets but competitors. So we have

lost ground and what was not very nice to hear in Paris – but can hardly be contradicted – is the verdict that world economy is in good shape, that Asian economy is in good shape, that US and North American economies are in good shape, but that the European economy is dragging behind. And once again it is not a pleasant experience to hear that in the presence of US and Asian economists sitting around the table together with European economists and politicians.

These days, ladies and gentlemen, we hear a lot about industrial politics. I was and I am very much in favour of implementing industrial politics in order to safeguard growth and new jobs in Europe. There must have been a certain misunderstanding of this in France, because what has been done there is anything but new industrial politics, is very old industrial politics indeed, interventionist industrial politics. I am not sure whether Commissioner Monti will tell us something about what he has been discussing in past meetings, but what has happened was anything but productive and what is happening around Austria cannot be considered a positive development. I am sure we are going to hear something about this today or tomorrow.

Why do I believe we need new industrial politics in terms of setting the right framework for industry? I think and I share my thoughts with others, maybe not with all members of the European Commission, that we run a certain risk of de-industrialisation. Whether this is now a relative de-industrialisation or an absolute de-industrialisation I am not so sure about. But whether the commissioner is right in saying that a mere 7% of European industry runs a risk of losing a significant amount of jobs to other parts of the world, indicating in turn that 93% of our industry does not – I am not so sure about that, and while I do not belong to those pessimists who say our jobs go to Asia and research and development go to the US, I think we have to adopt a policy which provides for industrial jobs to remain within Europe, we have to establish a framework in which new jobs are created and secured in Europe and

in which research and development is promoted. A framework in Europe that encourages the scientists to stay here, to come here and not leave the continent – permit me to speak up – due to too much regulatory obstacles in life-sciences and biophysics which they do not encounter in the US. Europe certainly does need reforms as Klaus Liebscher has said, the speed is not sufficient, we need structural reforms, I think we need more supply side politics and less demand side politics and I think Europe needs less Keynes and possibly more of the Austrian school of national economics as propagated by von Hayek. Austria has been doing the necessary homework so far. Governor Liebscher confirmed this, and added that there is more to be done. Of course, there is always more to be done. The spring report as we see assigns Austria the number three position as the third most competitive member state of the

Europe-15. Regarding employment, for instance, the Lisbon target is 70%, we are very close to that, already ways ahead of 2010, and regarding female employment we are ahead of the Lisbon target, too. And even with regard to the employment of people between 55 and 64 where Austria was dramatically lagging behind we are on the way and we have surpassed the 30% limit in 2003. I probably look relaxed when telling you this because even Germany

shows a rate of only 38%. Sweden has an employment rate of the 55 to 64 year-old of some 63%. But the pension reform of 2000 and, subsequently, that of 2003 have furnished the necessary parameters in order to stabilise retirement benefits and reset the disfigured pattern resulting from one of the most dramatic structural deficits this country has been running into during the past decades. Other parts of the homework we have been doing – and are certainly always continuing to do – refer to budgetary discipline. We belong to the Member States of the European Union who do not only think that the stability pact makes sense but also want to stick to it and to stay with it. We know that six other Member States do not stick to the stability pact and it is probably significant that most of those six Member States are big Member States. I think there is some evidence that it is easier for the small Member States of the European Union to implement the reforms, to do the necessary work, while big Member States are faced with difficulties. You certainly know, Commissioner Monti, that in 2001 and 2002 we basically had a balanced budget, in 2003 the deficit read 1.3% and it is all but easy to maintain the level but we are on good course. This in the light of the fact that this government has just implemented – not in theory, Governor Liebscher, but in actual fact and real terms – a very competitive corporate income tax of 25% (as compared to the former rate of 34%). Furthermore, we have implemented the group taxation scheme which has proved to be an extremely competitive instrument in Europe. Regarding research and development, some of us were surprised to learn the newest statistical figures of 2.27%. We are on the right track now also as regards engagement in structural reforms, thanks also to the Oesterreichische Nationalbank. Your contributions and your co-operation, dear Governor, were most welcome. We have been able to increase our productivity throughout the past years: OECD figures indicate that from 1992 to 2002 we increased labour productivity by almost 61% while decreasing the labour unit cost by 10.8%; in this context I want to refer to a very important competitive advantage of Austria, namely our wage policy, our social partnership and the cooperation of our unions, because they did not request all productivity gains to be reflected in wages. Now, what are the most significant and important European "to dos" to conclude my opening remarks? Commissioner Likenen said during a Council Meet-

ing on Competitiveness in Ireland – as our host while holding the presidency – that Europe in addition to this competitiveness is making progress in its efforts as regards research and development, education and productivity. And most of my colleagues and I tend to think that probably in terms of setting priorities, priority no. 1 on the European level should be to complete the internal market. Governor Liebscher, you have said there has been a liberalisation in terms of goods markets, services markets etc., etc. – yes. Goods markets are liberalised. Utility markets such as electricity and gas, too, but this is the result of national liberalisation measures, there is very little cross border liberalisation. But services as such account for some 65% to 70% of our GDP, they still are very much restricted by national regulations. Perhaps one of the most important directives tabled by the European Commission is the Services Directive. Above all Austria and Germany – and some others – will have considerable difficulties to agree on the draft. The matter is of utmost importance, though. 15 years after the European Act was elaborated with a view to creating a Single European Act to establish the internal market we should agree on accomplishing this mission. Second, Governor Liebscher has addressed the insufficient flexibility of labour markets, both a national and a European task, and it is not only a task in terms of an objective for the politicians and for governments, I think it is a common European task. We need the social partners on board, we need the unions' but also the employers' representatives on board. Maybe the Working Time Directive now under discussion on European scale will give the social partners the chance to agree on modern working time regulations. They have that chance. If they succeed in obtaining agreement and the Directive enters into force it will have to be accepted as stipulated in the rules of the European Union. Thirdly, let me refer to research and development. I spoke about the 2.27% registered for Austria, I spoke about our structural reforms, I could go on giving details about the national foundation, about the capital stocks devoted to this task and issue. I am positively certain we have embarked on the right track with 2.5% as an intermediate task and 3% as the envisaged Lisbon target for 2010. This target is becoming ever more realistic. The European Union's average reads 1.9% and here again the US and Japan almost show twice these figures, they are almost twice as good. Thus the 7th Framework Programme on research and development has to be more ambitious than the 6th Framework Programme was. The proposals now put forward are quite impressive. Instead of EUR 17.5 billion for a six year period EUR 50 billion are earmarked in the budget. At 4% this is a rather small part of the general European research budget but nevertheless it is an important signal and if the task can be reached that the European Union instead of spending 7% of its general budget on R&D in the future and within the 7th Framework Programme we would spend 16%, that would be a good signal. Let me conclude with the fourth major task I see ahead of us: de-regulation. Let us abolish red tape. As a minister also responsible for competitiveness on the European level I see at the

moment three poisonous Cs jeopardising competitiveness and these are: first the Chemical Directive, second the Community patent – we are looking forward to the 15th anniversary of negotiating a Community patent; it's almost ridiculous and one can no longer explain why, and there are more and more people saying okay, let's go back to the start. The Germans and the Spanish will never agree on anything that might prove cheaper and topple the position of the European Patent Office in Munich. And, third: the CO_2 emission certificates to be traded, the respective actions taken by the US and Russia, and what influence this issue will have on competitiveness. You will have noticed I talked about de-regulation as a task and then came up with three Cs, representing three issues for further regulation on European scale. Our task is a twofold one: to avoid further regulation where it is not absolutely necessary and to work on de-regulation where this can be done. Let me conclude by saying: Yes, Governor Liebscher, worthwhile projects are in the pipe, analyses have been made, proposals have been put forward, we have to react, we have to implement our blueprints. Of course we want to stick to the European model, to the triangle, which says we need the economy, we need a sound social policy and a sustainable environment protection scenario. There is no doubt about that. But one has to be aware that only a Europe which is competitive on world markets, only a Europe which can achieve growth, can provide jobs. And in Austria we say "Sozial ist, was Arbeit schafft" (to be a social activity the matter must create jobs). You can implement social politics and enjoy a social environment only if there is employment coupled with productivity. And therefore, while fully acknowledging the importance of a viable social policy and of sustainable environmental politics for Europe, let us equally turn to European competitiveness: we have set the targets, we know what we should do, and we should at the very least use the remaining six years until 2010 to implement the measures in order to have a chance of catching up with the US and other important world markets if we want to achieve the important target of becoming the most competitive market in the world. Thank you very much for your attention. ❧

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Structural Reforms and Economic Growth in the EU: Is Lisbon the Right Agenda?

Thank you very much, Edi, for the kind invitation. Thank you to the Austrian National Bank. It is a great pleasure and a great opportunity to make a presentation on structural reforms and economic growth in this forum.

I thought that the idea that we need structural reforms for economic growth would be accepted by everybody in the room. So I decided to add a subtitle. Since the conference is about the perspective from the Lisbon agenda, I thought I would try to pose the question whether the Lisbon agenda is the right one in order to implement structural reforms and to promote economic growth in the EU.

Let me start by saying that there is a great deal of confusion about the meaning of "Lisbon agenda." I believe that "Lisbon" encompasses three different meanings. First of all, Lisbon is an objective, namely to make Europe "the most competitive and dynamic knowledge-based economy in the world" by 2010. Secondly, Lisbon is a strategy for coordinated structural reforms. And, finally, Lisbon is a method for implementing the strategy and reaching the objective of higher growth. The

issue I want to discuss is whether Lisbon is the right objective, the right strategy and the right method.

First, the objective. The challenges that Europe is facing are enormous. We are confronted with rapid developments in demography, technology and globalization. These developments demand important structural reforms for all our economies. In addition, we are now involved in an unprecedented process of enlargement of the European Union. It is certainly a great political achievement, which might also result in important economic benefits for the Union as a whole. But it also raises a number of challenges. And the challenges in economic terms, it seems to me, come from the fact that the Europe of 25 will be more diverse than it has ever been before. We have already seen differences in economic situations, certainly since the 1980s, when Greece, Portugal and Spain joined the EU. But this time around, the economic differences across countries are far greater than ever before.

It seems to me that we do need to promote growth as the number one priority in Europe. As Commissioner Monti said earlier, we need to go beyond declarations of intentions and take action to implement structural reforms and foster growth. I think the growth priority is absolutely essential, at least for two economic reasons: one is the sustainability of the social model. We, in Europe, are very proud of different features of our social model. The key ingredient of our social model is solidarity. Solidarity is very important to European citizens and, indeed, it should be. But solidarity comes at a price. We need to produce more wealth if we want to redistribute it. Sustaining our social model therefore requires structural reforms and growth. I think that this is one of the realities of life in Europe political leaders must explain to the people. They must explain that the purpose of structural reforms is to promote growth in order to sustain our social model. Only by promoting growth, we will be able to retain the essential features of our social model.

But the other reason why growth is absolutely crucial is to make a success of enlargement. The countries that are now entering into the EU have great income disparities with the 15 incumbent Member States. As we very well know, the per capita income in the ten new countries is on average less than 50% of the average per capita income in the old EU-15. For enlargement to be a success, one needs to be sure that growth in these countries and growth in the EU in general accelerate in the coming years.

The debate on structural reforms and growth is not a new one in Europe. It was about 20 years ago that the then president of the Kiel Institute – a predecessor of my discussant, Dennis Snower, who will soon become the new president of the Kiel Institute – coined the expression "eurosclerosis." In the early 1980s, indeed, Europe was also very much in need of structural reforms to promote growth and employment. Europe did devise a strategy of structural reforms, the Single Market Programme (SMP). The objective of the SMP was to promote growth. The idea was to raise growth to the 3% mark. In reality, growth has severely declined over

the past 20 years and today potential output growth in the EU-15 is barely 2%.

In the 1970s, potential output growth in the EU-15 stood at 3%. In other words, in one generation, i.e. in 25 or 30 years, we have lost one full percentage point of potential output growth in Europe. This compares with a situation in the United States, where potential output growth has increased during the same period from 3% to 3.5%. Today, therefore the gap between the EU and the U.S. is 1.5 percentage points of potential output growth, of which two-thirds is accounted for by the decline in EU growth and one-third by the increase in U.S. growth. The gap with the U.S. has been increasing, especially since the mid-1990s. But what is most worrisome is that the EU has lost ground compared with its own situation 25 to 30 years ago.

The upshot has been that convergence of per capita incomes between the EU and the U.S. has completely stopped in the past 25 to 30 years. In 1950, the GDP per capita of the EU-15 stood at about 40% of the U.S. level. By the mid-1970s, it had reached 70% as a result of faster growth in Europe than in the United States. Since the mid-1970s, however, the GDP per capita of the EU-15 has remained constant at 70% of the U.S. level. So we had a period of fast catching-up during the "Trente Glorieuses," the period of 30 years running from the end of World War II to the mid-1970s, followed by a period of stagnation in relative terms. There has been no more convergence for the EU-15 average. Obviously, the individual performance of Member States has varied a lot. It has been rather good in countries with relatively low incomes, namely Greece, Ireland, Portugal and Spain. On the other hand, it has been particularly disappointing in certain high-income countries like Germany and Italy.

This counter-performance appears to be the result of two trends: declining productivity growth and diminishing labour utilisation. Compared with the U.S., EU labour productivity has steadily increased and stands currently at about 90% of the U.S. level. However, the rate of increase of EU productivity has declined steadily. And for the first time since World War II, productivity growth since 1995 is lower in the EU than in the United States. At the same time, labour utilisation has sharply fallen in the EU compared with the United States. In 1970, the total number of hours worked per head of total population was higher on our side of the Atlantic. Thirty years later, it was barely 80% of the U.S. level. This is due, partly, to a reduction of hours worked per employee. But the main reason is the sharp reduction in employment rates in the European Union. Dividing the labour force into three age groups, less than 25, 25 to 55, more than 55, one finds that employment rates for prime-age workers (25 to 55) are very similar on the two sides of the Atlantic: they are identical for males and a bit lower for females. The main difference between the high employment rate of the U.S. and the low rate in the EU stems from differences at the two ends of the age spectrum. For young workers, the employment rate in the EU is 40% compared with 60% in the U.S., which reflects the very high youth unemployment rates in many EU countries, with

levels of 25% to 30% in some cases. For older workers, the employment rate in the EU is again around 40% compared with 60%, which reflects the proliferation of early retirement schemes in many EU countries. The upshot is that the figure of 90% for EU labour productivity compared with the U.S. is an over-estimate, which compares the labour productivity on the two sides of the Atlantic by making an abstraction of the differential in labour utilisation rates. In other words, part of our apparent good performance is simply explained by the fact that EU labour markets have excluded workers at the two ends of the age spectrum which have on average lower productivity than prime-age workers. When the proper accounting is made, as the Banque de France recently did, one finds that EU productivity is closer to 80% than 90% of the U.S. level.

The EU performance is all the more surprising since the size of the home market, the high level of human and physical capital, the potential for catching up with the U.S. and the efforts made to promote more competition should together have provided a solid basis for sustaining above-average growth over a number of years.

Besides the vast costs of German reunification during the 1990s, there are three main reasons for the failure of the Single Market Programme in delivering higher growth.

First, the SMP was never fully implemented. Since 1993 the Single Market has been a reality for goods. On the other hand, service markets – including financial markets – remain highly fragmented. Yet, efficient provision of services, many of which are vital inputs for producers, is crucial for the growth of a modern economy.

Second, the SMP excluded the liberalisation of labour markets, which largely remains the prerogative of Member States. Yet, without such reform and greater labour mobility within and across companies, the liberalisation of product markets is unlikely to trigger the reallocation of resources necessary to produce higher growth.

Third, the conception and implementation of the SMP were rooted in yesterday's thinking. They were based on the assumption that Europe's fundamental problem was the absence of a large internal market that would allow European companies to achieve big economies of scale. It has now become clear that the problem lay elsewhere. In the modern world, characterised by rapid technological change and strong global competition, what Europe's industry needs is more opportunities for companies to enter new markets, more retraining of labour, greater reliance on market financing and higher investment in both research and development and higher education.

Now, is the Lisbon strategy the right one? My answer is yes because Lisbon addresses the three shortcomings of the SMP that I have just identified. Lisbon addresses the problem of the implementation of the Single Market, the problem of complementary policies and the problem of design.

The completion of the Single Market is an important part of the Lisbon strategy. This renewed commitment on the part of heads of state and government to indeed complete the Single Market Programme is crucial. But Lisbon also

encompasses the modernisation of labour and social policies. This is an essential ingredient of reform for the success of the overall strategy and to promote growth. Finally, Lisbon puts a great deal of emphasis on the issue of innovation and knowledge. Innovation, as we all know, requires two elements. One is a competitive environment, which encourages firms to innovate. The other is the right public intervention. Europe needs more *and* better public investment in knowledge, i.e. in R&D and in higher education.

But the Lisbon strategy is more than these three ingredients. It is also a strategy for coordinated action in all the Member States. There is clearly an issue of economic governance in the EU that comes from the existing assignment of economic policies.

On the micro-economic side, we have policies that pertain to product and capital markets, which fall within the realm of the EU through the Single Market Programme. On the other hand, labour market policies are clearly within the domain of competence of Member States. This poses one set of coordination issues.

On the macro-economic side, we have monetary policy that, for euro area members, is squarely an EU policy, and budgetary policy, which is primarily a competence of Member States, but with a degree of coordination through the Stability and Growth Pact. This poses another set of coordination issues.

Is there a coordination problem in Europe? This is a very complex question, which I cannot address fully here. All I want to say is that Lisbon is an attempt to solve part of this coordination problem. First of all, Lisbon rightly recognises that reforms in product and capital markets cannot be dissociated from reforms in labour markets. We need to tackle all these micro-economic reforms simultaneously. Secondly, we need more coordination of macro-economic policies. I do not mean coordination between monetary and budgetary policy, which European central banks fear so much, although more dialogue between the ECB and the Eurogroup could be useful. Rather, I mean greater coordination

between national budgetary policies, which the Stability and Growth Pact has not provided thus far. Thirdly, there is the issue of coordination between micro- and macro-economic policies. Too often we hear national governments demand that the ECB changes its monetary policy and the ECB respond by demands that governments implement structural reforms. What we need, instead, is a "two-handed approach" whereby all governments undertake structural reforms, which then allows the central bank to conduct a more growth-friendly monetary policy.

In principle, therefore, a coordinated strategy like Lisbon seems very desirable since it deals with all markets at the same time and with both micro- and macro-economic policies. But there is a downside to coordination, as Otmar Issing has often noted. Coordination may lead to confusion of responsibility. By making all actors, national and EU

ones, jointly responsible for every layer of policy, there is a danger that no layer is ultimately responsible for anything. The blurring of responsibility is certainly a danger that should not be underestimated. I believe that one of the explanations for the failure of Lisbon is precisely the confusion of responsibility between Member States and Community actors. Who is responsible for Lisbon? Is it the European Union or is it the Member States? The answer is obviously that they are both responsible and that failures of delivery cannot and should not be ascribed to one side by the other. Failures should instead be ascribed to the system of governance. Blaming the Commission or blaming the Member States is far too simple and simplistic. Overcoming the failure of Lisbon will require instilling a greater sense of responsibility, a greater sense of ownership in all actors alike.

Let me come to the last issue, the question of the method. Lisbon has certainly set extremely high ambitions, but at the same time we only have very weak instruments at our disposal. This naturally produces a delivery gap. And the question is what should we do about this? Should we give up on the objectives or should we adapt the instruments?

As far as I am concerned, I have no doubt that we cannot afford to give up on the objectives. The objectives, as I have said before, are to promote growth in this environment of tremendous change of demography and technology and globalization and the change associated with enlargement. We have to promote growth and we have to promote policies – ambitious policies. So that means therefore that we have to adapt our instruments in order to deliver on the Lisbon agenda.

We have already touched upon the differences between the Single Market Programme and the Lisbon agenda. One of the key elements of the Lisbon agenda is the method, the so-called "open method of coordination." This method has not been very successful so far. If it can succeed at all, its scope will have to be focused and its implementation strengthened.

But above all, I believe that one has to provide incentives in the system. There is a reason why governments are not implementing the reform policies. At the EU level, one should put into place elements that help governments to act. We should provide them with incentives, the EU should act as a facilitator, just as we suggested in our report.[1] One important tool that should be used for this purpose is the EU budget, which should be partly redirected towards fostering investment in knowledge activities. Besides, at the institutional level, this means that one needs to strive for improvements at all levels, at the level of the Commission, at the level of the Council and at the level of the Member States. Essentially, one has to, as I have pointed out before, take greater responsibility. That is the case within the Commission. I therefore support the idea of having a leading commissioner who coordinates the Lisbon agenda. I think one needs, also, within the Council

[1] *André Sapir, Philippe Aghion, Giuseppe Bertola, Martin Hellwig, Jean Pisani-Ferry, Dariusz Rosati, José Viñals and Helen Wallace, with Marco Buti, Mario Nava and Peter M. Smith (2004), An Agenda for a Growing Europe: The Sapir Report, Oxford University Press: Oxford.*

greater coordination provided by the Competitiveness Council, which also implies that, within each government, there should be greater and better coordination of economic reforms.

The EU needs a better budget. It needs a budget to meet its economic challenges: meeting the Lisbon agenda and making a success of enlargement. It needs a budget for the future, not a budget for the past. Commissioner Monti was kind enough to make reference to the proposals contained in our report. Lisbon and enlargement are the two crucial economic issues that require support from the EU budget. We proposed that the part of the EU budget devoted to internal economic policies be organised in three funds, one for growth, one for convergence and one for restructuring.

I believe that the Prodi Commission took a step in the right direction in February 2004 when it made its proposals for the 2007–2013 Financial Perspectives. It was not, however, as bold as we were in the report in shifting substantial resources from agriculture to growth as the Lisbon agenda would require. It was not able to, indeed, ignore the unanimous decision by the Member States to freeze agricultural expenditures until 2013, which leaves little room for manoeuvre to increase the part of the budget devoted to Lisbon – unless the budgetary envelope is raised altogether.

What do I conclude?

Conclusion number one: Europe does need high ambition. There is no alternative to structural reforms and policies to promote growth if we want Europe to adapt to the rapid changes in demography, technology and globalisation. If we want to sustain our social model and if we want to succeed with enlargement, there is no alternative to high ambition and high growth.

Conclusion number two: Lisbon indeed sets high ambitions. I think this is very good. I applaud fully this high degree of ambition. I would not propose that we give up. I think it would be a tremendous mistake if we were to say now because of enlargement we can no longer meet our objectives. These objectives are even more important to meet in this new environment.

However, and that is my third conclusion, Lisbon cannot succeed if it is not reformed. There are too many objectives in Lisbon, or let's put it differently, it lacks clear-cut priorities, and this is a problem. One needs to give priority to economic reform and growth. The agenda has been extended to also include the environment. I think it is very good to combine economic, social and environmental issues. But one nevertheless has to prioritize and, I think, the number one priority must be growth. In addition, one also needs to reform the instruments. There is true consensus it seems to me throughout Europe in favour of growth. There is also a huge amount of tremendous political capital that has been invested by leaders in the Lisbon strategy. And that, I think, is very good. We should now press them to move forward and to assume the leadership that is required in order to forge the necessary social consensus for reforms. The next few months will be absolutely crucial in reforming Lisbon. Let us keep the objective, let us keep the strategy, but let us reform the way to implement it. ❧

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Comments on André Sapir, "Structural Reforms and Economic Growth in the EU: Is Lisbon the Right Agenda?"

One particularly effective way of thinking about the future of structural reforms and economic growth in the European Union is to consider the assignment of policy instruments to policy goals. It is also a useful way of evaluating the proposals of the *Sapir Report,* which has justifiably received wide acclaim for developing a policy agenda for the future of the European Union.

In macroeconomics, the traditional conception is to have monetary policy determined at the Community level (by the European Central Bank), whereas fiscal policy remains in the hands of the national governments. In microeconomics, analogously, the deregulation of product and capital markets was governed by Community policy, while structural reforms in labor markets are the responsibility of the EU Member States.

The past few years, however, have shown that the above-mentioned division of policy responsibility was not sustainable on the macroeconomic plane. EU-wide monetary policy has been supplemented

by the Stability and Growth Pact (SGP). Since various Member States have not maintained budget balance over the business cycle, the deficits generated in times of recession have made the deficit constraint of the SGP binding. Thus, fiscal policy was not longer under the exclusive discretion of national governments, but came under the influence of Community rules. This of course holds true not only of countries complying with the SGP, but also of those breaking it, on account of the inevitable political pressures that such rule-breaking entails.

It is no doubt true that *if* the Member States ensured budget balance over the cycle, then the likelihood of a binding SGP deficit constraint would be small. Yet given the existing political incentives, framed in part by the SGP, such behavior has turned out to be unrealistic. Thereby the strict division of responsibility for monetary and fiscal policy in the EU has broken down. It is also worth noting that, had Member States responded to the SGP by adopting a medium-term balanced budget, then the macro division of policy responsibility would have given way as well in the medium run, rather than in the short run.

Against this background, I would like to ask whether the division of policy responsibility on the microeconomic level can be maintained. The *Sapir Report* argues persuasively that EU policy needs to give priority to economic growth. As the population ageing raises the dependency ratios, as technological change and globalization change the mix of skills demanded in labor markets, and as enlargement raises EU income differentials, it becomes essential to achieve higher growth to raise living standards and maintain social cohesion. The Report stresses that this goal will require greater mobility of employees within and between countries, higher education, and other fundamental labor market adjustments. Nevertheless, the Report broadly accepts the traditional division of policy responsibility: "Although the main responsibility in this area lies with, and will continue to be with, Member States, the EU can act as a facilitator" (p. 160). It then proceeds to recommend targeted assistance and permits to enhance labor mobility, as well as grants to promote excellence in higher education.

Over the past decade, economists have made much progress in understanding how important human capital accumulation is for economic growth. The most highly skilled people are the ones who are best equipped to work with the most productive physical capital and to implement the organizational changes appropriate for the new technologies. We also have a much clearer understanding of how important employment is for human capital accumulation. Prolonged periods of unemployment cause skill attrition, which leads to even longer periods of unemployment. In short, we have come to understand that the functioning of labor markets is central to a country's ability to achieve high growth rates.

Can higher growth be achieved EU-wide without greater Community involvement in EU labor markets? To assess this issue, let us begin by asking ourselves some straightforward questions: Why does the EU Community, through the European Commission, not practice greater surveillance of competitive-

ness in national labor markets and the corresponding surveillance of national labor market policies? Why promote competitiveness in EU product markets, but not EU labor markets? Why break up price cartels, but not wage cartels?

The reason is that anti-competitive behavior in the labor market is often seen as a way of promoting job security and equalizing the distribution of income. Anti-competitive labor market activity is commonly seen as a way of promoting social cohesion. On this account, job security legislation, centralized wage bargaining, wide coverage of wage agreements, and many other anti-competitive practices go largely unchallenged at the Community level.

It is important to face this political reality: our equity objectives often lead us to turn a blind eye to anti-competitive labor market behavior. Recognizing this fact, we can then proceed to the crucial question: Is this anti-competitive behavior the most efficient way of promoting social cohesion? The answer to this question depends on the institutional underpinning of the labor market. When the institutional setting does not give people much latitude in finding new jobs, retraining, and buffering themselves against risk of income loss, it can make good sense to rely on restrictive labor market practices to gain some modicum of job security and income security. In the land of the blind, it can make good sense to follow the one-eyed child.

In many European labor markets, people live in a world where the present value of their expected future income is significantly higher if they retain their current jobs than if they take the next best ones that come along. Under these circumstances, stringent job security legislation is likely to be an effective way of achieving income security. Wide coverage of wage bargaining agreements is likely to help as well. The job security legislation of course helps raise the probability that current employees are retained, relative to the probability that they could find a new job with comparable remuneration; in other words, it lengthens job tenure and unemployment

duration at the same time. In this context, unemployment becomes a more serious social problem, since it is more difficult to escape. Consequently, it makes sense to support generous unemployment benefits and related welfare state entitlements for those who are trapped in the unemployment pool. The unemployment support of course discourages job search, because when an unemployed person does find a job, the state withdraws much, if not all, of this support and starts imposing taxes. Furthermore, many Europeans live in a world where tertiary education is either free or heavily subsidized, and generally provided right after they leave high school. Only minuscule amounts, relatively speaking, are available for re-education and retraining later in life, in response to the rapidly changing nature of jobs. In this setting, job security legislation, unemployment support, and wide coverage of wage

agreements become even more important in the quest for income security.

In short, sclerotic labor market institutions make people reliant to uncompetitive practices to protect themselves against adverse economic shocks; these uncompetitive practices lead to even more sclerotic labor market institutions; and so on, in an unremitting vicious cycle. Once this cycle has played itself out, it becomes difficult to implement reforms that promote labor market competition. Eliminating any particular anti-competitive labor market practice would put substantial segments of the voting population at risk of facing prolonged periods of low income and precarious livelihoods. It is not surprising, then, that these people will use their votes to block the reforms.

So the question we need to ask is: What institutional changes do we require in order to make it politically worthwhile to reap the gains of increased competition in labor markets? To address this question, it is useful to compare the state of our labor markets with the state of our financial markets. Over the past thirty years, our financial markets have changed out of recognition. We have developed a plethora of financial instruments that allows us to protect ourselves from risk and change its structure in countless flexible ways. We have created financial institutions that are able to bundle and modify these instruments to suit our ever-changing business needs. In comparison, European labor markets have remained relatively untouched. Although we have come to place more reliance of active labor market policies at the expense of passive ones and wage bargaining has become somewhat more decentralized, the general institutional landscape – trade unions, employers confederations, wage bargaining agreements with extensive coverage, severance pay, notice periods, unemployment benefits, incapacity benefits, etc. – remains easily recognizable since the early postwar period.

How would our financial and product markets have fared

- if companies were not allowed to hold bank accounts,
- if bonds, equities, futures, and options were not available, and
- if, instead, firms were given a generous subsidy if they went bust (say, 40–70% of their earnings in good times, followed by somewhat more modest assistance indefinitely thereafter)?

These are in fact the conditions under which our labor markets operate. Given that we are far better able to protect ourselves against risk in financial and product markets than in the labor markets, is it any wonder that we are far more audacious in pursuing competition in the former markets?

So, in thinking about institutional labor market reform, it is reasonable to look to our financial markets as a potential source of ideas for what might one day be achievable in our labor markets. In this vein, I believe the European Community can play a useful role in facilitating the creation of new financial instruments that would permit the establishment of the two individualized labor market accounts: (i) unemployment accounts and (ii) skills accounts.

These accounts could represent a way for Member States to help their citizens manage labor market risks more efficiently and flexibly than through current forms of welfare

support. Each working-age adult could be given each of these accounts. Instead of paying taxes to finance the existing unemployment benefit systems and state-sponsored training and post-high school education, people would make ongoing, mandatory contributions to these accounts. When they become unemployed, they would make withdrawals from their unemployment account instead of claiming the existing unemployment benefits. When they acquire skills, they could draw on their human capital account instead of receiving current government grants, subsidies, and loans for education and training. The minimum contribution rates to the accounts and the maximum withdrawal rates would depend on income and age.

The balances in the unemployment account could be used in various ways. Most simply, they could take the form of forced savings, used to tide people over periods of transitory unemployment. Beyond that, they could be used to purchase newly-created financial instruments whose value fluctuates inversely with the unemployment rates in the individuals' chosen sectors and occupations. Since these unemployment rates could not be influenced by any particular individual, these financial instruments would not give rise to moral hazard or adverse selection.

The balances in the skills account could buy new "human capital bonds and stocks," whereby people would receive money to finance skill acquisition and pay interest or dividends later. In particular, human capital bonds would enable individuals to borrow money for the purposes of further education and training, paying back a proportion of the interest and principal, the proportion depending on their future incomes. Analogously, human capital stocks would give individuals the possibility of issuing equities on the expected present value of their future expected incomes, and the dividends per share would rise with income.

The lowest income groups would receive transfers from the government into their labor market accounts. The greater the income, the lower the transfers. At higher in-

come levels, the transfers would give way to taxes. These redistributions would have to be of the balanced-budget variety: economy-wide taxes on each of the skill accounts would be equal to total transfers into each of these accounts, and the same for the unemployment accounts.

People could transfer funds between accounts, but if their balances on all welfare accounts fell to zero, the government would make the specified deposits. Government transfers to able-bodied people of working age would be conditional on their availability for work.

At the end of their working lives, people could transfer the remaining balances in their unemployment and skills accounts into their pension accounts.

How could the private sector be encouraged to contribute more to education and training? The private sector gains the incentive to contrib-

ute significantly to the welfare system only if the institutional structure of this system makes it impossible for the government to use the tax-and-transfer system to drive the private providers out of business. Under the proposed account system, the government would have two budgetary systems: one for non-welfare expenditures and existing taxes, and another system in which labor market services are financed through payments from the labor market accounts. Thus, the government could not use its general tax receipts to fund education and training and thus drive down the prices of these services, and thereby keep private providers from entering these sectors. Instead, the public and private sectors would then be able to provide education and training services on an equal footing, competing of the account holders.[1]

While this reform could replicate the amount of redistribution in our current system, it would create a revolutionary change in people's incentives. The longer a person remains unemployed, the lower will be the unemployment account balance and consequently the smaller the funds available for the pension account at a later date. People would use their skills accounts to improve their skills only if they believed that this would raise their future incomes sufficiently.

Due to the improved incentives, the account contributions necessary to finance a particular level of welfare provision would turn out to be significantly lower than the taxes necessary to finance the same level of support under the current system. In sum, these proposals would enable our labor markets to take a step towards catching up with our financial markets. They would enable people to reduce their labor market risk in efficient ways, and give them greater flexibility in transferring purchasing power across their lives. Thus, they would make people less reliant on existing unemployment benefit systems and state-provided education and training systems, which often make our labor markets rigid and prone to unemployment and recurring skill shortages. The European Community could play an important role as facilitator of these developments. ❧

[1] *For a related welfare reform proposal, see Orszag, J. M. and D. J. Snower. 1997. Expanding the Welfare System. In: European Economy 4. 101–118.*

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U.S.-Europe Growth Differences: The Role of Education

1 Introduction[1]

After strong economic growth until the 1980s, European growth has become weak relative to that of the U.S.A. In addition, with the exception of a few countries, Europe has suffered from a "technology deficit" relative to the U.S.A. As measured by manufacturing productivity, the share of information technology (IT) investment or by the contribution of IT to output growth, European technology has lagged behind. These developments have happened against the background of an increased growth rate of technological progress embodied in new technologies, and a European tradition of fostering specialized, skill-specific, "vocational" education at the upper-secondary and tertiary level. While these concurrent events may have no causal link, in this paper we want to propose an alternative view, namely that the European focus on vocational education, while appropriate during the technologically tranquil times of the 1950s and 1960s, may have hampered European technology

[1] *This paper is based on our previous work, Krueger and Kumar (2004a, 2004b).*

Table 1

Growth Rates of Real GDP per Capita

	1970–1980	1980–1990	1990–1998	1999
	%			
U.S.A.	2.1	2.3	2.0	3.2
Germany	2.6	2.0	1.0	1.4
Italy	3.1	2.2	1.2	1.3
France	2.7	1.8	0.9	2.5
U.K.	1.8	2.5	1.7	1.7

Source: Scarpetta et al. (2000).

adoption and economic growth from the 1980s onwards. We thereby provide a novel explanation to U.S.-Europe differences when compared to the more conventional view that these differences can be attributed to labor and product market regulations.

In order to substantiate our hypothesis we proceed in four steps. In the next section we document the main motivating facts for our study: slow European growth since the 1980s, a technology deficit opening up compared to the U.S.A., and European focus on skill-specific, vocational education. Section 3 summarizes our main theoretical hypothesis and provides supporting empirical evidence for the two crucial assumptions underlying our hypothesis. Then, in section 4 and 5 we document and discuss the main theoretical and quantitative implications of our theory, before offering concluding remarks in section 6 of the paper.

2 The Facts

2.1 Evidence for Emergence of Growth Gap

In table 1 we present evidence for growth rates of real per capita GDP from the 1970s to the 1990s for the U.S.A. and a number of European countries. In most of our discussion we will focus on two countries in Europe, namely Germany and Italy, which quintessentially conform to our story, but a similar pattern can be seen for other European countries as well.

In the 1970s Germany (2.6%) and Italy (3.1%) had higher annualized per capita GDP growth than the U.S.A. (2.1%). In the 1980s, the U.S.A. grew at the faster rate of 2.3%, compared to 2.0% and 2.2% for Germany and Italy. The U.S.A. lead solidified in the 1990s; it grew at 2.0%, while Germany and Italy managed only 1.0% and 1.2%.[2]

In table 2 we present a different perspective on the same basic fact by documenting the evolution of rel-

[2] *Note that our theoretical analysis will have nothing to say on the faster growth of some European countries until the 1970s, since it does not feature any direct channel of international catch-up. Our aim is to explain why a region that was doing well slowed down and a gap emerged relative to the U.S.A., when the rate of available technologies actually increased. The theme voiced by Lawrence and Schultze (1987) is relevant in this regard: "The European economies…now experienced problems in graduating from a catch-up economy to one on the frontier of technology… Workers must have general training to adapt to new tasks, and European education, which has encouraged apprenticeships that provide specific skills, must adapt."*

Table 2

Per Capita GDP Relative to the U.S.A., Constant 1995 PPP U.S. Dollars

	1970	1975	1980	1985	1990	1995	2000
Germany	0.86	0.87	0.90	0.87	0.88	0.76	0.70
Italy	0.66	0.68	0.73	0.70	0.72	0.71	0.65
France	0.75	0.80	0.79	0.75	0.76	0.73	0.69
U.K.	0.67	0.68	0.65	0.64	0.66	0.66	0.63
EU	0.76	0.78	0.78	0.76	0.77	0.73	0.70

Source: CESifo (2002).

Table 3

Growth Rates in Output per Hour, Manufacturing

	1978–1984	1985–1991	1992–2002
	%		
U.S.A.	2.9	2.4	4.3
Germany	2.4	2.2	2.7
Italy	3.8	1.7	1.6
France	4.8	3.6	4.2
U.K.	3.5	4.6	2.9

Source: Bureau of Labor Statistics, "Output Per Hour in Manufacturing, 14 countries or areas, 1950–2002" and authors' calculations. For Germany the data until 1991 refer to West Germany, after 1991 to the whole of Germany.

ative GDP per capita for Europe, relative to the U.S.A. In general we observe that while Europe was catching up to the U.S.A. up until about the early 1980s, since then it has fallen behind, in terms of real GDP per capita. Evidently this reflects nothing else but the higher growth rates in the U.S.A., especially in the 1990s, that we documented in table 1.

2.2 Evidence for a New Productivity and Technology Usage Gap

Since our theoretical hypothesis focuses on technology adoption, productivity growth and technology usage might be more relevant indicators of economic performance for our purposes. Our model is most likely to apply to the manufacturing sector. Table 3 provides data on manufacturing output per hour relative to the U.S.A. The widening gap is clearly visible if one examines manufacturing labor productivity growth. The 1986–1990 and 1991–2000 figures for the U.S.A. are 2.4% and 4.3%, while those for the EU, while even higher during the early 1980s and comparable during the late 1980s, were significantly lower than in the U.S.A. in the 1990s (with the possible exception of France).

The gap between the U.S.A. and Europe is even starker when one examines technology-driven industries in the U.S.A., these industries recorded an average annual productivity increase of 8.3% in the 1990s, when compared to the 3.5% achieved in the same industries in the European Union.[3]

There is abundant direct evidence that Europe lags behind the U.S.A. in the usage of new technology. Schreyer (2000) presents results from growth accounting studies which show the contribution of In-

[3] *See page 66, Graph IV.5, and Table IV.6 in European Competitiveness Report (2001). Pharmaceuticals, Office machinery and computers, Motor vehicles, Aircraft and spacecraft, are a few of the industries classified as technology-driven industries.*

Table 4

ICT Contribution to Output Growth (Percentage Points)

	1980–1985	1985–1990	1990–1996
U.S.A.	0.28	0.34	0.42
Germany	0.12	0.17	0.19
Italy	0.13	0.18	0.21

Source: Schreyer (2000).

formation and Communication Technology (ICT) capital to output growth; these are presented in table 4.[4] The contribution of ICT capital to output growth has been increasing for all countries, but the gap between the U.S.A. and European countries has been increasing as well.

Bessen (2002) estimates that technology adjustment costs peaked in the U.S.A. at 90 cents per investment dollar during 1984–88, amounting to 10% of the manufacturing sector output. This is an indication of the high degree of costly technology adoption undertaken in the U.S.A. during this period. For evidence that increased usage of such technology improves productivity, we turn to Stiroh (2002), who conducts econometric tests using industry-level data to show that IT-intensive industries experienced significantly larger labor productivity gains than other industries; he also finds a strong correlation between IT capital accumulation and labor productivity.[5] Though the actual magnitude of the productivity boom in the U.S.A. during the 1990s continues to be debated (see, for instance, Gordon, 2000, for a skeptic's view), the facts that Europe has lagged behind the U.S.A. in the last two decades in technology usage and technology production, and experienced slower productivity growth, are unlikely to be overturned by recent evidence.

2.3 Evidence for Differences in the Educational System

Since we suggest the educational system as an important source of U.S.-Europe productivity and growth differences, we now present evidence on the European focus on vocational education. The classification of education into general and vocational should be viewed as a metaphor for the rigidity and inflexibility of European upper secondary and post-secondary education. The

[4] *The data from Schreyer (2000) uses an ICT price index harmonized across countries. Again, France and the U.K., the two other European countries for which data is presented, exhibit a similar pattern. When these figures are calculated in percentage terms instead of absolute percentage points, similar patterns persist. Schreyer, in his table 1, also presents data showing a similar widening gap in the share of IT equipment in total investment.*

[5] *A positive correlation between the ICT share and TFP growth also emerges from Graph 6 in the European Commission (2000) report. The widespread nature of productivity acceleration reported by Stiroh (2002) casts doubts on an alternate explanation for the U.S. productivity advantage, that the U.S.A. with its more liberal immigration policies attracts highly skilled specialists to the high-tech sectors. This would not explain why industries as far flung as Security and Commodity Brokers, not typically populated by immigrants, experienced huge increases in productivity growth. The assumption that only workers with high levels of general education immigrate to the U.S.A. is not tenable, and many immigrants first acquire general education in U.S. universities before they begin work. The immigration explanation also does not explain why there was a change in the U.S. economic performance starting in the 1980s without a concurrent significant change in U.S. immigration laws.*

Table 5

Education Indicators

	Austria	Finland	France	Germany	Italy	Nether-lands	Sweden	EU	U.S.A.
Fraction of students in upper secondary education that obtains general education	23	48	47	23	28	30	44	42.4	..
Fraction of students in upper secondary education that obtains vocational education	77	52	53	77	72	70	56	57.6	..
University net entry rate in % of cohort	26	..	33	27	..	34	..	..	52
Non-university tertiary attainment in % of population	2	9	8	10	..	..	14	..	8
University tertiary attainment in % of population	6	12	11	13	8	22	14	..	25
Non-university tertiary return in %	..	11	18	17	..	..	7	..	9
University tertiary return in %	..	15	14	11	10	11	8	..	13

Source: Education at a Glance: OECD Indicators (1997), tables C3.2, C4.1, A2.1, E5.1.

issue under consideration is broader than the distinction of college versus school education or overall attainment. In Europe, the channeling of students into either stream starts earlier than college; indeed, a portion of the differences in university enrollment between the U.S.A. and Europe can be attributed to such early pegging of students. One indication of such rigidity: in Germany only about 20% of university entrants are from the upper secondary vocational stream; the figure is 30% for France.[6]

Table 5 shows that in the EU, in 1995, more students were enrolled in the vocational stream (57.6%) at the upper secondary level than in the general stream (42.4%). In West Germany, 77% of upper secondary students and in Italy 72% were enrolled in vocational or apprenticeship programs. The emphasis on vocational education at this level is also evident for other European countries presented in table 5. In contrast, there is no separate stream of vocational education in the U.S.A. at this level; even the percentage of students who completed 30% or more of all credits in specific labor market preparation courses was just 6.8% in 1990.[7] Since education at this level is typically fully funded by the government, this data suggests that the European governments spend a greater fraction of their resources on vocational training than the U.S.A.[8] Vocational education in the U.S.A. is typically imparted in two-year community colleges; of those students over the age of 18 enrolled in post-secondary education, only 13.8% were working toward a vocational Associate's degree in 1991; this figure fell to 10.5% in 1994.[9]

Table 5 also presents the net entry rate into universities, where general education is primarily imparted; it is 52% in the U.S.A. but only 27% in Germany, 33% in France,

[6] *The figures are from OECD's "Education Policy Analysis" (1997).*

[7] *These figures are from table 3.2 of Medrich et al. (1994). Also see the European Commission's report "Young People's Training" (1998).*

[8] *The German apprenticeship program involves partial outlays by firms as well.*

[9] *See table 87 in Levesque et al. (2000).*

Table 6

Education Expenditures

	Austria	Finland	France	Germany	Italy	Nether-lands	Sweden	U.S.A.
Expenditure/GDP for primary and secondary education	4.2	3.7	4.4	3.7	3.5	3.1	4.5	3.7
Expenditure/GDP for vocational tertiary education	0.3	0.2	0.3	0.4	0.1	. .	. .	. .
Expenditure/GDP for university tertiary education	1.2	1.5	0.9	1.0	0.8	1.2	1.7	2.3
Expenditure per student for vocational tertiary education in U.S. dollars	7,245	5,776	7,636	10,924	6,283	7,592	. .	. .
Expenditure per student as % of per capita GDP for vocational tertiary education	31	27	36	48	36	31	. .	. .
Expenditure per student as % of per capita GDP for general tertiary education	11,279	7,582	7,113	10,139	6,295	10,796	. .	19,802
Expenditure per student as % of per capita GDP for university tertiary education	48	36	34	44	28	44	. .	61

Source: Education at a Glance: OECD Indicators (1997), tables B2.1c, B1.1 and B1.2.

and 26% in Austria. This lower European enrollment is reflected in attainment; while 25% of adults had completed university-level education and 8% had completed non-university tertiary education in the U.S.A. in 1995, in Germany only 13% had completed university education and 10% non-university tertiary education.[10] Except for the Netherlands, no other country comes close to the U.S.A. university attainment.[11] Incidentally, while the rate of return for men from such non-university tertiary education is 9% in the U.S.A., it is generally higher in Europe – as high as 17% in Germany and 18% in France. This differential might be an indication of better employment opportunities for the vocationally educated in those countries.

As seen in table 6, the allocation of educational resources also differs between the U.S.A. and continental Europe. The percentage of GDP devoted to primary and secondary education was comparable in the U.S.A. and the European countries in 1998. The 3.8% figure for the U.S.A. was well matched by 3.7% for Germany and 3.5% for Italy. However, the percentage devoted to university tertiary (general) education in the U.S.A. (2.3%) outstripped the percentages in Europe. For instance, Germany spent 1%, Italy 0.8%, and France 0.9%. The expenditure per student relative to GDP per capita on post-secondary non-tertiary (vocational) education was 48% in Germany for 1997, amounting to 10,924 purchasing power parity (PPP) dollars; little happens on this front in the U.S.A. The corresponding figures for university tertiary education were 44%

[10] *The OECD (2001, p. 129) identifies as vocational education non-university tertiary education as well as tertiary B programs with vocational education, imparting occupation-specific skills.*

[11] *Lazear's (2002) evidence that students who have taken a more general curriculum have a higher chance of becoming entrepreneurs is also relevant in this context. Entrepreneurship, which is an important channel for adoption of new technologies, is generally thought to lag behind in Europe relative to the U.S.A. See for instance, the European Commission's September 2001 policy paper "Entrepreneurial attitudes in Europe and the U.S."*

in Germany but 61% in the U.S.A. In PPP dollars, the university tertiary education expenditure per pupil was USD 10,139 in Germany while in the U.S.A. it was USD 19,802 (it was USD 6,295 in Italy).[12]

Expenditure per pupil in vocational tertiary education exceeds spending on university (general) tertiary education for Germany and the two are comparable for most of the other countries. This observation allows us to clarify our position – we do not claim education expenditure for all education is low in Europe as much as it is slanted toward a particular type of education, namely vocational education. This pattern holds not only for Germany and Italy, but also for other countries shown in table 6.

In summary, in this section we have documented three facts that motivate our theoretical analysis: slow European growth since the 1980s, a technology deficit opening up compared to the U.S.A., and European focus on skill-specific, vocational education.

3 Our Hypothesis and Supporting Evidence[13]

We submit the following hypothesis to explain the three stylized facts from the previous section. Europe's education policies provide higher relative incentives to obtain vocational, rather than general education. Vocational education enables workers to operative established technologies very productively, whereas general education enables workers to adapt more easily to new technologies. As long as the rate at which new technologies become available (the growth rate of embodied technological progress) is low, Europe's focus on vocational education is appropriate. But as this growth rate increases in the 1980s, more generally trained workers are needed to make it worthwhile for firms to adopt new technologies at the speed at which they become available. Now the American educational system is at an advantage, and a growth gap between the two regions may emerge.

Our theory has three basic economic decisions and two crucial assumptions that drive our results. Individual workers make the decision which type of education to attain, based on their innate talent to master general education and based on the relative wages a vocationally trained and a generally trained worker can command. Firms decide how many workers to hire and what level of technology to operate, where the latter choice is constrained by the technology frontier (that is, the best technology that is available). Our first crucial assumption is that workers with general education can efficiently operate new, but risky technologies, whereas vocationally trained workers are more efficient in operating old, established technologies. Our second crucial as-

[12] *Per-pupil expenditure figures appear to provide a more complete comparison of education focus. The percentage of total education expenditures in a given category that is public does not provide any indication of the actual level or intensity of funding. Similarly, a comparison of tuition would not be indicative of the actual burden faced by households. For instance, college education in most European countries is nominally free, but is funded out of high taxes levied on households.*

[13] *In this section we give a nontechnical account of our theoretical model; the exact details of the model as well as its theoretical and quantitative properties can be found in Krueger and Kumar (2004a, 2004b).*

sumption is that sometime in the 1980s the growth rate at which the *technology frontier* expands, increases, allowing (but not requiring) firms to increase the growth rate of the technology they *operate*.[14] Before presenting the theoretical and quantitative results implied by our theory, we want to briefly provide further supporting evidence for our two main assumptions.

3.1 Evidence that Education Helps to Cope with Technical Change

The notion that education helps in coping with technical change dates back at least to Nelson and Phelps (1966), who use reduced form specifications to postulate a higher return to education in an economy with more rapid technological change, and to Welch (1970), who provides supportive evidence for the dynamic advantage of education using wages of college graduates. While Welch (1970) uses R&D intensity as a proxy for technical change, Bartel and Lichtenberg (1987, 1991) use age of equipment as a proxy for lack of change and find that the labor cost share and the wage rate decrease with equipment age. Gill (1988) finds that higher total factor productivity (TFP) industries employ a larger proportion of educated workers and that the wage profile for highly educated workers shifts out with increasing TFP growth and is also steeper. Benhabib and Spiegel (1994) find that the human capital stock affects the speed of technology adoption in a cross-country context, lending support to a specification in Nelson and Phelps (1966). Thus, the advantage of education in adapting to technical change has both theoretical precedence and empirical support in the literature.

3.2 Evidence for Increase in Growth Rate of Embodied Technological Change

Our claim is that the emergence of a gap between the U.S.A. and Europe since the 1980s is related to the almost concurrent increase in the rate of technological change. There is ample evidence that investment-specific technological change indeed quickened by the 1980s. Cummings and Violante (2002) construct an aggregate index of investment-specific technical change and show that this index "grows at an average annual rate of 4% in the postwar period, with a sharp acceleration in the 1980s that leads to an average annual growth rate of more than 6% in the 1990s" (p. 245).[15] They also distinguish between the productivity of the best technology and the average practice, and claim this gap "… was 15% in 1975. In 2000, the figure had jumped to 40%" (p. 246). These facts motivate our thought experiment of increasing the growth rate of the frontier technology, to study whether such a change can lead to a growth gap opening up between the U.S.A. and Europe.

[14] *That is, our theory is one of exogenous technology innovation, but endogenous technology adoption.*

[15] *Greenwood and Yorukoglu (1997), Hornstein and Krusell (1996), and Krusell et al. (2000) arrive at a similar conclusion. While some of these studies identify the mid-1970s as the onset of the IT revolution, they also highlight delays that exist between the arrival of technologies and their impact on productivity. It, therefore, does not appear unreasonable for our purposes to consider the 1980s, which lies in between the advent of affordable computation in the 1970s and the IT boom of the 1990s, as the decade in which there was an upward shift in technological change.*

Empirical support for such an increase in growth rate of the frontier technology is also provided by Kortum and Lerner (1998), who examine patenting in the United States and find "applications for U.S. patents by U.S. inventors have risen more since 1985 (in either absolute or percentage terms) more than in any other decade this century ..." (p. 248–249, Figure 1). After having discussed the justification for our main assumptions we now proceed to describe the main implications from our theoretical model.

4 Theoretical Findings

In our theoretical model, newly born individuals optimally and irreversibly choose between one of the two streams of education mentioned above, based on their intrinsic ability to absorb conceptual education, anticipated market conditions, and government subsidies for the two types of education. They weigh the higher wages associated with operating newer technologies against the higher cost of acquiring general education. Firms have the choice of producing a single non-storable good either through technologies (production methods) *used* in the previous period – which have become well-understood and readily usable in the present period at no cost – or by adopting, at a cost, new technologies up to the available frontier. This technology frontier evolves exogenously. Non-adopting, "low-tech" firms can use the old technology without any adoption cost. The adopting "high-tech" firms have to pay a cost of adoption that depends on the distance between the new and the previously used level of technology in a convex fashion, as well as potentially higher wages to attract workers who face the risk of low task-specific productivity caused by their move to an unfamiliar and more complex technology.

We show that the equilibrium growth rate is weakly lower in an economy that allocates more of a given amount of resources toward vocational education. The positive relationship between the fraction of the work force with general education and growth may intuitively follow from our assumption that

only generally educated workers can operate new technologies, although demonstrating this requires a fully specified model such as the one we have developed. However, what is not obvious at all, is the effect of an increase in the rate of available technology; the true value of the model lies in showing that in such an event, countries with different education systems that had comparable growth rates initially (such as the U.S.A. and Europe) could diverge.

As the exogenous rate of technological change increases, higher net profits are needed to make it worthwhile for firms to adopt technologies at the new maximal rate. But this requires lower wages in the adopting sector, which in turn demands a larger share of the population be generally educated and supply their labor services to that sector. Therefore, Europe, having a lower share of the labor force with general education, may fail to sustain

maximal growth, while the U.S.A. can more readily exploit the new technologies and might, in fact, be constrained only by their availability.[16] Our model suggests that while European education policies that favor specialized, vocational education may have worked well during the 1960s and 1970s when technologies were more stable, they may have contributed to slow growth and increased the European growth gap relative to the U.S.A. during the information age of the 1980s and 1990s when new technologies emerged at a more rapid pace.

The following observations made in the European Commission's European Competitiveness Report (2001) directly speak to the possibility of sluggish adoption of information and communication technologies (ICT), as well as a paucity of labor qualified enough to work with these new technologies: "The growing consensus that the strong growth and productivity performance in the U.S.A. is related to increased investment and diffusion of ICT goods and services has raised concerns that the weaker economic performance of EU Member States is caused by sluggishness in the adoption of these new technologies… in recent years skill shortages in important technology areas have been reported in several European countries …" (p. 10–11).[17]

5 Quantitative Findings

How important is this education policy difference between the U.S.A. and Europe, compared to other explanations, in a quantitative sense? To answer this question, we extended our model above to incorporate labor and product market regulations, since these frictions are the most common explanations for the recent weak economic performance of Europe, relative to the U.S.A. Labor market frictions are modeled as firing costs for firms, whereas product market frictions are modeled as entry costs that have to be paid by firms out of their profits, conditional on deciding to produce output.

Our formalization of labor market rigidities and product market regulations has ample precedence in the literature. Pries and Rogerson (2001) use higher firing costs in Europe to capture labor market rigidities, which in their work increases the duration of unemployment through tougher hiring standards. Nagypal (2002) argues that high dismissal costs in Europe hinder learning about match quality and reduce average productivity. Our modeling of product market regulations as a cost is motivated by Nicoletti, Scarpetta and Boylaud (1999), who identify barriers to entrepreneurship as an important component.

[16] *We can also show that, within our model, relative wages of workers with general education increase with the increase in the rate of technological progress. The relative wage increase is more pronounced in the U.S.A. than in Europe, consistent with the data.*

[17] *The unemployment rate among adults with university education in OECD Europe was much lower in 2000 (4.1%) relative to the rates among those with just upper secondary education (7.2%) and those with less than upper secondary education (10%), see OECD Employment Outlook (2002). This provides further indication that the limited pool of labor with general education (university degrees) was readily employed. The corresponding figures for the U.S.A. were 1.8%, 3.6%, and 7.9%. Similar patterns are seen for most European countries for other years close to 2000.*

We then calibrate our model under the assumption that the U.S.A. adopts new technologies and grows at the maximal rate, irrespective of whether the exogenous rate of technological change is low or high. Therefore, observed U.S. manufacturing labor productivity growth rates equal the rates of exogenous technological change common to the U.S.A. and Europe. Given our choice of policy parameters for the U.S.A. and Europe based on independent empirical evidence, our empirical targets for assessing success of the model are European general education attainment and its productivity growth rate – roughly the same as that of the U.S.A. when technological change is low, but lower when technological change is high.[18] In other words, our choice of the exogenous rate of technological change enables, but by no means guarantees the *quantitative* success of our model.

Once we have established that the model performs well quantitatively, we use it to study counterfactual policies for Europe that would bridge its growth gap with the U.S.A. While a reduction in firing costs and (to a lesser degree) a reduction of regulation costs help to reduce this gap, a change in education policy explains most of it. More concretely, we aimed for explaining a growth gap of 1 percentage point between the U.S.A. and Europe in the 1990s. According to our model, 0.05 percentage points are explained by differences in product market regulations, 0.15 percentage points are explained by differences in labor market regulations and 0.6 percentage points are explained by differences in education policy.[19]

Our quantitative analysis with a calibrated version of our model shows that the role of education may be significant. Educational reform, in the form of higher flexibility in educational choices made at the upper secondary level, and a greater focus on general education might be important in reducing the U.S.-Europe growth gap that has emerged since the mid 1980s.

Finally we want to concede that our model may be geared towards finding a significant role for education. For instance, the education decision determines occupational choice forever. Relaxing this assumption would likely attribute a greater effect to labor market frictions and other impediments to occupational mobility. Indeed, it might be hard to completely disentangle the educational and labor market aspects in practice. Likewise, an explicit model of entry and entrepreneurship is likely to find a more important role for product market and other regulations.

6 Conclusions

In this paper we have argued that the recent growth gap between the U.S.A. and Europe may be partially explained by Europe's stronger focus on vocational education, compared to the U.S.A. If our hypothesis is valid, education reform towards more general education in Europe may have beneficial consequences for technology adoption and economic growth. There are signs that such

[18] *We focus on Germany and Italy for our calibration, as these countries' education systems are most different from the U.S.A. They are therefore ideal candidates for a quantitative investigation of our hypothesis.*

[19] *The remaining 0.2 percentage points are left unexplained by the model.*

reforms are underway; for example the planned introduction of bachelor programs at selected German universities, the introduction of the Swedish general training program "Kunskapslyftet" and many other initiatives. From the perspective of our research these are reforms in the right direction. ❧

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The Contribution of Universities to a Knowledge-Based Economy

Since the beginning of 2003 universities as institutions of higher education and of research have gained a prominent place in policy papers of the European Union.[1]

Up to 2003 the term "university" was hardly used by the EU. In the Framework Programmes, universities only played a marginal role. Even in the Bologna Declaration of June 1999, originally signed by 29 countries in order to promote the attractiveness of the European higher education system within an intergovernmental process (Bologna process), universities were just mentioned in the introductory statement. They did not exist when the action lines of the Bologna process (introduction of a common study architecture and of comparable degrees) were laid down. Universities were only expected "to respond promptly and positively". It took the Bologna process two years, until the Prague Communiqué of May 2001, that ministers explicitly recognized the role of higher educa-

[1] *See the communications from the EU Commission "The Role of the Universities in the Europe of Knowledge" – COM (2003) 58, 4/2/03; "Researchers in the European Research Area: One Profession, Multiple careers" – COM (2003) 436, 18/7/03; "Europe and Basic research" – COM (2004) 9 final, 14/1/04; resolution of the European Parliament P5-TA-PROV (2003) 0495, 18/11/03 and other documents.*

tion institutions and of students as stakeholders in creating the European Higher Education Area.

Before this recent rediscovery of the role of universities as actors in the field of higher education and research, universities were only perceived as a sum of individual researchers or research groups, as a conglomeration of individual departments, as an accumulation of study programmes or just as locations where students happen to study. This perception of universities by policymakers and by the public in large reflected and still reflects the fact that universities in Europe are highly fragmented institutions and that, related to the phenomenon of fragmentation, governmental influence is dominant not only in the general management of university affairs, but also in deciding on details of running a university.

Why did this shift of attention by policymakers occur? The prime reason for perceiving universities as important institutions is the insight that the EU can only become "the world's leading knowledge-based economy by 2010" (Lisbon, 2000), if universities – as it is the case in the USA – become main actors in shaping knowledge-based societies. Universities have to overcome their fragmentation and need professional management. In addition, they need to shapen their profiles and have to build up critical masses in research. They should reach out for more excellence. They have to broaden the base of higher education in society. Better relations with the society and, in particular, with industry are needed. In short, universities must become more "entrepreneurial" (B. Clark) in the future "Europe of Knowledge".

Of course, the necessary improvements of the higher education system and of basic research should be backed by community-wide and national measures. The Sapir Report (2003)[2] clearly states: "Member States and the European Union as a whole need to invest *more* and also to invest *better* in higher education and research" (p. 132).

For the European Union, there is the issue of authority. As long as basic research was regarded predominantly as a consumption activity that an affluent society may pursue in the interest of extending human knowledge and as long as higher education had to serve national interests and had to reflect national values and cultures, the EU could not demand any authority to influence the politics of Member States in these fields.

Once higher education and basic research are seen as main contributors to the success of a knowledge-based economy and, as a consequence, to long-run economic growth or to job opportunities within the EU, the EU gains authority. This is especially true with respect to research, but may have an impact on shaping the Bologna process as well.

As a consequence, the Lisbon process might strengthen the role of EU institutions vis-a-vis Member States in finding new and better policies concerning higher education and basic research.

[2] *An Agenda for a Growing Europe. Making the EU Economic System Deliver. Report of an independent high-level study group established on the initiative of the President of the European Commission, July 2003 (A. Sapir/ chairman, P. Aghion, G. Bertola, M. Hellwig, J. Pisani-Fery, D. Rosati, J. Vinals, H. Wallace).*

The link between investment in universities on one hand and overall growth on the other hand is, however, difficult to prove empirically. The effects of higher education and basic research diffuse internationally through many channels. Applications of new results of basic research often take detours before they become economically successful. The time patterns of the links between education or research on the one hand and economic output on the other hand do not follow strict lines which are easily testable. At best, indirect links can be determined.

In many studies, e.g., the Sapir Report (2003), Europe's unsatisfactory growth performance with regard to the USA since the 1970s is traced back to "its failure to transform into an innovation-based economy" (p. ii). As a consequence, boosting investment in knowledge, in higher education and research and development (R&D), seems to be an appropiate remedy. The low European growth performance is then explained by an underfinanced higher education system, too low "Action Plans" for basic research have become important points on the European policy agenda. Within the EU Commission it is not only the DG "Education and Culture" and the DG "Research" which are working on programmes for universities. In addition, the DG "Regions" is of increasing importance, since universities will be the engines of tomorrow's regional innovation and growth.

Chronic underfinancing and the self-perception of universities in Europe may not help to get the necessary changes in universities quickly under way. Good comprehensive research universities in the USA receive, at least, an annual budget of EUR 1 billion (Harvard University has about USD 2.5 billion). In Europe, there is hardly a university with this size of a budget.

Are European societies willing to spend more on universities, either through governmental support or through private donations? In the USA 2.3% of GDP is spent on universities, 1.1% out of public money, 1.2% as private money. In the EU-15 only 1.1% of GDP is given to

universities (0.9% as public money, 0.2% as private money). Are European universities ready to accept that research money will go to a more concentrated set of institutions and will not be spread along existing patterns? In addition, since traditional public money (General University Funds) is stagnating, universities in Europe need to actively look after alternative ways of financing their activities. Are they capable to increase sponsoring? Are they ready to build up strong university-industry relationships? Are they ready to charge tuition fees with better incentives to do good teaching?

The role of the universities in building knowledge-based economies has been reinforced by the insight that pushing towards the "3% objective" in 2010 (3% of GDP for R&D) implies an increase of the number of researchers in the EU by about 700,000. This number is de-

rived from a comparison of the number of researchers per one thousand of the workforce between Europe and other parts of the world. In the EU-15 this number is 5.7 and 3.5 for the ten new Member States. In Japan there are 9.1 researchers per 1,000 of the workforce, 8.1 is the number for the USA (see the Gago Report).[3]

Evidently graduate education at universities should grow, but the contents of graduate education should change, too. Future research training in Europe should include more project design and project management, better data analysis, more collaborative work and the "ability to handle uncertainty in an interdisciplinary context" (Gago Report, p. 8).

The European debate on the role and structure of doctoral programmes, which should lead to a set of European wide proposals for the next summit conference of ministers of the Bologna process in Bergen in May 2005, has been intensified by the demands for more human resources in research within the Lisbon process. Hopefully, after Bergen in May 2005, a common study architecture for doctoral studies will emerge in Europe, leading the way to more intra-European mobility of prae and post doctors.

During the past years, mainly three factors have contributed to the emergence of partnership between universities and the economy: (1) restrictions on government financing of universities, especially reductions of "general university funds"; (2) the strong demand by firms for science-based knowledge to innovate products as well as production processes; (3) the pressures of internationalisation on both sides, universities and firms. Pressures of internationalisation and the help of new technologies have enhanced even geographically remote university-industry partnerships. Increasingly, the transfer of knowledge from universities to firms is targeted to specific research outcomes, jointly defined and developed by universities and firms.

The direct financing of universities by firms remains however limited. The Organisation for Economic Co-opearation and Development (OECD, 1998)[4] estimates that industry funding of university research, within the OECD area, averages around 5%, ranging from 2% in Japan (and probably 2% in Austria) to about 6% in the USA and UK and to nearly 11% in Canada. Yet, in many countries (USA, UK), as much as 20% of university research is associated with industry in various ways (in Austria own estimates indicate that this figure is about 6% to 8%).

These numbers demonstrate that the partnerships between universities and the economy are less established by explicit contracts. Instead, informal arrangements seem to prevail: informal partnerships among individual researchers in industry and academia, special dissemination of informations, advisory exchange programmes, student training placements in industry etc.

Since the costs of university research associated with firms are higher than the financial means flow-

[3] *Increasing Human Resources for Science and Technology in Europe. Report presented at the European Comission conference "Europe needs more scientists", Brussels, April 2, 2004*

[4] *University/Industry Research Partnerships: Typology and Issues. DSTI/STP/SVR (98) 4*

ing from industry to universities, the question arises: Who is paying the major part of industry-related university research?

In many OECD countries, there are various government agencies who sponsor the partnership between universities and industry: E.g., government grants go to specific research projects jointly undertaken by firms and universities (Australia: "Collaborative Research Grants Scheme"), to large-scale research programmes, carried out by several partners (e.g., Framework Programmes of the EU), or help financing facilities or centres for collaborative research (Sweden: NUTEK Competence Centres, now Vinnova). In Austria, the government launched a programme in 1998, similar to the one mentioned for Sweden, the so called "K plus – Programme for Competence Centres", which, in 2001, was amplified by the so called (Academia plus Business) AplusB programmes.

Government should activly support partnerships between university and firms. The main task of this public support is to overcome initial risks and to secure the positive external effects that such partnerships may bring about for the society and the economy. This support should also help to turn universities away from being ivory towers.

Universities are now increasingly aware that they have to meet the new demands of a knowledge-based economy. I am convinced that universities are ready to become main actors in shaping this economy, although the necessary changes within universities will not be easy to implement. ❧

Monika Arvidsson
Mads Kieler
Jussi Mustonen
Erhard Fürst

Podiumsdiskussion:

Erfolgreiche Strukturreform – Erfahrungen aus skandinavischen Ländern

Panel:

Successful Structural Reforms – A Tale from the Nordic Countries

Monika Arvidsson
Economist
Swedish Trade Union Confederation (LO)

The Swedish Case

Competition is not to be an end in itself. It is not to be conjured out of political reasons but out of efficiency reasons. The objective must be to achieve the most possible advantages for consumers and citizens. Sometimes several actors on the market are needed to achieve these. Sometimes the presence of only one

actor (natural monopoly) is more efficient.

Everybody, individual, production and society, benefit from efficient markets. The Swedish Trade Union Confederation (LO), as a trade union organization, is positive to the fact that inefficient markets are deregulated. There are those believing that rigidities in the economy partly depend on too advantageous social security systems which results in a rigid labor market. LO considers deregulations of product markets to be an alternative to impaired social security systems, which would result in still more far-reaching cuts in the welfare system.

When summarizing the experiences of the deregulations which have taken place with the aim of fuelling competition, we may observe that reality to a certain extent, but not totally, corresponds to theory.

Over a period of more than ten years, Sweden has carried out several so-called deregulations in the markets for products and services in order to increase competition. A large part of public operations are subjected to competition: public procurement, public works and the so-called network services, such as gas, heating, telecom and transit of persons and goods. In these fields it is often possible to create reasonably efficient markets, and a series of regulatory reforms has been accomplished. There are however reasons to be very restrictive with regard to commercializing welfare services, such as school, nursing and health care.

Regulatory reform has resulted in increased productivity. But what we have seen hitherto is a combination of higher productivity and higher consumer prices; it is obvious that some actor has profited from the adjustments. If this were, to some extent, due to deliberate disturbances in the functioning of the economy, it would mean that some producers have reaped a part of consumers' gain from the deregulations.

However, the crucial motive of competition policy is wider than "merely" lower prices. As a small country, Sweden is to a great extent influenced by a global economy. It is therefore of major importance that our economy is characterized by a pressure for transformation and efficient use of the means of production, in order to hold our own ground in the competition and to safeguard job opportunities and welfare in Sweden.

There are many signs indicating that Sweden is about to enter a higher growth level. This does not

just signify that Sweden is temporarily "taking a great leap forward" as regards GDP, but it seems that the long-term increase in productivity is higher than before. After a change of the line of policy towards low inflation and stable public finances, the total factor productivity has increased. The raise in productivity is thus realized not only through an increase in the capital and working hours invested, but also through improved efficiency in the use of resources.

The greatest problem so far is not that the regulatory reforms have not worked out well – because they have to a certain extent. The problem is rather that consumers and citizens still have gained too small advantages of the benefits as regards regulatory reforms.

Competition in Private and Public Sectors Respectively

Goods and services traditionally produced within the private sector have, in contrast to the public sector, a price which is relatively easy to value from the quality perspective. It is also a question of goods/services which are relatively similar irrespective of a producer.

In a market economy the price should reflect information on quality and quantity, but this requirement is seldom met as regards welfare services. It is for the consumer considerably more intricate to have an apprehension of price and quality in this sector compared to others. Thereby one of the conditions of an efficient competition market is dropped because the consumers must have access to sufficient information on prices, quality and supply in order to make a choice of what complies with their expectations. Moreover, possibilities of evaluating the quality of these services occur with a considerable time delay in many cases (this applies especially to school), which is another difference between these services and the so-called network services.

Therefore, the possibility of evaluating deregulations is much more difficult within the public sector than within the private sector. The costs for failures within the welfare

services sectors are too sizeable for us to afford taking any risks. We must be careful with deregulations within these sectors. These services must of course be conducted in an efficient way: tax means must be used as rationally as possible.

At the prospect of deregulations, the profits of efficiency must be secured. The advantages for consumers and citizens must be maximized. This sometimes implies that supply and quality are more important than the price. And sometimes only one or a few suppliers of sufficient size may handle to reduce the price to make the goods/services available for enough people. This last aspect is not the least important if you take into consideration that people's capacity to pay seldom coincide with the need to make use of the service.

A competitive market is also signified by free price determination. Different prices classify the consumers according to ability to pay. New

problems will arise, such as social segregation and grading of people according to income, thereby resulting in larger differences in health and education.

The Preconditions of Regulatory Reforms

Within the European Union, the ambition is to boost competition and efficiency in the internal market regulatory reforms of the markets for goods and services. Sweden is perhaps the country which has most reformed markets in the Union. How come that we mainly have managed to effect the expressed political will of the Cardiff process? There is one decisive aspect: the "security contract" between the individual and society. The wage earners in Sweden accept changes when they are certain of a solid social structure which covers enough to make them venture increases in unemployment, at least of short duration.

If companies are exposed to increased competition and rationalize production by cutting down the number of staff, those becoming jobless are entitled to assistance. This is to say the reassignment to a new workplace, further education, retraining and unemployment benefits.

On a European level, the social security systems have not been emphasized concurrently with the liberalization of the internal market. Certainly, we have an employment strategy to create more and better jobs. It is also a positive trend that, some years ago, focus started to be put on social issues in addition to economic issues. But the situation is probably that the wage earners of Europe still experience a too great insecurity to dare risking the acceptance of changes.

There are also structural problems within the European Union which would benefit of boosted efficiency of goods and services, and also, to a certain extent, the labor market. But the main problem of Europe today is the aggregated demand. Experiences show that changes are easier to bring about in times of economic growth, and structural changes cannot replace a balanced demand.

What could be done to achieve more efficient markets? First thing should be a cost-benefit analysis, made for different groups of wage earners, as a result of increased exposure to competition.

Efficient markets need regulations and control systems. Our Swedish examples of effected reforms show that the theory of competition not totally corresponds to the practice. Violations of the competition acts imply that the economy is exposed to disruptions and that the consumers actually are cheated. Governments and parliaments therefore ought to overhaul how to frame the acts in the best way in order to, for example, outwit the formation of syndicates.

The competition authorities must also have sufficient economic resources to monitor that regulatory reforms really are to the advantage of the consumers, by extending to even more sectors the possibilities to break up cartels and other anti-consumer coalitions. The authorities should also have the possibility of international cooperating to step up the pressure on the international market on the one hand and to guarantee the national enterprises fair conditions on the international market on the other hand. ❧

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Two Decades of Structural Reform in Denmark: A Review[1]

1 Introduction

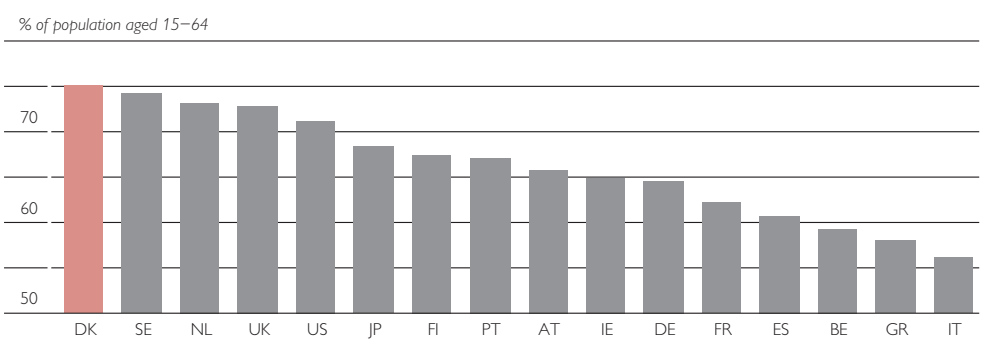
In an international perspective, Denmark (and Scandinavia's) economic performance is notable for combining a generous welfare state and high income equality with a fairly strong labour market performance and, more broadly, a well-functioning economy. At the same time, the total tax pressure is among the highest in the world, close to 50% of GDP, and the number of transfer recipients is high. In 2003, more than 20% of Danes of working age (defined as 15–64 years) received some sort of transfer income, a figure boosted by more people being in early retirement or on disability benefits than there are unemployed.

The employment rate is the highest among the EU-15, the U.S.A. and Japan (see chart 1a). The unemployment rate stood at some 5½ percent in 2003, which was a good deal below that of most EU-15 countries and lower than the U.S. (see chart 1b). In purchasing power adjusted terms, GDP per capita is among the highest in the EU-15, (chart 1c).[2] Productivity growth per employee since 1995 exceeds the EU-15 average, but has fallen behind the strong performance of the U.S.A. and some of Denmark's Scandinavian neighbours, namely Sweden and Finland which both have a strong(er) presence in IT-sectors (chart 1d).

Meanwhile, income inequality is among the lowest in the OECD, and the public expenditure ratio among the highest. A strong focus is maintained on high public service standards and avoiding poverty.

Chart 1a

Employment, 2003



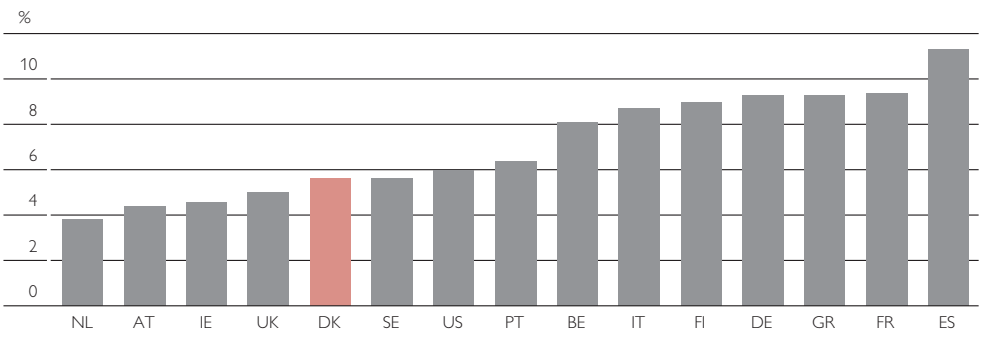
Source: OECD Employment Outlook 2003, European Commission.

[1] *This paper is in large part inspired by Callesen (1997). The views expressed are those of the authors alone and not necessarily those of the Danish Ministry of Finance.*

[2] *The gap with the U.S.A. largely reflects fewer annual hours worked per employee, and so does not imply a similar gap in welfare. Fewer hours worked may reflect different preferences over leisure versus consumption as well as weaker work incentives at the margin from high marginal taxes.*

Chart 1b

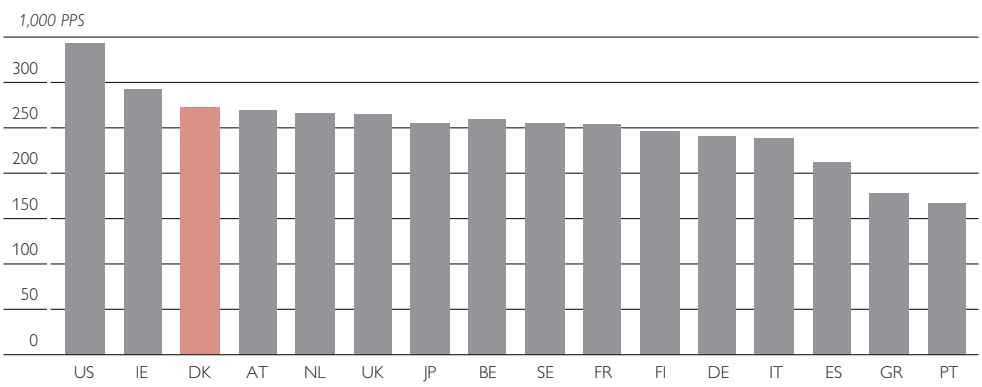
Harmonized Unemployment Rate, 2003



Source: OECD Employment Outlook 2003, European Commission.

Chart 1c

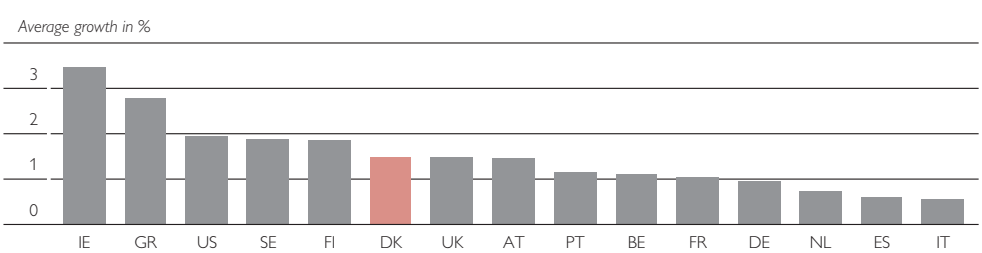
GDP per Capita, 2003



Source: OECD Employment Outlook 2003, European Commission.

Chart 1d

Productivity Growth per Employee, 1995–2003



Source: OECD Employment Outlook 2003, European Commission.

Public and private savings are high in an international comparison, providing both for a high level of private gross fixed investment and a sizeable current account surplus (i.e. total financial savings), (see table 1).

The generally favourable employment and savings performance should be seen against the background of a long period of structural reforms that helped turn around the economy from a dismal position in the 1970s. The reforms have focused on

Table 1

Total, Real and Financial Savings , 2002

	DK	Euro area	US	SE	UK
	% of GDP				
Total savings	22.9	21.3	14.0	21.2	14.5
– of which private	19.6	21.0	14.0	17.2	14.6
– of which public	3.3	0.3	0.0	4.1	–0.1
Total investment	20.8	20.2	18.6	17.1	16.3
– of which private	19.1	17.6	15.2	14.1	14.9
– of which public	1.8	2.6	3.4	3.0	1.4
Total financial savings	2.1	1.1	–4.6	4.1	–1.8
– of which private	0.5	3.3	–1.2	3.1	–0.3
– of which public	1.6	–2.3	–3.4	1.1	–1.5

Source: OECD, Economic Outlook 74 (2003) and Statistics Denmark.

strengthening private and public savings and improving the functioning of labour and product markets.[3] In this vein, the reforms have in some areas scaled back on easy access and rights to universal welfare services, while maintaining the basic functions of the welfare state in terms of alleviating exposure to economic risks, providing old-age security, alleviating poverty, and providing equal education opportunities.

In part, the key to Denmark's improved performance is that policymakers managed to move beyond the traditional efficiency versus equity debate, with its strong ideological overtones, to find ways of combining efficiency and equity. In particular, generous welfare support systems are maintained for those that qualify, while alleviating disincentives e.g. by restricting access or testing availability for work. The tax system has been reformed to reduce marginal tax rates despite a continued (slight) increase in the total tax-to-GDP ratio since the mid-1980s – although marginal tax rates remain high.

A fairly wide political consensus has also formed behind the objective of running sustainable fiscal (and structural) policies in view of the future financial pressures related to the ageing of the population. The government's so called *2010-strategy* is focused on running public surpluses to reduce public debt, and increasing employment through structural measures, to ensure the sustainability of public finances. The adjustment burden still outstanding in terms of fiscal policy measures or structural reform in order to prevent public debt from rising beyond bounds is, on available estimates, moderate compared to most EU countries and the U.S.A., (see Frederiksen, 2003 and 2004 and Economic Policy Committee, 2003).

Significant policy challenges remain to prepare for ageing, however, in particular with respect to tight expenditure control, and continued structural reforms to raise sustainable employment. A Welfare Commission has been established to explore ways of reforming the Danish welfare model with a view, notably, to boost labour supply and employment.

[3] *In this paper, "structural reform" refers not only to measures that raise potential output and reduce rigidities, e.g. in labour markets, but also to changes in tax and pension systems that impact savings and investment incentives.*

2 Historical Policy Challenges and the Timing of Major Policy Initiatives

Denmark entered the 1980s in an unfavourable macroeconomic position. As in the rest of the EU, unemployment and inflation had risen from very low levels in 1972 to double-digit ranges in 1982, with Denmark experiencing a slightly worse deterioration than the average. Long-term interest rates had soared to 20% under the impact of high foreign rates and a lack of credibility of the exchange rate parity within the ERM in the aftermath of repeated devaluations of the krone in 1979–82.

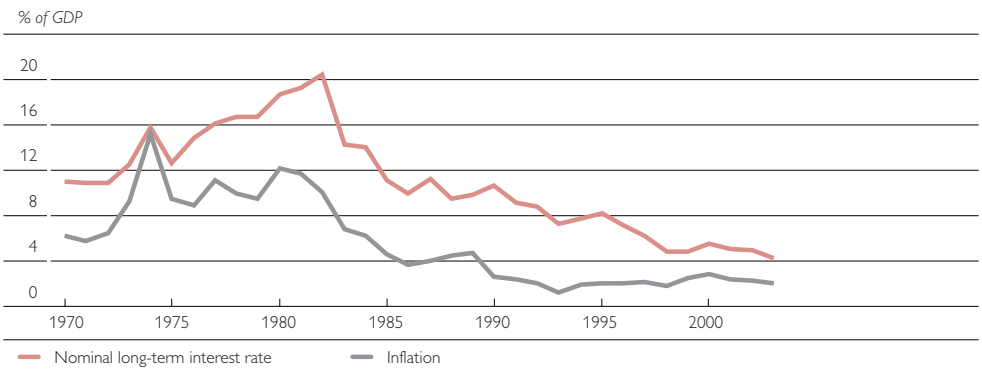
Unlike other EU countries Denmark had a seemingly chronic current account imbalance – with an uninterrupted 30-year run of deficits. The imbalance was rooted in disincentives to save in the private sector and, from the mid-1970s, mounting public deficits. Under the impact of rising unemployment and high interest rates, the government deficit reached 9% of GDP in 1982.

Against this unfavourable background, Denmark has had four major (stabilization) policy adjustments since the early 1980s, namely:

– The introduction of the fixed exchange rate policy in 1982 backed by strong fiscal tightening

Chart 2a

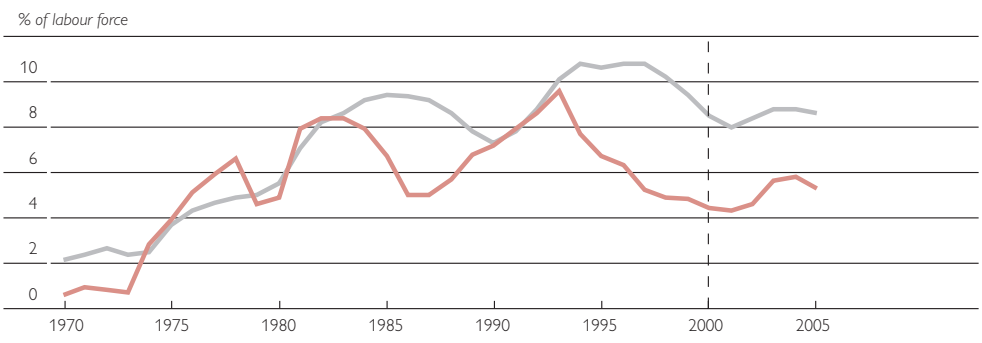
Inflation and Nominal Long-Term Interest Rates, Denmark



Source: Statistics Denmark, European Commission, OECD.

Chart 2b

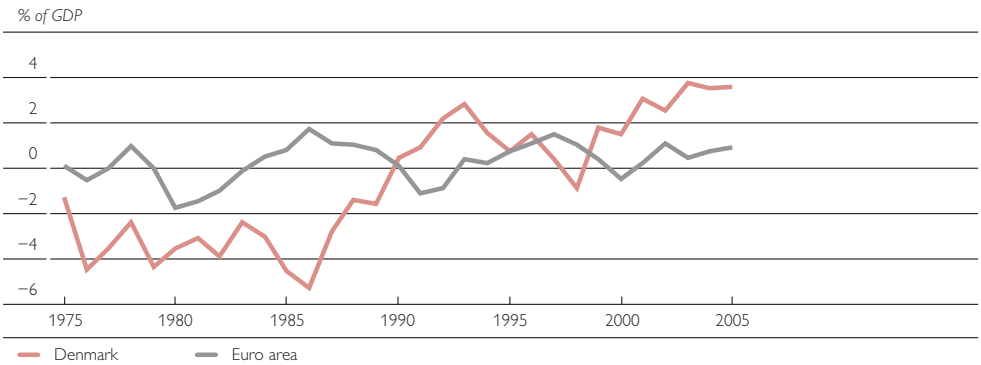
Unemployment, Denmark and the Euro Area



Source: Statistics Denmark, European Commission, OECD.

Chart 2c

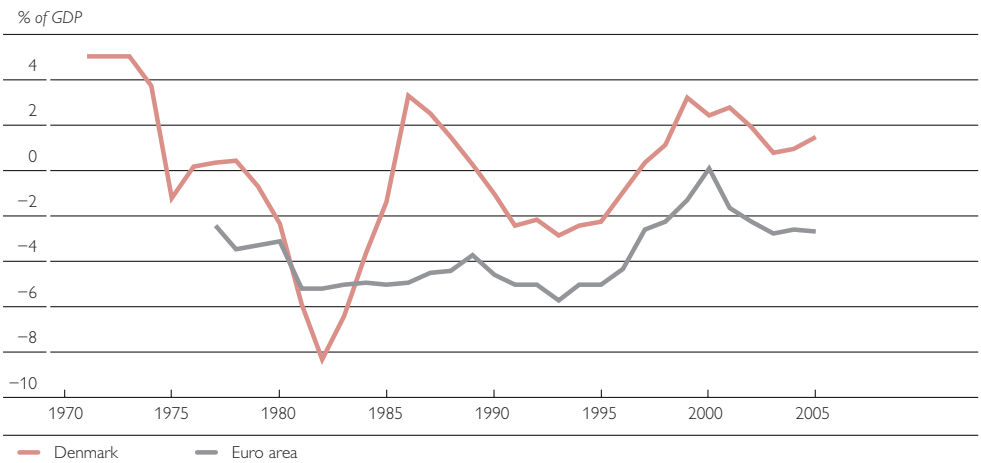
Current Account Balance, Denmark and the Euro Area



Source: Statistics Denmark, European Commission, OECD.

Chart 2d

General Government Balance, Denmark and the Euro Area



Source: Statistics Denmark, European Commission, OECD.

and the abolition of wage indexation.

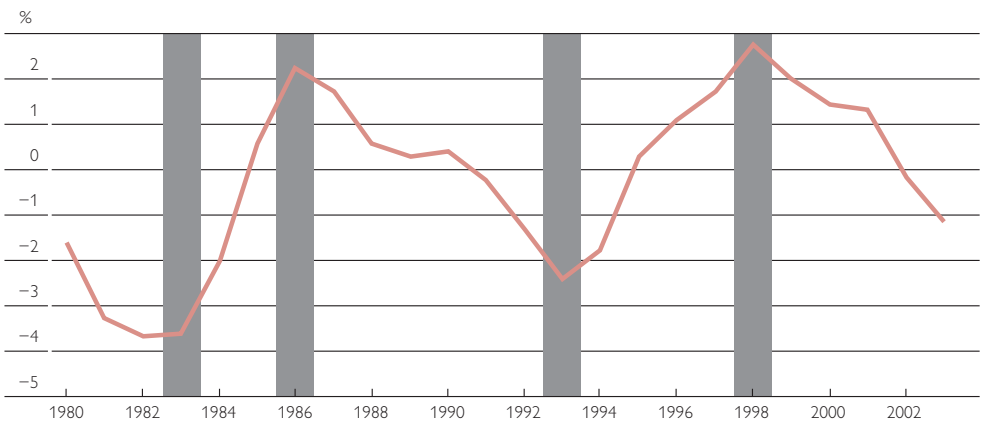
- The 1986 "potato diet" and 1987 tax reform to redress overheating pressures and external imbalances by strengthening private savings.
- The "kick start" of 1994 to promote recovery and reduce unemployment.
- The "Whitsun package" of 1998 to prevent overheating and strengthen savings.

The timing of these packages was related to major imbalances in the economy in the shape of significant output gaps (chart 3a) and, on the first two occasions, substantial savings-investment imbalances (charts 2b and 2c).

The turnaround in macroeconomic performance was initiated with the introduction of the fixed exchange rate policy backed by strong fiscal tightening from late 1982 onwards. This episode has been labelled an example of "expansionary fiscal tightening" (see Alesina and Perotti, 1995, and others). The fiscal tightening was more than offset by an exceptional decline in long-term rates from 20% to 10%

Chart 3a

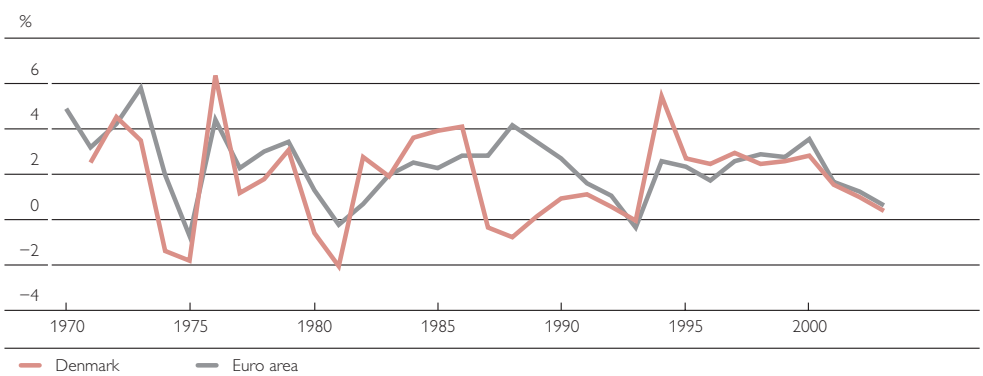
Output Gap and the Timing of Major Stabilization Initiatives



Source: Statistics Denmark, European Commission, authors' calculations.

Chart 3b

Real GDP Growth, Denmark and the EU



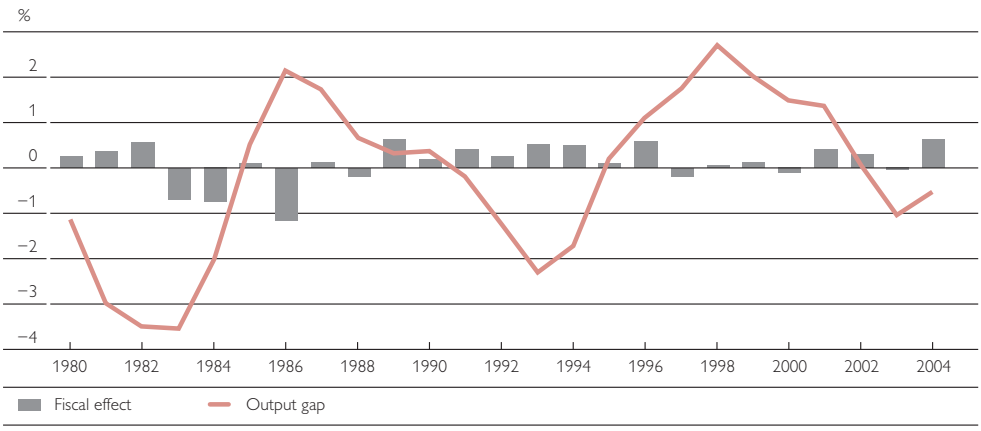
Source: Statistics Denmark, European Commission, authors' calculations.

within three years and a rebound in confidence. Consequently, the Danish economy boomed in 1983–86 at a substantially faster pace than the rest of the EU, and the business cycle deviated significantly from the EU average in the mid- to late-1980s (see chart 3b).

As private consumption and investment soared, the current account deficit widened to a record 5% of GDP in 1986, and wage inflation accelerated. In response, the "potato diet" of 1986 consisted largely of administrative credit market tightening, particularly in the mortgage credit market (affecting top-up loans, repayment profiles on new loans, etc.). The tax reform of 1987 lowered the tax value of interest deductions to strengthen savings incentives (see below). The measures had a strong contractionary effect on private consumption and the housing market. To help restore competitiveness, employers' social security contributions were sharply reduced in 1988, fully financed by a

Chart 4a

Simulated First-Year Impact of Fiscal Policy and the Output Gap, Denmark



Source: Authors' calculations using the macroeconomic model ADAM.
Note: The fiscal effect is a model-dependent simulated impact of discretionary fiscal policy changes relative to a defined neutral path for fiscal variables.

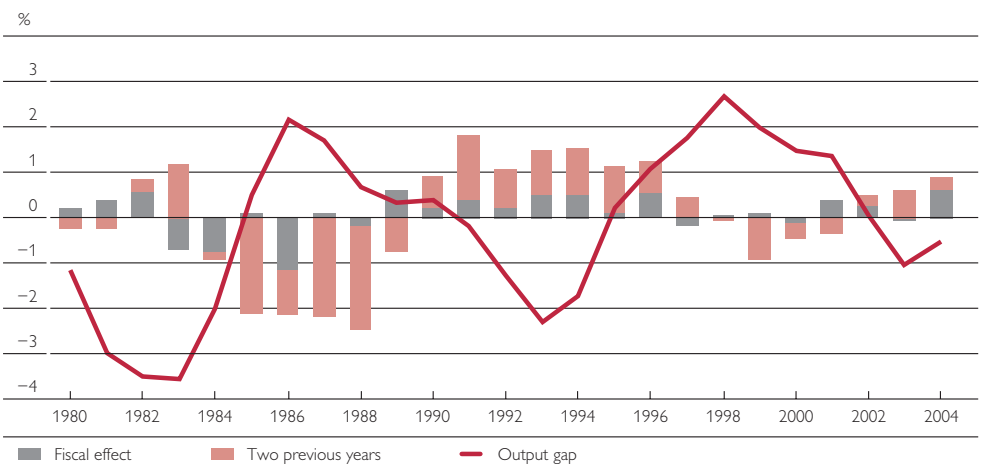
2.5 percentage point increase in (effective) value-added tax (VAT) rates.

As the ensuing slump in domestic demand was prolonged by high interest rates during the German reunification boom, growth was meagre and unemployment climbed until 1993. The former credit measures were gradually lifted in 1993 and 1994. Alongside a wave of mortgage refinancing when interest rates fell, this played an important role in "kick-starting" a strong recovery in 1994. Helped also by fiscal stimulus, growth reached 6% in 1994. The subsequent period of falling unemployment was also the most active in terms of labour market reforms (see below).

When policy tightening became necessary in 1998 to prevent overheating, the "Whitsun package"

Chart 4b

Three-Year Cumulated Fiscal Effect and the Output Gap, Denmark



Source: Authors' calculations using the macroeconomic model ADAM.
Note: The fiscal effect is a model-dependent simulated impact of discretionary fiscal policy changes relative to a defined neutral path for fiscal variables.

Table 2

Important Tax Rates Affecting Savings, 1980–2004

	1980	1986	1993	1998	2002	2004
	%					
Maximum tax value of interest deductions	68.8	73.2	52.2	46.4	33.3	33.3
Tax on return of private pensions	0.0	44.1	50.1	35.8	15.0	15.0
Corporate tax rate	40.0	50.0	34.0	34.0	30.0	30.0

Source: Author's calculations.

mainly took the form of further reductions in the tax value of interest deductions and increased mandatory pension savings – rather than administrative credit market measures, which entail distortions.

Further credit market liberalization – with the introduction of variable rate mortgages during the late 1990s and mortgage loans free of repayment for up to 10 years (which may be rolled over) as of 2003 – are providing substantial support to house prices and private demand during the emerging upswing in 2004.

With changes to the tax value of interest rate deductions and credit market policies heavily influencing domestic demand, demand management has not been restricted to (traditional) fiscal policy, even though monetary policy is bound by the fixed exchange rate. Fiscal policy has, in contrast to many other EU countries, played a notable countercyclical role (see chart 4a and 4b).

3 Policies to Strengthen National Savings

Private savings incentives

The chronic savings deficits up to the mid-1980s appeared to be rooted in three structural factors: the tax treatment of interest payments, the tax-financed pay-as-you-go pension system, and the tax treatment of investments. Policies to deal with these aspects were enacted from the mid-1980s.

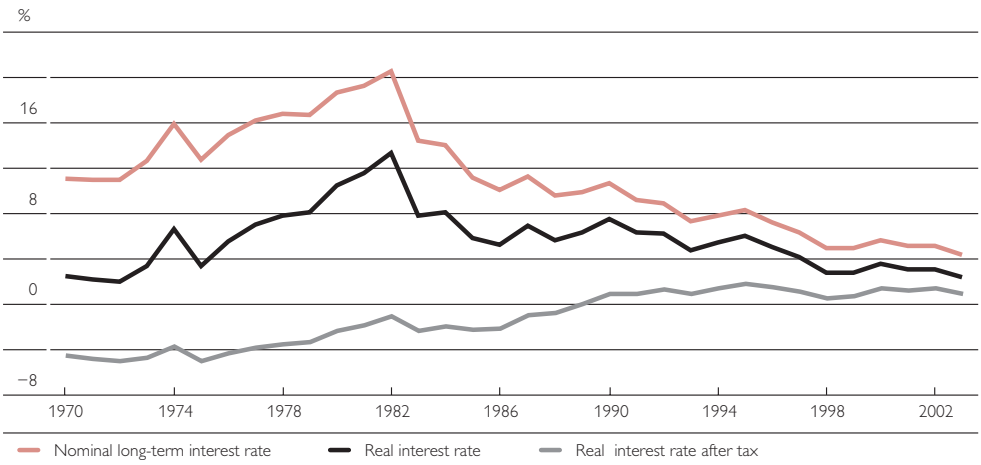
Until 1987, the tax value of interest deductions depended on the marginal income tax rate, which at the time could be up to 73%.[4] The tax value was subsequently reduced through a series of tax reforms agreed in 1987, 1994 and 1998. The tax reform of 1998 reduced the tax value of interest expenditures to its current level of 33%, phased in during 1999–2001. These changes have raised the real after-tax rate faced by households despite a concomitant decline in pre-tax real interest rates (see chart 5a).

Denmark has a tax-financed pay-as-you-go pension system with universal coverage. However, the pension support levels relative to average income are fairly modest in comparison with many EU-countries. The pay-as-you-go system is complemented by tax-favoured individual retirement savings accounts, collectively agreed labour market pensions, and mandatory (legislated) labour market pensions. These are based on actuarial principles with a

[4] *The very high income tax rates in Denmark should be seen in conjunction with the near-absence of payroll taxes (although part of the income tax since 1998 consists of an 8% so-called labour market contribution, it applies to both wages and other personal income and is collected with the normal income tax). The total tax wedge between wage costs to the employer and the net wage of employees is not correspondingly higher in Denmark (see section 7).*

Chart 5a

Real After-Tax Interest Rates Faced by Households



Source: Statistics Denmark, European Commission, authors' calculations.

clear link from individual contributions to future pension rights. The widely perceived need to top up moderate state pensions with personal pension savings underpins incentives to work and save.

In the late 1980s, private pension savings covered about one third of the labour force, mainly white-collar workers. Subsequently, a gradual build-up of supplementary pension schemes has taken place for almost the entire labour market. The decisions to build up labour market pensions were taken by the employer and labour organizations in the context of collective bargaining agreements. Individual retirement accounts are also widespread.

Notwithstanding the introduction of a tax on pension returns (see below), as well as altered rules for tax deductions of pension contributions and taxation of pension pay-outs, the tax treatment of pension savings remains preferential to other savings. There are no signs that the reduced tax subsidy has restricted the build-up of private pensions savings (see chart 5b).

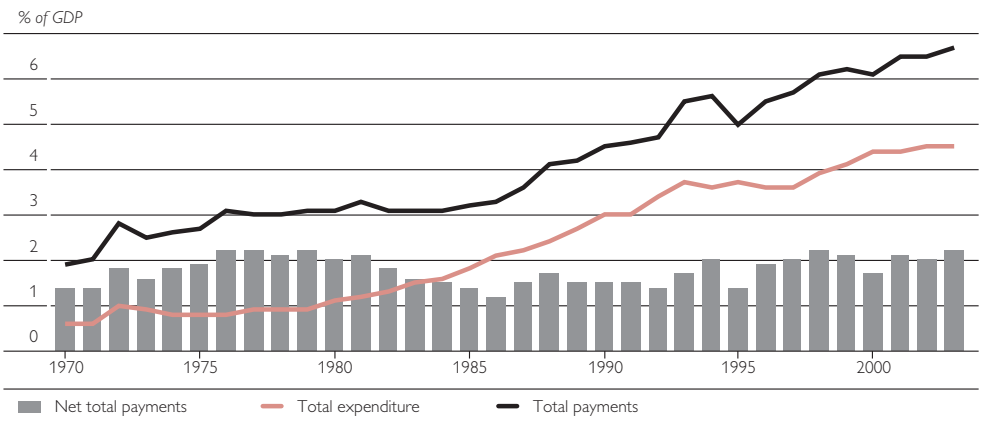
The build-up of collectively agreed and mandatory labour market pensions presumably contributes to higher total private savings, though they may partly substitute for other individual savings. Particularly households with short planning horizons and households at a point in their life-time income cycle, where they do not wish to save for pensions, may save more than they would otherwise have done.[5] Without the build-up of new schemes, net pension payouts might have ensued by now, affected by the very high tax free investment yields up to the early 1980s for previous cohorts of pension savers.

Formerly very generous depreciation rules for investment expenditure reduced the efficiency of investment decisions, and distorted the

[5] *This applies to households that cannot easily offset mandatory pension savings by running down liquid asset holdings or take reasonably-priced loans, including many first-time house owners and many who live for rent. As liquidity constraints ease over time for such households, their savings may decline relative to a counterfactual with less mandatory saving. But new generations of constrained households may offset this decline.*

Chart 5b

Pension Contributions and Pension Payments



Source: Statistics Denmark, European Commission, authors' calculations.

relative price between the production factors capital and labour. Depreciation rates have been reduced, and the tax base for company taxation broadened, which has allowed a reduction in company tax rates (see table 2).

Strengthening public savings

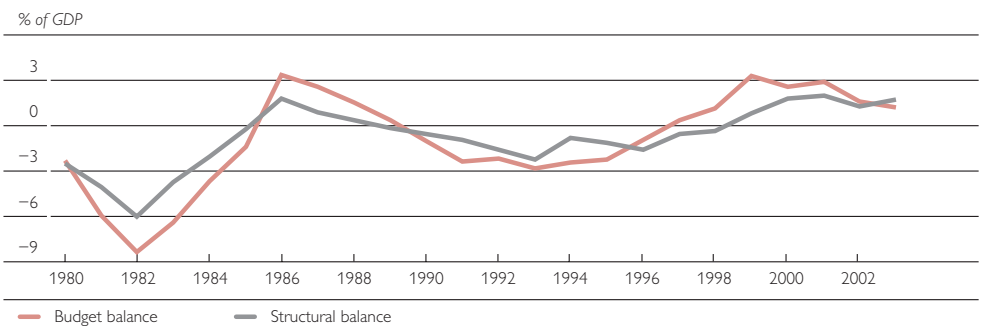
As the rise in unemployment due to adverse economic shocks during the 1970s and early 1980s interacted with still unreformed Danish institutions, the high unemployment rate increasingly turned out to be of a structural nature. High interest rates also made for a rapidly rising debt service burden, and fiscal policy had to be tightened to halt the build-up of debt.

Much of the movement in the actual budget balance over the last two decades reflects changes in the (estimated) structural budget balance (see chart 6a). Discretionary fiscal tightening was the main reason for the sharp improvement in the structural balance in the mid-1980s. Especially since 1995, an estimated reduction in structural unemployment has provided a major contribution to the improvement in the structural budget balance (see chart 6b).

Tighter control of real public consumption growth was instituted from 1982 to 1992 (see chart 6c).

Chart 6a

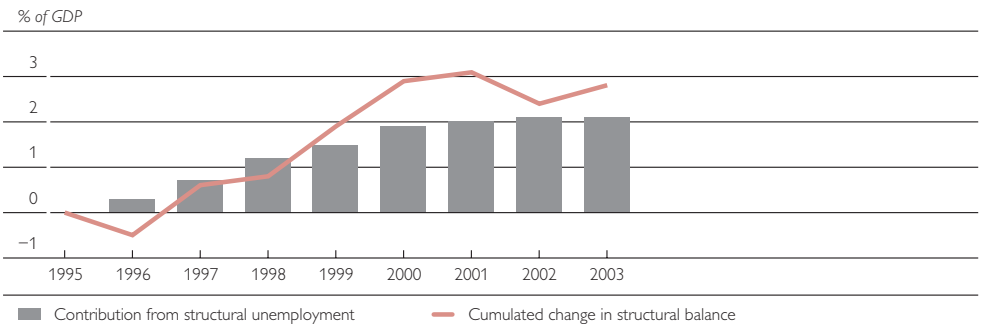
Actual and Structural General Government Balance, 1980–2003



Source: Statistics Denmark, authors' calculations.

Chart 6b

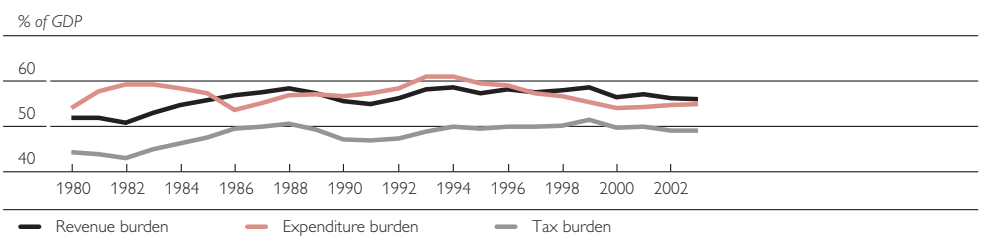
Contribution of Lower Structural Unemployment to Improvement in the Structural Balance since 1995



Source: Statistics Denmark, authors' calculations.

Chart 6c

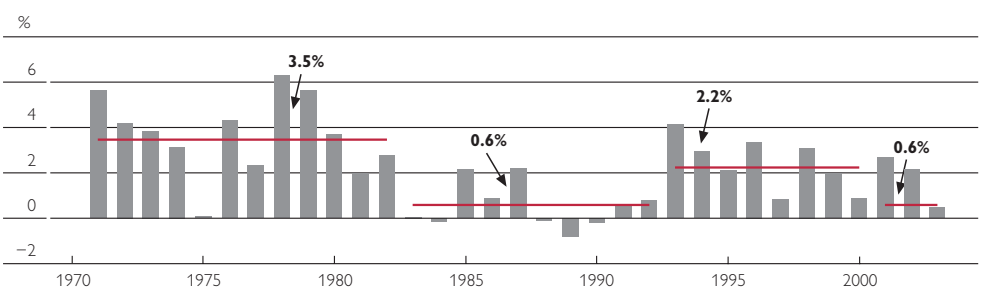
Public Outlays and Receipts



Source: Statistics Denmark, authors' calculations.

Chart 6d

Real Public Consumption Growth



Source: Statistics Denmark, authors' calculations.

Some relaxation was permitted in the 1993–2001 period, but spending restraint has been reinforced in 2002–04 with an average real consumption growth of less than 1% per year. Public transfers (and public sector wages) are largely indexed to private sector wages.

The total tax-to-GDP ratio increased significantly during the 1980s and, to a lesser extent, during the 1990s. Still around 50%, the tax ratio has eased down in recent years, helped by the current government's institution of a tax freeze from 2001. The tax freeze fixes all tax rates whether set in percentage terms or in nominal amounts (e.g. excise duties). For local and regional governments, the tax freeze applies to the average tax rate across the nation, with flexibility allowed for tax

changes in individual municipalities or counties, as long as they are offset by opposite movements elsewhere.

An important contribution to fiscal consolidation was the introduction of a tax on investment income in the private (and semi-public) pension funds and life insurance companies as of 1983. Originally in the form of a real interest rate tax, the tax regime has gone through a series of changes and today consists of a 15% flat rate on all types of investment returns (see table 2).

4 Key Features of the Danish Labour Market

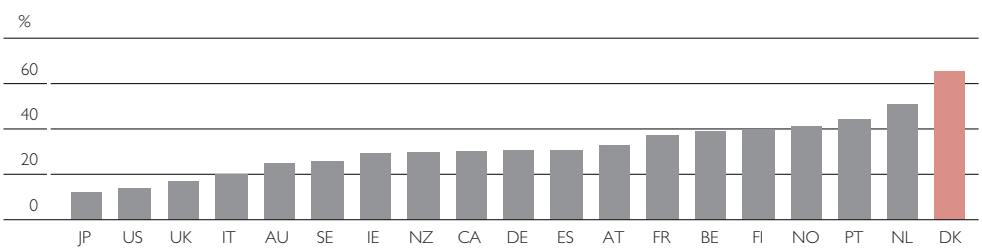
The Danish labour market is characterized by relatively generous unemployment benefits combined with highly active labour market policies, relatively stringent availability-for-work requirements and liberal firing rules. These institutions, together with generally strong basic schooling and fairly high educational attainment levels, contribute to a highly adaptable labour force, with a job turnover among the highest in the world. Today, government involvement in wage setting is minimal, with no legislated minimum wage, and wage negotiations are predominantly decentralized.

Unemployment benefits

Unemployment benefits are generous for low-income individuals covering 90% of previous income – the highest rate in the OECD. Benefits are capped at a maximum, however,

Chart 7a

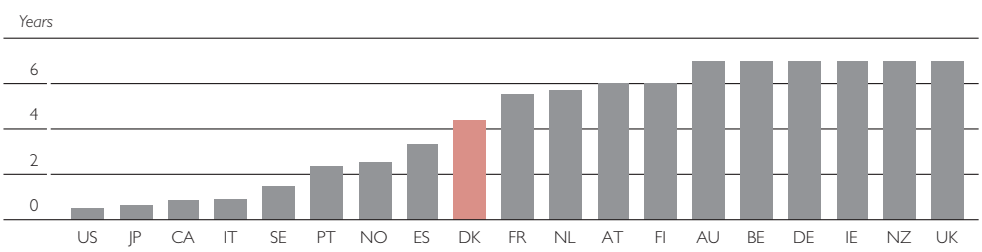
Gross Replacement Rates, Average over Five Years, 1999



Source: *OECD, Benefits and Wages (2002).*
Note: *Gross replacement rates are the OECD summary measure of benefit entitlements. For Italy, the chart relates to the Mobility Benefit. The maximum duration is the sum of the maximum duration of unemployment insurance (UI) and unemployment assistance (UA) benefits. The duration is truncated at 7 years when the period is unlimited.*

Chart 7b

Maximum Duration of UI Plus UA Benefit Period



Source: *OECD, Benefits and Wages (2002).*
Note: *Gross replacement rates are the OECD summary measure of benefit entitlements. For Italy, the chart relates to the Mobility Benefit. The maximum duration is the sum of the maximum duration of unemployment insurance (UI) and unemployment assistance (UA) benefits. The duration is truncated at 7 years when the period is unlimited.*

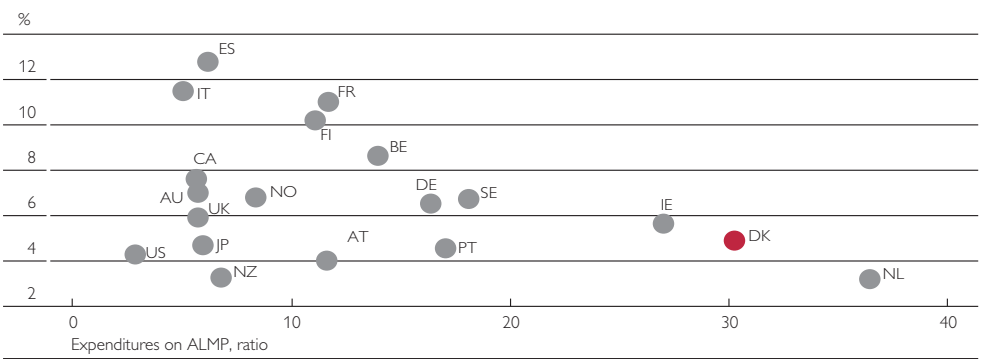
Chart 8a

Tightness of Availability-for-Work Requirements, 2004

Source: OECD, Hasselpflug and Thorball (2004).
Note: The index for availability-for-work requirements is constructed from a 2004 survey conducted with the cooperation of the Labour Market Working Group under the EPC and non-EU country experts. The index covers requirements mandated by law.

Chart 8b

Unemployment Rate and ALMP Expenses per Unemployed – Relative to GDP per Person in the Labour Force, 1999



Source: OECD, Hasselpflug and Thorball (2004).
Note: The index for availability-for-work requirements is constructed from a 2004 survey conducted with the cooperation of the Labour Market Working Group under the EPC and non-EU country experts. The index covers requirements mandated by law.

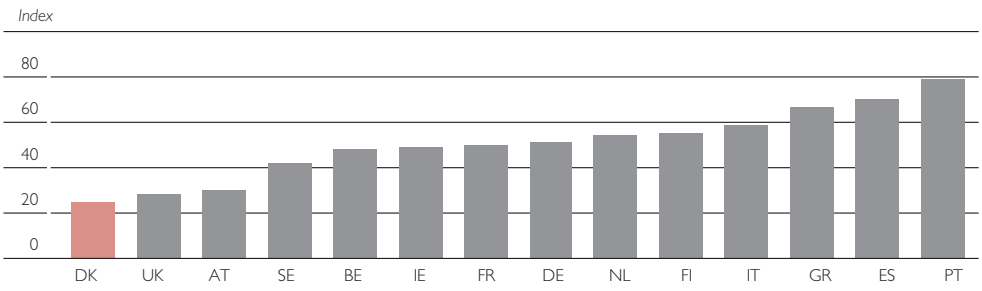
which corresponds to roughly 60% of average wage income for the employed. Hence, only 10% to 15% of the unemployed receive benefits at the 90% compensation rate. Benefits are less generous for high-income individuals than in some EU-15 countries. Benefits are not reduced over the course of the unemployment spell and the maximum duration is relatively long. Total compensation is the highest in the OECD when measured over a five-year period (see chart 7a and 7b).[6]

The potential adverse incentive effects from generous benefits may, however, to some extent be counterbalanced by relatively tight "availabil-

[6] *The OECD summary measure of gross replacement rates over a five-year period does not take into account that in some countries the unemployed may be entitled to a new benefit period after participating in an ALMP program. Hence, the maximum period of obtainable benefits may be much longer than indicated by the OECD measure. Also, in Denmark, periods on activation benefits are counted in the duration of unemployment but may be considered a separate activity in other countries. This impedes international comparisons using the OECD summary measure or statutory maximum durations.*

Chart 9a

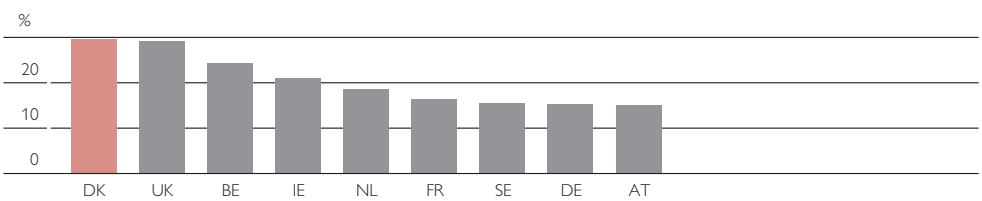
Employment Protection Legislation, 2003



Source: OECD Employment Outlook (1996, 1997), Nicoletti et al. (1999), World Bank (2003), Botero et al. (2003), Davis and Haltiwanger (1999).

Chart 9b

Job Turnover



Source: OECD Employment Outlook (1996, 1997), Nicoletti et al. (1999), World Bank (2003), Botero et al. (2003), Davis and Haltiwanger (1999).
Note: The data on job turnover cover primarily the manufacturing sector.

ity-for-work" requirements for the unemployed (see chart 8a).

Active labour market policies (ALMP)

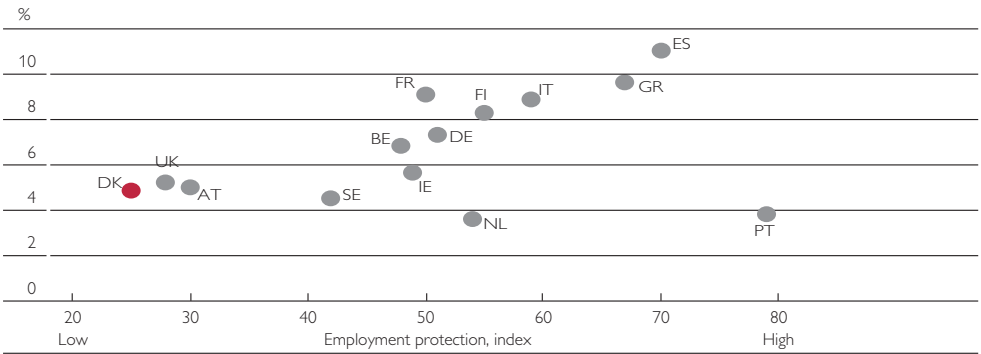
Denmark spends the second highest share of GDP in the EU on ALMP when measured relative to the level of unemployment (see chart 8b). The extensive focus on ALMP has several objectives. First, ALMP is – if suitably implemented – skill enhancing either through formal education or on-the-job training. Second, ALMP may alleviate bottlenecks in a tight labour market. Third, and potentially most important, ALMP may be an effective way of testing availability-for-work due to the requirement of participation in active measures already after six or twelve months of unemployment, depending on individual circumstances. ALMP is considered at least as important in this respect as formal availability-for-work requirements.

Flexible institutions and an adaptable work force

The level of employment protection legislation (EPL) is low (see chart 9a). Turnover in the labour market is high, with Danish workers changing jobs more often than in other countries for which data are available (see chart 9b). Across countries, low EPL appears to be correlated with low structural unemployment (see chart 9c), Portugal being a much-noted exception. Product markets seem reasonably competitive (although considerable scope for improvement remains) and product market regulation is liberal compared to continental Europe (see chart 9d). Basically very few attempts are made at halting structural adjustment in the private sector

Chart 9c

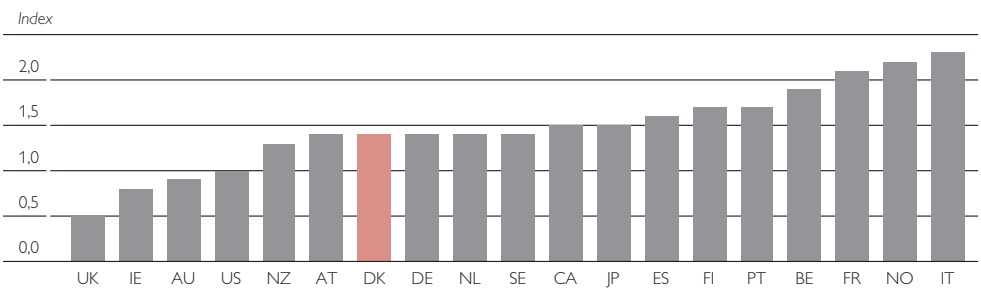
Structural Unemployment and Employment Protection Legislation in the EU-15, 2003



Source: OECD Employment Outlook (1996, 1997), Nicoletti et al. (1999), World Bank (2003), Botero et al. (2003), Davis and Haltiwanger (1999).

Chart 9d

Product Market Regulation, 1998



Source: OECD Employment Outlook (1996, 1997), Nicoletti et al. (1999), World Bank (2003), Botero et al. (2003), and Davis and Haltiwanger (1999).

through government intervention or subsidies. State subsidies for private businesses are low and there is little or no direct state ownership of e.g. manufacturing entities or financial institutions.

At least in the Danish context, a strong social safety net and generous unemployment benefits may be a necessary prerequisite for maintaining broad political support for these flexible institutions.

Labour supply-enhancing welfare spending

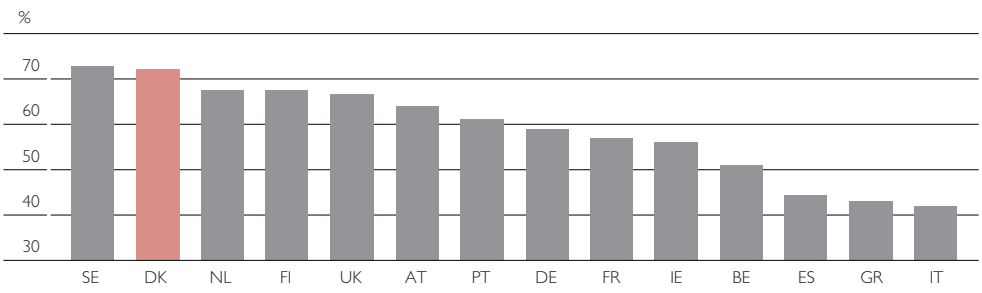
Some welfare spending acts to raise labour supply, notably subsidized childcare and care for the elderly, i.e. functions that were formerly taken care of at home or in the family. Most local governments guarantee availability of childcare for preschoolers, with parental co-payment limited to a maximum of 33% of costs. For older children, after-school care is widely available at subsidized rates, and elderly care is well developed, including care and assistance in elderly persons' own homes.

Supply and demand for labour across skill levels and wage-setting

The Danish education system appears to have met the trend-like increase in demand for skills, perhaps to a larger extent than in other countries. Hence, shifts in demand from low to high skilled labour owing to technological progress and re-

Chart 10a

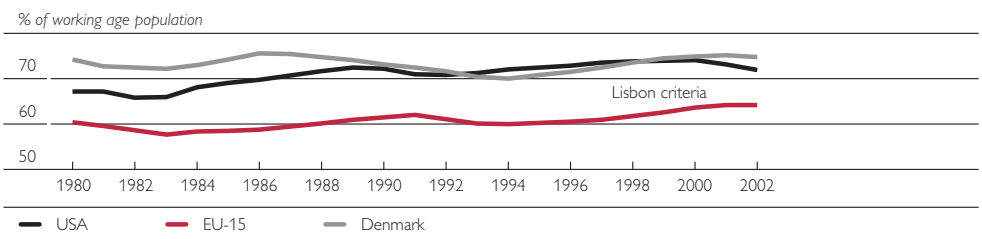
Participation Rate Among Women



Source: OECD, Labour Force Survey.

Chart 10b

Total Employment Rate



Source: OECD, Labour Force Survey.

inforced by globalization seem to have been met by similar shifts on the labour supply side (see Fosgerau et al., 2001). Relative unemployment and non-employment rates by skill have remained broadly constant, or even narrowed, and so have wage differentials across skill levels (see chart 11a and 11b).

Wage setting has become increasingly decentralized during the 1990s. Collective bargaining now mainly covers areas such as pensions, maternity leave etc. Among workers covered by collective bargaining, the share of workers for which wages are fixed in collective (sectoral) agreements has fallen from 34% in 1989 to 15% by 2000. The vast majority of wages are set at company and individual level.

6 Successes and Failures in the 1990s

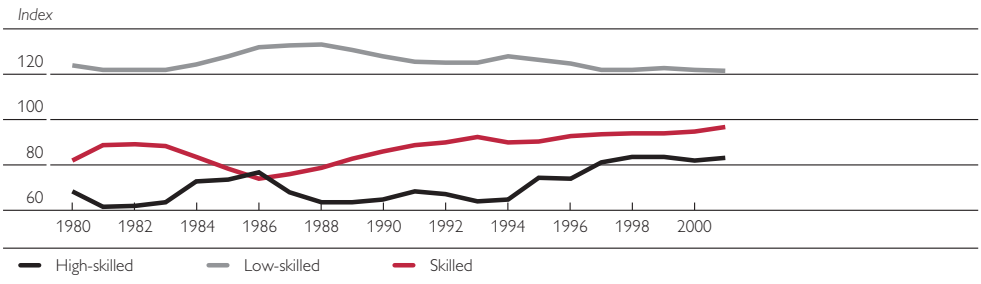
The labour market policies of the 1990s comprised successes but also unsustainable elements, which have subsequently been curtailed. The key success was a marked reduction in structural unemployment during the 1990s (see chart 12a).[7] However, labour force participation contracted in the first half of the decade and has only picked up slightly since then (see chart 12b).

[7] *The structural unemployment rate is estimated in an unobserved components model using the Kalman filter. Similar results are found by the OECD and the EU Commission, although the drop in both actual and structural unemployment is less pronounced when the EU/ILO harmonized measure of unemployment is used instead of the national measure shown in chart 12a.*

Chart 11a

Unemployment Rates by Skill

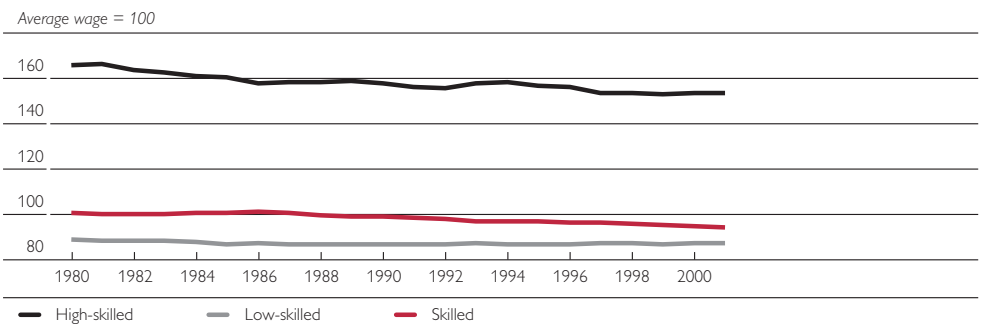
Difference from Total Unemployment Rate



Source: Statistics Denmark, OECD, authors' calculations.

Chart 11b

Relative Wages by Skill



Source: Statistics Denmark, OECD, authors' calculations.

6.1 Measures to Reduce Structural Unemployment

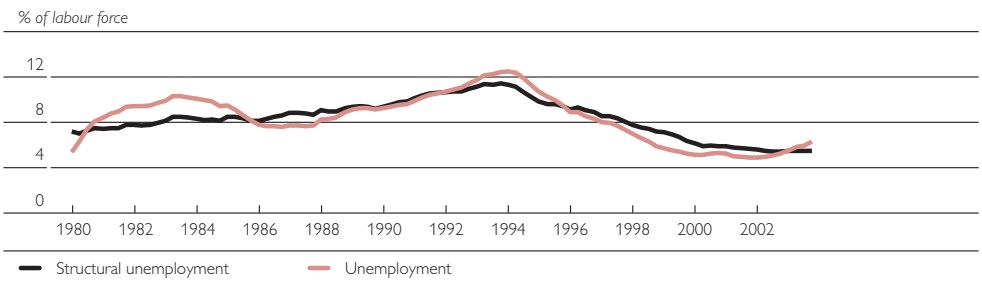
In the first half of the 1980s, policymakers were preoccupied with what seemed an excessively high average wage level in the economy, a diagnosis founded on the combination of persistent current account deficits and high unemployment. Repeated attempts at income policies, either through direct government involvement or pressure on the labour market parties to settle on "responsible" wage agreements, turned out less successful than hoped-for – although the abolition of price indexation of wages as of 1982 was an important and useful step, particularly in the context of disinflation.

The experience of accelerating wage inflation during the upswing in the mid-1980s – despite official government policies for continued moderate wage developments – shifted the focus of policymakers towards structural labour market policy. In line with the findings of the theoretical literature, the government's ambition in the 1980s was to lower replacement rates in the unemployment benefit system and alter their structure, but it proved impossible to rally sufficiently broad political support behind such measures.

As of 1992–94, the agenda shifted to reforms of active labour market policies and other parameters in the unemployment insurance benefits (UIB) system than the general replacement rates.

Chart 12a

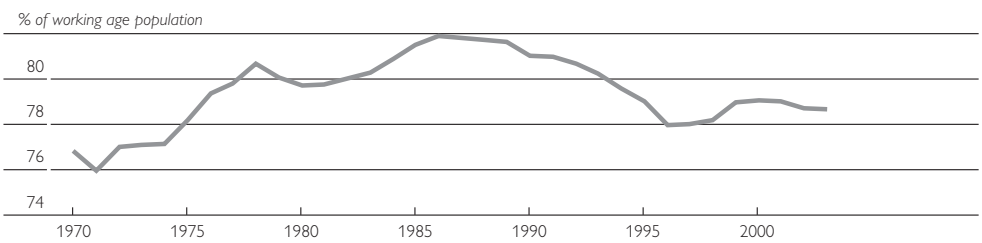
Actual and Structural Unemployment



Source: Statistics Denmark, OECD, authors' calculations.

Chart 12b

Labour Force



Source: Statistics Denmark, OECD, authors' calculations.

Active labour market policies (ALMP)

Prior to 1994, the maximum benefit duration was 2½ years, but the unemployed could qualify for a new benefit period by participating in active labour market programs. Effectively, the maximum duration of benefits was approximately eight years. Availability-for-work requirements were relatively lax. By 1994, substantial reforms were initiated, and these were extended in the subsequent years.

Firstly, participation in active programs would no longer qualify the unemployed for a renewed benefit period. This was a crucial element in the reforms, shifting the focus of the ALMP system more firmly to getting people into work rather than keeping the unemployed in the benefit system. The formal maximum benefit period was set at seven years. Subsequently, the maximum period was reduced to five years (in 1998) and currently to four years (since 2000).

Second, participation in active programs became obligatory in a policy known as "right-and-duty" of activation. Sanctions where put in place in case of refusal or for people that dropped out. Initially, the right-and-duty to participate became effective after three years of unemployment, but this was moved forward gradually and by the end of 2002 it was effective after one year of unemployment. The activation measures may be private or public job placement, education or retraining schemes, or other (quantitatively less important) activities. Over the period, various changes have been made to the exact content and scope of the active measures.

Third, among reform initiatives targeted at specific groups, unemployed aged 25 years or less without

a qualifying education are no longer allowed more than 26 weeks on passive benefits (since 1996). Thereafter, they must either work or enter education at a benefit level corresponding to roughly half of the UIB.

There was also an increased focus on alleviating bottlenecks on local labour markets, and a host of other changes of an administrative nature.

Tightened eligibility criteria and formal availability-for-work requirements

Work requirements for qualifying for UIB were extended from 26 weeks to 52 weeks of work in the preceding three years. When the benefit period was shortened in 1998, the work requirement was lowered to 26 weeks for people who exhaust their benefit entitlement due to concerns that an unacceptable number of unemployed would exhaust their entitlement. An attempt in 2002 to restore the work requirement at the previous level was unsuccessful.

Formal availability-for-work rules have been tightened in several steps and are, by now, relatively tight compared to most EU countries (see chart 8a above).

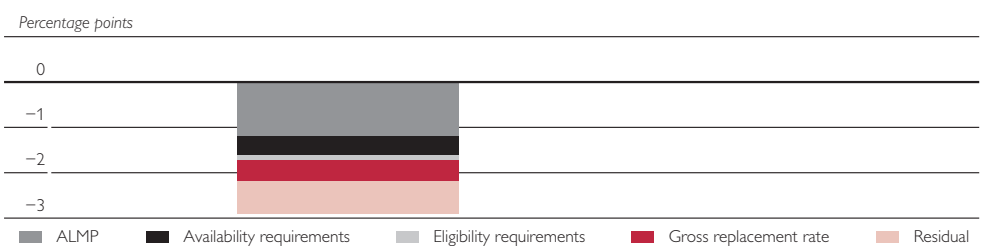
Evaluating the impact of reform

The sharp fall in actual unemployment from 1993 to 2002 without resurging inflation provides prima facie evidence that the structural unemployment rate has fallen since the early 1990s. This conclusion is confirmed by estimates of the structural unemployment rate in unobserved components models estimated by the Kalman filter employed by, e.g., the OECD, the EU, and the Ministry of Finance (see chart 12a).

To help quantify the contribution of individual policies to the reduction in structural unemployment, a panel-data analysis of 19 OECD countries is used, in a first step, to attribute variation in unemployment rates to observable differences in labour market institutions, product market regulation, taxation etc. (see box 1). Applying these coefficients to the change in Danish institutions suggests that the reduction in unemployment chiefly came from the

Chart 13a

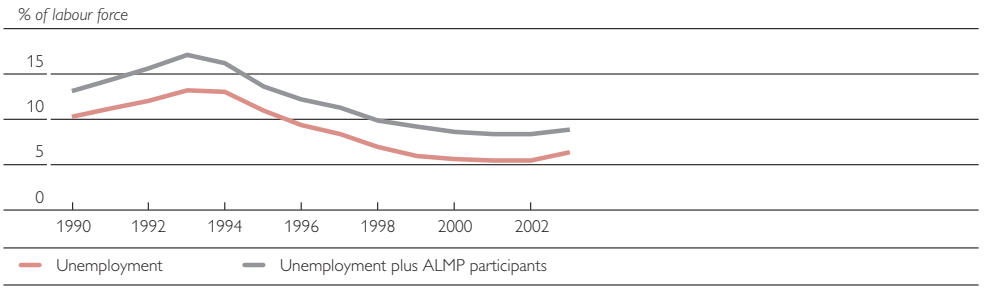
Decomposition of Change in Actual Unemployment, 1994–1999



Source: Authors' calculations.

Chart 13b

Unemployed and Persons in ALMP Schemes



Source: Authors' calculations.

increased focus on ALMP. Tighter eligibility and availability requirements as well as reductions in the five-year gross replacement rate through shortening of the benefit period also contributed substantially (see chart 13a).

Meanwhile, active labour market policies entail sizable (direct) budgetary costs amounting to roughly 1¼ percent of GDP, with lesser deviations from year to year. Moreover, the lowering of unemployment through ALMP schemes is by some considered to be partly "cosmetic". Despite the bringing forward of the point of activation, the total number of persons in active schemes has been relatively constant at around 2¾ percent of the labour force (see chart 13b) (although this implies an increase in numbers relative to the lower number of unemployed).

Private and public job training may also potentially "displace" regular workers, despite formal requirements that attempt to prevent displacement. The size of displacement is not well-known (though studies in Sweden indicate that it may be sig-

Box 1

Explaining Cross-Country Variation in Unemployment Rates

Panel data regressions for 19 OECD-countries are used to attribute variation in actual unemployment rates to differences in labour market institutions, product market regulation and taxation. The results show that high unemployment insurance benefits (UIB), long duration of UIB, passive labour market policies, and limited testing of availability-for-work are all factors which can raise structural unemployment (see table 3).

Table 3

Impact of institutions on unemployment, 1963/83–1999

	Coefficient	Standard deviation
Higher UIB compensation	0.054	(0.023)
Longer duration of UIB[1]	0.006	(0.005)
Tighter availability for-work requirements	−0.020	(0.010)
Higher expenditure on ALMP[2]	−0.001	(0.000)
Tighter eligibility (prior work) requirements	−0.037	(0.020)
Stronger job protection	0.004	(0.002)
More centralized wage bargaining	−0.013	(0.004)
Higher degree of unionization	0.189	(0.010)
Total labour taxes[1]	0.047	(0.015)

Source: Gaard (2004).

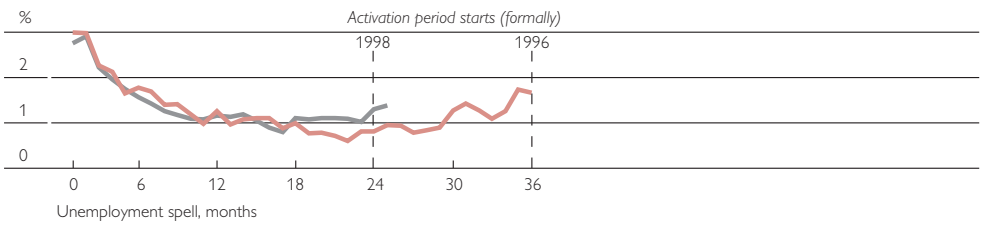
Note: The coefficients were obtained from several separate regressions. In addition to the listed variables, deviations from HP-trend of log real GDP, country dummies, and, in some specifications, time dummies enter the regressions.

[1] *Not significant in the 1983–99 sample, presumably owing to difficulties in constructing the indicator. The coefficient is based on a sample covering 1963–99.*

[2] *Measured in units of GDP per unemployed in relation to the labour force.*

Chart 14a

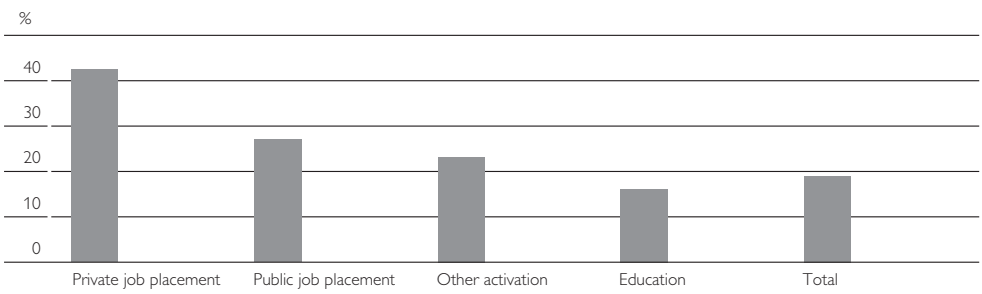
Hazard Rate out of Unemployment



Source: Geerdsen (2002).

Chart 14b

Improvement in Rate of Self-Sufficiency Six Months after Activation



Source: Geerdsen (2002).

nificant). Private job-training is less predominant in Denmark, however, than in countries where displacement effects have been more actively discussed, perhaps because wage subsidies are relatively moderate.

The positive impact of active labour market policies may in part be attributed to a motivational effect on job search among the unemployed. In this vein, a considerable body of evidence suggests that the "right-and-duty of activation" enhances job search activity in the run-up to the time when activation becomes mandatory (see chart 14a). The bringing forward of the point of activation from 36 to 24 months between 1996 and 1998 led to a significant increase in search at 24 months.

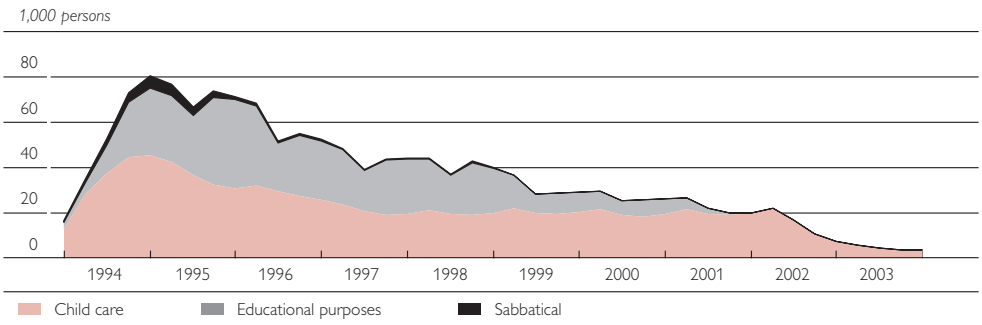
Experience shows that job placement in private firms has a higher success rate at getting the unemployed lastingly into employment than training measures (see chart 14b); – although this may in part reflect a selection bias in that private job placement may be offered to those unemployed that are most job-ready.

6.2 Labour Supply Management and Mismanagement in the 1990s

Many European countries, including Denmark, have attempted to reduce high unemployment – even when mainly of a cyclical nature – by reducing labour supply, e.g. through early retirement schemes. Such measures are, however, short-sighted in that the labour resources are no longer available, once the cyclical upswing materializes and business starts demanding labour again. In this way, cyclical downturns in employment tend to become structural, with adverse medium-term consequences for public finances.

Chart 15a

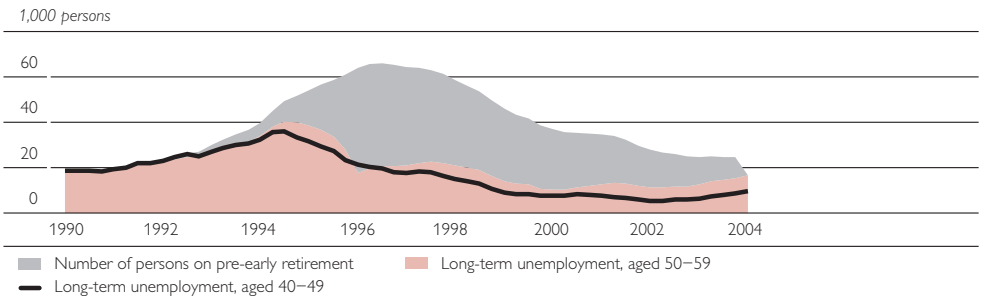
Persons on Leave, Full-Time Equivalents



Source: Statistics Denmark, authors' calculations.

Chart 15b

Pre-Early Retirement for Long-Term Unemployed[1]



Source: Statistics Denmark and authors' calculations.
[1] Unemployed for more than 12 months.

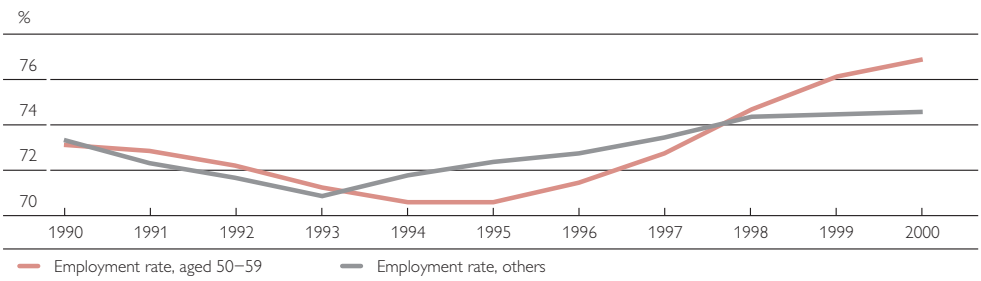
Unemployment in Denmark rose sharply during the cyclical downturn from 1987 to 1993, and from 1992 to 1994 a pre-early retirement scheme was gradually introduced for long-term unemployed 50–59 year olds (this scheme was in addition to the already existing early retirement scheme for 60–66 year olds, instituted during the recession in 1979). In addition, leave schemes were introduced that gave workers the right to take leave of absence for educational purposes (at 100% of the UIB rate), childcare (at 80% of UIB), and sabbatical (80%). Particularly as of 1994, the uptake on these schemes reduced the labour force significantly (see chart 15a).

The schemes have subsequently been tightened and to a large extent abolished. Hence, the permanent adverse effects on labour supply have been much smaller than if cuts in working hours or retirement ages had been introduced.

The pre-early retirement scheme provides an interesting and cautionary tale as it acted mainly as a substitute for employment, not for long-term unemployment, as intended. Despite the large uptake on the scheme from 1994 to 1996, long-term unemployment among the 50–59 year olds fell only briefly, and it subsequently developed largely in parallel with long-term unemployment among 40–49 year olds (see chart 15b). It appears that the natural flow into long-term unemployment (and out of long-term unemployment in the absence of the

Chart 16a

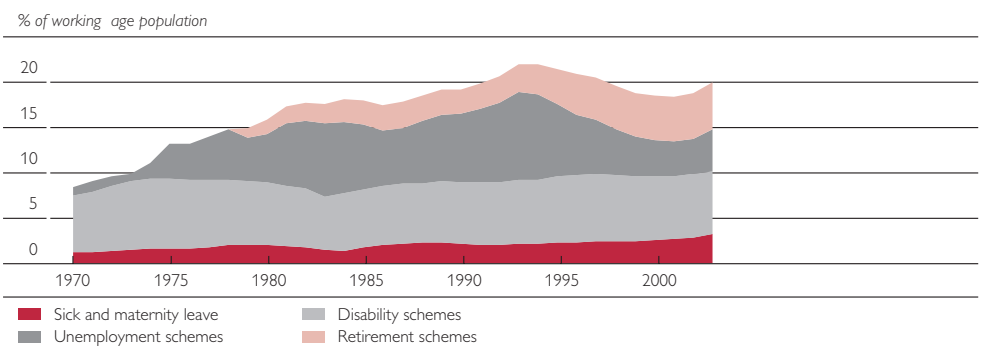
Employment Rate Among 50–59 Year Olds



Source: Statistics Denmark, authors' calculations, Ecowin.

Chart 16b

Number of Transfer Recipients, Aged 15–66



Source: Statistics Denmark and authors' calculations, Ecowin.

scheme) had been underestimated. In the run-up to 1996, when access to the scheme was possible, employment among 50–59 year olds fell, while it rose for other age groups. After 1996, when access to the scheme was closed, employment among 50–59 year olds developed stronger than total employment (see chart 16a).

Participation in the temporary leave schemes has dwindled to almost nothing as compensation levels were reduced to first 70% and then 60% of UIB for childcare and sabbatical. Access to educational leave and sabbatical has been closed. Lately, the extension of maternity leave periods to one year has caused a sharp decline in the number of persons taking leave for childcare purposes.

Other welfare schemes have also been reformed, but participation is still high. Reforms of the disability schemes have cut the annual inflow and reduced the total number of recipients to below 1995 levels (see table 4).

The early retirement scheme still remains in force. Despite a reform in 1998, which is estimated to reduce the number of recipients by 15,000 persons (almost 10%) over time, the total number of people in early retirement amounts to 6% of the labour force in 2003.

Labour supply has also been reduced through reductions in collectively agreed weekly working hours

Table 4

Labour Supply (Mis)Management

	Introduced	Eligibility	Participation	Reform
Pre-early retirement	1992–94	Age 50–59 years, long-term unemployed UIB member	46,000 in 1996 11,500 in 2003	Access closed in 1996
Temporary leave	1992–94	Children and education	77,000 in 1995 5,000 in 2003	Gradually tightened 1995–2002
Disability	Before 1979	Disability or in need of permanent social support	270,000 in 1995 259,000 in 2003	1998 and 2000: Annual inflow reduced strongly
Official working hours	1987–90 2000–04	From 40 to 37 hours a week. From 5 to 6 weeks of annual vacation		
Early retirement	1979	Age 60–66 (from 2004 60–64)[1] UIB member	115,000 in 1995 179,000 in 2003 (6% of total labour force)	1998 (Impact assessment 15,000)

Source: Author's calculations.
[1] *The official retirement age was reduced from 67 to 65.*

(from 40 to 37 hours, phased in during 1987–90) and an extension of annual leave from five to six weeks of vacation through 2000 to 2004 (see table 4).

Despite the cut back on leave schemes introduced in the mid-1990s, the total number of transfer recipients of working age is still high, at more than 20% in 2003 (see chart 16b).

7 Alleviating the Disincentive Effects of High Taxes

Total tax revenues are high, but the distortion compared to other countries is probably smaller than might appear at first look. First of all, the tax ratio is exaggerated by the fact that transfer incomes in Denmark (as well as some other countries, including Sweden) are taxed, while in most other countries they are paid "net-of-tax". This feature alone boosts the measured tax ratio in Denmark by 4% to 5% of GDP relative to most OECD countries.[8] Secondly, exemptions and loopholes have been virtually eliminated from the tax system, and this has made possible a reduction in marginal tax rates. Third, means-testing of income transfers or public services to persons of working age is not very predominant in Denmark. In many other countries, means-testing e.g. for parental payments to child care implies that composite marginal rates can be higher than would appear from the tax system alone.

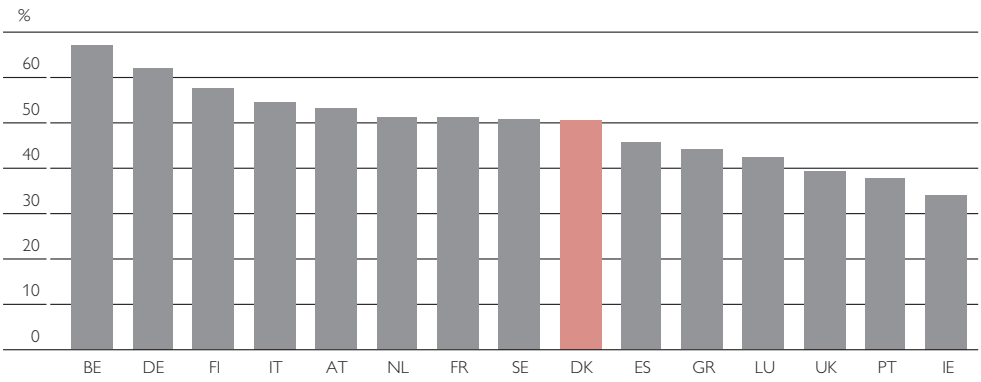
The marginal effective tax rate, including employers' social contributions, is close to the average of EU countries for incomes at 100% of the average wage, but among the highest for incomes at 150% of the average wage (see chart 17a and 17b).

High taxes have not prevented high participation rates, in part because the negative substitution effect

[8] *Correction for other technical factors, especially the inclusion of indirect taxes in the GDP measure in the denominator, would pull in the opposite direction.*

Chart 17a

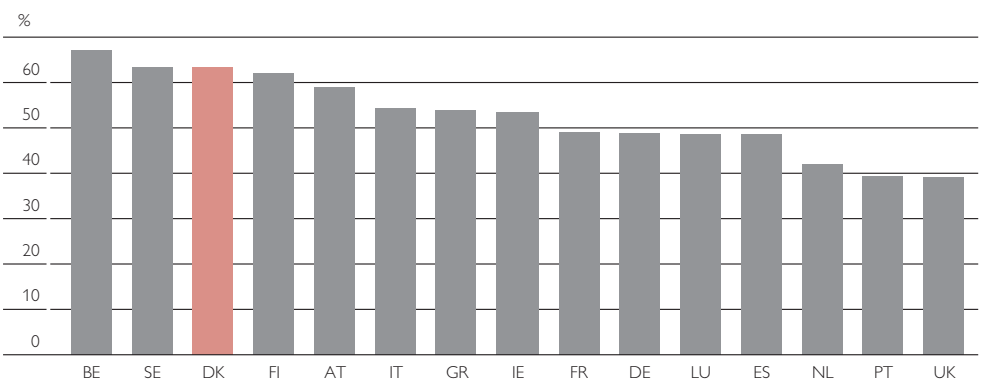
Marginal Effective Tax Rates at 100% of Average Wage



Source: European Commission.
Note: Two-earner couple with two children in 2001.

Chart 17b

Marginal Effective Tax Rates at 150% of Average Wage



Source: European Commission.
Note: Two-earner couple with two children in 2001.

on work effort from high marginal taxes is off-set by a positive income effect, requiring people to work more to attain a given level of income net of tax. Econometric evidence of labour supply elasticities is mixed and estimated elasticities are subject to considerable margins of uncertainty. Tax progression may have contributed to lower average working hours, through more vacation days and fewer weekly hours, while contributing to the tendency for most families to rely on two incomes.

Table 5

Marginal Tax Rates, 1980–2004

	1980	1986	1993	1998	2003	2004
	%					
Marginal income tax, average employed	x	57.7	59.3	54.3	53.8	52.2
Marginal income tax, highest bracket	68.8	73.2	68.7	62.0	62.9	62.9
Marginal income tax, first bracket	43.6	48.0	50.6	45.2	43.7	42.9

Source: Ministry of Finance, Denmark.

Table 6

Indicators of Income Distribution

	DK[1]	EU[2]
Income quintile ratio (s80/s20)	3.2	4.4
Gini-coefficient	23	28
Share of persons living in low-income households	4	9

Source: Authors' calculations.
[1] *National calculations based on incomes from 2002.*
[2] *Joint Inclusion Report, 2004. Based on incomes from 2000.*

For the average employed person, the marginal tax rate has been reduced from close to 60% in 1993 to 52% in 2004 (see table 5). Lower marginal tax rates have been financed e.g. by lower mortgage interest deductions and higher indirect and green taxes.

The income distribution remains among the most even in the OECD, and (on standard measures) considerably more even than in the average of the EU (see table 6).

8 The Danish Experience

Structural reform is feasible without weakening the basic functions of the welfare state. Reforms of labour and product markets generally require a greater willingness to change and adapt. But flexible institutions do not necessarily imply high income inequality, at least not if skills are not too unevenly distributed and the education system meets the increased demand for skills. Welfare spending has been reformed without important adverse distributional consequences. Also, it has been possible to reduce distortions within the tax system, e.g. lowering marginal tax rates, without reducing the effective progression of the system or overall tax revenue. The tax wedge on labour remains high, though, and is above the EU average, at least for higher incomes.

Welfare expenditures may be a prerequisite for public support for flexible institutions. Liberal firing rules, relatively light product market regulation and a hands-off approach to state subsidies or state involvement in market-based production might not have been politically feasible if not accompanied by a strong social safety net for those affected by structural change and unemployment. The emphasis is not on preventing job losses associated with structural change but on cushioning the income loss and providing opportunity as well as incentives for displaced workers to transition to new jobs.

Deep recessions feed bad policies – it is important not to do irreversible damage. During recessions, external competition and technological progress are often blamed for the economic woes. Pressure may arise for increased government intervention, subsidies, working hours reductions, early retirement schemes, and sometimes protectionist measures. Such measures can do medium-term damage to output and public finances, and are not easily reversible. Reduced labour supply should be avoided or, at the very least, restricted to measures of a temporary nature that can be undone when labour demand picks up.

For countries with a fixed exchange rate or participants in a monetary union, there may be some scope for demand management through administrative credit measures or borrowing in-

centives, particularly those that affect the housing market. Opportune timing of changes in credit market regulations and borrowing incentives – including mortgage interest deductability – have had strong and generally stabilizing demand effects in Denmark. Hence, demand management is not restricted to (traditional) fiscal policy even though monetary policy is bound by the fixed exchange rate.

Significant policy challenges remain to prepare for the ageing of the population. The Danish government's 2010-strategy aims at ensuring the sustainability of current policies, i.e. ensuring that current rules governing social transfers (indexation, retirement age, early retirement etc.) and public service standards can be sustained without imposing a need for future generations to raise taxes to prevent an unsustainable debt path. The strategy entails running fiscal surpluses of 1½–2½ percent of GDP on average from now to 2010 and implies that the relatively large current generations of working age contribute to the financing of their future state pensions, elderly care etc. The strategy presupposes real public consumption growth of 0.5% per year from 2005 to 2010 and further structural reforms that can raise sustainable employment by roughly 2% by 2010 (see Ministry of Finance, 2003). Further reforms may be considered in the context of the Danish Welfare Commission's reform proposals due by 2005, e.g. with a view to make the welfare system more robust to possible changes in life expectancy (relative to the increase assumed in current baseline projections). Future generations may wish to make different priorities notably with respect to taxes, public services, or working hours. With the 2010-plan already in place, there is reasonably ample time to discuss and consider possible reforms. ❧

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Structural Changes and Reforms in Finland

The economic prosperity and development of Finland is a story of globalization, adaptation to the surrounding environment and strategic policy choices, which have facilitated structural reforms. The country's history of industrialization has been a national project, involving ambitious goals in the fields of economy, welfare, culture and education. The basic choice for the economic growth targets has been the opening up to the global competition.

The role of industry in Finland has been slightly different than in most comparable countries. Finland's industrialization took place a little later than elsewhere and the share of exports and manufacturing industry is still relatively large. Until the 1990s the paper and pulp industries had a dominant position. Since then a major structural change has taken place. Finnish economy experienced a severe depression from 1991 to 1993, but after that growth has recovered at a record pace and a new industrial structure, with high-tech production of particularly the Information and Communications Technologies (ICT) sector winning new positions, has emerged.

After the depression of the early 1990s major strategic policy choices and structural reforms were introduced and carried out. These involved changing the structure in the corporate and capital income taxation to make business investments more attractive. A flat and lower tax rate on corporate income, with a well defined tax base was welcomed by the companies. An imputed tax system for the dividend income encouraged the household to invest in equity. Together with abolishment of the remaining controls of the capital movements opened up totally new opportunities for the companies to grow and internationalize their operations.

Reforms in the 1990s

A reaction to the crisis of the early 1990s
- Getting the exploding public debt under control
- **Cuts** in the social security expenditure
- Continuous emphasis on education and R&D
- Corporate and capital income **tax reforms**
- Full liberalization of markets
- Joining the EU (1995) and EMU (1999)

=> **Rapid structural change, strong growth, healthy public finances** in the late 1990s

Perhaps the most important decisions in the 1990s were the decisions to join the European Union in 1995 and to become a member of Economic and Monetary Union (EMU) in 1999. The basic arguments to join EMU were efficiency gains and stability. It was also realized that the old wage-setting behavior had to be modified in the new environment of low and stable inflation. This analysis was conducted also between social partners, and a common understanding emerged concerning the need for wage moderation. This change of attitudes and behavior has taken place within the old framework of labor market relations, but should be interpreted as a necessary structural change.

An important change that has taken place is the new kind of deter-

mination in controlling public sector finances. Public sector indebtedness was about to explode in the early 1990s. This development was curbed by cuts in social security expenditure, or rather by future promises of benefits. It was a common understanding that this had to be done for the nation's own sake, not because of e.g. fulfilling the Maastricht criteria.

The economic results of these policy choices and reforms have

been, for the most part, excellent and surpassed the expectations. Finland's growth numbers have been top-rate, particularly in the last half of the 1990s. The country's economic structure is more balanced than it used to be before, and new branches of industry and companies have established themselves as global players. On the other hand, the unemployment has stayed at a high level and the rate of growth has stalled in the beginning of the new millennium.

A common feature of the changes and reforms was that they were more or less forced upon the political leaders by the social and economic consequences of the depression period from 1991 to 1992. The country and its political leaders were simply facing a *cul-de-sac*, and something had to be done.

Not all structural changes that were proposed, particularly concerning the labor market, were accepted. Then, and also later e.g. when modifying the pension system, the consequences of the changes have been phased gradually into the distant future.

The latest pension reforms have been a reaction to the ageing problem. One of the main features of the reform is the introduction of a flexible retirement age – to be varied between 62 and 68, with disincentives for early retirement. Also the pension base is to be broadened to the entire working career. A life expectancy coefficient will adjust pensions in the future, but only from 2010 onwards. The true effects of the reforms have thus become diluted and phased off, and in any case remain to be seen. These observations, of course, fit well with the recent political analyses of structural reforms.

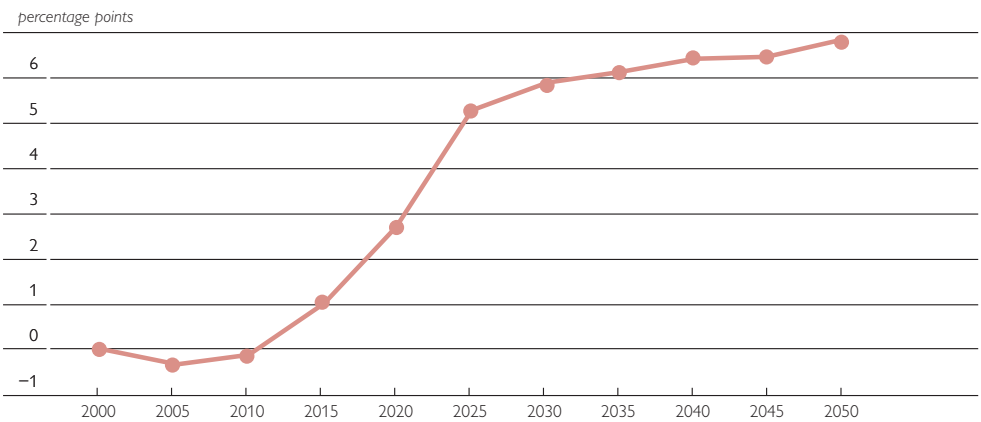
The reform has been welcomed as it will take off some of the future effective tax burden – when compared to a situation with no changes. On the other hand, it is very likely that this is not enough, and further changes will become necessary in the near future.

Today's challenges of more intensive global competition and rapidly ageing population put more and more pressure on the existing structures, also in Finland. New changes and reforms are needed in order to maintain an attractive economic environment to invest and work.

The Finnish business community has published its own vision of the successful Finland of the future. This comprises a competitive economic environment, innovative and motivating business life and supporting values of social equality and security. In order to reach these goals, major changes and reforms are however

True: The Pension Contributions Will Be Smaller after the Reform

But: The Tax Burden Will Increase in the Future, even after the Reform



Source: Author's calculations.

needed, particularly in labor markets, taxation and social security systems, as well as putting even more emphasis on the R&D and education.

The present government has understood the challenges of globalization and has for its part set up a wide strategy program, within which the consequences and possible solutions are to be analysed by the end of this year. The discussion includes academics, social partners and political leaders. This approach is very welcome, because it is likely to add knowledge and awareness of the present day's development and challenges. On the other hand, the timetable is demanding. The speed of change is accelerating while a lot of energy is spent on discussing instead of facing the issues and acting accordingly.

One of the benefits of being a small and flexible nation is the capability to react rapidly and efficiently, if needed. This capability was last proven more than ten years ago, when major changes were introduced after the economic crisis. Another possibility would be the use of functioning and sound relations

between the social partners and politicians in order to find a common understanding for the necessary changes.

Unfortunately, the odds are that the awareness of challenges and possible crises is not at such a high level which would facilitate serious discussion and successful introduction of reforms. If the desired reforms can be achieved only through a crisis, one can only hope that it would be a short-lived and benign one. ❧

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Structural Reforms: A Response from Austria

1 Introduction

As is well known, the Lisbon agenda is a comprehensive programme for higher and – what is important – sustainable growth in Europe, where sustainability addresses three dimensions, the economic, ecological and social one. Traditional debt financed demand stimulation by the government would not be sustainable, nor encouraging investment through lower environmental standards, nor improving profitability of companies by major wage cuts or substantial reductions in social security benefits.

The challenge of the Lisbon agenda is indeed to reach a higher growth path through a broad range of structural reforms while maintaining or improving macroeconomic stability and fostering or rather strengthening the European model of social cohesion and environmental protection.

One of the problems of such a comprehensive structural reform programme is that – except for the internal market – the major competences and responsibilities are with the Member States. This is true for training and education, for R&D and innovation, for infrastructure, for labour market reform and so on. The open method of coordination tries to tackle this problem, however with mixed results.

This leads to an important conclusion: Contrary to what is frequently said and complained about, there is ample room for specific growth stimulating national policies despite globalisation and European integration. The three Nordic countries are excellent examples for the successful use of this room for manoeuvre. However, implementing such structural reforms is politically much more difficult and costly than

to follow traditional recipes of macroeconomic demand management and to decelerate structural adjustments.

In this context I would like to shortly comment on the Stability and Growth Pact. There is no doubt that a monetary union cannot function without common rules for national fiscal policies. However, there is also no doubt that in many EMU member countries the Stability and Growth Pact has led to a structural deterioration of the expenditure side of public budgets, detrimental to the Lisbon growth target. The simple reason is that governments find it easier to cut expenditure for investment and productive services than for transfers or other social outlays. This weakness of the Pact should be repaired as soon as possible.

By the way it is interesting to note that obviously smaller countries are more successful in implementing the national part of the Lisbon Agenda than large ones. There may

be several reasons for this: decision-making processes may be easier in small countries and the pressure to adapt to the challenges of globalisation and European integration may be higher in small economies without a large domestic market. The experiences of past major external shocks like in Finland may be conducive to closer cooperation and national efforts. And last but not least smaller countries have often a tradition of corporatism which in some instances may facilitate broad consensus, but may also hinder bold structural reforms.

2 Structural Reforms in Austria

Austria is an example for a small country which fortunately had not to experience major negative external shocks in the last decades, but where structural reforms were difficult to implement in a very pronounced environment of corporatism and broadly based coalition governments. On the other hand trade unions in Austria have a long tradition of growth orientation, of taking into account the international competitiveness of Austrian companies and of shaping their wage policies accordingly and also of allowing for flexible solutions as far as work time and other labour market regulations are concerned.

During the nineties of last century, when a coalition of the two large parties – the social democratic and the popular one – was in power, a real stalemate developed and urgent reforms and growth-oriented policies were unduly delayed. In this environment the new government, which came into power in 2000, could present itself as reform government and gain increasing political support form the electorate which, however, has been weakening recently.

The present government succeeded indeed in improving the framework conditions for business in Austria and in making a lot of progress towards the Lisbon goal. This is reflected both in the Lisbon benchmarks and in several other international competitiveness rankings. While the overall performance of Austria has constantly improved in recent years in the light of these rankings, they point to weaknesses in growth-relevant areas like R&D, overall productivity trends and venture capital. Therefore it is imperative for Austria to eliminate these weaknesses in order to be able to defend or even improve its high per capita income (rank 4 in Europe).

Major achievements of the present coalition government were:

First of all the long-standing tradition of deficit spending was stopped, though rather by increasing the tax burden than by cutting expenditure. Thus, the general budgets for 2001 and 2002 were in equilibrium and the deficits for 2003 and 2004 are far below 2%.

The pension reform which became effective in October 2002 reversed the trend to early retirement and to ever increasing budgetary subsidies for the pension system. Despite a quite satisfactory overall employment rate of 68% Austria belongs to the group of countries with the lowest participation rate of elderly people.

Explicit targets were announced for increasing R&D expenditure as a share of GDP, namely to 2.5% in 2005/06 and to 3% in 2010. Special additional public funds, the installation of a National Foundation for

R&D and a generous tax regime for corporate R&D outlays led to an increase of the R&D share within five years from 1.8% to around 2.3% this year.

The system of "Fachhochschulen" (vocationally oriented establishments of higher education) was expanded and a major University reform implemented geared at more autonomy from public administration and at improving the conditions for cooperation with the private sector.

Originally, under the pressure of EU legislation, the government made market liberalisation (telecommunication, energy) a pillar of its reform policies and started an impressive programme of privatisation of nationalised industries.

Just recently a tax reform was voted by Parliament which will cut the corporate tax rate from 34% to 25% by 2005, thus taking up the challenges coming from the new EU Member States. Furthermore, the tax reform greatly improves the group tax regime for corporate conglomerates.

Finally a new initiative to develop the ailing transport infrastructure was started with special emphasis on links to the neighbouring accession countries. Measures were also taken to restructure the national railway company and to cut public subsidies.

Overall, this is quite an impressive record for a country which was not known for its reform spirit and which was under no acute pressure from major external shocks. Nevertheless, the necessary reform agenda is far from being exhausted. The pension reform was a courageous first step, more has to follow. Little progress has so far been achieved in reforming the health care system. Improving governance and efficiency of the costly federal system of government is urgent. Modernising and expanding professional training and life-long learning is another major challenge for Austria. As far as risk capital is concerned, Austria lags far behind the European average. And with the Austrian EU presidency and the next general elections in 2006 approaching, the useful time for additional reforms is running out. ❧

Edgar Meister

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Mitglied des Vorstands
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Basel II und die Lissabon-Strategie: Konfliktpotenzial für KMUs?

Den Kollegen der Oesterreichischen Nationalbank ist es wieder gelungen, für ihre Volkswirtschaftliche Tagung eine wunderbare Komposition aus interessanten Einzelthemen und deren Einbindung unter das prägnante Leitmotiv „Wachstum und Stabilität in der EU“ zu erstellen. Insbesondere stellt die Volkswirtschaftliche Tagung zwei der größten Themen im Bereich Geld, Währung und Kredit – nämlich das neue Regelwerk von Basel II zum einen und den Euro zum anderen – gedanklich in Zusammenhang mit den Zielen und den Initiativen der europäischen Politik. Dieser Bezug ist nur konsequent, denn die Europapolitik hat sich seit den Römischen Verträgen über ihren Beitrag zur wirtschaftlichen Integration und damit zur Steigerung der Leistungsfähigkeit der europäischen Volkswirtschaft stark definiert.

1 Basel II und Lissabon-Strategie

Schon die Begrifflichkeit liefert eine erste, zugegebenermaßen noch etwas oberflächliche Gemeinsamkeit. Beides rekuriert auf Städtenamen. Das ist nichts Ungewöhnliches. Wir be-

zeichnen Bedeutendes gerne nach dem Ort, wo dessen Wiege stand. Die Währungsgeschichte ist voll davon. Denken Sie nur an Bretton Woods oder Maastricht.

Bekanntlich gilt: Nomen est omen. Mit Lissabon verbindet der unbefangene Zeitgenosse leicht das Pulsierende einer südeuropäischen Metropole. Diese Assoziation passt ja auch gut zu einer Strategie, die Dynamik wecken möchte, die – fast Prometheus gleich – Europa das

Feuer wieder zurückbringen soll.

Dagegen klingt der Name der Schweizer Stadt Basel schon viel stärker nach Solidität und Stabilität. Und das wiederum passt eigentlich ganz gut zur Welt der Banken und Finanzen.

2 Konzeptionelle Gemeinsamkeiten

Basel II und Lissabon-Strategie stehen beide für die Einleitung von Modernisierungsprozessen. Beide starten mit einer ähnlichen Diagnose. Die Umwelt, die Rahmenbedingungen haben sich rasant verändert. Die Globalisierung schreitet voran. Neue technologische Möglichkeiten und Produktinnovationen erweitern die strategischen Optionen für Unternehmen und Banken. Der Wettbewerb nimmt zu. Beide Prozesse – Basel wie Lissabon – suchen nach Antworten darauf.

Und auch in dieser Suche nach den Antworten – wenn Sie so wollen: in der Therapie – bestehen gemeinsame Ansätze. Ein wichtiges Schlüsselwort ist die Charakterisierung der Wirtschaft von morgen als wissensbasiert. Es geht also um Wissen und um Innovationsfähigkeit. Vor allem bedarf es der intelligenten Nutzung moderner Technologien.

Will man diese Ansätze unter ein gemeinsames Motto stellen, so bietet sich vielleicht die folgende Sicht an: Bei Basel und bei Lissabon geht es im Grunde um ein Fit-Machen, um ein Absichern der Zukunftsfestigkeit. Bei Lissabon geht es um die Fitness einer Region, nämlich der Europäischen Union. Bei Basel geht es um die Fitness eines Sektors, nämlich der Banken; und dies praktisch weltweit.

Beide Prozesse ähneln sich in der Chance, eine wichtige Botschaft zu vermitteln, aber teilweise wohl auch in der Gefahr einer gewissen Missdeutung. Beide Initiativen beschreiben – richtig interpretiert – eine ordnungspolitische Weichenstellung. Sie beinhalten Maßnahmen mit dem Ziel, die Funktionsfähigkeit der Märkte zu steigern.

So thematisiert Lissabon an vielen Stellen die notwendige Flexibilisierung der europäischen Volkswirtschaften, insbesondere der Arbeitsmärkte. Übrigens fordert Lissabon nachdrücklich auch die Nachhaltigkeit der öffentlichen Finanzen, die aktuell vielfach thematisiert wird.

Das Regelwerk von Basel atmet den gleichen ordnungspolitischen Geist. Basel II ist kein Oktroi realitätsferner Bürokraten. Es ist ein Gemeinschaftswerk von Aufsehern und Bankindustrie. Basel II stellt sich nicht gegen die Marktkräfte, sondern will sie nutzen. Der Grundgedanke von Basel II besteht gerade darin, das regulatorische Kapital an

das ökonomische Kapital heranzuführen. Bei der Bemessung der Risiken stützt sich die Aufsicht ausdrücklich auf die internen Verfahren und Modelle der Marktteilnehmer selbst, die allerdings von der Aufsicht zugelassen werden müssen. Und das Thema, wie mehr Transparenz und Offenlegung den Markt mit seiner Disziplinierungsfunktion in die Lage versetzen kann, das Geschäft der Aufsicht möglichst gut zu ergänzen, steht ohnehin permanent auf den Agenden diverser internationaler Gremien.

Ein essenzieller Punkt der Prozesse von Basel und Lissabon ist also ein ordnungspolitischer: nämlich das Stärken der Funktionsfähigkeit der Märkte.

Aber beide Prozesse können auch in gewisser Weise fehlgedeutet werden. So muss die Lissabon-Strategie aufpassen, dass ihre Begeisterung für Technologie nicht als Alibi für teure staatliche Ausgabenprogramme herhalten muss. Dies gilt selbst dann, wenn die Politik wohlklingende Motive, wie die Förderung von Bildung oder den Aufbau von Infrastruktur, heranzieht.

Und auch Basel ist immer wieder in Gefahr, verkürzt und missdeutet zu werden. Man darf Basel nicht reduzieren auf die rein technische Frage: Um wie viel sinkt exakt die Eigenkapitalanforderung einer Bank, um daraus abzuleiten, dass sich Basel II für das betreffende Institut lohnt.

Entscheidend an beiden Initiativen – Basel und Lissabon – sind die strukturellen Ansätze zur Stärkung der Funktionsfähigkeit relevanter Märkte. Inwieweit diese zum Tragen kommen, daran sind Basel und Lissabon letztlich zu messen.

3 Unterschiedliches Koordinationsprinzip

Nach den Gemeinsamkeiten komme ich nun zu einem gravierenden Unterschied zwischen Basel und Lissabon, nämlich dem Koordinationsprinzip.

Lissabon ist die Einigung auf eine übergeordnete Orientierung, die Ziele und Handlungsoptionen benennt. Basel hingegen ist die Einigung auf ein ganz konkretes Regelwerk.

Lissabon hat eher weiche Ziele formuliert. Das Ausfüllen der Ziele ist weitgehend Sache der nationalen Politik. Ihre Spielräume sind dabei faktisch ziemlich groß.

Basel hingegen gibt feste Regeln vor. Zwar gibt es auch im Basler Rahmen einen europäischen und nationalen Prozess der Umsetzung. Aber es ist fundamental etwas Anderes, ob ein detailliertes Regelwerk dezentral umzusetzen ist oder ob nationale Politik letztlich die Substanz eines Katalogs wünschenswerter, im Grunde wenig kontroverser Ziele bestimmt.

Ein bindendes Regelwerk zu setzen, so wie es der Basler Ausschuss unternimmt, hat einen Vor- und einen Nachteil. Der Nachteil: Weil das Regelwerk verpflichtender ist, gestalten sich die Verhandlungen oft mühselig, langwierig, teilweise ausgesprochen hart, manchmal zäh oder gar stockend. Basel ist ein Verhandlungsmarathon. Die Unsicherheit, die manchmal aus der Gemengelage von Unterschieden der nationalen Finanzmärkte und daraus folgend der Interessen resultieren kann, ist für die Marktteilnehmer nicht immer angenehm. Das wissen wir sehr wohl. Demgegenüber kann man über einen Zielkatalog wie den von Lissabon weitaus schneller Übereinstimmung finden. Der Konsensbereich ist ziem-

lich groß, wenn man Ziele recht allgemein formuliert.

Nach dem glücklichen Abschluss des Verhandlungsprozesses ist es aber von Vorteil, wenn ein klares Regelwerk steht. Die größten Probleme in der Konsensfindung liegen dann wirklich hinter den Akteuren. Bei offenen Prozessen wie dem von Lissabon tauchen die großen Probleme und Fragen eher nachgelagert auf.

Die Einigung der Aufseher auf Basel II ist deshalb in ihrer Qualität nicht zu vergleichen mit der Übereinkunft der Politik auf die Lissabon-Strategie. Basel II steht. Das Fitnessprogramm für den Bankensektor ist bereits in vollem Gange, denn die Banken bereiten sich schon seit längerem auf Basel II vor.

4 Konfliktpotenzial für KMUs

Ich komme nun zur besonderen Thematik: „Basel II und Lissabon-Strategie: Konfliktpotenzial für KMUs?“ Ich will gleich mit der abschließenden Antwort beginnen. Das ist didaktisch vielleicht nicht ideal, aber dafür umso deutlicher. Die Ziele und Maßnahmen im Rahmen von Basel II und von Lissabon sind nicht konfliktär. Im Gegenteil, sie sind komplementär, sie ergänzen einander. Dies gilt insbesondere auch für das Ziel, die Rahmenbedingungen für KMUs zu verbessern.

Meine Gründe für dieses Urteil will ich in zwei Gruppen separieren. Mein *Korb 1* der Gründe umfasst allgemeine positive Wirkungen von Basel II auf Wachstum und Innovationsfähigkeit. Diese vorteilhaften gesamtwirtschaftlichen Auswirkungen kommen allen zugute. Sie sind also nicht exklusiv z. B. dem Mittelstand vorbehalten. Aber sie schließen den Mittelstand eben mit ein. *Korb 1* beschreibt also den Beitrag von Basel II zum übergeordneten Ziel der Lissabon-Strategie, Wachstum und Dynamik zu stärken.

Mein *Korb 2* beinhaltet dann spezifische Gründe, also Effekte und Regelungen, die dem Mittelstand besonders zugute kommen, natürlich bei Beachtung der individuellen Risikosituation. Die Summe aller Faktoren macht dann hoffentlich deutlich, warum Basel II auch dem Mittelstand zugute kommt. Eine exakte Gewichtung, welcher Faktor nun welchen Anteil ausmacht, will und kann ich aber nicht vornehmen.

Lassen Sie mich nun meinen *Korb 1* öffnen mit den gesamtwirtschaftlich positiven Effekten des neuen Regelwerks!

5 Faire Wettbewerbsbedingungen durch Basel II

Mein erster Punkt lautet Wettbewerb. Dem globalen Wettbewerb der Banken einen festen und fairen Rahmen hinsichtlich der Eigenkapitalanforderungen zu geben, ist ein großes Verdienst der Basler Verständigungen. Mag sein, dass dies mittlerweile schon so selbstverständlich erscheint, dass viele dem gar nicht mehr angemessen Beachtung schenken.

Ich will den Punkt trotzdem oder gerade deswegen machen. Es ist eine bemerkenswerte Leistung einer ganzen Branche und ihrer Regulierer, sich weltweit in einem Kerngebiet der Regulierung einheitliche Spielregeln zu geben. Und das, wohlgemerkt, obwohl die Regulierung weitgehend in nationaler Kompetenz liegt und obwohl das Regulierungsniveau durchaus nicht unerheblich ist. Denn immerhin ist das Formulieren aufsichtlicher Eigenkapitalanforderungen durchaus ein nennens-

werter Eingriff in die unternehmerische Freiheit. Er wird freilich gerechtfertigt durch die Stellung des Finanzsektors und insbesondere durch die systemischen Risiken; dennoch fordert die Umsetzung von Basel II keine Weltaufsichtsbehörde, sondern lässt ganz bewusst nationale Strukturen unverändert.

Trotz nationaler Zuständigkeit und relativ hohem Niveau an Regulierung besteht kein Anreiz für eine Bank, aufgrund unterschiedlicher *Eigenkapitalanforderungen* eine Aktivität in Zürich, London, New York oder Frankfurt anzusiedeln. Stellen Sie sich nur kurz vor, Gleiches – also ein standortneutrales Regelwerk – würde beispielsweise im Bereich der Steuerpolitik gelten.

Ich weiß, dass manche Banken einen „Restzweifel" an der internationalen Wettbewerbsneutralität hegen. Wie ist es mit der Gleichbehandlung im Rahmen von Pillar 2, also dem Supervisory Review Process?

Dazu zwei Bemerkungen. Zum einen gibt es ein Netzwerk zur internationalen Koordinierung. Diese Aufgabe obliegt insbesondere der Accord Implementation Group (AIG) des Basler Ausschusses. Das Thema ist also adressiert. Zum anderen: Schon der Markt wird die Konvergenz der Aufsichtspraktiken einfordern.

Aber nicht nur die grenzüberschreitende Wettbewerbsneutralität ist wichtig. Wir halten auch eine Wettbewerbsneutralität zwischen Bankengruppen innerhalb einer Jurisdiktion für wünschenswert. Das kann Basel II zwar für sich genommen nicht leisten. Dazu bedarf es der Ergänzung durch eine EU-Richtlinie, durch CAD III. Aber natürlich liefert Basel ja die Vorlage. Also gehört es zu einem guten Job, nicht nur die Auswirkungen der Eigenkapitalregeln auf die international aktiven Banken zu betrachten, sondern auch zu antizipieren, wie das Regelwerk auf die breite Bankenwelt wirkt.

Deshalb stehen wir im Basel II-Prozess auch im engen Dialog mit den Verbänden der Kreditwirtschaft. Wir wissen sehr genau, dass regulatorische Anforderungen leicht ein Risiko für den Wettbewerb in sich bergen können. Denn kleinere Institute weisen oftmals, relativ gesehen,

höhere Implementierungskosten auf. Deshalb haben wir uns behutsam mit den Verbänden, insbesondere jenen der Sparkassen und Genossenschaftsbanken, abgestimmt. Sie haben die Chance ergriffen, zentrale Risikomodelle zu entwerfen und bereitzustellen. Damit bieten sie ihren Mitgliedern einen kostengünstigen Einstieg in die Basel II-Welt.

Im Ergebnis erhalten die kleineren Institute mit vertretbarem Aufwand wirklich konkurrenzfähige Risikomodelle. Gerade für den Mittelstand ist wichtig, dass Banken, die auf das Mittelstandsgeschäft fokussiert sind, im Bankenwettbewerb bestehen können.

6 Verbesserung der Kapitalallokation durch Basel II

Mein zweiter Punkt in *Korb 1* der gesamtwirtschaftlichen Vorteile ist die Verbesserung der Kapitalallokation durch Basel II.

Zum einen über die deutlich verstärkte Risikosensitivität der Eigenkapitalanforderungen. Die bekannte Hauptkritik an Basel I war ja, dass die recht grobe Differenzierung einen Anreiz setzt, tendenziell höhere Risiken in der Bankbilanz zurückzubehalten. Zum anderen schafft Basel II einen Anreiz zu feinsinnigerem Risikomanagement für die Kreditentscheidung und für die Bepreisung. Banken erhalten durch Basel II einen Anreiz, die Güte und Menge der Informationen zu steigern, den Informationsverarbeitungsprozess zu verbessern und ihn stärker mit der Entscheidungsfindung zu verknüpfen, und zwar nicht nur mit der Einzelentscheidung z. B. bei der konkreten Kreditvergabe. Vielmehr kann das Sammeln und Verarbeiten von Information zur Optimierung der strategischen Ausrichtung einer Bank beitragen.

Leider fällt es ziemlich schwer, den gesamtwirtschaftlichen Vorteil durch verbessertes Risikomanagement in Zahlen zu fassen. Man kann nur spekulieren, was ein verbessertes Risikomanagement faktisch gebracht hätte. Um wie viel wäre die Wertvernichtung durch faule Kredite im schwierigen Bankenjahr 2002 wirklich niedriger gelegen? Was wären die Alternativverwendungen für das gesparte Kapital gewesen? Das sind alles hypothetische Fragen. Worauf es aber in der Quintessenz ankommt: Schon ein vergleichsweise bescheidener Kapitalbetrag besser alloziert – also wenn er zusätzlich einem überlebensfähigen Mittelstandsunternehmen zur Verfügung steht – kann einen nennenswerten Unterschied machen. Das Thema Kapitalallokation ist also nichts irgendwie Abstraktes, Theoretisches. Es geht um Wohlstand und Arbeitsplätze.

7 Stärkung der Finanzstabilität durch Basel II

Ein dritter Punkt an gesamtwirtschaftlichem Bonus durch Basel II liegt mir besonders am Herzen. Denn dieser Aspekt kommt in der öffentlichen Debatte bisweilen zu kurz. Basel II trägt zur Stärkung der Finanzstabilität bei.

Der verbesserte Umgang mit Risiken sollte die Anfälligkeit eines Bankensystems gegenüber Schocks in der Folge makroökonomischer oder sektoraler Wendepunkte verringern, und zwar aus zwei Gründen. Zum einen, weil eine fundierte Kreditvergabe und eine adäquatere Preisbildung schon in der „Normallage“ – also ohne Eruptionen auf den Märkten und konjunkturelle Wendepunkte – den Sicherheitsabstand vergrößern. Dies stärkt die Widerstandskraft. Wer in der Normallage solider wirtschaftet, hat mehr Spielraum bei einer Eintrübung des Umfelds und im Falle eines Krisenszenarios. Zum anderen sollte eine bessere Risikoeinschätzung die Chance erhöhen, Wendepunkte zu antizipieren und sich früher darauf einzustellen.

Erhöhte Finanzstabilität erspart Kosten über zwei Kanäle. Zum einen besteht ein direkter Effekt. Mehr Stabilität verringert die Notwendigkeit eines direkten finanziellen Einschreitens von Sicherungsfonds oder sogar von politischen Instanzen. Bankenkrisen können bekanntlich sehr teuer werden. Zum anderen existiert ein indirekter Effekt, der vielleicht noch wichtiger ist. Auch ohne unmittelbare budgetäre Kosten kann eine Bankenkrise teuer zu stehen kommen, wenn die Funktionsfähigkeit der Intermediation gestört wird. Im schlimmsten Falle können paralysierte Banken

einen Credit Crunch verursachen mit unter Umständen erheblichen Belastungen für die Wirtschaftsentwicklung.

Der Erhalt der Finanzstabilität wird zunehmend essenziell. Die Chance zur realwirtschaftlichen Expansion hängt mittlerweile erheblich von den Bedingungen auf den Finanzmärkten und von der Solidität der Intermediäre ab. Die Leistungsfähigkeit der Finanzsysteme hat zweifellos dramatisch zugenommen. Damit kann eine größere Anfälligkeit einhergehen. Die Notenbanken mit ihrem Stabilitätsauftrag tun gut daran, das Thema Finanzstabilität mit großer Ernsthaftigkeit zu begleiten.

Im Zusammenhang mit der Finanzstabilität einige Sätze zur berühmten Prozyklität: Das Bankgeschäft ist seit jeher inhärent zyklisch, keine Frage. Der Finanzakzelerator spielt eine Rolle in der Übertragung von monetären Entwicklungen auf die Realwirtschaft. Das Kreditangebot ist im Allgemeinen großzügiger, wenn die Banken über eine vergleichsweise reichliche Kapitalausstattung verfügen oder wenn der Zugang zu frischem Kapital leicht ist – sei es zur Innenfinanzierung, wenn die Gewinne hoch sind, sei es zur Außenfinanzierung bei freundlichem Kapitalmarktumfeld.

Das ist übrigens nicht nur bei Banken so. In jeder Branche können Bilanzrestriktionen das Verhalten von Wirtschaftsakteuren bestimmen, z. B. die Investitionsnachfrage in bestimmten Konstellationen dämpfen. Auch Unternehmen müssen bisweilen – manchmal unter dem Druck von Rating-Agenturen – für eine Zeit lang dem Schuldenabbau Priorität geben. Das kann die konjunkturelle Erholung empfindlich verzögern.

Die kritische Frage lautet ja, ob Basel II den Swing von einer überschwänglichen, überbordenden Kreditvergabe zu einem skeptischen Attentismus fördert, der die Prozyklizität des Bankgeschäfts verstärkt. Letztlich ist das eine empirische Frage, die man heute nicht abschließend entscheiden kann. Deshalb soll eine weitere Auswirkungsstudie die Datenbasis zur Einschätzung des prozyklischen Gefahrenpotenzials ausweiten. Zumindest planen einige Mitgliedstaaten des Basler Ausschusses, unter ihnen Deutschland und die USA, eine vierte quantitative Auswirkungsstudie durchzuführen.

Gleichwohl hat der Basler Ausschuss in seinem Regelwerk auf die Befürchtungen prozyklischer Effekte reagiert. So wurden die Risikogewichtsfunktionen abgeflacht, so dass mit steigenden Ausfallwahrscheinlichkeiten die Eigenkapitalanforderungen weniger stark ansteigen.

In letzter Zeit mehren sich zudem Studien, die mit einer Reihe gegenläufiger Effekte argumentieren. So könne eine Bank die Gefahr einer zyklischen Umkehr schneller und klarer erfassen, wenn die Kreditvergabe auf dem Einsatz technisch ausgereifter Risikomodelle beruht anstatt auf dem subjektiven Expertenurteil des Kreditsachbearbeiters. Tatsächlich scheinen Banken mit ausgefeilten Risikomodellen die Standards der Kreditvergabe frühzeitiger anzuziehen, also mit größerem Vorlauf gegenüber dem Gipfel der Konjunkturentwicklung. Verbessertes Risikomanagement könnte also über eine erhöhte Antizipation zyklischer Variation durchaus stabilisierend wirken.

Hinzu kommt das Zusammenspiel von Reformen im Risikomanagement mit Innovationen auf den Finanzmärkten. Die zunehmende

Handelbarkeit von Kreditrisiken über Kreditderivate oder Verbriefungen erlaubt eine feinere Diversifikation der Risiken. Bei gleich bleibenden Schocks senkt dies die Verletzlichkeit der einzelnen Bank.

Und vor allem erhöhen die Märkte für Kreditrisikotransfer die Steuerbarkeit des Volumens an Risikoaktiva und damit eben auch der Kapitalquoten nachhaltig. Banken werden flexibler. Unter diesen modernen Bedingungen können sie auf-

tretende Bilanzrestriktionen schneller überwinden. Banken müssen also bei verknapptem Eigenkapital nicht mehr so lange „auf der Bremse" stehen.

Im Ergebnis entsteht der Eindruck, dass die Relevanz des Themas Prozyklität möglicherweise überschätzt wird, zumindest im Kontext von Basel II. Denn meines Erachtens liegt ein weitaus größeres Gefahrenpotenzial für prozyklische Effekte in der Adjustierung der Rechnungslegungsvorschriften in Richtung auf Fair Value Accounting.

8 Vorteile für KMUs

Ich komme nun zu meinem *Korb 2* der Argumente, warum Basel II komplementär zur Mittelstandskomponente in der Lissabon-Strategie ist. Es geht um spezifische Vorteile für KMUs.

Ein direkter Effekt fällt sofort ins Auge: Banken können bei der Berechnung der Eigenkapitalanforderungen für Kredite an kleine und mittlere Unternehmen reduzierte Eigenkapitalanforderungen erhalten. So dürfen kleine und mittlere Unternehmen sowohl im Standard- als auch im internen Rating-Ansatz bis zu einer Million Gesamtkreditbetrag dem Retailportfolio, d. h. dem Mengengeschäft, zugeordnet werden. Dadurch verringern sich die Risikogewichte und damit die Eigenkapitalanforderungen gegenüber Krediten an große Unternehmen. Reduzierte Kapitalanforderungen im Vergleich zu großen Firmenkunden erhalten im internen Rating-Ansatz auch Kredite an mittelständische Unternehmen mit einem Jahresumsatz bis zu 50 Mio EUR, die nicht dem Retailportfolio zugerechnet werden können. Für diese mittelständischen Unternehmen reduzieren sich die Risikogewichte in Abhängigkeit vom Umsatz gegenüber großen Firmenkunden im Durchschnitt um 10%, in der Spitze um bis zu 20%.

Zusätzlich erkennt Basel II die risikoreduzierende Wirkung von Sicherheiten stärker an. Der Kreis der anerkennungsfähigen Sicherheiten wird erweitert, insbesondere um mittelstandstypische bankübliche Sicherheiten. So finden bei Anwendung des internen Rating-Ansatzes neben Grundpfandrechten und Hypotheken auch Unternehmensgarantien, Lebensversicherungen, Forderungen aus Lieferungen und Leistungen sowie Sicherungsübereignungen von z. B. Autos oder Maschinen Berücksichtigung. Basel II sieht somit für Kredite an kleine und mittlere Unternehmen Erleichterungen bei der Kapitalunterlegung vor. Dabei verfolgt Basel II jedoch nicht – wie die Lissabon-Strategie – das Ziel, explizit eine direkte Mittelstandsförderung zu betreiben. Stattdessen steht bei Basel II die Risikoorientierung

der Eigenmittelanforderungen im Mittelpunkt. Portfolios mit niedrigeren Risiken, z. B. aufgrund hoher Diversifikation wie im Retailportfolio, erfahren eine niedrigere Eigenkapitalanforderung, weil dies eine risikoorientierte Sicht rechtfertigt.

9 Neue Transparenz

Eine eher indirekte Entwicklung, die dem Mittelstand zugute kommen dürfte, könnte eine gewisse Renaissance der traditionellen Hausbankbeziehung sein. Die gewichtige Rolle der Information im Rahmen des internen Rating-Prozesses erzwingt eine neue Transparenz; und zwar interessanterweise auf beiden Seiten.

Einerseits muss sich der Kreditnehmer stärker öffnen. Zur Erstellung eines bankinternen Ratings benötigen Kreditinstitute von ihren Firmenkunden verschiedene Input-Faktoren: zum einen quantitative Kriterien wie bilanzielle Kennzahlen – z. B. die Eigenkapitalquote, Umsatzzahlen – zum anderen qualitative Kriterien, die sich z. B. auf die Nachfolgeregelung, die Qualität des Managements und die Unternehmensstrategie beziehen.

Andererseits ist das Krediturteil keine Black Box mehr. Am Ende des Verfahrens steht nicht einfach ein „Daumen hoch“ oder „Daumen runter“. Urteile und Preisrelationen können nachvollziehbar präsentiert werden. Der Mittelständler kann seine Defizite wie auch seine Trümpfe erkennen.

Im Ergebnis kann das interne Rating also zu einer intensivierten Kommunikation und damit zu besserem Verständnis führen. Die Unternehmensseite besitzt die Möglichkeit, an der Erstellung des Bonitätsurteils aktiv mitzuhelfen und dieses positiv zu beeinflussen. Der Unternehmer sollte dazu bei der Bank kontinuierlich und zeitnah Unternehmensinformationen wie z. B. Jahresabschlüsse, betriebswirtschaftliche Auswertungen (BWA) und Steuerbescheide, aber auch Planzahlen einreichen, um den zuständigen Bankberater fortlaufend über das Unternehmen und die Strategie zu informieren. In Europa zeigt sich bereits, dass Unternehmer bei der Informationsbereitstellung verstärkt Initiative ergreifen und somit zur Verbesserung des Informationsflusses beitragen.

Basel II wird daher die notwendige Transparenz sowohl auf Unternehmens- als auch auf Bankenseite erhöhen sowie die Dialogintensität steigern. Dies trägt auch zur Stärkung des Unternehmenssektors bei. Denn ein Rating-Urteil und die Erläuterung seines Zustandekommens kann gleichzeitig die Basis für eine Stärke-/Schwächenanalyse des Unternehmens darstellen und positive Anregungen für die Verbesserung der Unternehmenssteuerung geben.

Eine Renaissance der Hausbankbeziehung dürfte gleichwohl einhergehen mit einer Änderung der Rolleninhalte. Die Funktion der Hausbank wird sich verlagern vom traditionellen Halter des Kredits zum Optimierer der Bilanzstrukturen. Dazu kann die Weiterreichung des Risikos aus dem Kredit an andere Investoren, beispielsweise über Verbriefungsprodukte, gehören. Und es kann auch reine Vermittlungsaktivitäten z. B. im Rahmen der Eigenkapitalbeschaffung von mittelständischen Unternehmen einschließen.

Die Stärkung der Hausbankbeziehung hilft auch den Unternehmen. Sie wirkt erratischen Schwankungen in der Bereitschaft zur Kreditvergabe entgegen. Gleichwohl dürfte es zur

Erhaltung größerer Flexibilität in der Unternehmensführung von Vorteil sein, gegebenenfalls auf eine weitere Bankverbindung zurückgreifen zu können. Für Unternehmen ist es sicherlich sinnvoll, auf der Finanzierungsseite eine gewisse Diversifikation aufzuweisen.

10 Zusammenfassung

Mein Fazit lautet: „Wachstum und Stabilität" – die beiden Oberziele von Lissabon – werden von Basel II profitieren. Das verbesserte Regelwerk mit seiner Wettbewerbsneutralität trägt bei zu einer besseren Risikoallokation und zu mehr Finanzstabilität.

Der Mittelstand erfährt spezifische Vorteile. Die Eigenkapitalanforderungen für Kredite an den Mittelstand werden im Durchschnitt sinken, letztlich entscheidend ist aber die individuelle Kreditqualität. Das interne Rating wird den Kommunikationsprozess zwischen Bank und Unternehmen intensivieren. Die zunehmende Transparenz hilft beiden. Die Unternehmen erfahren über ihre Stärken und Schwächen. Die Hausbankbeziehung wird wieder gestärkt.

Diese Mittelstandsfreundlichkeit von Basel II liegt letztlich im Interesse aller Volkswirtschaften. Angesichts der relativ hohen Beschäftigungsintensität im Mittelstand profitiert davon längerfristig auch der Arbeitsmarkt.

Wichtig ist, dass diese Unterstützung keine Subventionierung des Mittelstands darstellt, die an anderer Stelle wieder negative Verzerrungen oder Ungleichgewichte hervorbringen würde.

Und vielleicht das Allerwichtigste: Diese Unterstützung für den Mittelstand ist nicht ein hehres Ziel oder eine Absichtserklärung auf einem geduldigen Stück Papier. Sie ist auf der Ebene des Basler Ausschusses beschlossene Sache und wird nach der Entscheidung der G-10-Gouverneure umgesetzt. Damit beschreibt Basel II eine Realität, nicht einen Hoffnungswert.

Basel beschreibt aber auch weiterhin einen Prozess, kein singuläres Ereignis. Die Entwicklung auf den Märkten schreitet voran. Nach der Logik, dass die Aufsicht die Entwicklungen in der Kreditwirtschaft und deren Auswirkungen auf die aufsichtlichen Normen ständig überprüft, darf Basel niemals stillstehen. Basel II ist nicht in Stein gemeißelt. Insbesondere die Weiterentwicklung von den nun anerkannten internen Rating-Verfahren zu voll ausgereiften Kreditrisikomodellen wird im Fokus stehen, wenn sich der Vorhang für die nächste Runde hebt. ❧

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Financial Market Frictions and the Monetary Transmission Mechanism in the Euro Area[1]

1 Introduction

During the last decade the European financial landscape witnessed an impressive structural change. The introduction of the euro was a powerful catalyst for this change. The improved integration, efficiency and depth of several segments of the market are key features of this ongoing process.

The impact of these financial market developments in the monetary transmission mechanism has been a growing area of interest, in particular in the light of the conduct of the single monetary policy by the ECB. This paper aims to uncover some ideas concerning the link between financial markets and the monetary transmission mechanism, with an emphasis on the euro area.

The paper is organized as follows. Section 2 starts by describing some recent developments in financial markets in the euro area. The main message from this section is that while there are areas of considerable financial market integration in the euro area, several heterogeneous structures across the euro area coun-

[1] *The views expressed in this paper are my own and do not necessarily reflect the views of the Banco de Portugal.*

tries still persist. Section 3 describes the main empirical features of the monetary transmission mechanism in the euro area, based on several empirical studies. In section 4, we interpret the empirical evidence in the light of a general equilibrium model that is representative of the most recent theoretical research on the subject. In this model financial intermediaries behave competitively and financial markets are frictionless. Given the accuracy of the model in replicating the empirical features reported in the literature we conclude that financial markets in the euro area do not seem to introduce significant distortions in monetary transmission mechanism.

Section 5 combines the empirical evidence on financial markets with the theoretical research on the transmission mechanism to draw some additional insights concerning their relationship. We focus on three issues: first, the role of expectations in the conduct of monetary policy; second, the role of credit market frictions; third, the impact of heterogeneous financial structures in the euro area, and the conduct of optimal monetary policy in this context. Section 6 concludes.

2 Recent Developments in Financial Markets in the Euro Area

In this section our aim will be to describe a number of features and developments in the euro area financial markets that may impact on the monetary transmission mechanism. It is important to stress from the outset that the key role of financial markets is to channel funds from net savers to net borrowers. The more frictionless financial markets are (i.e., the lower the existing barriers that discriminate among agents) the less they distort the transmission of monetary policy to the real economy. We start by briefly focusing on the process of financial market integration observed in the euro area (for a full description of this process, see Baele et al., 2004). We will then highlight a number of areas where heterogeneous structures persist.

2.1 Financial Market Integration in the Euro Area

During the last years, several facts contributed to a fast integration of financial markets and an increase in market efficiency in the euro area. First, competition in the banking sector increased, due to a continuing process of deregulation and to the introduction of new financial instruments. This was reflected in a convergence of retail interest rates and bank margins in the euro area. Second, the development and widespread use of numerous technological improvements also contributed to a smoother functioning of markets.

Third, the introduction of the euro was a catalyst in restructuring financial markets. This regime change created an integrated money market, with cross-country interest rate differentials in this segment of the market virtually disappearing, and with cross-border interbank activity rising significantly, in particular during the period from 1998 to 2001. Furthermore, the average bid and ask spreads for the deposit rates declined significantly (see Galati and Tsatsaronis, 2003).

The introduction of the euro also promoted the convergence of interest rates in the bond market. This occurred before (anticipating) Stage 3

of Economic and Monetary Union (EMU). Not only did yield differentials converge markedly but there was also a sharp reduction in volatility (see chart 1). This was due to the convergence of inflation expectations, to the elimination of currency risk and to the improvement in market infrastructures.

The process of financial integration was also accompanied by a gradual process of disintermediation. To illustrate this trend, we can observe that by end-2001 the value of euro area residents' holdings of intermediated financial assets was equivalent to 47% of total financial assets.[2] In 1995, this figure amounted to 53%. If assets held with pension funds and other financial intermediaries were excluded from the definition of intermediated assets, the fall in the share of intermediated assets would be even greater.

Another important feature of the disintermediation process is the strong increase in the net issuance on the primary corporate bond market in the euro area, which was observed after 1998 (see chart 2).

Despite these trends it is arguable that banks will remain in the future the foremost suppliers of financial services to households and firms in the euro area. Table 1, which shows the investment and source of funding in the euro area in 2001 in each sector of the economy, illustrates this point. On the one hand, it is visible that households in the euro area have a strong preference for currency and deposits, in particular when compared to the U.S.A.[3] On the other hand, there is a strong preference by firms to finance their activities through loans instead of bonds (in 2001, bank loans to firms were more than eight-fold the market value of corporate debt securities). The role of banks in the euro area monetary transmission mechanism therefore deserves particular notice, and will be evaluated in section 5.

Overall, financial market integration brought lower costs of intermediation to economic agents (and more homogeneous costs across similar agents), an access to a broader range of financial instruments and a larger pool of liquidity.

In spite of the significant integration in some segments of financial markets – in particular the unsecured deposit market, the overnight interest rate swap market and derivatives markets (including money market futures and government bond futures) – several segments of financial markets remain fragmented, introducing frictions that may affect the monetary transmission mechanism in the euro area.

For example, the repo market, where participants exchange short-term liquidity against collateral, remains somewhat fragmented. In particular, this is due to the fragmented securities settlement infrastructure, to differences in banks' balance sheet structure, and to diverse legal and contractual aspects. Just as the Trans-European Auto-

[2] *The intermediated financial assets are defined as assets held with monetary financial institutions, insurance corporations, pension funds and other financial intermediaries; non-intermediated financial assets are direct holdings of shares, bonds and other securities.*

[3] *In the U.S.A., the households' investment in shares amounted to 147% of GDP in 2001. Their holdings of currency and deposits stood at 48% of GDP.*

Table 1

Investment and Source of Funding in the Euro Area 2001

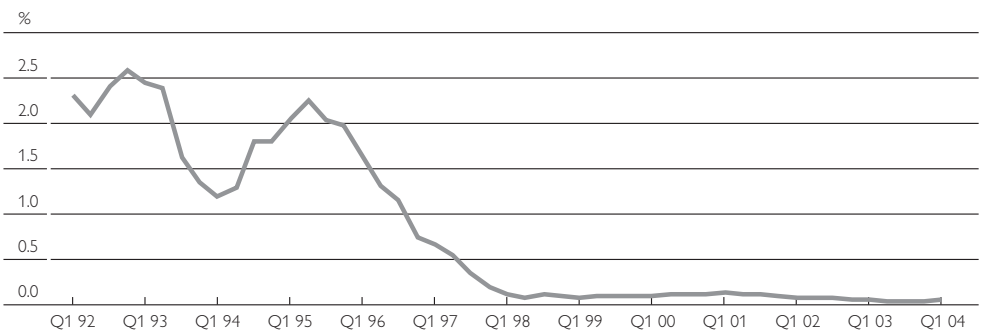
	Source of financing				Investments		
	Loans	Debt securities	Shares	Currency, deposits	Debt securities	Shares	Currency, deposits
	% of GDP						
Households	52	0	0	0	19	67	61
Non-financial corporations	68	8	132	0	9	77	15
Financial corporations	12	50	75	170	80	69	77
Government	15	57	0	4	2	9	6
Total	95	115	207	174	110	222	159

Source: Hartmann et al. (2003).

Chart 1

Unweighted Standard Deviation of 10-Year

Euro Area Government Bond Yields



Source: European Central Bank's database.

mated Real-time Gross settlement Express Transfer (TARGET) System was decisive in promoting the integration of money markets, other segments of the market did not witness such a rapid and profound change due to lack of integration of security settlement systems.[4] This is namely the case of the secured money market, the bond market, and equity markets. Focusing for example on the government bond market, chart 3 shows that despite the rapid convergence of yields before the introduction of the euro, yield differentials vis-àvis the German rates remain significantly different from zero, albeit decreasing in magnitude after 2001. Even taking into account that these differentials reflect credit risk differences among issuers, there is evidence that the government bond market remains segmented to a non-negligible degree, as argued by Adjaouté and Danthine (2003). As for the equity market, there has been a moderate market integration, namely with the creation of Euronext. There has also been a clear increase of stock market capitalization, which rose from 21% of GDP in 1990 to a high of 87% in 2000, falling afterwards to 47% in 2002. Further, equity returns across the euro area seem to be now more affected by factors common to the whole euro area than in the past (see Baele et al.,

[4] *For example, in 2003 there were still 15 securities settlement systems and 13 retail payment systems in the euro area.*

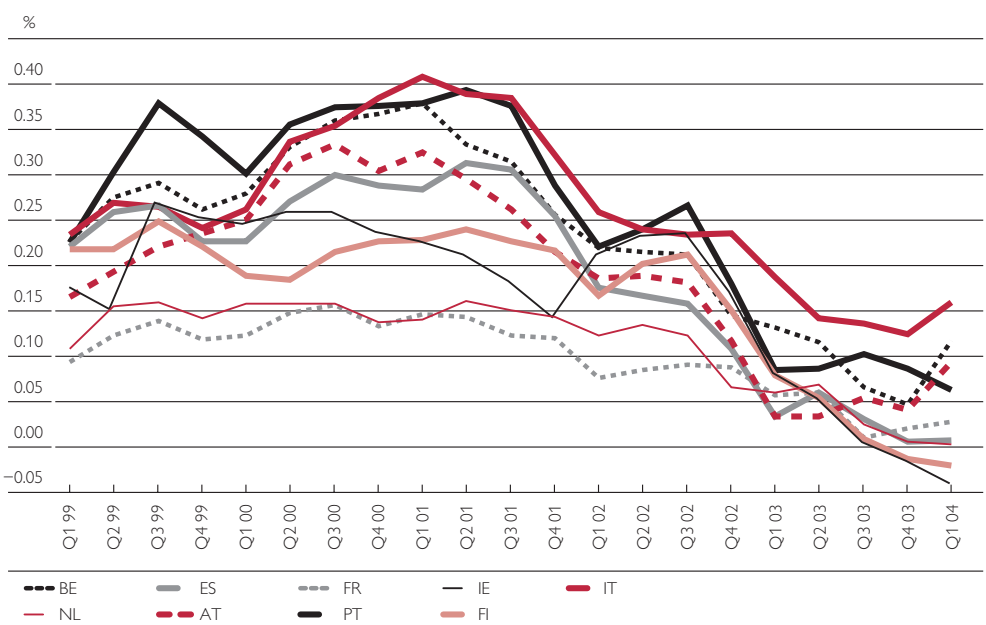
Chart 2

Net Issuance of Debt Securities by Euro Area Corporations

Source: European Central Bank, based on Gaspar et al. (2003).

Chart 3

Spreads of 10-Year Government Bond Yields Over the German Rate



Source: European Central Bank's database.

2004). However, it is clear that a full integration of equity markets, with the complete elimination of additional costs from settling cross-border equity transactions has yet to be achieved. This same conclusion applies to credit markets, which are still characterized by a significant degree of "home bias."

2.2 Persistent Sources of Heterogeneity in Financial Markets

Several authors have emphasized that since financial structures and practi-

ces differ across euro area countries, a monetary policy shock may induce asymmetric responses across countries (see Giovannetti and Marimon, 2000, and Cecchetti, 1999). In this subsection we briefly report some indicators concerning cross-country heterogeneity in the euro area financial structures. In section 5, the impact of this heterogeneity on the transmission mechanism will be assessed.

Table 2 presents some important indicators in this respect. Several features are worth highlighting from the table. The size of the banking sector, as measured by the value of bank assets as a percentage of GDP, is sizeable in all countries. This reflects the dominant role of banks in the euro area, in detriment of more market-based finance. There are nonetheless some important differences across countries, with Ireland and Germany recording the highest sizes of bank assets relative to GDP (excluding Luxembourg), and with Finland, Greece and Italy recording the lowest. The level of stock market capitalization also varies between countries, being high in Finland, the Netherlands and Luxembourg and particularly low in Austria, Portugal and Italy.

As for the financing of the non-financial corporations, the table shows that securities amount to a very small fraction of firms' external financing (with the possible exception of France). The importance of debt securities is particularly low in Germany, Italy and Spain. Despite being a major source of financing to the corporate sector, loans vary significantly across the euro area when measured as a fraction of GDP. They reach highs of over 85% of GDP in the Netherlands, Finland and Portugal and values lower than 60% in Italy. Turning now to the household sector's indebtedness, the table shows that bank loans as a percentage of GDP are highest in the Netherlands, Germany and Portugal, and lowest in Italy and Finland. The difference between the highest and the lowest households' indebtedness levels amounted to over 70 percentage points in 2001.

A final issue that may be important for the monetary transmission mechanism relates to the structure

Table 2

Overview of Financial Markets in the Euro Area 2001

	Euro area	AT	BE	FI	FR	DE	GR	IE	IT	LU	NL	PT	ES
	% of GDP												
Total bank assets	267.1	272.1	303.0	122.6	276.7	304.3	155.4	460.8	154.4	3847.8	298.0	287.2	199.6
Stock market capitalization	71.7	13.4	72.6	157.3	90.6	58.1	71.9	73.3	48.7	125.9	131.2	42.4	80.9
Non-financial corporations' liabilities													
Securities other than shares	8.6	8.9	13.8	12.6	20.3	3.0	–	–	3.4	–	13.0	10.3	3.5
Loans	67.8	81.4	68.0	90.4	66.7	64.9	–	–	56.7	–	98.9	85.8	68.0
Shares and other equity	132.8	29.6	231.2	289.1	223.4	74.5	–	–	96.3	–	136.9	108.3	146.2
Households' liabilities													
Bank loans	51.6	40.4	38.5	32.3	37.7	72.9	–	–	23.0	–	96.5	61.7	49.9

Source: Agresti and Claessens (2003).

of loans to the private sector and, in particular, to the question of whether these loans are contracted under fixed or variable interest rates. It is difficult to obtain comparable and reliable information concerning this dimension of the data for the euro area. However, it is clear that practices vary widely across countries, due to tradition, consumer preferences and, in particular, the inflation track-record in each country. This explains the predominance of fixed-rate loans in countries like Germany, the Netherlands or France and the prevalence of variable-rate contracts in countries like Portugal, Spain or Ireland.

3 Some Empirical Features of the Monetary Transmission Mechanism

The monetary transmission mechanism is the process through which monetary policy decisions affect the economy. After the introduction of the euro, several empirical studies have attempted to uncover the effects of monetary policy shocks on the euro area economy and the respective participating countries (see, for example, Mojon and Peersman, 2003, and Angeloni et al., 2003b). Given that the introduction of the euro represents a true structural break concerning the monetary regime, all these exercises are subject to the Lucas critique. However, since most of the empirical descriptions hold across a large sample of countries and in different periods, it seems reasonable to extrapolate the empirical results estimated mostly for a pre-euro period to the current regime.

The description of the impact of a monetary policy shock in the above studies share a number of common features. First, an expansionary policy shock corresponds to a persistent fall in the interest rate, which is mirrored by a persistent rise in the growth rate of narrow monetary aggregates. Second, output, consumption, investment and employment increase in a hump-shaped pattern, with the peak effect occurring after about 1.5 to 2 years and with investment reacting three times more than consumption. Third, there is no clear pattern in the response of real wages, since the response is usually estimated to be non-significant. Fourth, inflation initially stays broadly flat and only increases significantly after at least one year. Fifth, velocity decreases significantly after the expansionary monetary policy shock. This fall is persistent and lasts for at least a year. Finally, in the long run, the monetary policy shock is neutral, being fully transmitted to prices.

Another interesting feature of the studies that focus on the individual euro area countries is that the estimated effects of a single monetary policy shock are not statistically different across countries (see Peersman, 2002). This absence of significant heterogeneity in the description of the transmission mechanism suggests that a set of common frictions may also explain that mechanism. This is the task undertaken in the next section.

4 A General Equilibrium Model of the Transmission Mechanism

The literature usually identifies a myriad of channels to explain the empirical features identified in section 3 (see Kuttner and Mosser, 2002, for a representative view). Such channels include, in particular,

the direct monetary channel, the interest rate channel, the asset price channel, the credit channel and the exchange-rate channel. These descriptive explanations of the transmission mechanism have two problems. On the one hand, they are unable to enlighten the general equilibrium dynamics of the process. On the other, they are not helpful to study the deep frictions that underlie the transmission mechanism and, ultimately, the functioning of

the economy. As in many other macroeconomic issues, one cannot escape the need to build a general equilibrium model in order to understand the structural transmission of monetary impulses to the economy.

In the remainder of this section we will very briefly describe the mechanics of a state-of-the-art model of the transmission mechanism, as presented in Christiano et al. (2001) and Smets and Wouters (2003). The model builds on a standard real business cycle model and incorporates frictions in order to account for several features of the data that a standard frictionless model is unable to mimic. The most important frictions relate to the households' and firms' decisions.

This model is able to mimic quite closely the empirical response of many macroeconomic variables to a monetary policy shock, both in the U.S.A. and the euro area. The model also mimics the empirical evidence for the major economies in the euro area, as emphasized in Alves (2004). Moreover, this success is far more than qualitative. In fact, reasonable calibrations of the model closely replicate the quantitative response of the economy to a monetary policy shock. This implies that an understanding of the mechanics of this model gives us the best lenses to interpret the monetary transmission mechanism in the euro area. In particular, the model is useful to identify the main frictions that impact on that transmission mechanism.

Even though a narrative presentation does not do full justice to the general equilibrium nature of the model, it is nonetheless useful to highlight some of the main propagation channels that allow the model to succeed in accounting for the monetary transmission mechanism estimated in the data.

Chart 4 shows the model's response of money growth, interest rates, GDP and inflation to an expansionary monetary policy shock. This shock corresponds to an injection of reserves by the central bank to the financial intermediaries. In the period of the shock, the monetary injection adds to the supply of loans in the financial market. After observing this shock, the households choose the level of cash-balances and the level of deposits to hold in each period. The latter are remunerated at a certain interest rate. It is assumed that cash-balances yield utility directly, which explains why households forego the interest to be gained with deposits.

Even though households increase their cash-holdings after the shock and reduce their deposits with the

financial intermediaries, there remains an abundance of liquidity in the financial market that has to be absorbed by firms, who seek these funds to finance their wage bill. To induce firms to absorb this extra liquidity, the interest rate has to fall.

The chart also shows that the model succeeds in replicating the hump-shaped response of GDP to a monetary policy shock. To mimic this feature of the data, the model assumes that households have habits in their preferences for consumption. This implies that it is the growth of consumption relative to a proportion of the previous period's consumption that is valued by households. The hump-shape in output is also a result of assuming that firms can vary their capital utilization rates and that they incur in costs for adjusting the flow of investment. This implies that investment does not surge immediately after the monetary shock.

The model is also able to reproduce the sluggish response of both inflation and wages to the policy shock. The behavior of wages is rooted in the assumption that in each period only a fraction of households is able to reoptimize wages. The remaining households update their wages with lagged inflation. The amount of labor supplied by each household in equilibrium is then determined by the intersection of this wage-level with the demand for labor by firms. This mechanism implies a slow and gradual adjustment of nominal wages, due to two reasons. First, a significant fraction of households updates nominal wages with past inflation. Second, the fraction of agents that is able to change wages balances the expected marginal utility of leisure with the expected marginal utility of wage income. However, they know that the labor demand targeted at their labor services changes when they adjust their wages. Since households have a desire to smooth labor supply over time, they choose not to change wages by much.

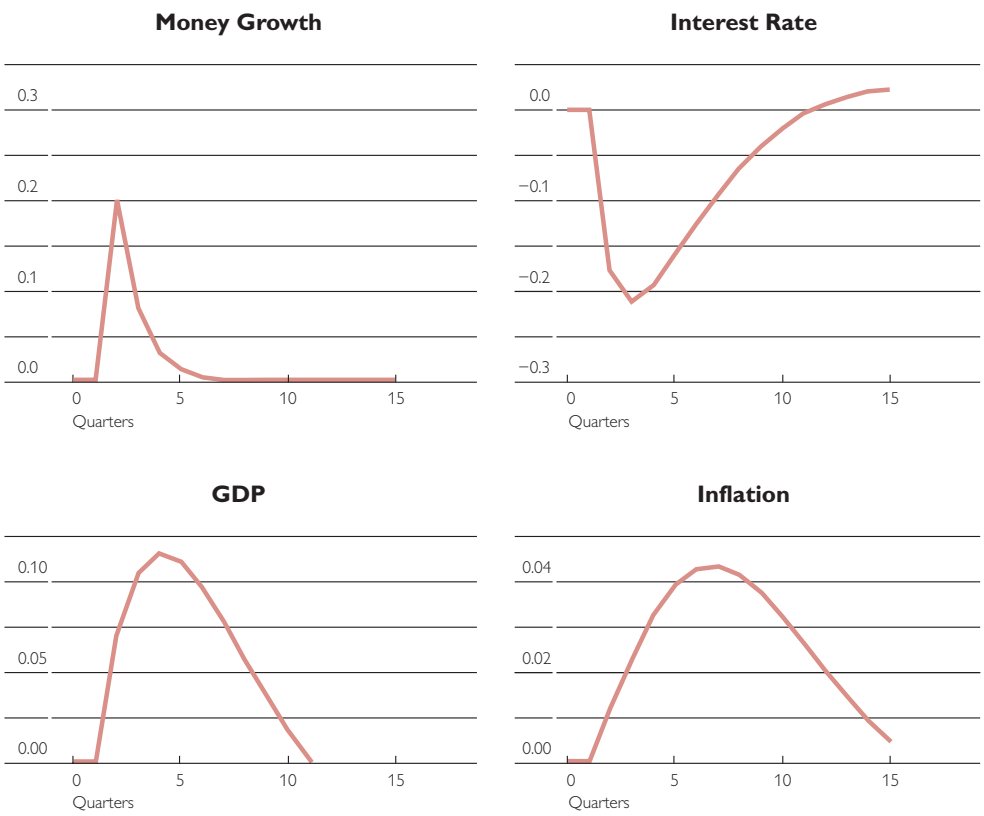
The behavior of inflation is closely related to the evolution of wages. With completely flexible price-setting behavior by firms, prices are set as a constant mark-up over nominal marginal costs. The latter depend on nominal wages, the rental rate on capital and the interest rate (the latter affects marginal costs because it is assumed that firms have to borrow their wage bill in advance). The assumptions described above ensure that the response of marginal costs is muted after a monetary shock. This explains why the model displays an inertial behavior of inflation, even with perfectly flexible prices. The additional impact of assuming that a fraction of firms do not change prices each quarter contributes even further to the inertial behavior of inflation, even though it is not crucial to replicate the general equilibrium effects of the monetary policy shock.

This brief description of the transmission mechanism is important not only to depict the nominal frictions and the real features that are necessary for the model to conform with the data but also because it highlights those features that are not central to the monetary transmission mechanism. Here, we highlight three of those features.

First, the model is silent on the role of credit market frictions in the economy. This suggests, in line with Angeloni et al. (2003a), that the

Chart 4

Impact of a 0.2 Percentage Point Monetary Injection in the Theoretical Model



Source: Author's calculations.
Note: Percent deviations from steady state, except interest rates, in percentage points.

role of banks may be less important than some studies focusing on the credit channel of monetary policy suggest. Second, asset price fluctuations do not seem to play a significant role in the propagation of monetary policy shocks. Finally, the model is a closed-economy framework, which suggests that the response of net exports to the monetary shock is not empirically important to understand the transmission mechanism in both the euro area and the U.S.A.

5 Implications of Current Financial Market Trends for the Monetary Transmission Mechanism

The model described in the last section does not assign a significant role to financial market frictions[5] in the understanding of the monetary policy transmission mechanism. In fact, the relevant frictions in the model are the existence of habits in the households' preferences for consumption, the existence of nominal frictions in wages and prices and the possibility of variable capital utilization by firms. However, this does

[5] *Here we ignore the fact that the existence of financial intermediaries per se requires the presence of some financial market imperfections.*

not mean that the importance of financial markets in the transmission mechanism should be minimized. In fact, what the model conveys is simply that we can understand the mechanics of the transmission mechanism as observed in the euro area by modelling the financial markets as frictionless and the financial intermediaries as behaving competitively. Of course, these are merely approximations to the actual behavior of financial markets in the euro area. Nonetheless they imply that, despite the heterogeneous degree of financial market integration in the euro area described in section 2, financial markets in the euro area – taken as a whole – do not seem to introduce significant distortions in the transmission of monetary policy.

It seems, therefore, that financial markets in the euro area have already achieved a stage of development where they do not induce significant frictions in the transmission of monetary policy. This obviously underscores the importance of financial markets in this process. In fact, the transmission mechanism would be radically different in a context of less efficient financial structures, in particular in what concerns the degree of competition and technological progress. In a similar vein, we should stress that the absence of a special role for a credit channel does not imply that from a microeconomic point of view this channel is non-existent. Again, the model simply teaches us that this channel is not quantitatively significant from a macroeconomic perspective.

Building on the empirical evidence described in sections 2 and 3 and the theoretical construct presented in section 4 we now try to understand the importance of financial markets in several dimensions of the transmission mechanism. This description will also highlight reasons for failing to find a significant role for financial frictions in the context of the euro area.

5.1 The Role of Expectations

In section 4 the monetary transmission was described by tracing the impact of a monetary shock throughout the economy. However, central banks do not conduct monetary policy by randomizing their policy and "shocking" the economy. Instead, monetary policy is usually conducted in such a way that the central bank responds in a systematic way to developments in the economy. This systematic part is actually the core of monetary policy. In this context, financial markets play the crucial role of interpreting monetary policy decisions and transmitting them to prices across the various segments of the market. In this process, expectations concerning the path of monetary policy in the future matter greatly.

As emphasized by Woodford (2003), a central bank affects the decisions of the private sector not only through the decisions concerning the level of intervention rates but, more importantly, through the market expectations concerning the average level of interest rates in the future.[6] Therefore, a successful mon-

[6] *This channel is obviously present in the model described in section 4. For example, the Euler equation related to the households' intertemporal decision implies that the current level of consumption depends – among other elements – not only on the current level of interest rates but also on expectations concerning the future path of interest rates.*

etary policy must aim at influencing market expectations concerning future interest rates, which, through arbitrage relations, then influence other financial market prices, such as long-term interest rates, exchange rates and asset prices.

It should be clear that better information concerning the central bank's decision process increases its ability to affect the markets' expectations and, ultimately, households and firms' decisions. In this context, both the increased transparency of central bank communication and the increased sophistication of financial markets improve the impact of monetary policy on the economy. Ultimately, in the absence of financial market frictions, monetary policy needs to be less aggressive in order to achieve its goals, since financial markets smoothly transmit the policy decisions to the overall economy.[7]

An efficient and well-integrated financial system is therefore an ally to the transmission of monetary policy. This assessment applies to all segments of the financial system. An illustration of these effects can be observed in the behavior of the short-end of the money market yield curve and the long-term inflation expectations after the introduction of the euro. As reported in Gaspar et al. (2001), there were not significant systematic errors of financial markets concerning the ECB's monetary policy announcements since 1999. This suggests that the transmission of policy changes to the financial markets operated smoothly and efficiently. As for the long-term inflation expectations, it is interesting to observe that monetary policy movements have not changed either the level or the volatility of market inflation expectations as measured by the Consensus Economics Forecasts. This is a clear sign that both the goal and the implementation of monetary policy in the euro area are credible to the eyes of the market.

Another interesting example of the role of expectations relates to the importance of fixed-interest rate loans in the monetary transmission mechanism. In fact, the impact of variable-rate or fixed-rate contracts is less important than usually reported in the literature when the role of expectations concerning the future policy of the central bank is taken into account. In fact, even though the share of fixed-rate contracts affects the speed and extent of the pass-through of policy rates to money market rates, the impact on the remaining financial market prices depends only on expectations of future policy and arbitrage relations. With efficient financial markets,[8] the shadow price for households and firms of a change in monetary policy should not depend on the nature of the interest-rate contract. Unless the central bank distorts the market by manipulating expectations – which is obviously unwelcome – fixed and variable rate contracts should ultimately impact similarly on the transmission of monetary policy to the real economy.

[7] *Note that here we are focusing on the anticipated part of policy. In the case of monetary policy shocks, i.e., the unanticipated changes in the central bank's policy, the absence of frictions implies that monetary policy does not affect real allocations.*

[8] *This argument assumes that the share of agents with liquidity constraints, i.e., that are unable to have full access to the financial market, is not quantitatively significant from a macroeconomic point of view.*

In conclusion, the ongoing process of removal of financial market frictions in the euro area is conducive to a more efficient signalling and transmission of monetary policy to the markets. In the next subsection, we will reinforce this conclusion with the case of the credit market.

5.2 The Role of Credit Market Frictions

In the theoretical model described in section 4 no special role was assigned to credit market frictions in the transmission of monetary policy. Since that model is able to replicate qualitatively and quantitatively the effects of a monetary policy shock, we concluded that the role of credit market frictions in the transmission mechanism is not pivotal from a macroeconomic point of view.

We can try to understand this result by looking at the models that incorporate credit market frictions. These models usually focus on two distinct channels: the broad credit channel and the bank-lending channel.

In the broad credit channel, firms and consumers need have to present collateral to obtain a loan. In the presence of information and agency costs, declining collateral values increase the premium that borrowers must pay for external finance, due to adverse selection and moral hazard issues (see Gertler and Gilchrist, 1994).

The bank-lending channel focuses more directly on the role of banks. It is based on the view that bank loans and bonds are imperfect substitutes in the balance sheet of banks (Bernanke and Blinder, 1988, and Kashyap and Stein, 1995). Since banks rely on reservable demand deposits as a source of funds, contractionary monetary policy will reduce the availability of bank loans.

The above description suggests that the credit channel will be more operative in cases where there are significant information asymmetries between borrowers and lenders, when a large fraction of investment is financed through bank loans and when the health of the banking system is weak. There are many macroeconomic indicators concerning these dimensions of the data that suggest the existence of a role for banks in the euro area (see Bean et al., 2003). However, it is difficult, if not impossible, to deduce the importance of the credit channel from merely observing those macroeconomic variables. The literature has therefore focused on microeconometric evidence in order to test these channels. Overall, it is fair to say that the available evidence is not conclusive concerning the quantitative macroeconomic importance of these channels (see Angeloni et al., 2003a).

The recent financial trends in the euro area – namely the process of financial deregulation and innovation – tend to reduce the importance of credit channels in the transmission of monetary policy. In fact, the combination of reduced information asymmetries, increased liquidity in financial markets, increased competition between banks in the euro area and increased access by firms to direct market-based finance implies that credit interest rates are set more in line with market conditions and that banks channel funds between agents more efficiently. These trends also imply a more rapid transmission of monetary policy to the non-financial private sector. Finally,

the high degree of financial stability observed in the euro area countries in the past suggests that the banks for which the credit channel could be important may account for a small fraction of total bank lending in the euro area.

These arguments lend additional support to the conclusion that financial markets in the euro area do not impose significant frictions on the aggregate monetary transmission channel.

Another special feature of the banking system in some countries in the euro area is the presence of long-term relationships between customers and specific banks (the so-called "relationship lending"). This risk-sharing scheme usually involves small banks, which insulate some customers from adverse monetary policy shocks, in exchange for a certain premium.[9] In the euro area, this type of reciprocal behavior is important in Austria, Finland, Germany, Italy and the Netherlands (see Ehrmann et al., 2003).

As discussed in Issing (2003), the recent trends in European financial markets may diminish the extent of relationship lending. In fact, the increased competition between financial institutions may reduce the ability of banks to insulate customers from changes in money market rates. However, the existence of bank networks may mitigate the impact of adverse monetary policy shocks in the behavior of some banks.

5.3 Impact of Heterogeneous Financial Behavior

In section 2 we showed that certain cross-country heterogeneities exist in the euro area (and are likely to persist in the future). These heterogeneities may introduce asymmetries in the transmission mechanism in a monetary union. For example, Cecchetti (1999) forcefully argues that the heterogeneity observed in financial structures in the euro area is rooted on differences in legal structures. He concludes that unless these structures are harmonized across countries (namely in what concerns the rights and obligations of shareholders and creditors) one cannot expect an homogeneous transmission of monetary policy in the euro area in the future.

Again, in order to evaluate this argument, one needs to think of this mechanism in the context of a general equilibrium model. It is clear, however, that the model described in section 4 is not helpful in this inquiry, since it does not introduce any financial market segmentation. Looking at models that extend a standard monetary model to a monetary union context with either heterogeneous financial structures (as in Giovannetti and Marimon, 2000) or heterogeneous household participation in the financial market (as in Alves, 2003) some interesting insights emerge.

First, the effects of the single monetary policy on the macroeconomic aggregates of the monetary union depend on the degree of financial market segmentation. Second, with segmented financial markets, there is an asymmetric distribution of liquidity in the union after a monetary policy shock. This occurs despite there being full capital mobility between countries. This asymmetric liquidity distribution im-

[9] *Relationship-lending may also guarantee the financing of businesses that become non-profitable.*

plies different allocations across countries. In particular, a monetary policy shock leads to permanent trade balance and current account effects.

Even though the aggregate quantitative impact of the existing heterogeneity in financial structures across euro area countries is hard to quantify, there arguably exist heterogeneous distributive effects following a monetary policy shock in the union.

The degree of financial market segmentation may thus be an important friction to understand the monetary transmission mechanism in a monetary union. In this context, an interesting question is whether the existence of this segmentation affects the optimal monetary policy of the central bank. Adão, Correia and Teles (2003) show that if this is the sole relevant friction in the union, the optimal monetary policy remains the Friedman rule. With this rule, the financial frictions are undone, and the allocation in each country is symmetric. In this sense, the existence of financial market segmentation is irrelevant for monetary policy. However, it seems clear that there are frictions in the euro area economies other than financial market rigidities, which imply that monetary policy *per se* will be unable to undo all the distortions in the economy. This theoretical analysis has a clear policy implication: it calls for even further integration of financial markets in the euro area, in order to guarantee that these heterogeneous transmission channels cease to operate.

6 Conclusion

This paper assesses the impact of financial market frictions in the monetary transmission mechanism of the euro area. It emphasized that there are several crucial areas where the integration and deepening of financial markets have progressed dramatically in the recent past. These are notably the cases of the integration of money markets and the increased efficiency in the banking sector. We also noted that there are some segments of the market that display fragmented structures, as the corporate bond and equity markets. Further, we illustrate a number of national asymmetries that persist between financial structures in the euro area.

We then proceed to describe the monetary transmission mechanism in the euro area, focusing on a state-of-the-art theoretical general equilibrium model. This model mimics almost to perfection the transmission mechanism that is estimated for individual euro area countries or for the area as a whole. It is therefore a solid description of the mechanics of the transmission of monetary impulses to the economy. This model does not embed any frictions in financial markets. This suggests that the functioning of financial markets in the euro area does not cause significant distortions in the transmission of monetary policy, at least from an aggregate macroeconomic point of view.

When tracing the reasons and implications of this result, we highlighted three features. First, expectations concerning the current and future path of monetary policy are the crucial element of the transmission mechanism. The integration of financial markets has allowed a smooth transmission of information concerning the systematic behavior of the monetary authority, and has contributed to the high degree of

credibility and predictability of its actions. Second, credit market frictions do not seem to be particularly relevant in the transmission of monetary policy in the euro area. This can be understood by noting the increased size and efficiency of the banking sector and the technological developments that have reduced information asymmetries across economic agents in the euro area. Third, there are several persistent sources of heterogeneity in financial markets in the countries of the area. This heterogeneity may imply asymmetric effects of common shocks across the countries of the area.

Naturally, some of these conclusions are tentative, since they rely on extrapolations from the pre-euro monetary regime. Only when long-series for the actual euro area are available may we accurately bring this assessment to the data. One should also note that the introduction of the euro has by itself contributed to endogenously remove some of the financial market frictions prevailing across countries. The convergence of inflation expectations is a clear example in this respect.

Our overall conclusion is that financial markets already perform an efficient role in transmitting monetary policy to the real economy in the euro area. Nonetheless, further removal of existing barriers in order to achieve full market integration is naturally welcome. In this context, the complete implementation of the Financial Services Action Plan, which aims at creating a single EU wholesale market and an open and secure retail market by 2005, should be high on the policy agenda. This would not only contribute to an even smoother and more efficient transmission of monetary policy throughout the euro area but, ultimately, it would bring welfare gains to the euro area citizens. ❧

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Comments on Nuno Alves, "Financial Market Frictions and the Monetary Transmission Mechanism in the Euro Area"

Understanding the impact of financial market frictions on the monetary transmission mechanism is crucial in several dimensions. First for assessing the aggregate impact of monetary shocks, second to understand differential reactions across countries of the euro area and third to understand the feedback of the latter into the common monetary policy. The paper by Nuno Alves presents an extremely useful summary of the state-of-the-art and the state of our knowledge on these issues. I will argue that it also illustrates the areas of our ignorance.

The paper starts by pointing to the progress of financial market integration in different segments: convergence in bank margins and retail rates, government bond yields and volatility, issuance on the corporate bond market and the full integration of the unsecured money markets. In all areas European financial markets have undergone rather large changes over the course of the last years.

On the other hand, and this is the next point, it is also easy to identify markets where segmentation and frictions persist. These include

the secured money market, equity markets and credit markets. Reasons for segmentation range from contractual and habitual differences to differences in regulatory and settlement systems.[1] For instance, historical differences in the shares of fixed to variable rate lending across countries can lead to differential impact of a common monetary shock across countries.

How is it possible to evaluate the impact of such frictions on the monetary transmission mechanism? Nuno Alves argues that a general equilibrium view is called for. Any analysis that starts by investigating the monetary transmission channel by channel may misrepresent the aggregate picture, since it cannot capture the interactions between different channels. This is a fair point and important criticism of what I would call the micro view, which proceeds by isolated individual channels and investigates their functioning independently of each other.

Alves then shows that a general equilibrium model can accurately reproduce observed features of the data. The model incorporates various frictions (habit formation in households preferences, nominal friction in wage and prices, variable capacity utilization by firms) but it does *not* have any friction in financial markets. Prima facie this is rather surprising. And in fact the author is quick to say that this does not mean that frictions of financial markets are irrelevant. But he also suggests that they must be nearly-irrelevant, since he does not need them to reproduce the data.

At this stage we are confronted with a sort of puzzle. Financial market frictions are abundant and can be easily identified at the micro level, but they do not seem to appear on the macro level.

In some ways this seems a similar puzzle as the one suggested by Robert Solow – before the take off of productivity. I mean the famous phrase *"Where are the computers? – They are everywhere but in the macro data puzzle."* It also seems that the way solutions where sought to the puzzle is instructive here. One group doubted that the macro view was correct and tried to find flaws in the measurement of technological change in macro growth data. The other group doubted the micro evidence claiming that the existence of computers alone did not mean that they were being used for productive purposes.

Similarly the "Financial Frictions Puzzle" can be solved by questioning the macro view along the following lines: Granted that a model without financial frictions can reproduce the data, this does not necessarily mean that the model is correct. It may be introducing other frictions or exaggerating other frictions that mimic the financial friction. Admittedly, the real challenge for a model that "works" *without* financial frictions has to be another model that reproduces the data equally well *with* a financial friction. But even in the absence of a direct competitor, it just seems difficult to believe that further integration of financial markets in Europe would not have any impact on the transmission channel.

[1] *See for instance, Cecchetti (1999) or Lamfalussy Report (2001).*

The second possibility to solve the puzzle is to doubt the micro view that is to find reasons why observed frictions might not introduce large distortions. This is the path that Alves takes. He argues that expectations about the systematic part of monetary policy would decrease the differences between systems with fixed and variable rate funding. In this case, the ECB which is rightly proud of its good performance in anchoring inflation expectation would take the credit. Another argument is that the (increased) level of competition between banks might already be sufficient to not cause any distortions in the monetary transmission mechanisms. More generally, the level of development of financial markets in Europe may simply be sufficient to not introduce substantial distortion. Although these arguments sound plausible, I believe they are not sufficient to solve the micro-macro puzzle. And the evidence on segmentation just seems a bit too overwhelming to support the irrelevance-view.

Segmentation and heterogeneity across countries is the topic of the last section of the paper. This seems a very important section and might have deserved further elaboration. The model that was described above was calibrated to fit the aggregate data and therefore would fit an average level of financial sector development. It is therefore silent about the differential impact of a common monetary shock across countries with segmented financial systems. This question is relevant not only from the point of view of individual countries but also because differences in impact and speed of transmission may feed back into the process of common monetary policy making. And the significance of this issue is even amplified with the eventual entry into Economic and Monetary Union (EMU) of the ten new EU Member States.

In order to illustrate the extent of remaining heterogeneity across the euro area countries I show the impact of money market rates on lending and deposit rates. The numbers are taken from the study of Angeloni and Ehrmann (2003), who estimate the impact on a large number of lending and deposit rates in every country within a Value-At-Risk (VAR) framework.

Chart 1 shows the effect of changes in money market rates on deposit and lending rates after one month. The chart illustrates estimates for the pre-euro period and estimates for the period after the euro was introduced. In addition to euro area countries, the chart also includes some countries from outside the euro area, which can serve as of control group.

The most notable feature of chart 1 is that there are differences between the pre- and post-euro introduction. In France, Italy, Spain and the Netherlands the impact of money market rates on lending and deposit rates increased, in the case of France dramatically so. The level of impact overall has increased and the variation across countries within the euro area has diminished after the introduction of the euro. Note,

Chart 1

Effect of Money Market Rates on Lending and Deposit Rates

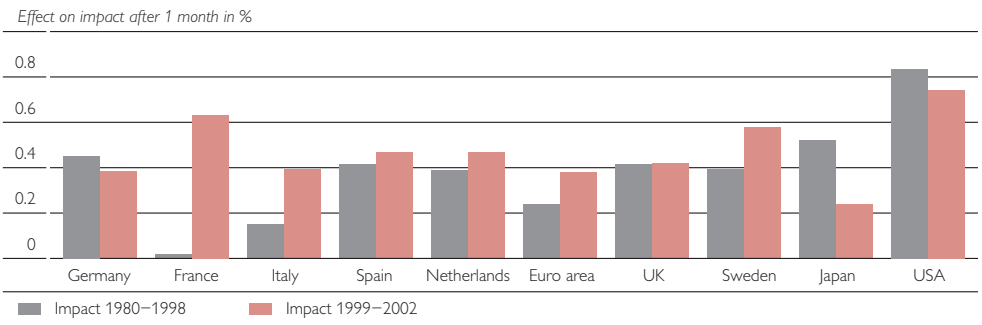
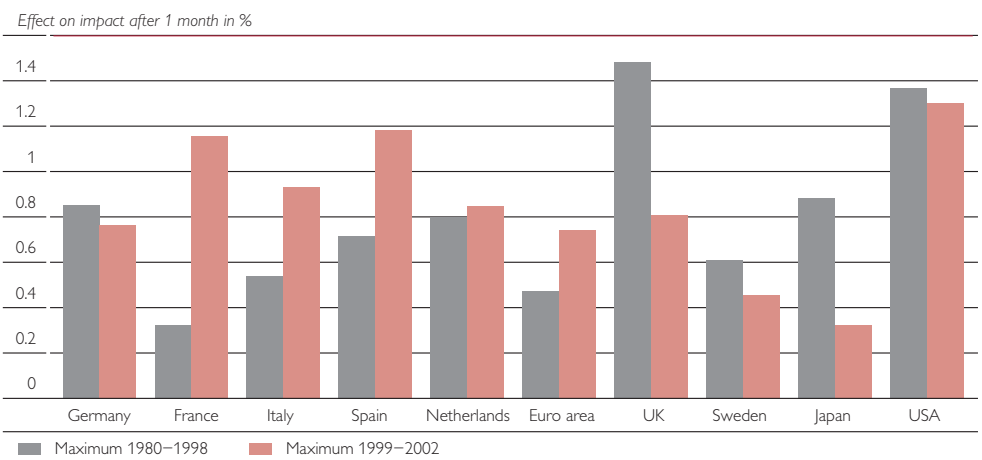


Chart 2

Effect of Money Market Rates on Lending and Deposit Rates



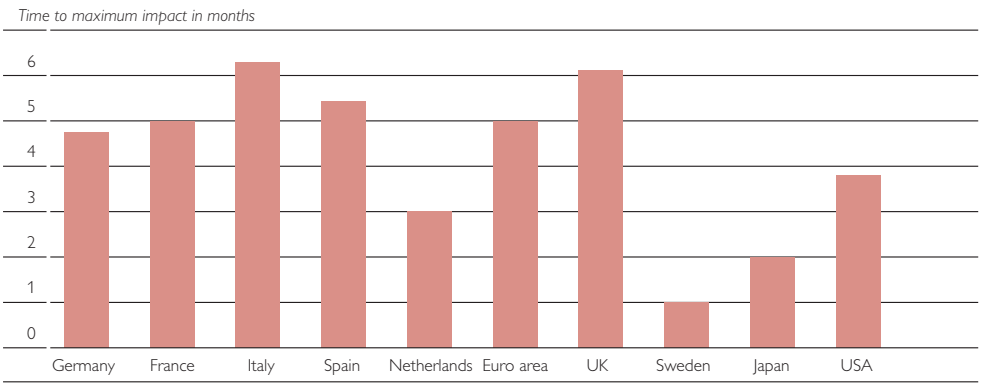
however, that some non-euro area countries such as Sweden and Japan have also seen large changes between these two periods. Thus the evidence on the role of the euro in harmonizing interest rate transmission is not conclusive.

Chart 2 shows the *maximum* impact of money market rates on deposit and lending rates, whenever it occurs. The message is similar as in the last chart: the level of transmission has increased and the variation decreased across countries within the euro area. For a number of countries outside the euro area the impact has diminished quite substantially. One interesting observation is that the UK seems to have converged to the euro area average.

Finally, chart 3 shows the time it takes for the maximum impact to be reached in each country. I am only showing the estimates for the period from 1999 to 2002. Again the divergence within the euro area seems somewhat smaller than outside the common currency area. However this graph also illustrates that the differences in transmission speed remain significant in some cases. Take the most extreme ones, it takes six months in Italy for a shock to money market rates to reach its maximum impact on lending and deposit rates, but it only takes three

Chart 3

Effect of Money Market Rates on Lending and Deposit Rates 1999–2002



months in the Netherlands. This means that rates in the Netherlands will already have started declining again when they are still working their way through the system in Italy. Such heterogeneity cannot be ignored, both from the view of the individual countries and for the optimal conduct of the common monetary policy.

Summing up, I think that the paper by Nuno Alves is an excellent paper that presents the "macro thinking" about financial frictions and the monetary transmission mechanism. The resulting "Irrelevance-Proposition" is puzzling and fits imperfectly with the evidence of fractionalization and segmentation across markets and countries. Therefore, one of the implications of the paper seems to be that further research is needed, which should eventually integrate the micro and the macros views.

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Demographic and Pension-System Challenges to Financial and Monetary Stability

Introduction

Against the background of forthcoming population ageing, the Lisbon agenda – and later EU pronouncements – have challenged Member States to meet coming challenges in this field, with aims such as "to carry out pension reforms to ensure adequate pensions, financial sustainability and modernity of the retirement systems in the long run". The process of such pension reform is well advanced in the new Member States of the EU, albeit much less so in many of the "older" ones. Consequently, as noted by Regling and Costello (2003) of the European Commission, "a clear and unequivocal risk of unsustainable public finances exists in at least half of EU Member States". Attempts to raise effective retirement ages, also required for a sustainable response to

[1] *The author (e-mail: e_philip_davis@msn.com) thanks Jean-Claude Chouraqui, Eduard Hochreiter, Chris Martin and Klaus Schmidt-Hebbel for helpful comments. Sections 2–4 draw partly on work prepared for a Deutsche Bundesbank conference in 2001 (Davis, 2002).*

ageing, have been even less successful to date.

Whereas ageing is inevitable and pension reform is essential for fiscal sustainability, the literature on the economic and financial implications of such developments is in our view unbalanced. There is extensive work on fiscal implications of ageing and pension systems; see Dang et al. (2001) for a recent example. The link between changing demographic structure and macroeconomic per-

formance has also been widely studied; see for example Turner et al. (1998), Kohl and O'Brien (1998) and McMorrow and Roeger (2003). Furthermore, there is a growing field of work on financial implications of ageing (such as Poterba, 2001, and other studies surveyed in Davis and Li, 2003). On the other hand, work on implications of ageing and pension systems for central bank policy, both in the field of monetary and financial stability, is rather poorly developed. Against this background, this paper seeks to probe the implications of ageing itself, of a "no-reform" scenario and of the growth of pension funds following a successful reform, for financial stability and counter-inflationary aims of monetary policy. It draws on existing work on macroeconomic, fiscal and financial implications, but seeks to illustrate how they could also combine to render the task of central banking more complex as the ageing process accelerates, depending on the scope of reform. We maintain that recent Japanese experience with economic and financial instability accompanying sharply accelerated ageing is illuminating, while acknowledging that other factors, including policy errors, played a role in that country.

1 Effects of Ageing on Macroeconomic Performance

Essential background is the overall impact of ageing on macroeconomic performance. We may summarise current views on the latter as follows:

As regards *GDP growth*, it is widely considered that it will decelerate as ageing proceeds, principally because of lower labour force growth. There will also be lower growth in living standards (i.e. GDP per head) than has been the case in recent decades, reflecting the accompanying increase in the dependency ratio. Effects on growth of a fall in labour force growth are unlikely to be offset by higher *investment*. Indeed, investment is itself likely to decline given a lesser need for capital widening, while capital deepening is likely to be limited by diminishing returns. Moreover, slower economic growth will tend to reduce returns on capital directly, thus again putting downward pressure on investment. The example of slower Japanese output and investment growth since 1970, and accompanying lower returns to capital, may be cited in this context as being partly linked to demographic shifts. Lower private and public saving (with high government borrowing), as discussed below, may crowd out investment. On the other hand,

higher *labour force participation* – which could be stimulated by pension reform[2] – could help to underpin growth. Another unknown factor in this context is the response of *productivity* of labour or capital to ageing and its impact on economic growth.

An important element in assessing *private saving* is the view taken of the life cycle hypothesis, which postulates initial dissaving in young adulthood, followed by saving for retirement and finally dissaving in retirement. Most estimates of the determination of saving based on macro evidence suggest that this pattern holds, implying that an older population will save less. For example Masson and Tryon (1990) found an elasticity of –1 from the dependency ratio to the savings rate using pooled cross-section and time series data for industrial countries, although later work by Masson et al. (1995) and Loayza et al. (2000) reduced this estimate to around –0.2. McMorrow and Roeger (2003) found an average elasticity of –0.75 across existing studies. The implication is that ageing will sharply reduce private saving. Note, however that the process may not be monotonic, since peak saving is usually by those in later working life. Hence, in the current decade saving may increase as the baby boom generation reaches maturity and saves for retirement; saving will then fall when baby boomers retire.

Micro results are much more equivocal in terms of the life cycle, with much evidence suggesting that the elderly may not save less than the working population (Poterba, 2001). Furthermore, the negative effect on saving may be partly attenuated by pension reform. Disney (2000) offers evidence that reform of public pension systems may have the effect of boosting private saving, also highlighting a study of Italy (Attanasio and Brugiavini, 1999), which supports the hypothesis. Furthermore, and more tentatively, funding should tend to reduce the cost and increase the availability of equity and long-term debt financing to companies (entailing financial deepening), and hence may raise productive[3] capital formation. Economically efficient capital formation could in turn raise output and "endogenously" raise growth itself (Holzmann, 1997). Higher growth will of course feed back on saving.

As the population ages, the public sector will tend to lower its saving, ceteris paribus. Such trends in *public saving* are largely driven by the scale of the public pension system in the light of ageing and the means of financing adopted (e.g. taxation versus debt finance). Recent estimates include those in Dang et al. (2001) and McMorrow and Roeger (2002). Debt finance would imply a greater fall in public saving. Rapid increases in the proportion of the population over 65 (the dependency ratio) combined with generous social security pension schemes are particularly threatening. It is this aspect which is encouraging governments to scale down public pension commitments and switch to funding.

[2] *A shift to funding should reduce the distortion to labour markets induced by taxes on labour linked to pay-as-you-go.*

[3] *This also requires allocation of funds to their most profitable uses and adequate shareholder monitoring of the investment projects, which should also tend to occur in capital markets dominated by pension funds.*

If, as suggested above, funding also boosts private saving, the benefit to domestic saving is compounded.

External balances will be driven by the combination of domestic saving and investment (see Bikker, 1996). After an initial surplus as baby boomers reach peak saving (as recently in the case of Japan), it is generally accepted that ageing will lead to a greater fall in saving than investment, implying balance of payments deficits, which may themselves entail exchange rate pressures.

Illustrating these patterns, Turner et al. (1998) provided a simulation of the global effects of population ageing (focusing both on changing population growth and age structure), using the OECD's international dynamic general equilibrium macro model MINILINK. Reflecting the declining labour supply with ageing, economic growth is forecast to decline to 0.25% per annum in Japan, 1% in Europe and 1.4% in the United States by around 2030. The slowdown in growth reduces investment needs directly. Furthermore, a decline in the weight of the OECD in the world economy tends to improve OECD current accounts (and hence saving/investment balances) as non-OECD imports rise faster than OECD import demand. The USA, Europe and Japan all generate balance of payments surpluses of 2% to 3% of GDP up to 2025, as saving is initially boosted by the high proportion of high-saving age groups while growth potential and hence investment weaken, thus building up net external assets which help to buttress GNP.

On the other hand, eventual downward pressures on public and private saving are greater in the OECD than elsewhere, generating – in combination with exchange rate appreciation – deficits for the three OECD regions after 2025. As world investment in this simulation falls less than saving, world real interest rates are expected to rise slightly, reinforcing the decline in investment. Reflecting differing returns on capital, interest rates are higher in emerging market economies (EMEs) than in the OECD. The authors note that higher saving in OECD countries could generate quite different results, with lower real interest rates and consequently higher investment and capital-labour ratios. There would also be greater net external assets, boosting OECD GNP via inflows of interest, profits and dividends.[4] As we noted above, some limited boost to saving could be anticipated from a switch from pay-as-you-go to funding.

Note that the above is just one example of global projections – others differ in details. For example, McMorrow and Roeger (2003) concur that the EU and Japan will run surpluses for some time, but expect the USA to run ongoing deficits, reflecting growth differentials and an assumption that the absorptive capacity of slow ageing EMEs is limited. They also note that such a continued concentration of capital flows within the OECD is more likely to generate downward pressure on rates of return and a risk of bubbles.

[4] *The return on such investments will depend on factors such as labour and product market reforms in the EMEs as well as the overall size of such flows from the OECD (if the flows are sufficiently sizeable, they will depress the return on capital in the EMEs).*

2 Ageing, the No-Reform Case and Financial Stability

With the above macroeconomic projections as background, we now go on to assess risks for financial stability that could concern central banks. It is clear that ageing – which is most acute in Europe among OECD countries – will generate sharp changes in quantities and prices in EU financial markets. As discussed in Davis (2002), and against the background of section 1, a possible effect on financial stability can be traced for the "general case" of ageing and for countries where pay-as-you-go remains dominant as well as where funding is introduced (sections 3 and 4). Generally, these entail partly predictable patterns in financial markets which nevertheless may overshoot and/or entail instability when they take place. Such instability is obviously of major interest to central banks. No system is likely to be unscathed, but issues are far more serious for pay-as-you-go.

Looking first at financial stability issues linked to the *general case of ageing*, as noted, it is widely anticipated that saving will rise in the next few years owing to the baby boom generation entering peak saving age, while potential growth declines. Then, like Japan in the 1980s and 1990s, the EU could face an external surplus and loss of competitiveness with currency appreciation, aggravated by home bias due to uncertainty on the part of pension funds. This may in turn generate excess liquidity and loose macroeconomic policies (if a structural surplus is mistaken for a cyclical one). In turn, this could generate a financial bubble (as already observed in Japan), whose deflation entails financial instability. Later, as baby boomers retire, there could be a balance of payments deficit, with risks of currency crises and exchange rate volatility accompanying banking crises.

The volatility in external flows and asset prices would be ameliorated by growth-promoting domestic policies (such as boosting the labour supply, raising saving and investment and reforms seeking to increase productivity) that would limit sav-

ing/investment imbalances, as well as policies to improve the absorption capacity of slow-growing poorer countries so flows are not kept largely within the OECD (McMorrow and Roeger, 2003). This is in a sense a "first best solution" that is in the interests of central banks to encourage. But some volatility seems inevitable, which would require careful monitoring by central banks. It may need a greater focus on asset price movements and monitoring of lending during periods of asset price volatility. Lender of last resort provision would of course not necessarily be an appropriate response in the case that the volatility generates insolvency rather than illiquidity.

Risks in pay-as-you-go may be best traced in the extreme case of no-reform. They will be attenuated to the extent that reforms reducing benefits and/or increasing effective retirement ages take place. One aspect is that the inevitable uncer-

tainty about future pensions in unreformed systems will lead to heightened precautionary saving. If directed to banks, this may lead to underpricing of risk in domestic credit or international interbank markets, again as in Japan (see Hargraves et al., 1993), with similar implications for financial stability. Life insurers could invest in high yield bonds and property, and be vulnerable to credit cycles, with consequences for their solvency also.

Turning to fiscal effects themselves, if there is tax finance when ageing occurs (i.e. a marked rise in contribution rates) there may be major economic difficulties owing to adverse effects of high and distortionary taxes on economic performance, generating credit losses and falls in asset prices, which are unlikely to be accurately anticipated by lenders. Underlying and accompanying these problems, capital as well as labour could translocate from the country concerned factor flight, especially if the tax burden is weighted towards these factors of production, as opposed to being in the form of consumption taxes.

In the case of *bond finance*, (i.e. whereby governments run deficits and accumulate debts when there is strain on pay-as-you-go systems during ageing), one may in due course expect a sharp rise in long-term interest rates, loss of credit rating of the government, crowding-out, and a recession. Hence, major credit losses for lenders may arise as borrowers face adverse economic conditions and higher interest costs. We note that most past fiscal crises as in Italy were with unliberalised banking systems, and hence are not a sufficient prediction of likely consequences. In this context, the government's ability to recapitalise banks in difficulty would decline with its borrowing capacity and credit rating. Ultimately, as interest rates rise and growth falls while deficits rise and debts accumulate, there may be a fiscal solvency crisis which could be contagious, "snowball" and give rise to a temptation to monetise or to leave EMU. There would obviously be major challenges to the financial stability responsibilities of central banks as well as monetary stability difficulties (see section 5). All of the adverse effects will of course take place at an earlier stage if governments fail to consolidate the fiscal position in advance of the onset of ageing.

The pension issue linked to unreformed pay-as-you-go is arguably the most intractable one facing the single currency. Given the need to finance the transition, even a country reforming a generous social security system and shifting to funding will not entirely escape some of these difficulties outlined for pay-as-you-go. It is worth noting that an unintended side effect of the Stability and Growth Pact may be to dissuade countries from reforming in a systemic manner, as that typically requires an accounting "transition deficit" to redistribute the burden across generations. Meanwhile, countries that have reformed would suffer from higher long-term interest rates and other adverse spillovers in the case of a crisis elsewhere.

3 Pension Funds, Financial Structure and Financial Stability

We now turn to implications of pension reform for financial stability. A realistic scenario, as suggested in McMorrow and Roeger (2002) is partial replacement of social security

by funded pensions, with contributions to the former pension promises (frozen at current levels as a proportion of wages) and current pension promises made up by appropriate funding. Such a reform would markedly ease the fiscal burden of ageing, reducing the risks outlined above, and would also tend both to boost private saving and change the size and composition of household asset accumulation.

As noted by McMorrow and Roeger (2003), a significant proportion of extra asset accumulation generated by a partial shift to funding in the EU would be invested internationally, with a benefit in terms of interest income accruals and also risk diversification. This proportion will be markedly higher if EU countries do not undertake labour and product market reforms making it attractive to invest domestically. Growth of pension funds following such reforms is also likely to entail a partial displacement of other forms of saving (Boersch-Supan and Winter, 2002), notably bank deposits, leading to an acceleration of the shift in EU financial systems from bank and loan basis to a securitised and institutional investor basis (Davis, 1999c).

In general, a financial system characterised by institutional investors and extensive capital market financing may be more stable than a bank-based one, especially if there is mispriced safety net protection in the latter and low values of banking charters. For in normal times, pension funds, having good information and low transactions costs, are likely to speed the adjustment of asset prices to fundamentals; this should entail price volatility only to the extent that fundamentals are themselves volatile. Moreover, the diversity in types and sizes of institutional investors – in their liabilities, incentives, and consequent attitudes to risk – should be stabilising to financial markets. The liquidity that institutional activity generates may dampen volatility, as is suggested by lower share price volatility in countries with large institutional sectors (Davis and Steil, 2001).

It can, moreover, be argued that securitised financial systems have important stabilising features, such as ease of marking to market, matched assets and liabilities and – notably for mutual funds and defined contribution pension funds – distance from the safety net. There are wider opportunities to diversify and spread risk. Furthermore, the "multiple channels of intermediation" available to the corporate sector in securitised financial systems will reduce the impact of any crises which affect either banks or securities markets (see Greenspan, 1999, and Davis, 2001).

On the other hand, notably during the transition, risks may arise for the banking sector following pension reform. Disintermediation, with a lesser proportion of saving being channelled via banks, given lower deposit inflows and greater competitiveness of capital market financing, may give rise to banking crises. This is because banks in such a situation may take increased risks so as to boost their profitability in a highly competitive market situation, while higher quality credits seek capital market financing. Indeed, it can be argued that the banking crises in a number of countries in the late 1980s were linked to the heightened competition banks faced from the capital markets (Davis and Steil, 2001). Again there are precedents in

Japan (Hoshi et al., 1993). In this context, note that a number of authors such as Demirguc-Kunt and Detragiache (1998) have looked at the effect of financial liberalisation on systemic risks, and found that banking crises were more likely to occur in liberalised financial systems. Crises tended to occur a few years after liberalisation, and were linked to a decline in bank franchise value, because monopoly power is eroded (see Hellman et al., 2000). Securities market competition driven by growth of pension funds can arguably have a similar effect to deregulation on franchise values and risk taking. A number of EU banking systems already suffer from low profitability and excess capacity and could be vulnerable in this context (Bank of England, 2003). The traditional instruments of emergency liquidity assistance, as well as fiscal headroom for bailouts, could be called upon if such risks materialise.

Pension funds and other institutional investors which are vehicles for retirement saving may also give rise to unfamiliar types of financial instability from the point of view of regulators and market players, which would be accentuated as they grew during the expansion of precautionary saving and/or funding. These would pose challenges to central banks in terms of adaptation of macro prudential analysis[5] and response to crises. Already in existing experience of financial instability one can distinguish two particular types of financial turbulence they give rise to.

A first type involves extreme market price volatility after a shift in expectations and consequent changes in institutional investors' asset allocations. Such crises are focused mainly on the consequences for financial institutions of sharp price changes which result from institutional "herding", as groups of such institutions imitate one another's strategies for reasons related to the information and agency problems between the investors and the asset managers (see the summary in Davis and Steil, 2001). Whereas misaligned asset prices and sharp price movements during corrections may not in themselves have systemic implications,[6] these may emerge when such movements threaten e.g. financial institutions that have taken leveraged positions on the current levels of asset prices. Examples are the stock market crash of 1987, the ERM crisis, the 1994 bond market reversal and the Mexican crisis (Davis, 1995). There were also elements of this in the Asian crisis. Indeed, EME securities markets, as well as those for forex, derivatives, bonds and equities in OECD countries, could be vulnerable to these shifts, not least if a large proportion of pension-financing is directed to EMEs. The challenge here is the appropriate monetary policy response to the preceding misalignment, as well as possible need for emergency liquidity assistance for institutions facing difficulty after the adjustment.

A second type involves protracted[7] collapse of market liquidity and issuance (Davis, 1994). Again

[5] *See Davis (1999a).*

[6] *They may, however, lead to resource misallocation.*

[7] *It is not denied that all sharp price changes will tend to affect market liquidity to a greater or lesser degree.*

often involving one-way-selling by institutional investors as they seek to shift asset allocations simultaneously, the distinction is often largely one of whether markets are sufficiently resilient, and whether marketmaker structures are suitably robust. Also, such crises tend to characterise debt markets rather than equity or foreign exchange. The risks are acute not only for those holding positions in the market but also for those relying on the market for debt finance or liquidity – which increasingly include banks. Examples in the past have tended typically to be rather specific and idiosyncratic markets, which by nature relied on a narrow investor base, marketmaker structure and/or issuer base (junk bonds, floating rate notes, Swedish commercial paper, ECU bonds). Central banks have tended justifiably to leave the market to sort out its own difficulties. However, the events following the Russian default and the rescue of the hedge fund LTCM were much more serious, as liquidity failure was threatened in markets such as the US repo, swaps, CP, corporate and treasury bond market (see IMF, 1998, Davis, 1999b). US monetary policymakers cut rates repeatedly in the wake of the crisis, partly out of concern that borrowers from bond markets would not find sufficient lending capacity from banks. In this context, note that real estate crises, which could also follow institutional herding, have elements of illiquidity as well as price declines.

Owing to their impact on the availability and price of credit, as well as liquidity of assets, price-volatility and market-liquidity based crises may threaten EMEs, banks and the non-financial sector more than pension funds and other institutional investors themselves. These could naturally be matters of central-bank concern. Long-term institutions can "sit out" such crises given their long-term liabilities.

But institutional investors may also tend to focus increasingly on debt claims as members approach retirement, while competition in asset management may lead investment managers also to be willing to take heightened credit risks in order to maximise their return on as-

sets (Bishop, 1998, Allen and Gale, 1999). In countries such as the USA, defined benefit pension funds have pension benefit insurance that may generate significant moral hazard (Bodie and Merton, 1992). This suggests that institutional investors could increasingly invest in high yield bonds and EME sovereign and corporate debt, and thus be vulnerable to credit risk to a greater extent than was the case in the past. Credit cycles could, in other words, affect institutional investors as well as banks. Solvency could be threatened directly for life insurance companies and defined benefit pension funds if a significant proportion of their assets defaulted. Equally, besides market and credit risk, errors on the asset or liability side (e.g. in terms of guaranteed returns or mortality projections) could also threaten solvency of a range of institutional investors, as has been seen already in Japan and with certain

UK companies such as Equitable Life (see IMF, 2001, Davis, 2004).

Three points may mitigate related systemic concerns, first that insurance companies and defined benefit pension funds are not easily subject to runs on suspicion of insolvency, given they have matched and long-term assets and liabilities, while mutual funds and defined contribution pension funds are not themselves subject to solvency risks – credit risks are passed directly to the household sector. Second, most institutional-investor claims are not insured, or the insurance is mutual, thus generating incentives for inter-firm monitoring. Third, given the ease of adopting market value accounting for securitised claims, it can be argued that debt crises are much less likely in corporate bond markets than for banks where the deterioration of credit quality is hidden from view in the balance sheet (Davis, 2001). Markets can still make mistakes however, as witness the repeated bond-based debt crises of the late Victorian period; and US experience suggests bond markets generally find rescheduling after financial distress difficult (Gilson et al., 1990). Furthermore, whereas central banks may not be directly concerned with insolvency of institutions per se (since they are not subject to panic runs), they may be concerned about abrupt changes in saving levels and saving patterns that could accompany loss of confidence in long-term institutions.

4 Pension Funds, Asset Prices and Financial Stability

Beyond the changing nature of the financial system, the expanded asset flows from pension saving during ageing as foreshadowed in section 1 may entail financial instability in terms of volatility of asset prices, which agents in the economy may not correctly anticipate.

There is evidence of such patterns from recent financial history. It is widely suggested that asset flows from institutions driven by ageing may have driven the last bull market in equities in countries such as the USA (Shiller, 2000). Work on savings flows such as Poterba (2001) does imply that high levels of retirement saving in the form of securities may have driven up market prices. It may be the case that the institutionalisation of saving has boosted equity prices via a fall in the risk premium (Blanchard, 1993), reflecting better diversification and lower risk aversion of collective investment vehicles. Such tendencies can overshoot, leading to bubbles. On the other hand, most work on the relation of equity prices to mutual fund flows suggests that direct effects of inflows on prices are hard to detect (Fortune, 1998, Engen and Lehner, 2000).

While the above discussion is largely focused on equities, asset bubbles could also accompany the pension asset build-up to the extent that retirement investment focuses on debt or real estate claims. The property market might be particularly susceptible. Finance of property development by bond issue or direct institutional investment are two possible channels. This could leave insurers as well as banks vulnerable to a downturn in the property cycle, as was the case in the Jamaican insurance crisis of 1996 (IMF, 2001). Following Allen and Gale (1999, 2000), if institutions become significantly involved in property invest-

ment and related credit finance, the massive inflows to pension funds as well as insurance companies could generate expectations of ongoing boosts to credit flows into property. There may also be increasing uncertainty about such future flows as ageing progresses. These in the past have tended to foreshadow asset bubbles generated by such credit flows. Externalities in property lending are significant, owing to the effect of new construction on the profitability of contiguous buildings. Since banks would remain exposed to property prices via collateral, and would probably also lend to higher-risk projects (Davis and Zhu, 2004), they could be badly hit when decumulation occurs, or earlier if institutional investors seek to adjust their asset allocation away from property for any reason.

A large share of pension saving in EMEs can also lead to bubbles and financial stability risks in the latter owing to institutional behaviour, even before an eventual repatriation of funds. Due, for example, to autonomous shocks affecting national or regional profitability and creditworthiness, such as local wars, there may be flight of investable funds back to the OECD or to other EMEs. In this context, note that securities are in principle much easier to repatriate than bank loans. Indeed, behaviour of OECD institutional investors is already widely considered to destabilise EMEs, not least owing to their tendency to invest in EMEs as a bloc rather than focusing closely on individual countries fundamentals (Buckberg, 1996). These patterns of volatility are underpinned by the sharp difference in relative size of EMEs and OECD institutional investors, which may expand as pension funds grow during population ageing.

Beyond the issue of changing asset allocation decisions, which can drive price falls even if pension saving is still rising, there are also arguments suggesting that asset prices will fall during the process of ageing itself, as it interacts with pension funding. A fundamental aspect is that the return on capital may fall as a consequence of a lower labour supply and lower growth during ageing, for example Cutler et al. (1990) see the real return on capital halving. An issue for funding is whether it can generate offsetting increases in efficiency and resource allocation, e.g. via growth of capital markets, that may help to offset this by boosting productivity and investment. Besides the return on physical capital, a key issue is whether asset prices will also be put under downward pressure in coming decades by declining saving or allocation of funds to equities in OECD countries implicitly affecting the real interest rate or the risk premium. Brooks (2000) argues that because there is a smaller generation of investors to sell their assets to, this would put downward pressure on asset prices. Also there will be excess demand for bonds and excess supply of equities in coming decades, as the elderly take annuities of seek safe assets with a marked decline in the returns on the retirement savings of baby boomers held in equities. Schieber and Shoven (1994) developed a similar argument suggesting that in the future, defined benefit pension systems will become net sellers, with the structure and pattern of flows from defined benefit pension plans meaning asset prices will be depressed. Poterba (2001) argues that

the meltdown hypothesis is inconsistent with empirical survey data. Consumers decumulate assets at a less rapid rate than the life cycle suggests. This is because the life cycle model takes no account of the bequest motive and lifetime uncertainty. Hence, although asset demands have risen to fuel the recent boom, they will not fall in the future. However, Abel (2001) using a rational expectations model, which took account of the bequest motive, found stock prices are still expected to fall when baby boomers retire despite high projected asset demands owing to shifts in the supply of capital in response to changes in its price.

Davis and Li (2003) give econometric evidence that demographics have had a significant impact on USA, panel and aggregated international stock prices and bond yields, even in the presence of standard additional independent variables. The international results are of interest given the logic of international financial integration. We reproduce a table of their results for the USA, showing that the 40–64 cohort has a strong important positive influence on asset prices, a support that would be removed as its share of the population declines (see table 1).

Meanwhile chart 1 shows that results shown above from equations with the 65+ cohort (AGE65) ex-

Table 1

Demographic Effects on Real Stock Prices and Bond Yields for the USA (1950–1999)

Independent variables	Log difference of US real stock prices	Independent variables	US real bond yields
Constant	−2.97 (0.64)**	Constant	12.3 (4.0)**
AGE20	−0.0024 (0.0098)	AGE20	0.266 (0.052)**
AGE40	0.108 (0.02)**	AGE40	−0.239 (0.084)**
DYHP	−3.4 (6.5)	DSR	0.628 (0.1)**
DDIFY	−1.28 (0.97)	TS(−1)	−0.73 (0.125)**
RLR	0.03 (0.009)**	DLCPI(−1)	−109.1 (9.7)**
VOL	−1.19 (0.62)*	DDLCPI	−142.6 (10.0)**
DY (−1)	0.092 (0.026)**	DYHP	−197.3 (58.9)**
		DDIFY	−5.8 (6.4)
R^2	0.54		0.98
RSS	0.58		4.9
SE of regression	0.12		0.4
F-statistic (7,50)	6.0 (0.0)**		102.9 (0.0)**
Wald test for exclusion of AGE40	15.2 (0.0)**		16.2 (0.0)**
R-bar-squared	0.45		0.97
Serial correlation (2)	1.1 (0.36)		1.8 (0.19)
Normality	1.53 (0.28)		0.045 (0.97)
Heteroscedasticity	0.53 (0.47)		0.06 (0.81)
Stability (RESET)	2.4 (0.09)*		1.98 (0.14)
Stability (Chow forecast)	0.81 (0.62)		0.74 (0.67)
Unit root test	−5.9		−3.7

Source: Davis and Li (2003).

Notes: DDIFY – difference of log difference of real GDP from HP filter; DYHP – trend growth derived from HP filter on log difference of real GDP; DY – dividend yield; DLCPI – log difference of CPI index; DLRSP – log difference of real share prices, derived as nominal share index divided by CPI; RLR – real bond yield, derived as nominal yield to maturity less current CPI inflation; VOL real equity price volatility, derived as variance of log of monthly change in share prices divided by CPI within each year; AGE20 – population aged 20–39 as a percentage of the total; AGE40 – population aged 40–64 as a percentage of the total; AGE65 – population 65+ as a percentage of the total, DSR is the first difference of the nominal short-term interest rate, TS is the term structure (long rate less short rate) and DDLCPI is the acceleration of the CPI index (log second difference). Standard errors in parentheses, except for diagnostics where the P values are shown.

** indicates significance at 90% and ** at 95%.*

Serial correlation test is the LM (2) test; normality is the Jarque Bera statistic; heteroskedasticity is ARCH (1); stability is the RESET (3) test and the Chow forecast test over 1990–99; unit root is the ADF.

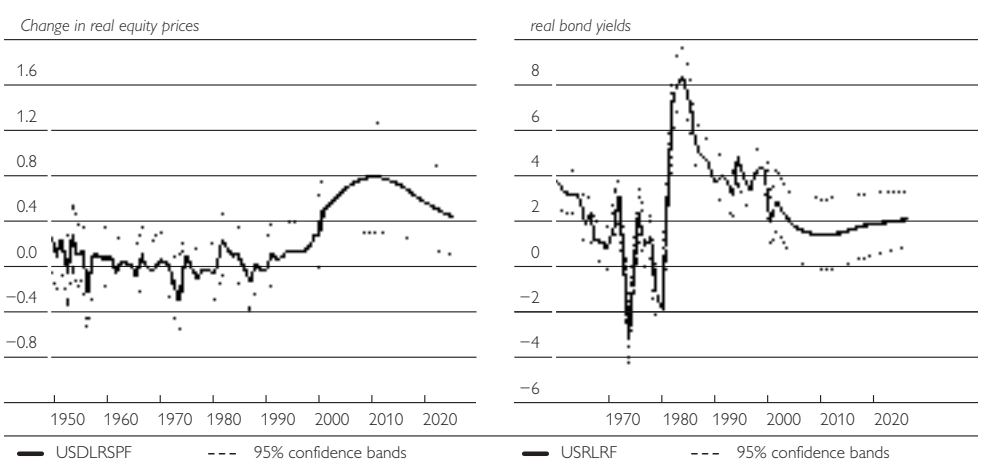
cluded do not indicate a substantial weakening of asset prices in coming decades. The share price rises sharply in the period up to 2010, then increases fall back while remaining above zero. The bond yield falls to remain around 2% up to 2025. On the other hand, chart 2 shows that in equations with AGE65 included, the equity price is set to decline from 2015 onwards, while the real interest rate rises to historic peaks only previously seen in the early 1980s. These tentative results including estimated effects of the over-65 cohort in the USA suggest a more severe downturn is possible, thus underlining the potential market risks associated with sole reliance on fully funded pension schemes.

In this context, solvency could be threatened for life insurance companies and defined benefit pension funds that had made undertakings based on expected returns on assets formed during the bull period (as has been the case recently for the Japanese life insurers and pension funds, see Fukao, 2002).

Of course, the "meltdown" highlighted above might be attenuated, although central banks would still need to be vigilant for shorter-term financial stability risks during this process. One attenuating factor is the growing maturing and wealth of populations of emerging market economies (EMEs) such as China in the coming decades, who would purchase shares sold in OECD countries. Productivity changes as the population ages could offset declines in the return on equity owing to demand side factors, as suggested by Cutler et al. (1990). Monetary policy may be expected to respond to high real interest rates by an appropriate loosening, which will help attenuate the peaks (Poterba, 2001). Investor demand would be likely to switch in the light of relative returns, for example to buy high-yield bonds in the later years. Neuberger (1999) argues that the increase and subsequent decrease in flows will be balanced by rises and falls in equity issues, with little effect on prices and returns. Young (2002) notes that demographics are only one de-

Chart 1

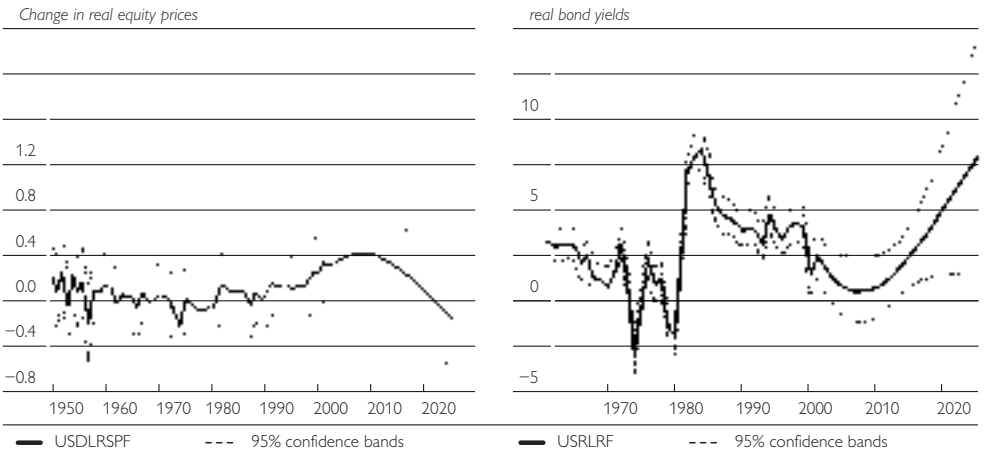
Projected US Asset Prices for Equations Excluding AGE65



Source: Davis and Li (2003).

Chart 2

Projected Asset Prices for Equations Excluding AGE65



Source: Davis and Li (2003).

terminant of asset prices and their effect may be overwhelmed by other changes (although the equations in Young, 2002, table 2 seek to allow for other determinants). Finally, since financial markets tend to be efficient and forward looking, and because demographic changes are slow moving and predictable, the market meltdown could be forestalled with rational expectations.

In general, we are sympathetic to the view that even if there are price changes with the decumulation of pension funds, they will not necessarily be precipitate, and hence the issue may be one affecting the level of retirement income and the welfare of pensioners rather than systemic financial market stability. On the other hand, the tendency of markets to overreact in both directions is apparent from the recent boom in IT stock prices, and hence vigilance is needed. If there are indeed such sharp changes in market prices during ageing, they may give rise to losses threatening solvency on the part of financial institutions or investors taking leveraged positions, possibly requiring emergency liquidity assistance. It would also impact on the adequacy of funding and replacement rates offered by pension funds and life insurance companies. In countries where pension saving is not compulsory, inflows to pension funds and aggregate saving per se could become volatile as households react to uncertainty. A sharp shift away from securities could extend to other asset markets, notably those for commercial property and possibly to residential property. These effects would be compounded if, for example, the older population had a lower demand for housing services. Mankiw and Weil (1989), for example, made controversial[8] projections of lower house prices in the USA as a consequence of ageing. The banks, which hold such property as security, would find credit quality declining as a consequence.

[8] *Engelhardt and Poterba (1991) and Hendershott (1991) provide counter evidence to this suggestion.*

5 Pension Funds, Ageing and Inflation

The implications of pension funds and ageing for monetary stability have also to be seen in the context of the macroeconomic effects set out in section 1. We divide them into challenges in respect of ageing per se and possible changes in the transmission process. We note that this is an area where extant applied work as well as theoretical work is quite scarce – in our view, further research is needed in a number of areas.

To begin, we may note that experience of countries such as Japan has shown that an ageing population may for some time entail an increased savings propensity, especially if there is uncertainty about future pensions. Notably if combined with lower potential growth owing to lack of structural reform, this may entail downward pressure on consumer prices. Central banks concerned then have the issue of dealing appropriately with deflation, which Japanese experience shows is complex, especially if combined with a lax fiscal situation. More generally, the elderly are often seen as adverse to inflation due to holdings of fixed income securities and hence should lend political support to counter-inflationary monetary policy.

On the other hand, we have also noted that older households will tend to dissave under a standard life cycle approach to consumption over a lifetime. In due course this implies a lower overall savings propensity for an ageing population. Depending on the behaviour of investment and net trade, this could entail excess demand (Fitoussi, 2003). If ageing leads to excess demand for goods and services then there is likely to be enhanced inflationary pressures. This may be aggravated if current account deficits from lower saving entail downward pressure on the exchange rate. These would require a tight monetary stance to offset them.

Excess demand may be aggravated if there is a shrinkage on the supply side, with a decline in output growth from ageing owing to a smaller workforce which is not offset by increased capital formation. Indeed, it is suggested by Bonello (2003) that ageing is a negative supply shock, which is worsened if higher consumption tends to crowd out investment. This may be complemented in terms of inflationary pressures by a tighter labour market owing to ageing, as workers gain enhanced bargaining power owing to their scarcity. The need for higher labour force participation and a higher effective retirement age is underlined, reversing the recent trend in the EU for those over 55.

A key issue is whether productivity responds to ageing in a positive manner or not. If productivity were to respond positively to ageing, then higher wages may not entail inflation and excess demand will be attenuated. Higher productivity would also boost the demand for capital and sustain capital returns. Some authors suggest ageing slows technical progress as innovation becomes less profitable with a shrinking market for capital goods and owing to the lesser dynamism of an ageing population (Wattenberg, 1987). In contrast, Cutler et al. (1990) suggest that innovation increases as labour gets scarce. It is suggested by Disney (1996) that there is no link detectable from ageing to productivity, implying investment rates will be crucial to growth,

not least given possible "endogenous" links from investment to productivity. (We present tentative results of our own below.) The possible link of ageing to productivity nevertheless underlines the need for structural reform to permit growth in productivity, as well as raising investment and saving.

The supply shock may be reduced if there is an effect of pension reform on fixed investment, via greater supply of funds overall or greater provision of risk capital. Growth of pension funds may also attenuate inflationary pressures if the use of bond investment makes, as noted, for political resistance to erosion of asset values. This effect would be much reduced if pay-as-you-go systems are not reformed. Then the pensions being indexed and "wealth" being largely in implicit claims, the population would be more relaxed about inflation.

If realised, the financial stability risks highlighted in Sections 2–4 above would generally tend to have a negative effect on inflation and could ultimately lead to challenges of deflation as in Japan. Some, such as short-term volatility, market liquidity and banking crises, could be dealt with by emergency liquidity intervention that is later sterilised. But if there are major effects on the macro economy affecting inflation prospects, then interest rate policy may need to respond in a countercyclical manner. The possibility of an asset price collapse with ageing as outlined above is a much more protracted challenge and could need prolonged periods of low short-term interest rates. How this would interact with the potential inflationary pressures would need careful judgement.

There is a particular threat to monetary stability in the case that there is bond finance of social security pension system (and health system) deficits, with no reform affecting spending such as lower benefits or a higher effective retirement age. Given the scope of projected increases in expenditures, such structural deficits could become extremely large, and corresponding debt accumulation also. Effects on monetary stability can be traced via the inflationary impact of deficit financing. At a basic level, deficits may generate excess demand and boost inflation if central banks "give in" to pressure to accommodate and households do not simply reduce expenditures to offset government spending in a Ricardian manner. Higher long-term interest rates accompanying large structural deficits would reduce investment, enhancing the supply shock of ageing and consequent inflation risks. When debts are sufficiently high, such pressures may be complemented by political pressures from governments to accommodate deficits and ultimately to monetise the debt (recall that for very high debt levels, unsustainable debt dynamics can only be reversed for the inflation rate high enough, or if the interest rate is low enough). Note that tax finance would not necessarily avoid fiscal problems for monetary stability when tax rates rise to high levels, since "factor flight" would probably entail growing fiscal deficits as economic activity slows.

The standard assumption is that if central banks resist pressures to accommodate, then inflation will not rise, since inflation is a monetary phenomenon. This implies governments will have to obey intertemporal budget constraints and ultimately

reduce debts and deficits to sustainable levels. On the other hand, the literature also highlights the so-called "fiscal theory of the price level" (see Woodford, 2001 and references). It suggests that the price level adjusts in order to ensure the value of nominal government debt, divided by the price level equals the real present value of future government surpluses. The so-called "Non-Ricardian" assumptions needed for this to apply are strong and controversial (see Afonso, 2002, for a summary of criticisms), while empirical work has not been strongly supportive. Nevertheless the theory remains of potential importance since a corollary is that the burden of lax fiscal policies could overwhelm even stability oriented monetary policies (in some papers, fiscal policy determines the price level independently of the path of the money supply). Given rational expectations, such an outcome would be perceived well ahead (Salo, 2003). Furthermore there may be important spill-over effects from a country running an unsustainable fiscal policy in a monetary union (Andres et al., 2002). Certainly, past hyperinflations tended to be linked to unsustainable fiscal policies. Further work is in our view needed to assess the degree of applicability of the fiscal theory of the price level to the risks to unsustainable pension systems during ageing, given these are the greatest fiscal challenges, and also the most obvious case where the intertemporal budget constraint may be breached. At least, this risk to monetary stability further underlines the importance of pension reform.

Ageing may also alter the monetary transmission process, although arguably this will be sufficiently gradual to allow central banks time to adapt. As noted by Miles (2002), changes in interest rates are likely to have a different effect on consumption of young and old individuals. The former are more likely to be credit constrained, while interest rate changes will have the effect of changing the cost of consumption at different points in the life cycle. For older persons, the impact might arise more via asset price changes induced by monetary policy (the young own relatively few non-human assets). This asymmetric effect might be a marked feature if the elderly hold a larger proportion of bonds than equities in their portfolios, while the former are more affected by interest rates than the latter. When there is ageing, the channel of transmission to consumption would hence be more via wealth effects and less via credit constraints and intertemporal substitution.

Hence, the population distribution would affect the impact of interest rates on consumption. Miles (2002) estimates that the impact on consumption both of a rise and decline in interest rates will be greater when the population ages, owing to the asset price effect being larger than the credit constraint and intertemporal substitution. Also, the impact will be greater, the further pension reform has been pursued, as this raises the stock of assets held, and reliance on them for income by the elderly (for estimates of future assets see McMorrow and Roeger, 2003). This result relies on a sufficiently large wealth effect on consumption by the old as well as, perhaps, a lack of annuitisation. It will be of particular importance as reformed pension systems tend to be defined contribution. It implies that

monetary policy, pace Miles, might come under pressure to take more account of asset price effects.

We noted above that inflationary pressures may accompany ageing. As discussed by Fitoussi (2003), a continued high level of unemployment in Europe would limit wage pressures, although it would be expected that a fall in labour supply owing to retirement would facilitate absorption of the unemployed. An issue for the transmission mechanism in this context is whether ageing will increase the non-accelerating inflation rate of unemployment (NAIRU), if for example an older workforce is less willing to move house or occupation in response to redundancy. High employers' social security contributions could affect the NAIRU via labour demand.

The change in financial structure that is ongoing from bank to market based intermediation will be accelerated by ageing, if it is accompanied by pension reform. This again poses an issue of adaptation by monetary policymakers because firms (and possibly households via securitisation) will be financed by money and bond markets and not via banks. Different key interest rates and also scope of credit rationing (a lesser importance of the "credit channel") may be entailed. The issue of substitutability of bank and bond market finance will also become of major importance for monetary policymakers (Greenspan, 1999).

Other transmission process changes can also be envisaged. Exchange rate dynamics will differ with large foreign assets of pension funds, and their reallocation. Mortgage debt may be lower with a smaller younger generation, which will change the income gearing effect of monetary policy, especially in countries where mortgages are floating rate. Money demand itself is likely to differ between young and old consumers, meaning ageing will change its characteristics.

Given the lack of research in this area, we considered it to be of interest to undertake some exploratory regressions on the relationship between age structure and selected key variables for monetary stability, namely inflation, growth, productivity and house prices. We have undertaken simple seemingly-unrelated (SUR) panel regressions on seven major OECD countries, the UK, USA, Germany, Japan, Italy, Spain and France over 1950–2000 (1970–2000 for house prices). SUR is appropriate given likely contemporaneous correlations due to common economic shocks and feasible given that we are working with N (number of cross-section observations) far below T (time series observations). The estimates utilise United Nations (1998) data on the size of age cohorts 20–39, 40–64 and 65 and over relative to the population as a whole. The residual is the young dependent cohort aged 0–19. These are the same data definitions as used in the above-mentioned work by Davis and Li (2003). The work is purely illustrative and intended to provoke discussion and further research.

We regress inflation, growth, labour productivity growth, total factor productivity (TFP) growth and real house price growth on their own lags in an ARMA process, together with the age structure variables, first in levels then in differences. Hence, the issue is simply whether a high proportion or increase in proportion of a given age

group has been associated over the past half century with high or low CPI or house price inflation, economic growth or productivity growth. Causality is not proven and further work is needed, as in Davis and Li (2003), with demographic variables included in fully-specified equations or models for the variables concerned. Caution is also needed as the AGE65 cohort is not statistically stationary in most countries – hence, more credence should be given to the results in differences.

Concerning results in levels, as shown in table 2, the results suggest that there is a tendency for the high-saving age group 40–64 to accompany relatively low inflation, with the other age groups having no effect. Growth is relatively low when the retired proportion of the population is high, with also some negative effect from the 40–64 age group. This supports the arguments for slower growth presented in section 1 as ageing proceeds. Furthermore, over the last 50 years, a high proportion of elderly persons has accompanied low productivity growth, implying further risks to performance as the population ages. This is true both of labour productivity and total factor productivity. This is despite the fact that a larger retired share of the population may entail a smaller labour force relative to the population. Note on the other hand that there is no major differential in effects on productivity between the younger and older working population, contrary to the idea that older workers are less adaptable. Finally in terms of house price increases, the younger cohort exerts a negative influence, perhaps being less wealthy, creditworthy and liquid than their older counterparts, as does the elderly cohort.

In most cases, the results in differences are consistent with those in levels. Notably, the growth as well as the size of the elderly cohort exerts a negative influence on labour productivity and total factor productivity. There are no significant effects on economic growth, while for inflation the growth of the elderly cohort exerts a negative influence, consistent with common beliefs about the preferences of the elderly for low inflation. In terms of house

Table 2

Panel Estimation Results for Levels of Demographics and Key Macroeconomic Variables

Independent variables	Inflation	Growth	Total factor productivity growth	Labour productivity growth	Real house price growth
DV(−1)	0.751**	0.327**	0.164**	0.139**	0.573**
DV(−2)	−0.102**	−0.101**	−0.0427	0.0985**	−0.163**
DV(−3)	−0.00643	0.168**	0.112**	0.0459	−0.178**
AGE20	9.84E−05	−0.000543	−0.0559	−0.0583	−0.00335**
AGE40	−0.00128**	−0.000998*	−0.0542	−0.038	0.00147
AGE65	0.000298	−0.00237**	−0.305**	−0.301**	−0.0043**
R^2	0.667	0.405	0.271	0.347	0.134
SE of regression	0.0249	0.0208	2.10	2.31	0.068
No. of observations/countries	343/7	350/7	350/7	329/7	195/7

Source: Author's calculations.

Notes: Inflation is the first difference of the log of CPI, growth is the first difference of the log of GDP, total factor productivity growth is the first difference of the log of TFP, labour productivity growth is the first difference of the log of labour productivity, real house price growth is the first difference of the log of real house prices and DV is the (lagged) dependent variable.

*SUR – Fixed effects. * indicates significant at 90% and ** at 95%. Standard errors in parentheses.*

Table 3

Panel Estimation Results for Differences of Demographics and Key Macroeconomic Variables

Independent variables	Inflation	Growth	Total factor productivity growth	Labour productivity growth	Real house price growth
DV(−1)	0.754**	0.361**	0.193**	0.182**	0.49**
DV(−2)	−0.101**	−0.0714**	0.00654**	0.134**	−0.0837**
DV(−3)	0.0109	0.194**	0.152	0.0873**	−0.212**
AGE20	0.00303	0.00322	−0.46	−0.00799**	0.0409**
AGE40	−0.00908	−0.00195	−1.709**	−0.0197**	0.0964
AGE65	−0.0236**	−0.0136	−3.09**	−0.0334**	0.152**
R^2	0.667	0.349	0.2	0.311	0.186
SE of regression	0.025	0.0218	2.2	2.38	0.066
No. of observations/countries	343/7	350/7	350/7	329/7	195/7

Source: Author's calculations.
*SUR – Fixed effects. * indicates significant at 90% and ** at 95%. Standard errors in parentheses.*

prices, there is a larger positive effect from the older cohort and the smallest from the younger one, consistent with relative resources albeit not with the levels result. As noted, the difference result using non-stationary variables may be more statistically credible.

Conclusions

Pension reform is essential for the future stability of the EU in general and EMU in particular, and its progress is of major concern to central banks as well as ministries of finance. We have highlighted a number of risks to financial stability that may occur due to ageing itself, with pension reform, and notably when there is a continued reliance on unsustainable pay-as-you-go pension systems. These all require vigilance by central banks, and may require sterilised liquidity assistance or even adjustments in interest rate policy. Risks – and underlying economic performance – will be much worse in the case of no-reform. There are also challenges for counter-inflation policy during the ageing process, as at different points it may generate deflationary and inflationary pressures, while a fiscal crisis would have major repercussions for monetary stability. The transmission process of monetary policy will also enter a state of flux with ageing, although arguably this may be sufficiently gradual to allow central banks time to adapt. ❧

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Comments on E. Philip Davis, "Demographic and Pension-System Challenges to Financial and Monetary Stability"

Reform of unsustainable pay-as-you-go (PAYG) defined-benefits (DB) pension systems is a major policy challenge faced by all countries in the world. This challenge is larger – and more urgent – in countries undergoing more advanced stages of demographic transition, where quick population ageing strains to the limit the finances of traditional pension systems. But in these countries – typically advanced OECD economies and European transition economies – there is also larger political resistance to pension reform, due to the relatively larger share of older workers and pensioners among voters.

Against this background, Philip Davis' paper provides a timely and useful review of potential implications of ageing – with and without pension reform – for financial and monetary stability, drawing on extant literature and his own research, complemented by qualitative arguments and well-informed speculation.

Table 1

Estimate of Pension Reform Effects on Average Annual 1981–2002 GDP Growth in Chile

	Point estimate	Range estimate
	%	
Average 1981–2001 GDP growth	4.60	
Due to pension reform:		
Saving and investment	0.13	0.03–0.32
Labor markets	0.10	0.05–0.15
Financial deepening and TFP	0.20	0.13–0.27
Overall	0.49	0.22–0.93

Source: Corbo and Schmidt-Hebbel (2003).

My comments are on four subjects, structured more or less in the order they are considered in the paper. I start with a brief reference to my work with Vittorio Corbo on macro and growth effects of pension reform. Then I discuss at more length the paper's discussion of the financial risks and the monetary implications of ageing (and pension) reform. I end with a few remarks on the empirical evidence reported in the paper.

1 Pension Reform and Macroeconomic Performance

The paper provides a useful review of the recent literature on the macro effects of ageing generally and under unreformed PAYG DB pension systems in particular. The review focuses on the main channels of transmission to growth and welfare, through saving, investment, the current account, the labor force, and labor productivity.

There is also some reference to the likely effects of pension reform – transitions from PAYG to FF systems – on growth and welfare, largely occurring through the same channels but with vastly different economic consequences. But these references are much more cursory as in preceding surveys of the effects of pension reform on growth, e.g. World Bank (2004), Lindbeck and Persson (2002), Schmidt-Hebbel (1998).

In this context I mention the results from my recent joint work with Vittorio Corbo on the effects of Chile's 1981 pension reform on saving, investment, labor markets, capital market deepening, TFP, and aggregate growth. Why Chile? Because this country has the longest post-reform experience of a deep and radical shift from statemanaged PAYG DB pension savings to privately-managed fully-funded defined-contributions pension savings in the world. In a nutshell, our empirical findings suggest that roughly one tenth of Chile's average annual GDP growth rate during the post-reform period can be attributed to its 1981 pension reform (table 1). This implies that roughly 5% of Chile's current GDP level can be explained by the effects of pension reform on capital formation, labor markets, and production efficiency levels.

2 Risks to Financial Stability from Ageing (and Pension Reform)

The author is torn between two positions about the financial risks posed by ageing (and pension reform).

On the one hand, E. Philip Davis states: "In general, we are sympathetic to the view that even if there are price changes with the decumulation of pension funds, they will not necessarily be precipitate, and hence the issue may be one affecting the level of retirement income and the welfare of pensioners rather than systemic financial market stability." "Since financial markets tend to be efficient and forward looking, and because demographic changes are slow moving and predictable, the market meltdown could be forestalled with rational expectations."

"On the other hand, the tendency of markets to overreact in both directions is apparent from the recent boom in IT stock prices, and hence vigilance is needed. If there are indeed such sharp changes in market prices during ageing, they may give rise to losses threatening solvency on the part of financial institutions or investors taking leveraged positions, possibly requiring emergency liquidity assistance."

Being de facto closer to the second position, the paper identifies six risks for financial stability:

Risk 1 (due to demographic transition): high baby-boom cohorts' saving leads to excess liquidity, asset-price bubbles, bursts, and possible financial crises. The converse risk at baby-boom cohorts' retirement phase: low saving, lack of liquidity, meltdown of asset prices, possibly financial crisis.

Risk 2 (due to unsustainable PAYG deficits under ageing): bond financing of PAYG budget deficits leads to decline in credit rating (higher country risk premiums), higher interest rates, lower growth, and lower asset prices. Eventually solvency problems lead to financial crisis and recession.

Risk 3 (as a result of pension reform): the declining share of saving channeled through banks may lead to banking crises.

Risk 4 (as a result of pension reform): institutional investors' portfolio shifts toward equity, mortgages, and high-yield corporate and sovereign bonds lead to asset price bubbles. Banks contribute to the bubble by increased corporate and housing lending and hence are increasingly exposed to bubble bursts and financial crises.

Risk 5 (borne by DB pension funds): DB pension funds may generate moral hazard, leading to excessive investment in high-risk securities.

Risk 6 (associated to private pension funds): risk of large and swift portfolio shifts by institutional investors leads to market illiquidity and asset price collapse.

Note, however, that risks 1 through 4 are not unforeseen high-frequency events that lead to sudden financial crises but reflect anticipated long-term trends due to ageing or pension reform. Therefore they are more consistent to the first position espoused by the author and not a source of significant concern.

Risk 5 is a risk caused by a specific form of pension funds. As long as funds do not bear investment risk – as is the case of many recently reformed pension systems – this risk vanishes.

Risk 6 is an implication of fiscal and governance weaknesses in countries that issue sovereign securities or governance weaknesses in corporations that issue equity and bonds. Exposure to this risk is inherent to any financial investment and can be ameliorated only by following conservative investment and hedging strategies.

The aforementioned arguments lead to a position rather close to first view espoused by the author: ageing (and pension reform) cause first-order changes in the levels of relevant macroeconomic, fiscal, and portfolio variables – as well as in intergenerational welfare – but are unlikely to entail first-order risks to financial stability.

3 Monetary Policy Implications of Ageing

I discuss next four themes on the monetary policy implications of ageing that are analyzed in the paper.

1 Should monetary policy respond to real consequences of ageing?

On the one hand, the author states: "The standard assumption is that if central banks resist pressures to accommodate, then inflation will not rise, since inflation is a monetary phenomenon." On the other hand, the paper identifies three real long-term consequences of ageing that supposedly call for monetary policy responses:

(i) Monetary policy should be loosened in response to high real interest rates (due to ageing), which will help attenuate the peaks of risks.

(ii) Central banks will have to deal appropriately with deflation that may come with increased savings from baby-boom cohorts and precautionary savers worried about their PAYG defined benefits.

(iii) More into the future, central banks will have to deal with the consequences of: (a) dissaving of retiring baby boomers, leading to excess demand and inflationary pressures; (b) the negative supply shock derived from a smaller workforce, which reinforce inflationary pressures; and (c) larger CA deficits, leading to ER depreciation. The combination of the three latter would require a tighter monetary stance.

None of the three latter consequences of ageing entails unexpected high-frequency real shocks that may warrant a monetary policy response. They are low-frequency, trend changes that are foreseeable and affect both actual and potential output and/or actual and neutral interest rates. There is no justification for monetary accommodation under these or related long-term real consequences of ageing or of pension reform.

2 Should monetary policy respond to a financial stability objective, in addition to the standard price stability goal?

There is strong academic and policy debate surrounding this question. E. Philip Davis comes down on one side of this debate by suggesting that monetary policy should respond to misaligned asset prices and sharp price movements.

However the case is not so easily laid down in favor of intervening through monetary policy in times of "irrational exuberance." The debate is definitely not yet settled between the bubble bursters (for example Cecchetti et al., 2000, or Borio, 2004, espousing intervention) and the non-interventionists (for example Bernanke and Gertler, 1999, or Goodfriend, 2002).

In fact, most central bankers tend to lean toward the second view, which could be summarized in the following four propositions:

(a) monetary policy should react to asset prices as long as they affect forecasts of future inflation and output gaps,

(b) as a corollary of the latter, current policy horizons – typically extending from 18 through 36 months – should be extended to longer horizons in order to take account of more gradual buildups of asset market and lending booms,
(c) emergency lending to individual institutions or emergency monetary policy measures are warranted at exceptional time of systemic risks, and
(d) in order to prevent the frequency and intensity of systemic crises, regulation and supervision of financial and capital markets should be continuously strengthened and modernized.

3 Do unsustainable PAYG deficits pose a threat to monetary policy in the case of bond financing of unsustainable PAYG deficits that eventually are accommodated by inflation financing?

The paper identifies this threat and links it to the fiscal theory of the price level, based on strong non-Ricardian assumptions. I think this is not an issue of which is the best theory of inflation (fiscal or otherwise) but it boils down to an empirical matter related to the institutional framework on which monetary policy rests. Direct or indirect monetary accommodation of fiscal deficits – independently if caused by public pensions or any other fiscal imbalance) – were tolerated in many industrial and emerging economies from the 1960s to the 1980s. However a quantum shift took place in the 1980s and early 1990s when monetary policy was entrusted to independent central banks aiming at low and predictable inflation. It seems unlikely that this worldwide institutional change – reflected in worldwide low inflation – will go in reverse during the next 2–4 decades of rapid ageing in both industrial and emerging economies.

4 Should changes in monetary transmission channels caused by ageing (and/or pension reform) be seriously studied and considered by central banks?

Certainly they should. This paper makes an innovative contribution to the discussion of monetary transmission changes induced by ageing and pension reform and paves the way toward subsequent systematic analysis.

4 Econometric Results and Simulations

The specification and estimation results for U.S. stock price changes and real bond yields (reported in table 1)[1] are not consistent with consumption-based asset pricing models or portfolio models allowing for imperfect asset substitution. Omission of variables pertaining to the latter models may induce omission and/or specification bias and lead to an overestimation of the role of ageing on asset prices. This may contribute to the large magnitude of the simulated 2004–2025 decline in U.S. log stock prices (by 0.50% in chart 2) and simulated rise in U.S. real bond yields (by 6%).

A similar argument may be made in relation to the specification and estimation of key macroeconomic variables (table 2). Without controlling for inflation, growth, productivity, and housing price determi-

[1] *The following charts and tables refer to charts and tables in the contribution of E. Philip Davis.*

nants that are standard in the theoretical models and empirical literature for the latter variables, it is likely that the coefficient estimates of demographic variables are subject to potentially severe bias. Hence, at their best, the panel results for seven industrial countries on the role of demographic variables in shaping macro outcomes should be interpreted as simple correlations between both sets of variables. For example, one may conclude that inflation has tended to be lower when demographic transition was more advanced in seven OECD countries during the second half of the 20th century. But beware of doing statistical inference from this largely spurious correlation. ❧

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Kamingespräch

Meine sehr geehrten Damen und Herren, es ist mir eine ganz besondere Freude, auch dieses Jahr wieder an der mittlerweile 32. Volkswirtschaftlichen Tagung der Notenbank teilzunehmen. Ich habe es mir immer zur Angewohnheit gemacht, wenn man so freundlich und zuvorkommend bei der Notenbank eingeladen ist, nicht über Zinspolitik zu sprechen. Wenn wir darüber reden, dann meistens in einem sehr, sehr kleinen Kreis und da gibt es auch nur dann und wann Unterschiede, wenn Finanzminister Zinspolitik anders einschätzen als Notenbank-Gouverneure. Meine sehr geehrten Damen und Herren, ich bin dankbar für die Themenwahl der heurigen Tagung, denn der Lissabon-Prozess, die Lissabon-Agenda, ist sicher einer der Kernpunkte und gleichzeitig auch eines der Kernprobleme, die sich uns in Europa zurzeit stellen. Ich hatte heute Mittag Gelegenheit, mit Gouverneur Liebscher und Kommissar Monti eine sehr interessante Diskussion zu führen, und ich glaube, das Anliegen ist, dass Europa genau bei diesen Themenstellungen des Lissabon-Prozesses Antworten geben können muss.

Wenn ich bei Wachstum und Stabilität mit dem Ersteren beginnen darf, um bei einem positiven Thema

zu beginnen, dann muss ich sagen: Ich bin optimistischer, was das Wachstum betrifft. Bei allen vergangenen internationalen Tagungen, wo wir gemeinsam mit Gouverneur Liebscher und anderen Notenbankvertretern teilnahmen, etwa in Washington beim Internationalen Währungsfonds oder vor kurzem bei der Asiatischen Entwicklungsbank in Südkorea, hatte ich die Möglichkeit, mit den meisten asiatischen Finanzministern zu diskutieren. Das Feedback in den USA war eines, das ich von Allan Greenspan in dieser Form bis jetzt nicht gehört habe. Er hat in einer kurzen, prägnanten, natürlich hervorragenden Rede dreimal gemeint, er habe die amerikanische Wirtschaft in den letzten Jahren selten so robust erlebt, wie das jetzt der Fall sei: 5% Wachstum im ersten Quartal und seiner Einschätzung nach auch 5% im nächsten Quartal. Wenn man dann Asien als die zweite große Zone sieht – und ich glaube man kann dort davon ausgehen, dass China ein „soft landing" irgendwo in der Größenordnung von 7%, 8% doch schaffen wird – wenn man sieht, dass einige Volkswirtschaften, ob das Thailand, ob das Taiwan ist, auf einem Wachstumspfad in der Größenordnung von 7% gehen, dass Länder wie Malaysia und Südkorea irgendwo bei 5% bis 6% stehen, dass sich auch Indonesien, das Probleme hatte, stabilisiert und irgendwo bei 4,5%, 5% steht, und, was besonders erfreulich ist – immer mehr Hardfacts zeigen das auch – dass man Japan eine Entwicklung zutraut, die so in der Größenordnung von 2,5%, 3% reales Wachstum sein könnte, dann sind dies wirklich sehr positive Nachrichten, die zeigen, dass der Aufschwung begonnen hat.

Der Aufschwung hat eine Schattenseite, weswegen ich Europa ein bisschen ausgelassen habe – wir sind sicherlich der schwächste Raum im Vergleich zu diesen anderen beiden. Das Glück ist, dass wir die Erweiterung haben. Ich bin zutiefst überzeugt, dass in den nächsten Jahren die Erweiterungsländer der Wachstumsmotor der Europäischen Union sein werden. Aber man muss doch sagen, mit diesem Aufschwung in den USA und mit diesem Aufschwung in Asien ist es, denke ich, sehr klar, dass man mit einer gewissen Verzögerung auch in Europa zu höheren Wachstumsraten kommen wird, und ich bin zuversichtlich, dass man Ende des Jahres, so im vierten Quartal, eine Größenordnung von 2% schaffen kann, dass man im nächsten Jahr irgendwo bei 2,5% in der bisherigen EU-15 möglich machen kann.

Auch wenn man dann im Jahr der Erweiterung sieht, was wir in Europa, selbst wenn wir mit dem Wachstum nicht zufrieden sind, bereits geschafft haben, muss man dennoch kritisch reflektieren und fragen: Wo haben wir Handlungsbedarf? Was ist uns noch nicht gelungen? Allerdings ertappen wir uns oft, dass wir in der Gegenwart dessen leben, was wir nicht erreicht haben, weil es uns besonders bewusst ist, aber auf der anderen Seite all das nicht primär im Blick haben, was uns gelungen ist. In diesem Zusammenhang sollten wir fünf,

zehn Jahre zurückschauen und uns überlegen, was alles verändert wurde; wenn wir an die Pensionssysteme, an die Arbeitsmärkte, an die verschiedenen Liberalisierungsschritte denken, vor allem aber wenn wir – um die großen Konzeptionen zu erwähnen – den Binnenmarkt, der zwar noch immer nicht vollendet ist, wo wir aber riesige Fortschritte gemacht haben, und wenn wir beispielsweise die Währungsunion sehen. Wer von uns hätte vor zehn Jahren gedacht, dass es gelingen wird, eine D-Mark, einen französischen Franc usw. abzuschaffen, eine gemeinsame Währungsunion zu beschließen und eben dann auch noch die Erweiterung durchzuführen. Also, Binnenmarkt, Währungsunion und Erweiterung – das sind schon sehr historische Schritte in der Europäischen Union, die auch Voraussetzung für mehr Wachstum geschaffen haben. Ich denke, dass gerade die Erweiterung in diesem symbolischen Jahr 2004 auch so etwas wie eine ganz bewusste Antwort Europas auf die Herausforderungen der Globalisierung darstellt und dass es gerade aus österreichischer Sicht enorme Chancen gibt. Chancen, die unsere Wirtschaft in den letzten zehn, vierzehn Jahren schon durch eine sehr starke Integration in diesen Ländern zu nützen verstanden hat. Wenn Sie an unsere Banken, Versicherungen, aber auch an den Industriebereich denken, dann hat hier genau diese Integration stattgefunden, was auch die Foreign Direct Investments österreichischer Unternehmen zeigen: in Slowenien Nummer eins, was die Marktanteile bei den FDIs betrifft, in der Slowakei Nummer drei, in Ungarn Nummer drei, in der Tschechischen Republik Nummer drei. Für eine kleine offene Volkswirtschaft ist das ein unglaublicher Erfolgsweg, der sich für Österreich auch deshalb auszahlt, weil wir an diesen höheren Wachstumsraten der Erweiterungsländer teilhaben können, vor allem, wenn man auf der einen Seite diese offene Politik zu seinen Nachbarn im Sinne einer Wiedervereinigung Europas sieht und auf der anderen Seite sieht, dass Österreich im Gegensatz zu vielen anderen Ländern seine Hausaufgaben gemacht hat, dass wir eine ganze Reihe von Strukturreformen in den letzten Jahren bewegt haben, ob das eine Pensionsreform im Jahr 2000 und im Jahr 2003 ist, eine Pensionsharmonisierung der verschiedenen Systeme, die noch heuer erfolgen wird, ob das eine Universitätsreform ist oder ob das Schwerpunkte im Bereich Forschung und Entwicklung, Bildung, Infrastruktur, gerade auch mit Blickrichtung auf die Erweiterung, sind, ob das Fragen einer – gerade beschlossenen – Steuerreform sind, die man auch vor dem Hintergrund der Erweiterung zu sehen hat.

Die österreichische Bundesregierung hat gesagt, dass wir einen Weg gehen, der nicht passiv ist, der nicht reaktiv zuwartet, welche Konsequenzen aus der Erweiterung und damit auch aus einem verschärften Wettbewerb entstehen können, sondern dass wir die zukünftige Entwicklung aktiv in die Hand nehmen und versuchen, diesen Weg im Sinne einer größeren Wettbewerbsfähigkeit unseres Landes, etwa in der Unternehmensbesteuerung, zu gestalten. Gouverneur Liebscher hat heute Mittag gesagt, er wüsste nicht, wo Österreich wäre, wenn die Erweiterungsländer nicht auch entsprechend Druck gemacht hätten.

Wenn die Unternehmensgewinne in der Slowakei mit 19%, in Slowenien mit 20%, in Polen mit 19% und in Ungarn mit 16% besteuert werden, dann ist das ein Druck, dann ist das Wettbewerb. Und Wettbewerb bringe die besten Lösungen, hat schon die österreichische Schule der Nationalökonomie gesagt, der wir in dieser Überzeugung mit unserer Wirtschafts- und Finanzpolitik verbunden sind.

Daher war es für Österreich klar, die Unternehmensbesteuerung von 34% auf 25% reduzieren zu müssen. Und wenn man die nominelle Rate von 25% – effektiv um 22% – betrachtet, wenn man das um die Forschungs- und Entwicklungsanreize, die in Österreich sowohl direkt monetär als auch über das Steuersystem europaweit am attraktivsten sind, ergänzt, wenn man sieht, dass wir im Bereich der Gruppenbesteuerung eine Gewinn- und Verlustverrechnung ermöglichen, die definitiv die attraktivste in Europa ist, mit dem Anreiz, Headquarters nach Österreich zu bekommen, um unsere Nachbarmärkte von Österreich aus zu bearbeiten, dann ist das eine Strategie, die verbunden mit Dingen wie 25-prozentiger, flacher Kapitalertragsteuer endbesteuert, die verbunden mit einem attraktiven Stiftungsrecht, verbunden mit der Lebensqualität, mit der Sicherheit dieses Landes den Wirtschafts- und Arbeitsstandort enorm attraktiv macht. Und wenn solche Reformen gelingen, dann ist das gut für das Wachstum, dann ist das gut für die Investitionsanreize und dann ist das gut für die Stimmung, für das Vertrauen in einem Land. Österreich befindet sich auf diesem guten Weg, der gleichzeitig auch der fiskalpolitischen Stabilität, die Gouverneur Liebscher angesprochen hat und die natürlich weiterhin unsere Zielsetzung bleibt, folgt, selbst wenn wir temporär im Jahr 2005 – nachdem es seit 30 Jahren im Jahr 2001 erstmals einen Überschuss in Österreich und im Jahr 2002 einen in etwa ausgeglichenen Haushalt gegeben hat, stehen wir jetzt rund um die 1%, 1,3% Defizit – ein Budgetdefizit in einer Bandbreite von 1,5% bis 2% haben werden, das danach wieder zurückgehen wird, weil wir strukturelle Reformen durchführen. Mit den Zielsetzungen, die wir seit dem Jahr 2000 verfolgen, nämlich erstens nachhaltigem Absenken der Abgabenquote, zweitens einem ausgeglichenen Haushalt über den Konjunkturzyklus und drittens dem Erreichen eines höheren Wachstumspfads im Sinne der Lissabon-Agenda, verfolgen wir eine Politik, die gerade in einem internationalen Umfeld, in dem die Fiskalpolitik eines der Probleme in einem Europa mit Budgetdefiziten von über 3% in sechs Ländern ist, eine herzeigbare Bilanz aufweist. Und deshalb, meine Damen und Herren, glaube ich, dass sich Österreich die Chance, die die Erweiterung bietet, nicht entgehen lässt, und auch in der Lage sein wird, diese Chancen tatsächlich umzusetzen – und dass wir uns das mit dieser Erweiterung verbundene Positivum erarbeiten können. Denn ohne Anstrengung wird es nicht gehen.

Als Selbstverständlichkeit treten die Vorteile nicht ein, aber mit dieser Integration auf der einen Seite, mit modernen Rahmenbedingungen auf der anderen Seite, denke ich, sind wir auf einem guten Weg, der uns stolz auf das Erreichte in Europa machen kann, der uns aber umgekehrt auch die Probleme erkennen lassen muss, die wir in Europa

haben. Ich sehe hier vor allem drei große Probleme: Das ist zum Ersten der Stabilitäts- und Wachstumspakt, also unsere Fiskalpolitik, das ist zum Zweiten die Lissabon-Agenda, und das ist zum Dritten aus meiner Sicht auch die Europäische Verfassung im Sinne eines Entscheidungsprozesses, im Sinne einer Handlungsfähigkeit Europas. Wenn ich den Stabilitäts- und Wachstumspakt angesprochen habe, dann bin ich der Überzeugung, dass dieser Pakt seine Glaubwürdigkeit verloren hat, weil er so gelebt wurde, dass manche Länder gesagt haben, er binde alle anderen, nur nicht sie selbst. Und daher kann man jetzt als Finanzminister in Europa entweder sagen, der Pakt sei nach wie vor wichtig und gültig, oder man sieht der Realität ins Auge und sagt, wir müssen hier einen neuen Zugang finden, eine neue Finanzpolitik zustande bringen und die Erweiterung auch dazu nützen. Denn natürlich sind 25 Mitgliedsländer, gerade auch aus Sicht der Fiskalpolitik, mit der Ausgangsposition, die sie jetzt mitbringen, ein anderer Rahmen und eine andere Situation. Ich bin überzeugt, dass wir in einer solchen neuen Finanzpolitik – daher mit einem neuen Stabilitätspakt – zumindest den ausgeglichenen Haushalt über den Konjunkturzyklus erreichen müssen. Denn ich glaube, es ist uns allen bewusst, dass der Pakt kurzfristig nicht besonders wichtig ist. Aber die mittel- und langfristige Bedeutung dieses Pakts liegt in Wirklichkeit in der nachhaltigen Finanzierbarkeit unserer Sozial- und Pensionssysteme. Daher muss, wer hier im Interesse einer Generationengerechtigkeit regieren will, in die Richtung einer neuen Finanzpolitik gehen und versuchen, Defizite zu senken – auch jene Länder, deren Defizit über 3% liegt.

Dann wird der geeignete Zeitpunkt gekommen sein, über neue fiskalpolitische Spielregeln in Europa zu diskutieren und zu einer fiskalpolitischen Solidarität zu kommen. Dieses Ziel wird nur dann gelingen und glaubwürdig sein, wenn alle mitmachen. Glaubwürdig nur dann, wenn diese Spielregeln, die sich alle gegeben haben, für alle in gleicher Form und Weise gültig sind. Daher

handelt es sich um neue Spielregeln. Sie sollen von allen gelebt und eingehalten werden, und gerade in diesem Zusammenhang stellen sich viele interessante Fragen: Wie soll dieser Pakt ausgestaltet sein? Wenn man an eine Neudefinition herangeht, dann hinterfragt man in aller Regel die Schwächen des bestehenden Instruments. Und eine der Schwächen ist meines Erachtens, dass es keine automatische Sanktion gibt, sondern dass man Länder dazu einlädt, über sich selbst zu beschließen. Selbst wenn sie jetzt bei einem Beschluss über sich selbst, also etwa Österreich bei einem Beschluss über Österreich, nicht mitmachen können, aber doch einzelne Finanzminister über ihre Kollegen entscheiden müssen, dann ist das kein besonderer Garant. Wenn sechs Länder mit ihrem Defizit über 3% liegen, ist es unwahrscheinlich, dass man hier dann besonders klare und richtige Entscheidungen bekommt,

was gerade in Europa bewiesen wurde. Was kann man daher besser machen? Man kann einen Automatismus auf der einen Seite installieren und auf der anderen einen Diskussionsprozess darüber – Stärkung der Rolle der Kommission – beginnen.

Man führt den Diskussionsprozess weiter: Was ist die geeignete Sanktion? Denn offensichtlich gibt es eine gewisse Reserviertheit bei Ländern, die schon Rekorddefizite machen, dann auch noch monetär

Strafe an die Union zu zahlen. Daher soll man darüber nachdenken, welche anderen Sanktionen es geben könnte. Beispiel: Man diskutiert über das Stimmrecht, und diesen Vorschlag habe ich auch hier in die Diskussion gebracht. Man überlegt, was bedeutet es für ein Land, wenn man es dann eben befristet nicht mitstimmen kann? An welchen Abstimmungen soll man nicht mehr teilnehmen können? Wie Sie wissen, ist es z. B. zurzeit möglich, dass ein betroffenes Land über ein Early Warning, also über den Artikel 99 des Vertrags, sogar selbst mit abstimmen kann, was nicht sinnvoll ist. Deswegen sieht z. B. die neue Verfassung auch vor, dass der betroffene Mitgliedstaat weder im Frühwarn- noch im Excessive Deficit-Verfahren mitstimmen kann. Das kann so weit gehen, dass man sagt, solange dieses Land die Spielregeln verletzt, ist es eben von wesentlichen europäischen Entscheidungen ausgenommen. Und sobald man sieht, dass die richtigen Entscheidungen getroffen wurden und Verbesserungen eintreten, kann dieses Land wieder dabei sein. Das ist eine Idee von vielen möglichen. Sie können auch überlegen, ob Globaldarlehen, die von internationalen Finanzinstitutionen, wie der Europäischen Investitionsbank, an Länder vergeben werden, eingeschränkt werden, oder ob man sagt, Rückflüsse, die aus der Union in die Länder kommen, werden in irgendeiner Form eingeschränkt, z. B. –10%, –20% bei Rückflüssen. Oder Sie können auch darüber nachdenken, was mir auch sehr sympathisch wäre, dass man ein Positivprinzip verankert, dass also die Besseren belohnt werden. Wenn man schon über eine Ausdehnung des europäischen Budgets nachdenkt: Sollte es nicht einen Topf geben, aus dem die Besten für ihre gute Performance belohnt werden können, also dafür, dass sie Best Practice in Europa entwickeln? Sie bekommen z. B. für Forschung und Entwicklung gesonderte Mittel. Also, ich glaube, es gibt hier eine riesige Bandbreite der Diskussion.

Der Stabilitätspakt, meine Damen und Herren, ist der eine Punkt, aber Lissabon ist für mich eigentlich der Punkt, von dem man sagen müsste, das sei der Wachstumspakt. Denn bis jetzt hat es zwar Stabilitäts- und Wachstumspakt geheißen, aber der Wachstumsteil war ja nicht wirklich vorhanden. Historisch beleuchtet war der Stabilitätspakt die Idee von Theo Weigel und Dominique Strauss-Kahn. Sie meinten, man solle auch Wachstumspakt dazu sagen. Aber er wurde nicht wirklich mit Leben erfüllt. Aus meiner Sicht wäre die Lissabon-Agenda eigentlich der Wachstumsteil zu diesem Stabili-

tätspakt. Und daher halte ich es für wichtig und notwendig, dass man diese beiden Prozesse auch zusammenführen könne, dass man sich auf diese beiden Aufgaben fokussiere, denn gerade die nordischen Länder Dänemark, Finnland, Schweden – ich nehme es auch ein bisschen für Österreich in Anspruch – haben bewiesen, dass man konsolidieren, gleichzeitig aber auch ein höheres Wachstum erreichen kann. Es wird die Frage sein, wie uns das in Europa gelingt. Ich meine aber, dass auf der einen Seite gerade in der Europäischen Union, die sich für den Wettbewerb der Systeme entschieden hat, zentralistische Vorgaben vermieden werden müssen. Auf der anderen Seite wird dieses System aber nur dann funktionieren, wenn wir eine koordinierte Vorgangsweise im Sinne eines Best Practice-Modells umsetzen können. Was ist bisher im Zusammenhang mit den Strukturreformen, die Sie heute den ganzen Tag diskutierten haben, geschehen? Seit mehr als vier Jahren diskutieren wir sie als Finanzminister. Ich hatte die Möglichkeit, bei diesen Diskussionen dabei zu sein. Es ist einiges passiert, aber es ist noch viel mehr zu tun.

Wenn man vergleicht und analysiert, fragt man sich, warum die USA hier in einer aus meiner Sicht deutlich besseren Situation sind? Warum schaffen sie es, den Wachstums-Gap zu vergrößern, und warum schaffte es Europa nicht, ihn zu reduzieren? Es ist auch eine Frage der Flexibilität von Arbeitsmärkten, eine Frage der Anpassungsfähigkeit, der Adaptabilität auf diesen Märkten, und dann hat es vielleicht auch mit einem dramatischeren Freiheitsgrad der Wirtschaft in den USA und mit anderen Voraussetzungen für die Wirtschaft in den asiatischen Ländern zu tun. Für Europa stellen sich folgende Fragen: Haben wir auf der einen Seite die Zuversicht in unsere eigene Stärke und schaffen wir es, einfach den Unternehmen einen größeren Freiheitsgrad zu geben? In diesem Europa steckt sicher die Kraft – das ist überhaupt keine Frage –, aber das Wachstum dürfen wir nicht mit Geboten, Verboten und Regulierungen ersticken, sondern wir müssen es schaffen, hier die unternehmerische Freiheit und Flexibilität einfach stärker in den Vordergrund zu rücken. Wir müssen den Kerngedanken Europas, den Wettbewerb leben. Dann werden wir entsprechendes Wachstum und entsprechend positive Effekte auf dem Arbeitsmarkt bekommen. Und nun ist es an uns, meine Damen und Herren, es zu tun. Wir reden seit vier Jahren davon und setzen uns immer bei unseren Frühjahrsgipfeln mit den Staats- und Regierungschefs und mit den anderen Finanzministern zusammen. Wir beschließen ehrgeizige Ziele, aber das einzig Entscheidende ist, was unterm Strich dabei herauskommt. Und daher ist es die Aufgabe, ganz konkrete Ziele und Zeitpunkte zu formulieren. Bis wann wollen wir welche Schritte erreicht und umgesetzt haben? Wenn es uns dann noch gelingt, den dritten Punkt, die Europäische Verfassung, konstruktiv und positiv gemeinsam zu entscheiden, und wenn es uns gelingt, unsere europäischen Institutionen fit für das 21. Jahrhundert zu machen, dann haben wir glänzende Voraussetzungen für ein wettbewerbsfähiges und wachstumsstarkes Europa, wobei genau diese Handlungsfähigkeit, diese Entscheidungsfähigkeit Europas für mich einer der sehr re-

levanten Punkte ist. Denn wenn man sieht, dass die Union nach wie vor eher für sechs Mitgliedsländer in ihrem Institutionsgefüge gebaut ist und wir nunmehr 25 sind, kann man sich vorstellen, wie lange 25 Finanzminister brauchen, um einmal eine Position auf den Tisch zu legen und zu formulieren. Bedenkt man überdies, wie lange es dann noch dauert, bis sie eine Meinung auf Basis der Einstimmigkeit haben, kann man sehr schnell erkennen, dass ein

solches System nicht wirklich entscheidungs- und handlungsfähig ist. Daher halte ich den Beitritt unserer zehn Nachbarländer, unserer zehn Freunde, auch für eine enorme Chance, was eine Reform Europas, der bisherigen Europäischen Union betrifft. Es gibt nichts Besseres als diese Union – sowohl vom Friedensaspekt als auch von der wirtschaftlichen Idee und der wirtschaftlichen Integration aus betrachtet. Aber wir müssen einfach mit einem offenen und einem kritischen Auge sehen, dass die Erweiterung auch eine Chance für eine tief greifende Reform dieser Europäischen Union im Sinne eines dramatisch größeren Freiheitsgrades der Zusammenarbeit darstellt, im Sinne einer tatsächlichen Konzentration auf die Schwerpunkte. Wenn wir uns überlegen, warum in den allermeisten Ländern unserer Union jetzt kurz vor den Europawahlen die Begeisterung, tatsächlich zu den Wahlen zu gehen und mitzugestalten, nicht wirklich vorhanden ist, dann ist es eben eine Frage der Identität mit diesem Europa. Und diese Identität wird man dann erreichen, wenn man wirkliche Schwerpunkte, die uns einen und die europäische Agenda sind, auf europäischer Ebene behandelt, aber alles Andere gerade im Sinne des Wettbewerbs der Systeme auf nationalstaatlicher Ebene belässt.

Und wenn wir diese drei Herausforderungen angehen, dann kann es uns auch gelingen, meine Damen und Herren. Ich möchte das wirklich in einer sehr positiven Konnotation sagen, denn wir haben so viel erreicht mit dem Binnenmarkt, mit der Währungsunion, mit der Erweiterung, d. h., ich bin wirklich zuversichtlich, dass es uns auch gelingen kann. Aber wir müssen eine neue Fiskalpolitik machen, wir müssen fragen: Wie gelingt uns Wachstumspolitik im Sinne der Lissabon-Agenda? Denn 2010 der wettbewerbsfähigste Wirtschaftsraum der Welt zu sein ist ein richtiges, ein sehr ehrgeiziges Ziel – jedoch zurzeit ein nicht besonders realistisches Ziel. Daher lassen Sie uns die Arbeitsmarktreformen angehen, lassen Sie uns von einer Politik Abschied nehmen, die meint, mit Gesetzen könne man Arbeitsplätze schaffen. Das ist nicht mehr möglich, meine Damen und Herren. Wir befinden uns in einer globalisierten Welt, die der Gestaltung bedarf, damit die Vorteile der Globalisierung, wie Horst Köhler vor kurzem gesagt hat, auch den ärmeren Ländern und Schichten zugute kommt. Wenn wir diese drei Themen angehen, dann bin ich zuversichtlich, dass die Bevölkerung auch dieses Vertrauen wieder finden und gewinnen wird. Wir müssen

uns schon überlegen, warum Europa in den letzten Jahren nicht zu höherem Wachstum gefunden hat? Und warum ist es nicht Europa, wo der Wachstumsmotor angestartet werden konnte und wir die Welt positiv beeinflussen können? Ich meine, wir sind an einem Punkt angelangt, an dem die Bevölkerung eben sagt, „wir legen es lieber auf die Seite und wir sind ein bisschen unsicher, weil wir nicht wissen, wie es mit der Entwicklung weitergeht".

Und da ist es Aufgabe der Politik zu sagen, wir geben Vertrauen. Wir geben Sicherheit. Wir geben der Bevölkerung Zuversicht und zeigen, es gibt Regierungen, die auch europäische Führungsverantwortung erkennen. Gerade in einem Europa der 25 würde man sich doch wünschen, dass es – wir haben es diskutiert mit dem ungarischen Botschafter – europäische Größen wie einen Helmut Kohl oder sein Pendant auf französischer Seite gibt, die eine europäische Vision zeichnen und die die Kraft dahinter aufbringen, eine deutsche Wiedervereinigung, eine europäische Wiedervereinigung oder eben eine Währungsunion tatsächlich zu ermöglichen. Gerade eine Union der 25 braucht zwei, drei Länder, die vorangehen; zwei, drei Länder, die die Innovation und die Kreativität auch in diesem Europa mit uns allen möglich machen, ohne dabei die anderen Kollegen und Mitgliedsländer in irgendeiner Weise zu dominieren. Ich glaube, das ist das Kunststück, das wir von Europa brauchen, das wir alle gemeinsam auch ermöglichen können und das Europa einfach unglaubliche Chancen gibt. Wir haben schon enorm viel erreicht, wir gehen in einen Aufschwung hinein und müssen in diesem Aufschwung jetzt die Fehler der Vergangenheit vermeiden. Wir müssen fiskalpolitisch konsolidieren, Überschüsse anstreben. Für Österreich, sage ich, haben wir zumindest 2008 wieder einen ausgeglichenen Haushalt, damit wir uns dann die nächsten Steuerreformen und Abgabensenkungen leisten können. Ich hoffe, dass auch jene, die jetzt ein Defizit von über 3% haben, diesen Weg glaubwürdig gehen können. Das gibt dann Vertrauen, Sicherheit, höheren Konsum, höhere Investitionen und auch einen entsprechenden Wachstumsweg für die Union. ❧

32. Volkswirtschaftliche Tagung 2004

32nd Economics Conference 2004

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The European Economy at the Cross Roads: Structural Reforms, Fiscal Constraints, and the Lisbon Agenda[1]

1 Introduction

Structural reform is perhaps the leading economic policy issue in Europe. Indeed, it is widely argued that structural reform is a prerequisite for a successful monetary union (Delors Committee, 1989). Moreover since the European economies appear to be less reformed in market flexibility terms than their American counterparts, efforts to restore economic performance vis-à-vis the U.S. economy have been associated with the need for higher productivity, lower costs and more flexible labour markets in Europe. That has become known as the Lisbon agenda.

[1] *Without implication, we thank Jacques Mélitz, Jean Pisany-Ferry, Willem Buiter, Ken Kuttner, Hans Helmut Kotz and conference participants in New Orleans, Lisbon, Milan, Munich, Paris, Vienna, and Auckland for helpful comments. Financial support from the EPRU Network, the Anniversary Fund of the Oesterreichische Nationalbank and Cardiff University is gratefully acknowledged.*
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But structural reform also plays a key role in the context of EU enlargement, whether to the East or through the inclusion of the outsiders in the North. Here the issue has generally been seen as a question of whether, and at what pace, a less reformed candidate country would be able to meet a certain set of entrance criteria before being allowed to join a more reformed union.[2] But the reverse problem is equally important: would more flexible economies actually find it attractive to participate in a union of less flexible economies?

This paper, then, has three objectives. First, we examine the proposition that a flexible economy will find it unattractive to be in a union of economies whose markets are relatively unreformed or rigid. That proposition has three important corollaries: a) that the more rigid economies will want the more flexible to join; b) that this incentive pattern reduces the chances of market reform, and could even encourage candidates to move towards the level of the least flexible, once in; and c) it creates a distinction, in terms of membership, between the relatively flexible Northern economies, the less flexible Eastern economies, and the relatively rigid members of the existing European currency union.

Second, we examine the proposition that there may also be a linkage between fiscal discipline and structural reform which limits the reforms being undertaken. This proposition would explain why, in the European case, market reforms have been so widely discussed and advocated – but so seldom carried out. Agenda 2010 in Germany, labour market legislation in France, pension reform in Italy, or the Lisbon process in general, are just four cases in point.

A third proposition is that structural reforms are hindered by the fact that they typically involve large costs up front, in the short run, and only bring benefits in the longer term. Politically sensitive policy makers may then worry that the short-term costs will outweigh the longer-term benefits – especially if the latter are rather uncertain. To analyse this proposition, we need to use numerical simulations in order to gauge the size and speed of the returns from a programme of structural and market reforms.

These three propositions are familiar. They have become part of the conventional wisdom about Europe; and similar propositions have been derived in other contexts in the academic literature. For example, Hughes Hallett and Viegi (2003) find the same incentive patterns for membership and market reforms in a model with monopolistic labour markets, with employment and wage targets.[3] Dellas and Tavlas (2003) produce the same result again using a New Keynesian

[2] *This point of view is derived from the analytic and empirical evidence for a negative link between economic performance and (real) wage rigidity across many countries (Bruno, 1986). The same kind of link has been examined in both, the labour and product markets in Europe (Koedijk and Kremers, 1996), and in the transition economies (Kaminski et al., 1996), where performance is measured in rates of growth and employment, and deregulation appears in competition policy, merger codes and the liberalisation of employment practices.*

[3] *Similarly, they are also present in our earlier work with competitive labour markets (Hughes Hallett and Jensen, 2001, 2003, 2004).*

model with representative households, firms and asset markets – but little detail on the process of wage and price setting. And HM Treasury (2003, charts 6.3 and 6.4) find it in their numerical simulations of flexibility in the U.K. government's tests for Economic and Monetary Union (EMU) membership. So our propositions are evidently robust to different models, assumptions, or techniques of analysis. But no-one has managed to analyse in any detail why these results emerge. It has not been possible to say, for example, whether the lack of structural reform has been due to a problem of timing (short-run costs versus long-run benefits); or whether it results from a mismatch of incentives; or whether it is due to fiscal restrictions which delay the reform process.

2 Methodology

In order to establish how a labour market reform could affect a country's decision to join a monetary union, as well as a decision by the existing members whether to admit a new member, we need a formal model of the incentives for either side to adopt a common currency. We have created such a model by adapting, and extending, a model first suggested by Bayoumi (1994).[4]

Our approach is then to undertake a cost-benefit analysis of whether the adopting of a common currency is *net* beneficial, by calculating for both parties the changes in welfare if a candidate country does join, compared to the *status quo* if it does not. The model has four main building blocks: (1) production; (2) wages; (3) exchange rates; and (4) aggregate demand. The main macroeconomic variables that enter the enlargement decision are:

- **The interrelationship of aggregate demand between countries**
  This is captured in the form of expenditure shares, denoted by the parameter β_{ji}, which is the proportion of country j's income spent on goods produced in country i. The β_{ji} parameters are subject to the normalisations $\sum_i \beta_{ji} = 1$ and $\sum_j \beta_{ji} = 1$, to ensure that total income is spent and that aggregate demand exhausts income spent on each good.
- **The size of countries**
  A country is characterised as "large" if it has a "large impact on the union", and "large" can therefore be equated with being open with respect to the rest of the union. But the same economy may not be large or open with respect to the rest of the world. Similarly, small means having a small impact on the union, and hence possibly closed with respect to the union but not necessarily with respect to the rest of the world.
- **The size of the underlying disturbances**
  We consider both supply and demand disturbances. The discussion below shows how these disturbances affect the gains and losses of membership; see equations (1) and (2).

[4] *The technical details of this model are lengthy and certainly not original to us. The full framework and derivation of results, is set out in Hughes Hallett and Jensen (2001, 2004). The results quoted here can be seen most clearly in equations (1) and (2) below, which show the net gains (or costs) of EMU membership with partners of different degrees of market flexibility and reform.*

- **The correlation between the disturbances in different countries**
  For the empirical implementation we need standard deviations for the demand, supply and monetary disturbances in the Northern and Eastern countries, and the correlations of each of those individual country shocks with the corresponding average for the euro area countries.
- **The costs of transactions between different currencies**
  Each country has to choose its preferred *exchange rate* regime. They can either opt for a monetary union with a single currency, or they can choose separate currencies. In the latter case there is a transactions cost between the two currencies, implying that, in value terms, goods exported from country i shrink by a factor $(1-\tau_i)$ when they arrive in country j. This is the usual Samuelson "iceberg" assumption. So rather than modelling a separate transportation sector, we simply assume that a fraction of a good shipped melts away in transit. For simplicity, we let $\tau_i = \tau$ for all countries.
- **The degree of rigidity in the adjustment of nominal wages**
  To incorporate wage rigidity, a so-called normal wage is defined to hold when there is full employment, when there are no shocks, when the initial level of prices is normalised at 1 for convenience, and when the exchange rate is at its parity value. If there is excess demand for labour when the wage is at its normal wage level, then wages will be raised until the excess demand falls to zero. But if there is excess supply of labour at the normal wage, then wages remain at this level and unemployment results. Very importantly, we assume that employment would always be at its full-employment level if the exchange rate is flexible.
- **Factor mobility and wage price flexibility**
  To allow for different degrees of flexibility in different countries, we introduce a parameter, δ_i, which can vary between 0 and 1 and which allows us to reach both extremes and all points in between. We define $\delta_i = 0$ as full downward rigidity in wages in country i; and $\delta_i = 1$ as full flexibility so that full employment is always re-established after a negative shock.
- **Asymmetries**
  There are four different types of asymmetries: in wage/employment responses; in country specific shocks; in country size; and in degrees of market flexibility.

In the European Union with a single market, no one can prevent the unemployed trying to leave one country and seek employment in another country. However, this is not the same as saying that they actually *do* move in response to imbalances. Indeed, there is plenty of evidence of low labour mobility in Europe, at least compared to the U.S.A. (see, e.g., Begg, 1995, Obstfeld and Peri, 1998). Here we simply assume that some initiative, of whatever kind, is taken to increase the degree of labour mobility such that enough flexibility is created to accept these movements in the excess supply of labour. This requires that country j's markets have sufficient wage and

price flexibility to absorb the additional workers from country k, or to reemploy them at home. And vice versa when the shocks hit country j.

At this stage it may be helpful to have a little intuition into why these factors are important for determining the extent of the adjustment costs and welfare losses in a monetary union. The key point in this model is that all the costs are caused by rigidities in the labour markets that prevent wages, output and employment from adjusting as they should to clear the goods and labour markets around the cycle. By preventing adjustment in one place, those rigidities cause spillovers onto others via their impact on trade. Consequently, the more flexible each country's labour market (δ_j, δ_k), the smaller the adjustment needed at home or in other countries. But greater inflexibility means a greater disequilibrium (unemployment/inflation) at home; and consequently abroad too as price and quantity changes are transmitted through adjustments in trade and capital. Thus a higher δ_j value means that more unemployed can migrate to country k or can get employment at lower wages at home in bad times; or that, more plausibly, wage rises will be moderated by inflows of labour or attempts at output stabilisation in boom periods. Hence the costs fall with δ_j and δ_k. But they rise with increasing rigidity ($\delta_j, \delta_k \to 0$).

However, the costs will also fall with the correlation between the shocks because there is then less need for each economy to adjust and absorb the unemployed from abroad; or have their unemployed absorbed when the domestic economy is in a downturn; or to contain wage inflation in an upturn – assuming, each time, that market flexibility is incomplete ($\delta_j, \delta_k < 1$). But if the markets are completely flexible, $\delta_j = \delta_k = 1$ then there are no costs irrespective of the degree of correlation involved.

By contrast, the costs of adjustment will rise with the size of the shocks (σ_j^2, σ_k^2), given a certain level of intercountry correlations. And the size of the adjustments will rise with the size of the spillover effects, on one economy, from a disequilibrium in the other (β_{jk}, β_{kj}); and the larger are the impacts of cyclical fluctuations at home (β_{jj}, β_{kk}). Finally, since the adjustments all have to go through the labour market, the costs will be larger the larger the share of labour in national income (α), affected by the residual rigidities.

We are now in a position to calculate the net effect of EMU membership, for each country, under different degrees of market flexibility. The key parameters will be δ_j and δ_k, defined above for country j and one of its partners or the union as a whole (k); also σ_j^2 and σ_k^2, the variances of the corresponding supply shocks, ϵ_j and ϵ_k in j and k, respectively, and the correlation between them. In this part of the analysis, demand shocks play no particular role (Hughes Hallett and Jensen, 2001). The expected advantages for country j then turn out to be

$$E(\Delta U_j) = \beta_{jk}\tau - \gamma\left[\beta_{jk}(1-\delta_j) + \beta_{jj}(1-\delta_k)\right] \times \phi(0)\sqrt{\sigma_j^2 - 2\rho\sigma_j\sigma_k + \sigma_k^2} \quad (1)$$

where $\phi(0)$ is the distribution function of jointly normal distrib-

uted random variables, and $\gamma = \alpha/(2(1-\alpha))$, where α is equal to the labour share in national income. Similarly, to answer the "would the euro area want country j in the union", we insert the relevant parameter values into

$$E(\Delta U_k) = \beta_{kj}\tau - \gamma\left[\beta_{kj}(1-\delta_k) + \beta_{kk}(1-\delta_j)\right] \times \phi(0)\sqrt{\sigma_j^2 - 2\rho\sigma_j\sigma_k + \sigma_k^2} \quad (2)$$

Details of how (1) and (2) are derived will be found in Hughes Hallett and Jensen (2001, 2004). However, the first term on the right in the expression for $E(\Delta U_j)$ describes the net trade benefits under a single currency; and the second term the expected adjustment costs given normally distributed supply and demand shocks.

There is an asymmetry of behaviour due to nominal wage rigidities here: if there is excess demand for labour at the current wage rate, wages will increase until that excess demand is eliminated. But if there is excess supply at that level, then wages remain as they are and unemployment rises. The extent to which wages or unemployment actually rise depends on the elasticity of the demand for labour (α); and on the propensity for domestic labour to migrate out (δ_j) or foreign labour to migrate in (δ_k). Similarly, it also depends on the ability of wages in j to fall (δ_j) to re-absorb those who would otherwise have been unemployed or who migrate out; and on the ability of wages to rise more moderately because of cost competition, and stem the inflow of labour from, or the outflow of jobs to, country k.

3 Fiscal Policy and the Natural Rate of Output

There are other ways of adjusting the economy in the face of real or nominal rigidities. Two obvious suggestions are fiscal policies which smooth the cycle, and fiscal polices which improve responses on the supply side.[5] These two possibilities divide fiscal policy into two parts: short run adjustments (flexibility in the short-run), and long run adjustments (flexibility in the long-run). The former, working through the economy's automatic stabilisers, smooths aggregate demand shocks. The latter provides greater flexibility in supply responses, and could include changes in payroll taxes; in the degree and cost of social support, or in the extent of market deregulation and price liberalisation.

3.1 Flexibility in the Short Run

If automatic stabilisers are operating, we can define δ_k to be the proportion of those who retain their jobs, or can be reemployed, as a result of an expanding fiscal deficit in a period of low demand in country k ($\varepsilon_k < 0$). Similarly δ_j is the proportion who retain their jobs in country j when $\varepsilon_j < 0$. Thus $0 \leq \delta_j, \delta_k \leq 1$ as before. The cost-benefit analysis of membership and structural reform now proceeds *exactly* as in section 2.2. Equations (1)

[5] *Discretionary fiscal policies would also be possible, but typically suffer from variable lags and uncertain impacts. Taylor (2000) therefore recommends cyclical smoothing be left to the automatic stabilisers; and that discretionary policies be reserved for creating long-run improvements on the supply side. We adopt this convention throughout this paper.*

and (2) now give the net benefits of membership, or of accepting new members, but with the new interpretation of δ_k and δ_j as the "employment saving" consequences of the fiscal stabilisers. These "employment saving" consequences may be significant in practice. For example, Bayoumi and Masson (1995) estimate that fiscal redistribution (regional stabilisation) in the U.S.A. and Canada may contribute 30–40 cents on the dollar to stabilising regional incomes – and hence similar proportions to employment saving. Hence we might expect δ_k and δ_j to be around 0.3 or 0.4. In Europe, where there are no such redistributive mechanisms in place (structural funds excepted), those parameters would be at least 10–15 times smaller (and perhaps zero) unless the domestic governments can institute strong and effective fiscal policies at that level. The conclusions, nevertheless, remain the same as before:

- Fiscal flexibility, defined to mean strong budget multipliers and minimal restraints on the budget, can overcome the consequences of rigidities elsewhere in the economy – and the costs of adjusting in the labour markets in particular.
- Individual governments are likely to only want a union which has at least as much, if not more, fiscal flexibility than themselves – and who have the freedom and temperament to use that flexibility. But they will want to minimise the cost of using fiscal policy flexibly themselves.
- A "large" country will want to ensure fiscal flexibility at home before joining; but a "small" country, including the current candidates, would want the union to accept the need for fiscal flexibility before agreeing to join.

Conversely, a lack of fiscal flexibility will bring greater costs to both parties – irrespective of where the inflexibilities arise ($\delta_j \to 0$ or $\delta_k \to 0$, or both, in (1) and (2)); *and* irrespective of whether they arise because fiscal deficits are restricted by the Stability Pact, or because debt has become too large. The point is that fiscal restrictions in *one* country will impose costs on *all*, by increasing the amount of adjustment that needs to be undertaken to restore equilibrium within each of the other countries. Conversely, extra flexibility in one country will benefit all, although it will benefit the home country most if $\beta_{jj} > \beta_{jk}, k \neq j$, holds in (1) and (2).

3.2 Flexibility in the Long Run

What happens if policy makers create greater flexibility in the long run by lowering the natural rate of unemployment? As noted above, these changes would come from structural reforms which reduce payroll taxes; or lower the cost and disincentive effects of social security; or which make institutional changes to liberalise markets, to improve competition, skills and technology etc. Our model shows that such changes would make no difference to the net benefits of union membership if it were thought that those reforms would be undertaken whether or not country j joined.

The reason is that structural adjustments that alter the natural rate of unemployment or output capacity would add a constant term of $\Delta\overline{y}_k > 0$ and $\Delta\overline{y}_j > 0$ to the right of U_k or U_j respectively, where $\Delta\overline{y}_k > 0$ represents an increase in

output capacity. Equations (1) and (2) show that such changes would make no difference to the net benefits of union membership if such reforms would be made anyway since these additional terms of $\beta_{jk}\Delta\overline{y}_k$ and $\beta_{kj}\Delta\overline{y}_j$ would, on average, cancel out in (1) and (2). Only in the case where the same reforms failed in the union, $\Delta\overline{y}_k < 0$, but succeed outside $\Delta\overline{y}_j \geq 0$ would the costs of membership rise.

3.3 Could Fiscal Restrictions Prevent Structural Reform?

In the light of the previous section, we have to ask whether Europe's fiscal restrictions – such as those in the Stability and Growth Pact – could prevent the necessary reforms being undertaken. One could imagine that any programme of structural reform would entail additional public expenditures, and possibly lower revenues or larger output gaps while the reforms were being undertaken. Reform will put people out of work while the reforms are being carried out, and it will take time before those people are reemployed. Indeed, many of them may need retraining or new skills. There will therefore be additional unemployment and other social benefits to be paid in the interim, and extra retraining programmes to be paid for. At the same time, there may well be new infrastructure projects, development grants, support for new technologies, etc. In each case, public expenditures will rise. But with unemployment temporarily higher and output lower, tax revenues will fall. Consequently, the fiscal deficit will be larger, and the deficit ratio larger, than the trend position of either.

These changes will lead to chart 1, which shows how the fiscal deficit ratio could vary with different sizes of the output gap. The bold line AA' shows the position before structural reforms are undertaken.[6] Point D is the structural deficit for this economy; that deficit being positive even though the output gap is zero.

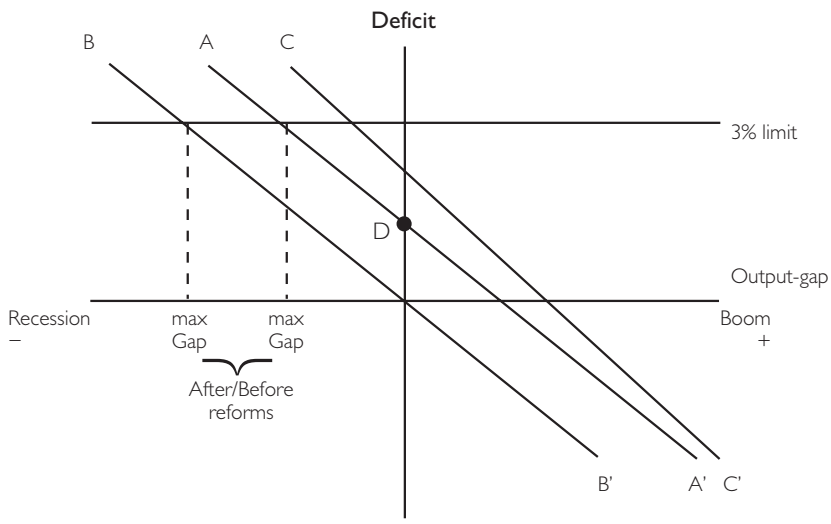
The reform programme would, presumably, be designed to eliminate that structural deficit. That would get us to line BB'. But the argument above shows that we would have to reach that position via the line CC', which represents a short term adjustment phase. In fact, it is not clear exactly where CC' should lie, other than it must be above AA' and with a slope no less than AA'. Consequently, it could be a simple rightward shift from AA'; or a rightward shift with steeper slope; or a rightward shift for negative output gaps only. Experience suggests that it is probably one of the latter two possibilities, since structural reforms during boom periods are going to be easier and cheaper to finance; meaning the unemployment/retraining costs will be lower per unit output gap. In that case, the CC' line will be as we show it.

Now we can impose fiscal constraints to see the consequences. In chart 1 this is represented by the Stability and Growth Pact's (SGP) 3% limit on the deficit ratio. It is immediately obvious that any such restriction would interfere with the process of structural reform. Although the probability of exceeding

[6] *The European Commission (2002) has estimated the slope of this line to be approximately –0.5 for the euro area as a whole, a bit steeper for countries with extensive social welfare programmes and a bit less steep elsewhere.*

Chart 1

Link between Fiscal Policy and Structural Reform



Source: Authors' calculations.

that limit (or more precisely of getting an output gap that forces us to do so) is much lower after the reforms are completed, the probability of exceeding them in the interim will have increased significantly. That would be a considerable barrier to ever undertaking such reforms. Indeed it would make them much more expensive: either in fines, or in the expenditures forgone in order to make room for the reforms. In that case, rational governments would either tend to postpone such reforms, or switch them off each time they approached the 3% limit. We investigate that link next.

4 Empirical Verification

The rest of this paper is concerned with an empirical evaluation of the incentives for enlargement and for structural reform. At its simplest, this can be seen as an attempt at verification of the results we have obtained so far – in particular the incentives for enlargement to the North, and for the lack of progress towards reform. We aim to get some empirical insight into why:

- there is a serious enlargement problem – some want to join, and some do not. Does flexibility play a role here?
- there is a reform problem – many agree that reforms are necessary, but few find sufficient incentives to implement them. This implies a "hold-up" problem.
- there is a "hold-up" problem, in which the short-run costs are perceived to outweigh the discounted future benefits; and
- and whether the current fiscal constraints effectively prevent the necessary reforms, and exaggerate the disincentive effects as identified above.

The model

We carry out the empirical evaluation using the Oxford Economic Forecasting (OEF) model, which is a

traditional multi-country econometric model (OEF, 2003). There are two reasons for selecting the OEF model. First, it is the only publically available model which contains a full specification of all the regions we are interested in: i.e., the Northern, Eastern and euro area countries. Second, unlike the OECD's Interlink and the IMF's Multimod, the OEF model has a clear specification of the structural (supply-side) asymmetries that can be exploited to illustrate the analysis of this paper.

The OEF model contains a sequence of theory based empirical models covering all the OECD economies, 14 of the largest emerging markets economies, and six trading blocs covering the rest of the world economy. These country models are then linked by trade relations, world prices for tradables, intercountry capital flows, and interest rate and exchange rate effects under different possible exchange rate regimes.[7]

The countries covered specifically include the U.S.A., Canada and Japan, plus China and Russia outside the EU; the euro area countries, and the U.K., Denmark and Sweden outside the euro but in the EU; and Poland, Hungary and the Czech Republic among the new accession countries. Each of these country models is based on a traditional income-expenditure specification, plus a rather detailed supply-side specification to determine wages, prices, employment, and unit labour costs. There is also a government sector to conduct fiscal policy. Total government revenues are collected from a variety of sources, and the government has a number of different outlays. These fiscal policy variables may affect labour market behaviour. Although the specification of each country is broadly similar, there are important differences both in the level of aggregation and in terms of different responses to shocks.

Since we are concerned about wage rigidities in general, and the supply side in particular, we note here the way in which wages and salaries are set. The OEF model incorporates short-run nominal and real wage rigidities, which ensure the existence of involuntary unemployment and monetary effects on the real economy. In the long run the employment equation solves for a constant level of real unit labour costs, given by labour's share in the production function, while the wage and price equations solve for the level of unemployment consistent with this labour share. With vertical Phillips and aggregate supply curves in the long run, monetary policy determines the inflation rate. But structural and supply-side policies determine the unemployment rate. Structural unemployment is therefore possible. Indeed, the equilibrium rate of unemployment is determined by the gap between the total real cost of labour to employers, and the real value of post-tax wages received by employees.

[7] *There is also a monetary sector in the model containing a monetary equilibrium and a Taylor rule. The exchange rate regimes are floating for the dollar, euro, pound, yen and other major currencies; but a single currency within the euro area, and a strict exchange rate targeting arrangement for Denmark (ERM-II), and for the accession countries in Eastern Europe. It is important to note that the model also determines some world market variables (such as oil and commodity prices) and the world aggregates (world GDP, industrial production) endogenously. A more detailed specification of each of the model's expenditure blocs is provided in OEF (2003).*

Short-run rigidities

Real wage rigidities are higher in some countries than others. In general, each country is modelled in terms of an *error correction model* (ECM), so that each equation contains short-run deviations from the long-run equilibrium – in this case, the natural rate of unemployment $\overline{U}$. The smaller the adjustment parameter, the longer it will take to return to equilibrium after a shock. Within the euro area, each country is expected to have similar structures, as captured by the so-called average earnings equation (AEE). By contrast, the asymmetry between the euro area countries and Northern countries may be substantial. A comparison of the AEE in the United Kingdom and Germany illustrates this point. The British AEE reads as follows

$$\begin{aligned} D\ln E = {} & 0.17 + D\ln P + 0.37978 \cdot D\ln Q^{c)} - 0.01162 \cdot D\ln U^{a)}_{-1} \\ & + 0.13844 \cdot D\ln(P^c/P) - 0.54447 \cdot D\ln(P/P_{-1}) \\ & - 0.11192 \cdot D\ln(P_{-1}/P_{-2})^{e)} - 0.067024 \cdot D\ln(P_{-2}/P_{-3})^{d)} \\ & + 0.4553 \cdot D\ln(E/P)^{b)}_{-1} \\ & - 0.098497 \cdot [\ln((E/P)_{-1} \cdot Q_{-1})^{c)} + 0.07 \cdot \ln(U/\overline{U})^{a)}_{-1}] \end{aligned} \tag{3}$$

where E is average earnings (in nominal terms), P is the deflator for GDP, P^c is the consumer price index, U is the unemployment rate, $\overline{U}$ is the NAIRU, Q is productivity, and D the difference operator. The German AEE, meanwhile, is:

$$\begin{aligned} D\ln E = {} & 0.5 \cdot D\ln E^{b)}_{-1} + \overline{U}^2_{-1} 0.050 \cdot D\ln P^c + 0.10 \cdot D\ln P^c_{-1} \\ & + 0.10 \cdot D\ln P^c_{-2} + 0.15^{d)} \cdot D\ln P^c_{-3} + 0.10^{d)} \cdot D\ln P^c_{-4} \\ & + 0.300 \cdot D\ln Q^{c)}_{-1} - 0.0025 \cdot D\ln U^{a)}_{-1} \\ & - 0.10[\ln E_{-1} - \ln Q_{-1} - \ln P_{-1} + 0.015 \cdot \ln(U/\overline{U})^{a)}_{-1}] \end{aligned} \tag{4}$$

While exactly the same variables appear in the two AEEs, there are clear differences between the short term behaviour in the two markets. First, average earnings in the U.K. depend relatively more on the previous unemployment rate and the ratio of the current unemployment rate to the natural rate (the terms marked a) in (3) and (4)). This is perhaps the key difference. It implies that the short-term Phillips curve is steeper in the U.K. than in Germany or the euro area, and explains why the U.K. would have to bear a greater part of the adjustment burden if she joined the euro as a more flexible economy. In boom conditions (excess demand), the U.K. would find herself having to accept more inflation than her partners, because of the upward flexibility of her prices and wages. Similarly, in the downturn, U.K. wages would have to fall disproportionately (or allow U.K. unemployment to rise more than elsewhere to create the pressure for this wage disinflation) in order to equilibrate the labour markets. That, of course, is exactly the logic set out in theoretical model: see equations (1) and

(2). Interestingly, it is also the conclusion reached in the six numerical simulations conducted by the U.K. Treasury on this issue (HM Treasury, 2003).

Second, once a disturbance has set in, the German equation has more persistence, as reflected in a higher coefficient on the previous period's rate of change in average earnings (term b)). Third, the U.K. has more supply side sensitivity (term c)) if there is a negative productivity shock. Fourth, Germany has more persistent accommodation of price rises, out to P^c_{-4} instead of P_{-2} (term d)). Note also that P^c, unlike P, has import prices in it, and hence implies an additional source of inflationary stickiness in Germany. Finally, P is influenced by capacity utilisation which implies extra market sensitivity in the British equation (term e)).

Long-run rigidities

In the long run, structural rigidities affect unemployment, and hence wages and economic performance. The equilibrium rate of unemployment is determined by the "tax wedge" W, defined as the gap between total cost of labour to employers – including social security contributions – and the real value of post-tax wages received by employees. Thus

$$\ln(\overline{U}) = \beta_0 + \beta_1 W + \beta_2 \ln\left(P^f/P\right) \quad (5)$$

where P^f are domestic fuel prices, P is the GDP deflator, and

$$W = \ln\left[E\left(1 + \tau^p + T^{poc}/Y^{WS}\right)/P\right] - \ln[E(1 - \tau^a - \tau^s)/P^c] \quad (6)$$

where τ^p is the payroll tax rate, T^{poc} is the personal sector other contributions, Y^{WS} are wages and salaries, τ^a is the average personal income tax rate, τ^s is the employee social security contribution rate, and E and P^c are as before. Rigidities may therefore vary between countries in the long run because the β coefficients in (5) differ; or because the components of the tax wedge (6) take different values in different places. Structural unemployment created in the short run can therefore persist; and the choice of monetary regime may have long-run effects through W if not through other channels as well.

5 Economic and Monetary Union and Structural Reform

5.1 The Baseline Solution

We turn now to the relative importance of market inflexibilities in EMU. To judge that we have to create a counterfactual where there are no enlargements, no new flexibilities, and no additional fiscal constraints. This baseline solution would therefore not have any new economies joining EMU; it will not have the SGP's 3% deficit limit imposed on those countries; and will not have the current degree of labour market flexibility in Germany, France etc. increased.

It is important to stress that the projections from such a scenario are not of great interest in themselves. But they are necessary as a benchmark against which the benefits of an alternative scenario can be measured: such as the United Kingdom joins the euro; national fiscal policies are restrained; or Germany makes her labour market more sensitive to market conditions. Consequently, it is not the baseline values themselves which matter, but whether the

Table 1

Baseline Statistics: Economic Development in the Absence of Any New Enlargement, 2002–2007

	U.K.	Germany	France	Belgium	Poland
	%				
Inflation	1.5	2.0	2.0	2.0	5.0
GDP growth	2.5	1.8	3.0	2.8	4.4
Unemployment	3.0–3.5	10.4–8.1	9.0–7.2	11–10	16–14

Source: Authors' calculations.
Additional Figures: U.K. interest rates fall from 5% to 4%; U.K. debt increases 8% over 4.5 years (the debt ratio therefore falls by 7percentage points over the same period); the pound depreciates from GBP 1.59 to GBP 1.43, and the U.S. dollar depreciates from USD 0.85 to USD 1.12 per euro.

changes from that baseline can be said to be favourable or unfavourable.

In what follows, we focus on deviations of (i) output, (ii) unemployment and (iii) inflation from the baseline path. Table 1 contains the baseline simulation values for those variables for the countries highlighted in the comparisons which follow, averaged over the period from 2002 to 2007 inclusive, in the absence of any extensions to EMU or major changes in market behaviour.

They describe an uncontroversial future in which inflation and growth continue in the 1% to 2% and 2% to 3% ranges respectively; unemployment is falling but very slowly; and the euro appreciates against both the pound and the dollar very much as it did during the 2002 to 2004 period.

Finally, it will be clear that our simulations are being conducted to give the medium term consequences of membership of the union of the various degrees of market flexibility and reform. Of course, being dynamic, our calculations also show some of the costs and benefits along the way.

5.2 The Flexible Economy Case: United Kingdom Joins the Euro

We first investigate the effects of a flexible country (United Kingdom) joining a block of less flexible countries (the euro area). Specifically, we assume that the U.K. would join EMU in the first quarter of 2005, and that this fact is announced in the third quarter of 2002. As a result, the United Kingdom adopts a "European" monetary policy from 2003 onwards; but the exchange rate is not completely fixed in the period from 2002 to 2005. Instead it is fixed at a level of EUR 1.4316/£ 1 at the first quarter of 2005 and does not change thereafter.[8] This assumption is consistent with the exchange rate criterion for joining EMU.

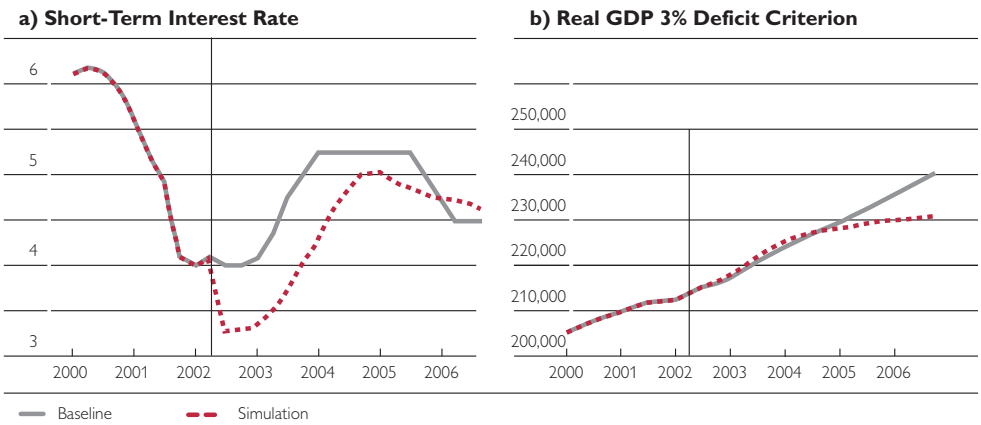
What happens? As a result of joining, the United Kingdom enjoys a lower short term interest rate (chart 2a) over the entire simulation period.[9] One would expect this

[8] *We have checked the sensitivity of the results of this assumption of the joining rate, and found our conclusions were not altered for a wide range of plausible joining rates from EUR 1.60/£ 1 down to EUR 1.30/£ 1. So the exact exchange rate value makes no difference. The particular value used here is the model's equilibrium rate for the pound, and is slightly more favourable (to the U.K.) than the market rate at the time of writing (EUR 1.49/£ 1, April 2004).*

[9] *In chart 2 – and all subsequent charts – the solid schedule refers to the baseline, and the dotted schedule refers to the simulation.*

Chart 2

U.K. in EMU and Flexible



Source: Authors' calculations.

lower interest rate would increase real GDP, together with the implied depreciation of the pound from EUR 1.59/£ 1 in 2002 to EUR 1.4316/£ 1 in 2005. But the expansionary effect does not take place (chart 2b). It is true that lower interest rates and the depreciation of the pound have led to a small increase in output at the beginning of the simulation. However, by the time the United Kingdom joins the euro, the real GDP growth rate is well below the baseline. This reduction is driven by the economic state of the (less flexible) euro area. Since Germany and the other euro area countries are growing below capacity, and since the United Kingdom is now linked with the euro area via a fixed exchange rate, there is a negative spillover effect onto the United Kingdom, which can no longer be offset by monetary policy. If there is to be any recovery in the United Kingdom, it will have to be through fiscal policy.

A second reason for the reduction in the GDP growth rate is that, towards the end of the sample, the euro appreciates against the dollar. Of course, the pound's depreciation at the time of the United Kingdom joining the euro has had an expansionary effect. But, given the British trade structure, the subsequent euro appreciation (with the United Kingdom as a member) makes the United Kingdom worse off again. So the current account worsens, and therefore GDP. That spills over into lower employment in the private sector and a rise in unemployment (chart 3a). That lower employment then lowers average earnings, which in turn reduces the GDP deflator, and that then reduces the demand for labour in the private sector somewhat further.[10]

[10] *Note that the same rise of the euro appears in all our simulations, and in the baseline. So although its appreciation adds to the disequilibrium felt in the U.K. when she is a member, that is not the cause of the costs of membership observed here since the same rise in the euro happens whether the United Kingdom is "in" (this simulation) or "out" (the baseline). The source of those costs is the extra difficulty of dealing with the consequences of that rise when the United Kingdom is "in" because she has to offset the disequilibria transmitted from other markets in the EU as well as her own, and supply the equilibrating adjustments, all without the use of her own monetary policy.*

At this point one would expect increasing competitiveness to have an effect. Unfortunately, the time horizon in these diagrams is too short to show the full effect of these adjustments after 2007. However, at that stage falling average earnings do start to increase competitiveness again. Output and employment then expand, and continue to do so as long as expenditure cuts do not force the budget deficit to decline at the same time. It is the latter which makes the difference.

Hence, we have a clear example of a regime change creating short-run costs but long-run benefits. But whether those benefits will turn out to dominate the short-run costs will depend on the size of the fiscal burden (debt) being created at the same time; and on whether that burden would trigger fiscal restrictions which hinder the improved performance. If any restrictions do come into play, they will reduce the scope for benefits in the future. It appears that the latter is a real possibility. The reason is as follows. The United Kingdom's unemployment rate behaves as the analogue of GDP, and rises as GDP falls. This has a knock on effect on government debt which does indeed rise sharply (chart 3b). At this point we need to take into account that, if the United Kingdom were to join the euro, she would be subject to the SGP's 3% deficit criterion. That would trigger sharper cuts in public expenditures, and hence larger falls in GDP (and larger rises in unemployment) than we observe here.[11] Fiscal-monetary interactions are important, therefore.

The opposite holds for the impact, on Germany, of the United Kingdom joining the euro area. German GDP improves slightly through the simulation, as does the unemployment rate. The bottom line is, therefore, that a more flexible United Kingdom is made worse off by joining, and a less flexible Germany is made better off – exactly as our theoretical results had predicted. The reason is that, in a boom period, the flexible economy gets the wage and price rises. In a recession, it is the one that has to carry the extra unemployment and debt. These mechanisms are, of course, independent of the exchange rate value at which that country joined.

5.3 Regime Changes in the Presence of Rigidities

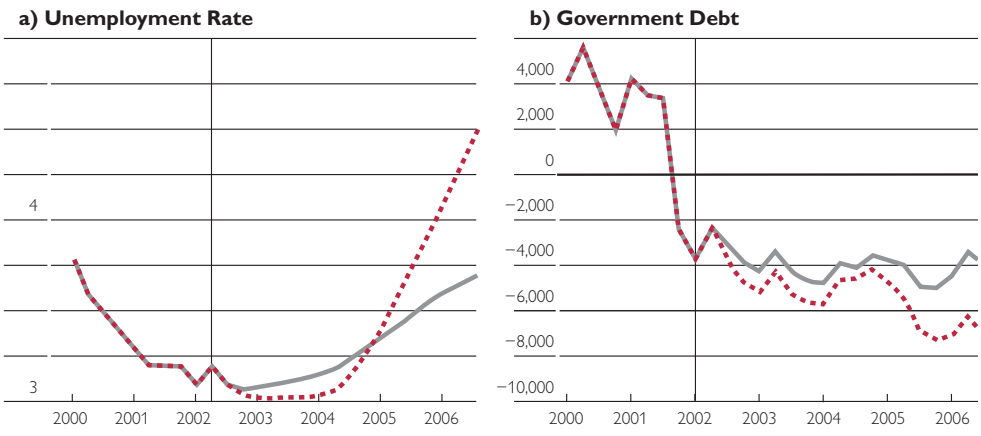
There remains a question of *why* the choice of exchange rate regime matters. The model shows each labour market suffers real and nominal rigidities in the short term; but no nominal rigidities in the long term. The choice of exchange rate should therefore have no long-term effect, unless rigidities convert the short-run effects into persistent changes. That, according to this model, is exactly what happens.

The exchange rate regime, however, does have real effects when there are rigidities in wages or fiscal support. We saw that structural unemployment could be created because unit labour costs do not solve for a level of unemployment consistent with the market clearing rate of unemployment – these markets being imperfectly competitive; and because policy or falling competitiveness alters that natural rate via the tax wedge W. For example, to the extent that deflationary pressures

[11] *We also had a look at inflation, which is similar to what we observe in the baseline and is not reported.*

Chart 3

U.K. Joins EMU



Source: Authors' calculations.

and a falling currency widen the wedge via the price terms in (6), then long run unemployment will be higher and GDP lower. This is what happens to the U.K. in charts 2 and 3. That effect can be offset if average tax rates fall with growth, or if increasing wage competition lowers unit labour costs and raises aggregate incomes. Since the U.K. labour market does both, the U.K.'s losses eventually stabilise.

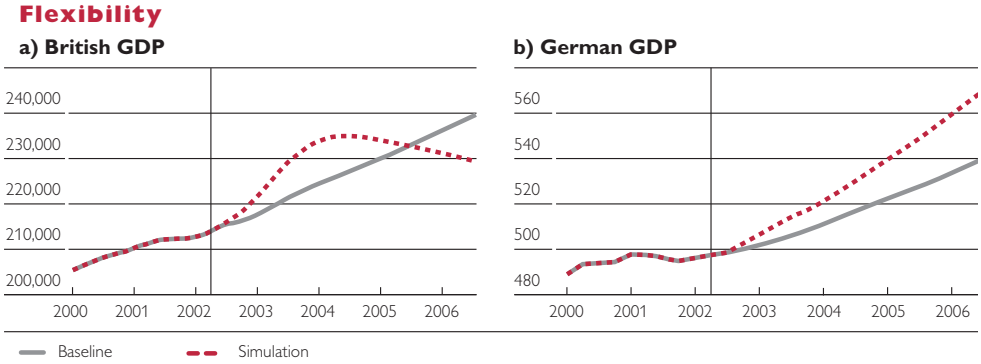
Outside the labour markets, if market rigidities cause deflation in the short term, government revenues will fall and expenditures rise. The deficit then widens as we have shown; with the result that debt and interest payments increase. In that case, Ricardian equivalence, even if imperfect, means that consumption and investment expenditures must fall in anticipation of tax increases – which means those aggregate demand components will remain "below trend" so long as the deficit persists.

5.4 The Rigid Economy Case: Germany Reforms

Would the story be modified if Germany adopted British flexibilities? Here we assume that Germany has the same average earnings equation as the United Kingdom. As before, the United Kingdom joins the EMU at an exchange rate of EUR 1.4316/£ 1 in 2005. This lowers British interest rates, which benefits growth. Moreover, since German labour markets are now more competitive than before, German demand is higher than before (despite the euro appreciation). That produces a new positive trade effect for the United Kingdom. However, when the exchange rate is ultimately fixed in 2005, a negative effect kicks in. By fixing to the euro, the United Kingdom faces an appreciation against the dollar. This appreciation reduces British competitiveness in the U.S.A. and elsewhere and, given that 50% of British exports go to the U.S.A. or dollar based currencies, that has a significant negative effect on the British current account. This, in

Chart 4

U.K. Joins EMU, but Germany Adopts British Labour Market Flexibility



Source: Authors' calculations.

turn, reduces British employment and British demand (chart 4a). British GDP therefore rises more at the start in this simulation, but ends up in the same place. As we noted, the exchange rate path itself affects performance but not the comparison between more flexibility and less flexibility.

A more interesting question is what happens to Germany in this case? As chart 4b demonstrates, by making German wages as flexible as the British ones, Germany is made much better off than before. It should be mentioned that we are comparing two deterministic solutions here. There is no shock affecting Germany: everything else has stayed the same. So we can conclude that the results of this scenario are indeed driven by making the German labour market more flexible, not by the value of the euro. This suggests that one condition for the United Kingdom joining the euro might be that Germany (and others) should reform their labour markets. The issue then is whether increased competition in the euro area would produce sufficient incentives to undertake such reforms.

Finally, an examination of euro area inflation shows that introducing British flexibilities into the German labour market has led to a lower inflation rate. Again, flexibility matters. The adjustment burden previously placed on the United Kingdom has now been transferred back to Germany.

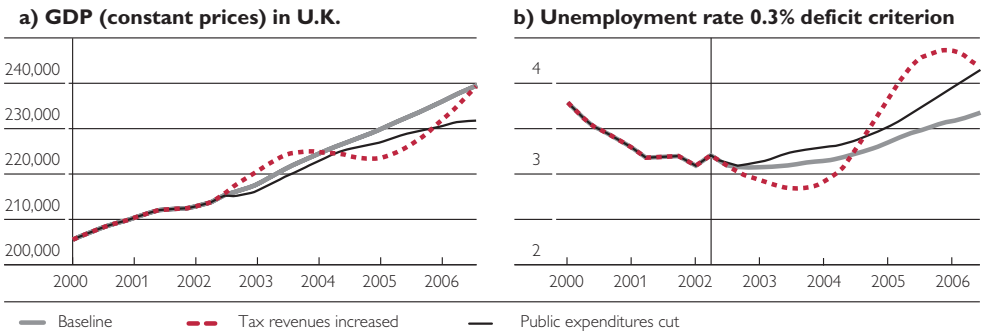
6 The Link between Fiscal Constraints and Structural Reform

Case 1: Fiscal constraints through tax increases.

We now investigate the impact of fiscal policy on the incentives for structural reform. We assume that the British government decides that it needs to prevent public sector debt from rising. As a unilateral action the British government limits its fiscal deficit to 0.3% of GDP. Although this is not strictly a representation of the SGP, it is in line with the SGP's requirement that countries should remain "close to balance or in surplus". It also corresponds to the official target for the United Kingdom's cyclically adjusted budget, as set out in her Stability and Convergence Programme. However,

Chart 5

U.K. Joins EMU



Source: Authors' calculations.

we assume public expenditures are to be kept at the same level as before, so that the government has to increase taxes.

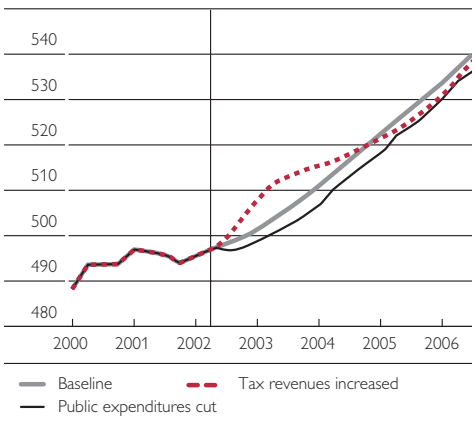
As chart 5 shows, a clearer business cycle now emerges. Compared to charts 2 and 3, the United Kingdom is better off joining EMU in the short term (schedule B).[12] But towards the end of the sample she is worse off. These are standard results for an expansionary fiscal contraction: in the short term the economy appears to improve, but performance begins to deteriorate again in the longer term as unemployment increases (Barry and Devereux, 1995). Indeed, chart 5 shows that unemployment is behaving exactly as an analogue of GDP, without discernible effects on the inflation rate. In this case, because joining the euro generates a short-term increase in growth in the U.K., taxes start to rise which eases the deficit at the start. However the combination of the natural tendency for growth to slow in 2005 (as we saw in chart 2), and of the need to impose tax increases at that point to prevent the deficit increasing as new unemployment appears, puts the economy into a relative recession. However, since expenditures held constant, and hence become a rising proportion of output, growth is eventually restored – and with it the tax revenues to balance the budget. Hence the cyclical pattern in simulation B.

Interestingly, the effects on Germany are also much stronger in this simulation (chart 6, schedule B). Fiscal prudence in the United Kingdom evidently has an impact on Germany. Therefore, contrary to conventional wisdom, fiscal spillovers do matter. Germany is now better off in the short run than she is worse off in the long run. Again we have a short-run versus long-run conflict – but this time in terms of larger short-run benefits versus smaller long-run costs. That shows the advantage of having a more flexible partner. Evidently, fiscal restrictions without expenditure cuts throw more of the adjustment burden onto the more flexible partner – the U.K. in this case.

[12] *In charts 5 and 6, "schedule A" shows the baseline; "schedule B" the outcomes when taxes are increased; and "schedule C" the outcomes when expenditures are cut.*

Chart 6

U.K. in EMU: Real German GDP, 0.3% Deficit Criterion



Source: Authors' calculations.

Case 2: Fiscal consolidation is achieved through expenditure cuts. Next, we investigate the impact of expenditure cuts in the United Kingdom. We assume that the British government reduces the deficit to 0.3% of GDP and reduces expenditures to do so. This offsets and removes the growth increase on joining the euro. That unbalances the budget further, causing further cuts. There is no restoration of previous income levels as expenditures increase in proportion to output. Instead, the economy grows much as before, but at a lower level of income. The result, reported in chart 5 (schedule C), is that the United Kingdom is now considerably worse off, at least in comparison to the baseline.

Note that, in this scenario (schedule C), the unemployment rate is higher than in the baseline (schedule A), or in the first simulation (schedule B), for the first three years. But the unemployment rate in the first simulation does converge towards the baseline at the end of the simulation period, whilst that in the current simulation continues to move away from the baseline at that point. So fiscal restraint has had ambiguous effects, depending on the form it takes. Unemployment is unambiguously worse in the short term, but may become better again if tax revenues can increase with growth gradually so that the higher taxes do not become an additional burden on the extra growth created by the consolidation of the budget. Expenditure cuts, however, by worsening the growth prospects in the short term, cannot avoid becoming an extra burden in later years because lower revenues earlier on reduce revenues and make further expenditure cuts necessary.

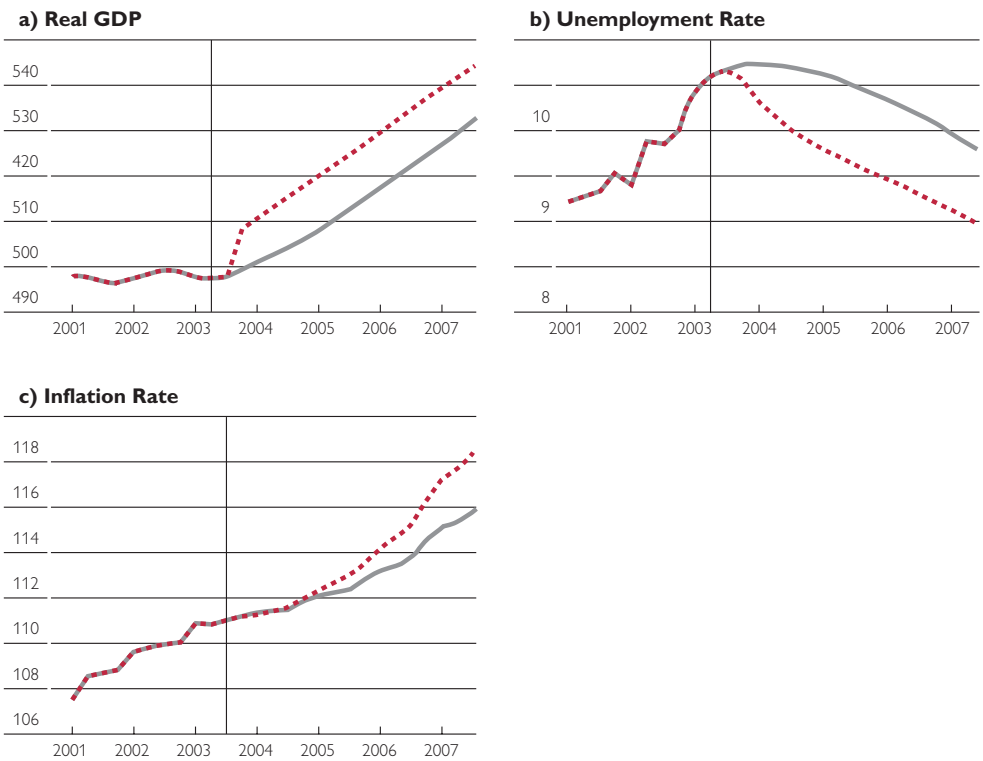
Moreover, fiscal restraint based on expenditure cuts in the United Kingdom clearly has a damaging impact on Germany (chart 6, schedule C). In the first two scenarios (schedules A and B), Germany was helped by the United Kingdom joining the euro. In this scenario (schedule C), Germany is worse off over the entire period. That implies expenditure spillovers matter. Germany would not want the United Kingdom to apply the SGP rules, or have them enforced by others, if that should lead to significant cuts in expenditure. It is unlikely that the SGP would survive if no-one has an incentive to demand that it be honoured by others, let alone themselves.

7 Structural Reform in Practice

Finally we turn to an example of a programme of structural reforms in the context of the Lisbon agenda. The aim is to get an idea of what results we might expect in practice; to see if they are important empiri-

Chart 7

Germany: Reduction of Employees' Social Contribution by 9%



Source: Authors' calculations.

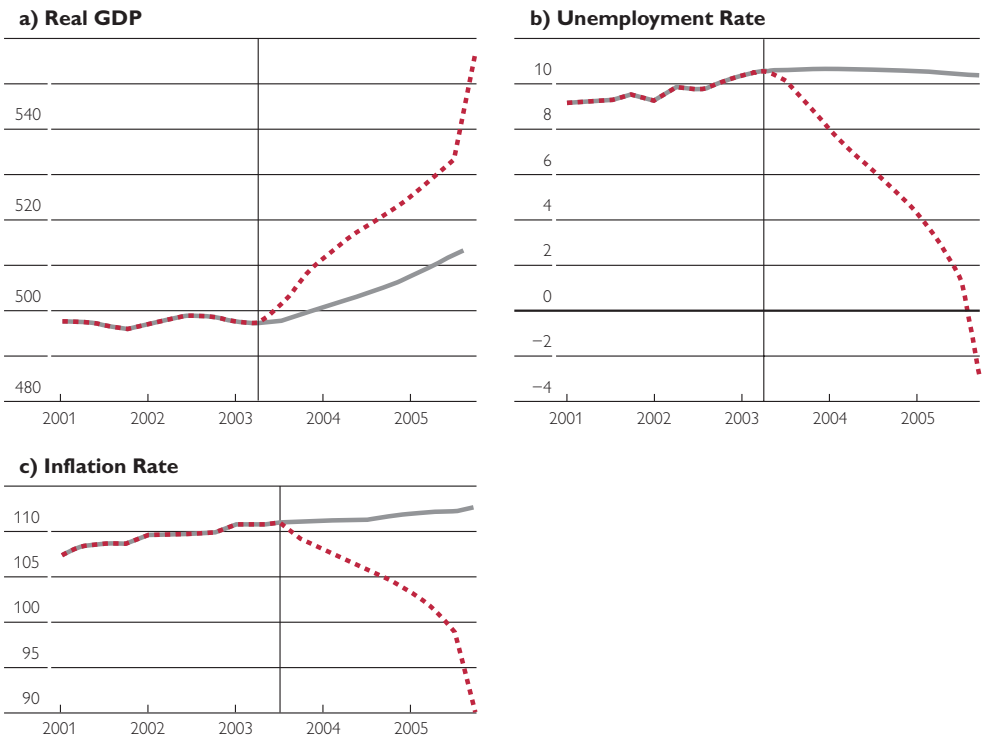
cally, and whether they are in line with the analytic reasoning set out earlier. The example we have taken is the German government's Agenda 2010. The German economy is an important candidate for reform, and "Agenda 2010" is a good example of a portfolio of measures currently in the process of being implemented. Indeed, Chancellor Schröder had staked his own career on these measures being adopted by the end of 2003.

The measures themselves fall into five broad categories:

– Employment generation with training
  - increasing the number of apprenticeships, and liberalising the training laws;
  - an apprentice preparation scheme;
  - training schemes at the Länder or local level (human capital);
  - subsidies for those in apprenticeship schemes (Jump Plus).
– Investment creation through subsidies and infrastructure
  - subsidised loans for capital to employ newly engaged employees;
  - subsidised loans for those who provide apprentice places.
– Direct demand measures of the Keynesian kind
  - loan subsidies to those who employ new people in the backward regions or from the pool of long-term unemployed;

Chart 8

Germany: Reduction of Employers' Social Contribution by 10%



Source: Authors' calculations.

- wage subsidies for the newly self employed.

– Tax cuts to increase labour supply
  - raising income tax thresholds, lowering the basic rate;
  - subsidies to contributions to private pension schemes;
  - reductions in pension (social security) contributions paid by employees.

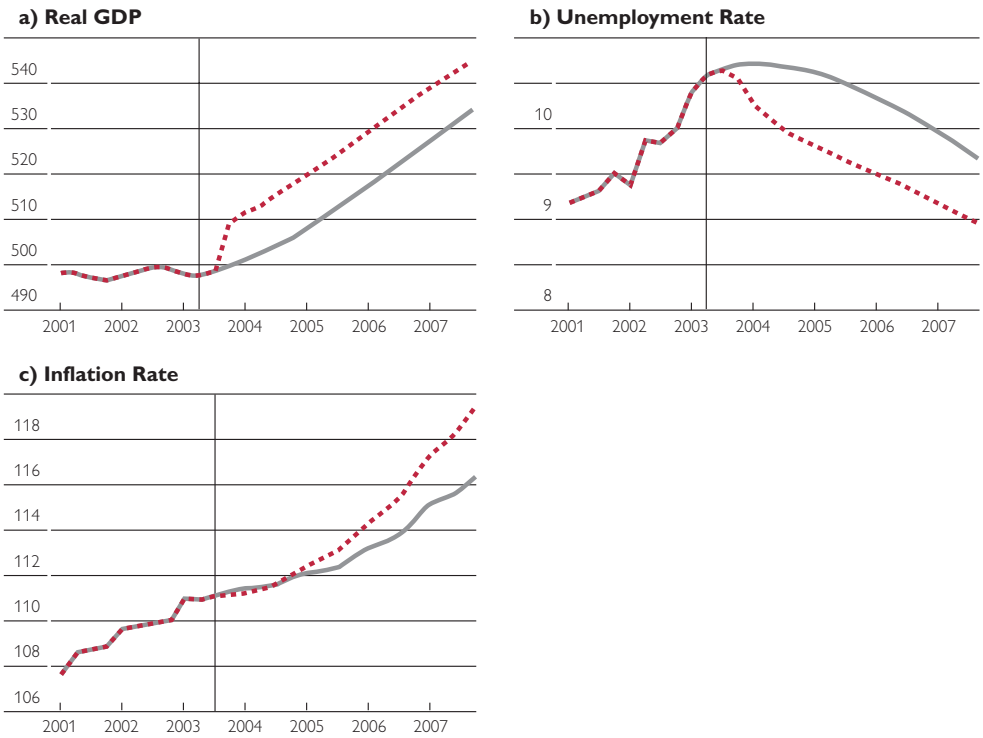
– Labour costs and supply-side measures
  - deregulation of the master craftsman market;
  - discounts/tax breaks on social security contributions;
  - suspension of some hiring/firing costs;
  - reduction in compensation for redundancy, in unemployment benefits, and a requirement that the unemployed accept job offers even if at a lower wage.

These measures are all designed to affect the supply or demand for labour directly, without affecting the costs of employment or the flexibility of markets to excess supply or excess demand. The exception of course is the last group of measures. We have therefore simulated a representative measure from each group in the German component of the OEF model.[13] Charts 7 to 10 display the results.

[13] *We have ignored the conventional direct demand measures (the third group) as being of little interest in this context.*

Chart 9

Germany: Reduction of the Income Tax from 15% to 10%



Source: Authors' calculations.

Chart 7 shows the income, employment and inflation consequences to be expected from a reduction in the employees' social security contributions of 9%. The change is introduced in early 2003, and we report five years of results. It is clear that such a change would lead to a small improvement in national income: up 2.5% over five years, but no long-term increase in the growth rate. Unemployment drops from 10% to 9%, and the inflation rate is slightly higher (0.5 percentage point) over a five-year period. These may be considered welcome changes perhaps, but they are small.

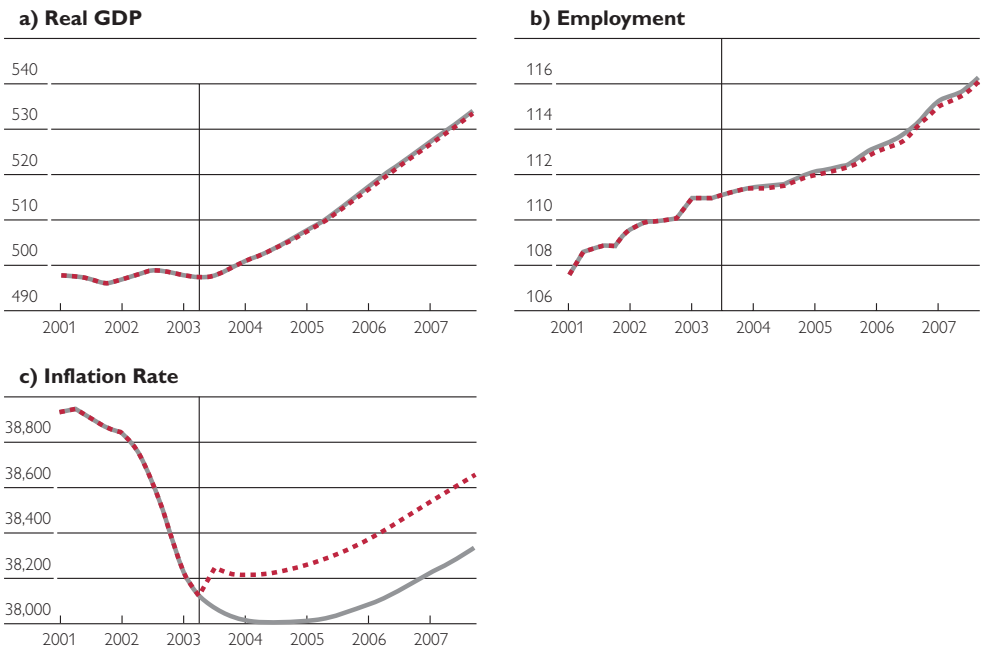
Chart 8 shows the effect of reducing the employers' social security contributions (non-wage costs) by 10%. The simulated outcomes are clearly unsatisfactory after three years because the change is too large for the behaviour modelled to be a reliable guide. But the first three years provide an indication of the likely direction of that change. Here GDP has risen 7% within three years, unemployment has dropped markedly, and prices have fallen by about 6% each year. Significant changes therefore, and in the right direction.

Chart 9 provides a third simulation, in which average tax rates on income fall from 15% to 10% (as foreseen in Agenda 2010). The results are almost identical to chart 7, which is hardly surprising. Small improvements therefore, except for inflation which now rises.

Chart 10 finally shows the effect of Jump Plus which extends the availability of apprenticeship schemes (200,000 extra places). The effects

Chart 10

Germany: Permanent Increase of Employment by 200,000 (JUMP PLUS)



Source: Authors' calculations.

are again very small. GDP rises by 0.5% (growth is unaffected); employment rises by 350,000, or by 0.8 percentage point off the unemployment rate, and there is a tiny reduction in inflation (0.1 percentage point).

What stands out very clearly from these simulations is that it is only reductions in non-wage costs for the employers that make any appreciable difference to the performance of the German economy. Improving incentives for the employees, or manipulating demand levels directly brings small employment gains at a cost of a little extra inflation. But the effects remain small. In short, the results say that traditional measures directed at increasing labour supply, are necessary perhaps but not sufficient for regenerating growth in Europe. One has to work on labour demand in order to generate, not Keynesian expansions, but cost flexibility and hence new jobs. These are the changes that would generate the gains that were forseen in the Lisbon agenda. ❧

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Comments on Andrew Hughes Hallett, Svend E. Hougaard Jensen and Christian Richter, "The European Economy at the Cross Roads: Structural Reforms, Fiscal Constraints, and the Lisbon Agenda"

Professor Andrew Hughes Hallett (AHH) has presented an interesting paper in which he deals essentially with three issues: monetary union and its possible enlargement; structural reform; and budgetary discipline. These are indeed topical issues in the EU and beyond, and further insight into their determinants and inter-relations are needed and most

[1] *This contribution reflects the personal view of the discussant only and in no way implies the European Commission or its services. I am indebted to H. Jansen, S. Kuhnert and P. Ritter from DG ECFIN for valuable comments and suggestions. The usual disclaimer applies.*

welcome. The analysis of AHH and his co-authors derives from Bayoumi's well-known paper of 1994 on optimal currency areas. That analysis is now being carried further and extended by bringing in the dimension of structural reform. Indeed, the authors present a model that tries to capture the relative costs and benefits of possible accession candidates and incumbents of a monetary union which differ in their level of structural flexibility/rigidity. What is most interesting, though, is that by doing so, Bayoumi's earlier conclusions on the incentives of "ins" and "outs" for enlarging a currency union are turned upside down. Further work is probably needed in order to integrate the other two aspects into a consistent model framework. Thus, the relationship between structural reform and fiscal discipline and its empirical verification is partially treated outside the model. Also, the issue of enlargement of EMU to the new Member States is referred to only briefly, without being further elaborated.

The paper investigates into three propositions:

1. A flexible economy will find it unattractive to join/remain in a union of economies whose markets are relatively unreformed or rigid;
2. The requirement of fiscal discipline acts as an impediment to structural reform;
3. Structural reforms are hindered by the fact that they typically involve large costs up front or in the short run, and only bring benefits in the longer term.

I shall briefly refer to the model presented for the first proposition, before dealing with the propositions themselves.

The Model

AHH's model is an adapted and extended version of a model first suggested by Bayoumi (1994), a general equilibrium model of optimal currency areas. As Bayoumi, AHH assumes downward nominal wage rigidity. The basic effect works as follows. If a country is hit by a negative productivity shock, the nominal wage rate cannot adjust downwards. However, a floating exchange rate can insulate the labour market to retain full employment at lower output. The loss to all trading partners is the loss in output from the productivity shock. With a fixed exchange rate between two countries, their common external exchange rate moves only partially to a negative shock in one country. This implies that the nominal wage rigidity partially translates into unemployment and thus output loss that exceeds the productivity shock. As each country produces a unique good, the assumed preference structure ensures that this additional output loss affects all countries, even those outside the currency union. As a further distinction between countries, AHH introduces differential "economic flexibility" in countries in- and outside the union.

It is understood that "flexibility" in the AHH paper is confined to the aspect of downward adjustment of nominal wages. The assumed wage rigidity assumed for the members of the currency union translates into quantitative adjustments in the labour markets which in that regard are assumed fully flexible. The model does thus not deal with those kinds of reform that address, for example, hiring and firing rigidities. As far as employment beyond the full employment of the domestic la-

bour force is concerned, there is a further rigidity: countries cannot absorb all of the immigration pressure. This rigidity, however, may not necessarily be linked to the functioning of the labour market, but possibly to output capacity constraints. Furthermore, the immigration absorption parameter is reinterpreted as "fiscal flexibility", understood as large fiscal multipliers and minimal restraints on the budget. This limits the possible scope of economic reforms that the paper is able to address.

What is noteworthy, is that by introducing differential degrees of structural flexibility, a central conclusion of Bayoumi is turned upside down. As one may recall, Bayoumi found that a currency union raises welfare of "ins", but lowers welfare of "outs", because "outs" partake in the costs (due to interaction between common exchange rate and nominal rigidity) but not in benefits (lower transaction cost). Therefore, a small "out" will always have a greater incentive to join than the union will have to admit the new entrant. With AHH, this incentives mismatch goes the other way round: a more flexible "out" will have less incentive to join a more rigid union than the union has to admit a more flexible member.

This brings me to AHH's first proposition:

"A flexible economy will find it unattractive to be in a union of economies whose markets are relatively unreformed or rigid."[2]

However, as the proposition goes on, *"the more rigid economies will want the flexible economy to join. This incentive pattern reduces the chances of market reform, encouraging a general move towards rigidity. It further creates a distinction, in terms of membership, between rigid existing EMU countries, flexible Northern and less flexible Eastern economies."*

I have some doubts here about the inferred implications of "flexibility" versus "inflexibility". Thus, in the case of excess demand: will price/wage rises really be higher in the more flexible economies, relieving the more rigid ones of some excessive demand pressure, as it is claimed? I am not sure, since in the "more flexible" economies, labour supply may be more flexible as well and thus more responsive to higher wages.

Conversely, in the case of deficient demand: Will rising unemployment in the rigid countries spill over to the flexible ones and drive wages down disproportionately there? Probably not, as in the "rigid" labour markets, outward migration of the unemployed will *ex definitione* be low.

Unlike with Bayoumi (1994), the issue large versus small region is totally ignored in the context of the "rigid" EMU versus a "flexible" outsider (UK). This also holds true for the abolition of transaction costs which is largely to the benefit of the "small" adherent.

[2] *Quotations in this contribution refer to a draft version of AHH et al. "The European Economy at the Cross Roads: Structural Reforms, Fiscal Constraints, and the Lisbon Agenda."*

Therefore, systematic free-riding by the "rigid" from the "flexible" economies seems to me unlikely.

Finally, in the line of reasoning (Bayoumi, 1994, AHH et al., 2004) on the relative costs and benefits of joining versus staying out of EMU, it is not quite clear whether the "costs" from a monetary union are due to the lack of the exchange rate or to the inflexibility that is being transmitted via external demand. In principle, the "outs" should remain totally isolated via their still flexible exchange rates.

In that context: the caveats against the model specification to which Bayoumi (1994) pointed, are no longer highlighted. Thus, a currency union may provide welfare gains also to "outs" via an increase in potential output inside the union (e.g. economies of scale, improved resource allocation from abolition of transaction services) or lower transaction costs even outside the union.

Looking at things from the empirical angle, the semantics of "flexibility" become important. There is considerable variation inside EMU in the degree of different dimensions of flexibility between members. As far as nominal wage rigidity is concerned, this is generally not considered to be the most severe problem, when compared with other kinds of rigidities in the institutional or regulatory framework. More generally, while there is certainly slow progress in structural reform, a "race to the bottom" is hardly observable.

The interesting issue of EMU enlargement to the new Member States of Eastern Europe is raised in the present paper, but not further developed.

The second proposition goes:

"The requirement of fiscal discipline acts as an impediment to structural reform."

The central argument here is that *"reforms cost money. Too tight a set of fiscal controls – i.e. the Stability Pact – combined with market rigidities will cause a conflict, by slowing down growth in the short term and increasing deficit spending during the reform period. Conversely, large rigidities would make structural deficits larger and again reforms less likely."*

Here, AHH applies the same argument of external spillovers and "expectations mismatch" as for the former case of rigidities. *"Fiscal restriction in one country will impose costs on all others, by increasing the amount of adjustment that needs to be undertaken to restore equilibrium within each of those countries"*. Thus, each country in a monetary union will be tempted to "free-ride", wanting its partners to apply a greater (or at least the same) degree of fiscal flexibility than itself.

The two key premises in this reasoning are that

- reforms entail substantial short-term budgetary costs, and
- governments are hindered to incur those costs by the fiscal rules.

I want to challenge both arguments.

First, those very reforms that are intended to do away with structural rigidities, i.e. introduce greater wage flexibility and increase labour mobility would hardly lead to higher cost and indeed, should improve the budgetary position already in the short term. I am thinking of cuts in subsidies across-the-board, trimming welfare benefits in order to "make work pay" and raise incentives for hiring and taking up work.

Second, no government that has come into conflict with the Stability

and Growth Pact has done so because of the cost of the sweeping reforms it has introduced. The authors themselves claim that fiscal flexibility "can overcome the consequences of rigidities" – therefore, should the pressure for reforms not increase when there is a *limit to* fiscal flexibility? Moreover, to attribute fiscal inflexibility entirely to the Stability and Growth Pact is too narrow a view: It may be as well be self-inflicted: A country that bases its budgetary planning on unrealistic baseline scenarios is bound to find its fiscal room for manoeuvre reduced ex post. The reasons for fiscal inflexibility are rather the lack of reforms and budgetary slippage in "good times". It is not the fiscal rules or the budgetary costs that make governments shy away from taking the necessary reforms – it is the political costs they fear.

Contrary to the argument of the paper, the Pact should be seen as a catalyst for structural reform, by providing a budget constraint without which such reform would be put off even further.

Proposition three claims:

"Structural reforms are hindered by the fact that they typically involve large costs up front or in the short run, and only bring benefits in the longer term. Politically sensitive policy makers may then worry that the short-term costs will outweigh the longer-term benefits – especially if the latter are rather uncertain."

My reservations about the alleged large short-term costs of structural reform apply here as well. If this were so, why should structural reform then be so unpopular and difficult to implement, if it involved a short-term large budgetary burden, i.e. the government spending extra money or foregoing revenues? Surely, short-sighted politicians and their (probably equally myopic) voters would love just that! If, however, even the longer-term benefits are "rather uncertain", then the question arises why we would need structural reform at all.

At this stage, there is a break in the paper's analysis. The empirical verification is not based on the model previously presented – in fact, the model does not incorporate

a short- versus long-term dimension – but using the Oxford Economic Forecasting (OEF) model.

For example, the simulation part claims an alleged "adjustment burden" to the UK when joining an "inflexible" core EMU in terms of higher (wage) inflation in good times and higher unemployment or falling wages in bad times (section 4). It is not clear to me how this relates to the theoretical model presented. After all, relieving other countries of adjustment pressure was shown to be beneficial to all countries in the model.

Furthermore, the "negative spillover effect onto Britain" from joining EMU identified in section 5.2 does not seem to be related to the model either. In the model, spillovers arise also to non-members and cannot be done away by independent monetary policy.

Section 6.2 on structural reform in Germany is also unrelated to the

theoretical part, insofar as nominal rigidities are not addressed. Furthermore, potentially interesting findings are not explained. For example, what is the reason behind a reduction in employees' social security contributions having a small effect on the economy while reducing employers' contributions having a larger one?

Thus, the "empirical verification" of the theoretical hypotheses presented, does not appear entirely convincing and the "results" presented are to some extent subject to arbitrariness and "belief". ❧

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Comment on Dalia Marin, "'Nation of Poets and Thinkers' – Less so with Eastern Enlargement? Austria and Germany"

The paper presented by Dalia Marin (Marin, 2004) addresses several topical and highly policy-relevant issues. The implications of the analysis pose a challenge to European policy making, in particular regarding the long-run repercussions of integration.

First, the two decades surrounding the turn of the century are characterized by a profoundly new international division of labor. Not only cross-border trade but also foreign direct investment underwent major structural change. Second, inasmuch as foreign direct investment was geared towards a reorganisation of the value chain of multinational companies, capital mobility may have had a major impact on job creation and job destruction. Taking into account country-specific relative factor endowments, EU enlargement may even lead to a relocation of high-skill jobs from the former EU-15 Member States to the new Member States, a process I will refer to as depletion of skilled jobs henceforth.

Consider first the emergence of a new pattern of the international division of labor across Europe. Take

a brief look at the export dynamics of, for instance, Hungary in the period between 1996 and 2001. Chart 1 depicts the top eight, three-digit Standard International Trade Classification (SITC) export categories of all manufactured goods exported by Hungary to the former EU-15 Member States. We confront a most striking finding: Within merely five years Hungarian exports of motors and motor parts, automatic data processing machines, and video recorders have risen in excess of 10,000%. Back in 1996 items such as women's and girls' outerwear, furniture, and aluminium – at best mid-tech products – belonged to the top eight export categories. By contrast, currently six out of eight categories represent high tech products.

In tandem with the shift in technological content, we also witness an increasing degree of export concentration in the new Member States, as measured by the Hirschman-Herfindahl index of export shares and demonstrated in chart 2. The smaller the area covered, the lower the degree of export concentration. While the diversification of exports from Austria, Germany, and Italy remains largely unaffected, as a result of the changed division of labor the new Member States appear to focus on an increasingly narrower portfolio of export goods.

Most recently in some countries, Hungary included, the process of diminishing export diversification appears to have come to a halt. In others, such as the Czech Republic, this has not yet been the case.

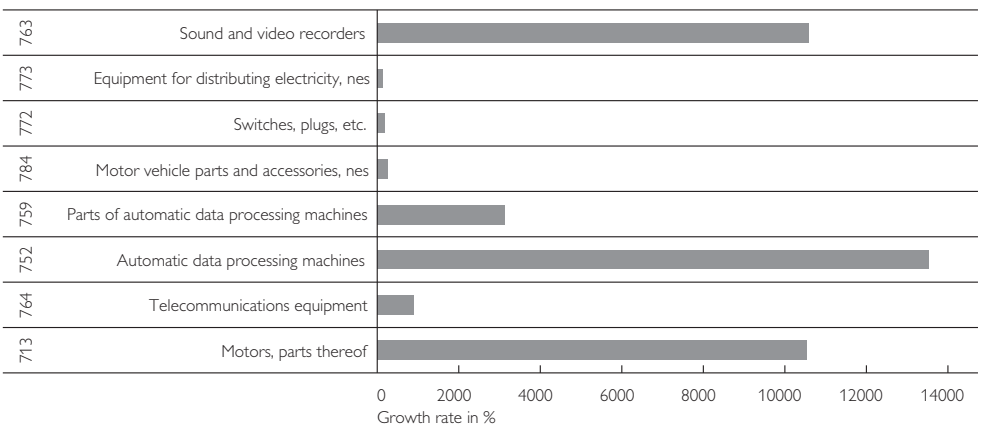
Specialization will help the new Member States to maintain high export growth rates. However, the decreasing degree of diversification leaves these countries increasingly vulnerable to adverse shocks. Viewed from the perspective of the former EU Member States, in particular Austria and Germany, the question of interest is whether an increasing degree of concentration of exports from the new Member States is likely to crowd out production and employment in their midst.

Dalia Marin provides a multi-faceted answer. The outcome of the process depends on whether the associated cross-border shifts in production capacity are horizontal in

Chart 1

Export Dynamics of Hungary vis-à-vis EU-15,

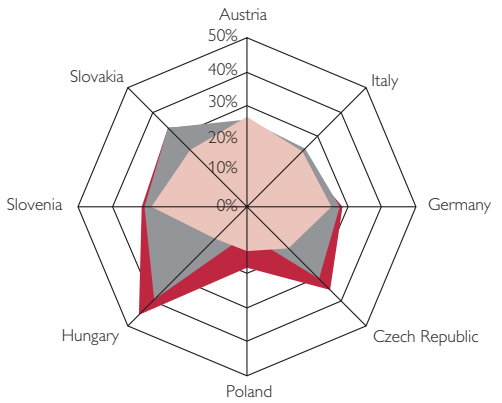
Growth Rates for 2001 versus 1996



Source: ESCE, IHS.

Chart 2

Concentration of Manufacturing Exports



Source: ESCE, IHS.

nature or vertical. Horizontal foreign direct investment means that multinationals produce the same or similar products in their East European affiliates, the driving force behind this kind of investment being market access considerations. Vertical foreign direct investment, by contrast, means that multinationals re-organize the value chain in such a way as to maximize the benefit from factor price differentials across production sites in different countries. Outward investment in the new Member States thus means the outsourcing of the labor intensive part of production to a low wage country in Eastern Europe. Thus, a vertical foreign investment leads to an increase in the wage of skilled workers relative to unskilled workers, or, under a regime of rigid wages, to an increase in unemployment in the EU-15 area.

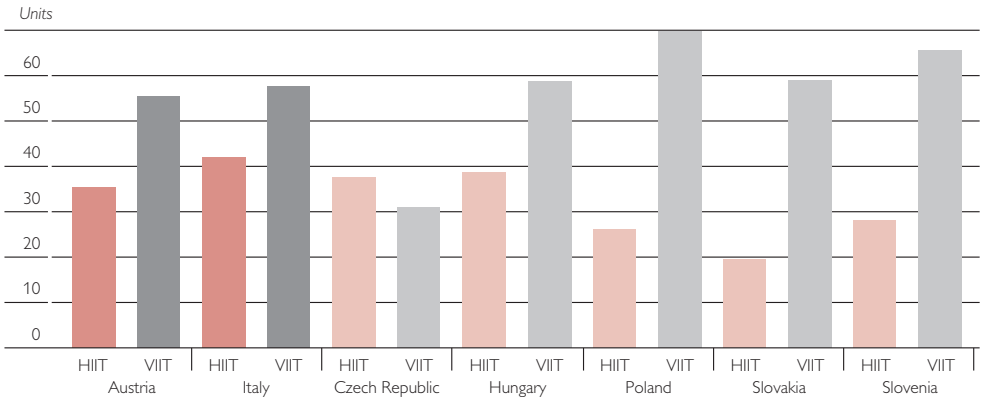
While Dalia Marin focusses on the foreign direct investment part of the process, an analysis of trade data provides corroborating evidence, as shown by chart 3: vertical intra-industrial trade (VIIT) plays a major role in overall intra-industrial trade in all the countries referred to in chart 2. Compared to the role of horizontal intra-industrial trade (HIIT), vertical intra-industrial trade is particularly dominant in Slovak and Polish exports. How do these results compare with Dalia Marin's findings on the outsourcing activity of multinationals? According to her results, the Slovak Republic and Romania appear to be the premier destinations for cost advantage seeking outward investment. In fact, these two countries also feature a particularly pronounced role of vertical intra-industrial trade relative to horizontal intra-industrial trade. Contrary to the results derived from the analysis of foreign direct investment, in the case of Poland, however, the analysis of trade data appears to point towards a more important role of cost advantage seeking investment.

Let us now turn to the second topic, foreign direct investment and its impact on job creation and job destruction. Irrespective of the preceding considerations, the situation

Chart 3

Intra-Industry Trade Drivers:

Horizontal (HIIT) versus Vertical Specialization (VIIT)



Source: ESCE, IHS.

confronting Austria and Germany may be more challenging than is widely believed.

A simple analysis suggests that there are reasons to believe that a considerable tilt of the skilled-workers/unskilled-workers ratio in favor of the new EU Member States is likely. Following Galor and Stark (1994), consider a small, open, technologically advanced economy that operates in a competitive world in which economic activity extends over an infinite discrete time. The supply of efficiency labor in every period is due to the aggregate investment in human capital in the preceding period. A member of generation t who is born in an economy with an *average* level of human capital h_t secures, by investing real resources, h_{t+t} units of human capital. If, prior to integration, a technologically superior economy is characterized by a dynamical system with multiple steady-state equilibria and is positioned to the right of a specific minimum average level of human capital, integration affects the economy in one of the following ways.

First, integration may impinge on the average level of human capital through cross-border migration.

(a) If migration is not large enough or if the average level of the human capital of the incoming migrants is not sufficiently low so as to reduce the average level of human capital of the host economy, then, compared to the alternative, that is, no migration, integration reduces the average level of human capital at every point in time during the transition period, yet the long-run average human capital remains unchanged. This is the optimistic scenario.

(b) If the conditions in (a) above do not hold, however, then migration reverses the evolution pattern of the economy. The economy steps onto a path that will ultimately lead to a lower average human capital steady-state equilibrium, which is equivalent to a low skill, low income equilibrium. Along the path the average human capital level at every point in time is lower than the level that would have been

achieved in the absence of migration. This is the harsh scenario.

Second, integration may impinge on the resources available for human capital formation.

(c) If, as hypothesized in Dalia Marin's paper, "in skill poor Austria both trade as well as the outsourcing activities of firms to skill rich Eastern Europe should have led to a decline in relative wages for skills in Austria," and if "skill poor Austria specializes in the labor and raw material intensive sectors leading to a relative decline in the demand for skills in Austria" (p. 37), integration implies that even for the present level of human capital, Austria and, for that matter, Germany as well, may find themselves on a path to a low skill, low income equilibrium. Of course, one may – and I do – have considerable reservations whether Austria is in fact a skill poor country – the comparatively low share of the labor force with tertiary education is not a sufficient statistics to draw this conclusion. This reservation notwithstanding, the essence of the analysis remains unaffected – integration may change the factor endowments of a country, including the depletion of its supply of skilled workers.

(d) Along with a declining supply of skilled workers in, say, Austria, there is likely to be a rising supply of skilled workers in the new Member States. In a series of papers (Stark et al., 1997 and 1998, Stark and Wang, 2002) it was shown that under specific conditions a strictly positive probability of employment abroad – in the present context the term "abroad" refers to the former EU-15 area – raises the level of human capital formed by workers in the country of origin, that is, in the new EU Member States. The prospect of migration induces workers to optimally acquire more human capital than they would have chosen to acquire absent such a prospect. While a fraction of the labor force will migrate, "taking along" more human capital than had they migrated without factoring in the possibility of migration (a form of a brain drain), others will stay at home with more human capital than they would have formed in the absence of the possibility of migration (a form of a brain gain). The papers cited above provide conditions under which the brain gain is larger than the brain drain. Hence, the country of origin, that is, the new Member States, can end up with a higher average level of human capital per worker than without integration cum feasible migration, thereby further increasing their supply of skilled workers.

The migration prospect is not necessary, however, to induce higher human capital investment. The possibility of being employed by a multinational firm located in a new Member State may well substitute for the migration perspective. Dalia Marin's paper provides illuminating evidence. Average wages in the second round accession countries relative to Germany amount to just 10.4%, while wages paid by multinationals amount to 18.6%. Being employed by a multinational may thus offer a significant premium rel-

ative to the average wage paid in the accession countries, implying an inducement effect for human capital formation similar to the one stemming from a migration possibility. The accelerated formation of human capital triggered by foreign direct investment may compound the pressure on high-skill jobs in Austria and Germany. Apparently, these countries may well find themselves involved in a race for human capital formation to avoid the fate of ending up specializing in the production of labor-intensive and raw materials-intensive goods.

Turning now to the policy implications of this analysis, I concur with Dalia Marin's conclusion that R&D subsidies will not only be ineffective but even counter-productive, a waste of scarce public resources. A complementary short-term solution could well be the liberalization of immigration, provided that it is highly skill-selective.

The results of Dalia Marin's econometric analysis, provided that they will turn out to be robust, have a far-reaching implication for the enlargement of the euro area. If outward foreign investment activity of Austrian and German multinationals has helped "these firms to stay competitive" such that "affiliate jobs in the new Member States appear not to compete with jobs in Austria and Germany," then a premature introduction of the euro in the new Member States would have a strong negative impact on Austrian and German labor markets. As long as some country-specific inflation rates (and, for that matter, wage increases) exceed the euro area average significant, a fixed exchange rate regime will quickly erode the cost advantage of the new Member States. This in turn may, due to the complementarity between the labor demand of multinationals in the new Member States and in the former EU-15 area, lead to sizable job losses and thus impose an additional burden on the Austrian and the German labor markets. ❧

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Oesterreichische Nationalbank

Introduction

Ladies and Gentlemen, again a very good – late – morning. It's a great pleasure for me to welcome you to the 3rd keynote speech of our Economics Conference. To start with, I would first like to welcome back, if I may say so, Commissioner Monti. I appreciate very much that you are joining us also this morning and I would like to thank you very, very much again for your excellent presentation yesterday. As far as I can tell from today's newspapers, your speech was well received and given broad coverage. Furthermore, it's a personal joy, if I may say so, to say welcome back to Mrs. Tumpel-Gugerell, former Vice Governor of the Oesterreichische Nationalbank who has been a member of the Executive Board of the ECB for about one year now; we appreciate very much that you are joining us this morning, Gerti, welcome. And of course it's a privilege and honor for me to welcome the third keynote speaker of our conference, Otmar Issing. First of all, a very warm welcome to you, many thanks that despite your full agenda, you were able to find the time to join us here in Vienna for our conference. What my colleagues in the Governing Council of the ECB and I particularly appreciate about you is your profound work

and your profound knowledge. We highly value your excellent analyses and your work as a whole, and I really would like to take this occasion, Otmar, to express my sincerest thanks for the work you have been doing and you will be doing in the future for the benefit of monetary union and our monetary policy. So, again many thanks for joining us for this seminar, I very much appreciate your attendance. ❧

Otmar Issing

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The Euro and the Lisbon Agenda[1]

1 Introduction

When the European Council agreed on the so-called Lisbon agenda in March 2000 the EU had witnessed a period with high real growth rates. "The Union is experiencing its best macro-economic outlook for a generation", the Council concluded at the time. Against this background, the Lisbon European Council set itself its well-known strategic goal[2] to be reached by 2010 and defined a broad agenda for structural reforms in labour, product and financial markets. Four years later, real GDP growth has dropped to significantly lower levels. So far, many structural reforms have been found difficult to implement and the Lisbon agenda's mid-term goals for 2005 are unlikely to be reached.

In the following, I would first like to draw attention to the economic benefits of structural reforms and highlight where deficiencies in their implementation have become particularly obvious. I will then concentrate on two aspects regarding the Lisbon agenda, which I consider as being of particular interest from the viewpoint of the single monetary policy. First, I would like to focus on the ways in which structural re-

[1] *I thank Nadine Leiner-Killinger and Giovanni Vitale for their valuable contribution.*

[2] *Namely, "to become the most competitive and dynamic knowledge-based economy in the world capable of sustainable economic growth with more and better jobs and greater social cohesion" by 2010.*

forms change the economic environment in which the single monetary policy is conducted. Second, I would like to highlight how in turn monetary policy can support the Lisbon process. Third and finally, I will argue that exploiting the euro area's growth potential with the help of structural reforms will contribute to global economic growth and is thus indispensable for reducing existing global economic imbalances.

2 Main Elements of the Lisbon Agenda

Let me first briefly explain why the European countries must proceed with structural reform and why we continuously ask euro area Member States to step up their reform efforts in this regard. Well-designed structural reforms increase the mobility of production factors between different uses and improve their allocation in an economy towards their most efficient use. In doing so, structural reforms raise factor productivity, open up additional employment opportunities and allow for lower prices of goods and services. Exploiting the opportunities of such a more efficient allocation of production factors will eventually allow an economy to achieve a higher real income and a higher sustainable long-run growth path.

In the last decade, euro area countries have made considerable progress with reforms in labour, product and capital markets, varying, however, considerably across countries. Among the outcomes were a higher level of competition in product markets due to, for example, a lower level of state aids and regulatory reform in network industries that resulted in substantial price reductions as well as in higher activity. For example, between 2000 and mid-2003 alone, the price decline in telecommunication services as measured by the HICP sub-index for telecommunications led to a cumulated downward effect on total HICP inflation of 0.33 percentage point.[3] Moreover, its positive effect on real activity supported the creation of new jobs. At the same time, labour market reforms undertaken during the 1990s seem to have contributed to the strong employment growth and to the considerable decline in unemployment in many countries during the cyclical upswing between 1997 and 2000. Reform measures in this field included, for example, improvements in countries' job mediation systems, a more intensive use of part-time work contracts as well as policies raising the efficiency of tax and benefit systems.

With the so-called Lisbon agenda the European Council intends to reinforce these reform efforts. It identifies various areas for further reform, summarised under employment, research and innovation, the single market, social cohesion as well as sustainable development and the environment. I think we all agree that stepping up structural reforms in these areas is indispensable for improving the euro area's unsatisfactory growth potential and its ability to create employment, even more so after the EU has been enlarged to countries that have substantially lower labour costs.

The euro area's insufficient flexibility is manifested in the high rate of unemployment, which amounted

[3] *See European Central Bank (2003).*

to 8.9% in 2003. This reveals shortcomings in the implementation of structural reforms that would improve the use of the euro area's productive forces and increase their flexibility in response to economic shocks. It is thus crucial that the Lisbon agenda's impetus is maintained, which must manifest itself in increased efforts to reach the agenda's 2010 targets. There is, however, still a long way to go. For example, raising the euro area overall employment rate to 70% by 2010 can be expected to require an additional 15.3 million jobs, although hiding significantly varying challenges for different groups in the labour market. Whereas, for example, significant progress has been made in raising female employment, employment growth for older workers aged 55 to 64 would have to substantially exceed its annual average of 1.7% between 1996 and 2002 to achieve the employment target for older workers of 50% by 2010.

Making the Lisbon agenda a success requires therefore particular efforts in the field of labour market reform to open up additional employment opportunities. At the same time, further structural reforms need to increase the prerequisites for innovation, research and development, particularly by providing educational attainment levels adequate for labour market needs. Furthermore, a continuation of reforms in capital markets, a removal of barriers to competition particularly in the service sector as well as further liberalisation in electricity, postal services and transport as envisaged in the Lisbon agenda is needed.

I would like to conclude this part of my speech with three remarks:

First, trust in the course of structural reform as fostered by the Lisbon agenda and a better understanding of the economic benefits structural reforms entail are conducive to raising consumer confidence and private consumption. It is thus indispensable to maintain trust in this course, and to keep commitments also in periods with slower growth.

Second, numeric targets seem to me currently the central measure to

benchmark progress with structural reforms. As numeric targets increase necessary pressure for underperforming countries, it should be considered to strengthen this instrument.

Third, as we all know, the implementation of changes in long-grown relationships is always a difficult task. When asked for their willingness for reform in general, a large part of the population would probably signal a high degree of approval. But as soon as a concrete measure would harm the personal status-quo, only a minority would agree. The main challenge for the Lisbon agenda's success is thus to persuade the people of the long-term benefits of structural reforms and to remove the scepticism with respect to short-term costs. In this regard, also the ECB plays its part in its communication on the benefits of structural reforms.

3 The Impact of Structural Reforms on the Conduct of Monetary Policy

Let me now turn to the discussion of the implications that the implementation of the Lisbon agenda may have for the conduct of monetary policy in the euro area.

The ECB has always stressed the importance of a swift implementation of structural reform agendas across the euro area. This reflects above all the firm belief that structural reforms enhance the welfare of the European citizens.

However, structural reforms also tend to facilitate monetary policy and increase its effectiveness. A more flexible economic environment helps the labour and product markets to better adjust to economic shocks and respond to policy actions more quickly. For example, more flexible labour markets may imply that negative supply shocks are absorbed with a smaller short-term increase in inflationary pressures, as second round effects are more subdued. This, in turn, allows monetary policy to react less strongly. Such an environment will not only make it easier for monetary policy to maintain price stability, but it will also help to keep the volatility of inflation and output lower.

But there are also challenges for the central bank, arising from the uncertainty related to the changed economic environment in which monetary policy operates. More precisely, structural reforms may change the rules governing the dynamic evolution of the euro area economy and the transmission mechanism of monetary policy actions in ways that are difficult to identify in the short run. I shall try, now, to elaborate on this more in detail.

Normally, economists think about structural reforms as having positive supply effects that allow firms to increase their productivity, while at the same time fostering aggregate demand. From the point of view of the monetary policymaker who adopts a forward-looking strategy, understanding the nature of the changes in the supply potential of the economy is crucial for assessing to what extent such shocks have an impact on price stability. Moreover, changes in potential output growth can impact on the determination of the equilibrium real interest rate, as well as on the optimal time path towards such an equilibrium real rate.

A first approach is to outline these issues under the simplifying assumption that the potential output and the real equilibrium interest rate can be estimated with a high degree of precision. In case the positive supply shock leads only to a one-off increase in the level of potential output, but not to a permanently higher output growth,[4] the equilibrium real rate would not change. However, when the shock is permanent,[5] and leads to higher potential output growth the return on capital will increase and the equilibrium real interest rate will follow. This implies that in the long run policy rates need to be higher than otherwise.

[4] *For example, through a one-off increase in employment and/or labour productivity due to a more flexible labour market that allows workers to be reallocated more efficiently.*

[5] *For example through higher trend productivity growth resulting from the increased ability of firms to adopt new production technologies in a more flexible economic environment.*

Once the possibly new equilibrium interest rate and potential output growth are pinned down, the central bank has to set interest rates by taking into consideration a large set of other indicators, including the short-term interactions of aggregate demand and supply. In case of a positive supply shock actual and potential output accelerate simultaneously only if demand and supply effects emerge at the same time and are of the same magnitude. If this was the case, and other things being equal, monetary policy would essentially need to align short-term rates with the higher equilibrium real interest rate which is consistent with the permanently higher potential growth. In a different situation, for instance when supply effects dominate in the short run,[6] the increase in productivity and potential output levels brought about by structural reforms will often tend to reduce short-term inflationary pressures. In this case, the central bank would be in the position of eventually adjusting short-term rates more gradually towards the higher equilibrium as long as potential GDP temporarily expands more rapidly than demand and, consequently, inflationary pressures remain muted.

Everything just said, however, presumes that concepts like the precise level of the equilibrium interest rate, the natural rate of unemployment or the potential output are observed or estimated with a sufficient degree of confidence by the central bank. In reality this is not at all the case. Monetary policy decisions that have to be taken in real time and without the benefit of hindsight, will always face a particularly high degree of uncertainty when long-run trends in macroeconomic variables change, and also the fundamental relations linking macroeconomic variables change in ways that could render existing models of the transmission mechanism unreliable. In such a situation, monetary policy decision-making calls for great caution and any kind of mechanistic reactions, in particular to indicators whose developments are very difficult to interpret, should be avoided.

It seems plausible that in such an environment of high uncertainty, monetary policy is more efficient by assigning a more prominent role to indicators that can be more precisely measured or estimated rather than concepts that can only be estimated with a high degree of uncertainty. This is one of the reasons why typically, central banks do not rely on output gap estimates. Furthermore, when cross-checking all the available information, the central bank must carefully take into consideration the possibility of structural breaks in historical relationships as well as the signals sent by different models in the context of various types of approaches. In the end, when assessing the appropriateness of its monetary policy stance against the prospects of achieving its medium-term objective, the central bank has to make sure to incorporate all the information embedded in the economic and monetary analysis.

The ECB's monetary policy strategy was designed precisely with the aim of ensuring that in the assessment of risks to price stability no relevant information would be lost

[6] *Because consumers smooth their expenditure or credit-market imperfections constrain them to borrow against (higher) future expected income.*

and that appropriate attention would be paid to different analytical perspectives. Its two-pillar approach is a way of conveying to the public the notion of a diversified analysis and of ensuring robust decision-making in an environment characterised by high uncertainty.

This approach also allows the ECB to assess the impact of structural reforms on both the cyclical and the more long-term components of the inflation process in the euro area. As noted before, in case reforms increase potential output growth in the euro area, the ECB will take into consideration the short-term relative developments in aggregate demand and supply. Furthermore, it will have to assess its assumptions for the desirable medium-term evolution of monetary aggregates if potential growth were to change.

Let me give you an example that goes back to 2001, when in the context of the well-known debate about the emergence of a possibly *new economy* the Governing Council decided to assess potential changes in trend productivity growth in the euro area and its implications for the reference value for monetary growth. The conclusion in December 2001 was that there is no decisive evidence of measurable and lasting increases in productivity growth in the euro area that would warrant an upward revision to trend potential growth.[7] The Governing Council therefore opted in favour of a rather cautious attitude and, with the benefit of hindsight, was correct to do so, thus avoiding a possible policy mistake.

4 Price Stability and the Lisbon Agenda

I would now like to outline what the ECB can contribute to support the implementation of the Lisbon agenda. In short, it can contribute by maintaining price stability and by helping to safeguard financial stability as contributions to a stable macroeconomic environment. In such a stable macroeconomic environment, structural reforms will be easier to implement. Let me explain this relationship by looking at some aspects of price stability.

- First, price stability preserves and bolsters consumers' purchasing power, thus supporting consumption.
- Second, price stability enhances the efficiency of the market system in allocating resources, by making it easier for people to recognise changes in relative prices.
- Third, price stability avoids additional menu costs, i.e. production costs occurring when printed prices have to be changed.
- Fourth, price stability is associated with lower uncertainty and risk premia in financial markets, facilitating financial actions and ultimately implying lower medium and long-term interest rates, fostering investment.

[7] *"... The Governing Council believes that the potential upward impact on trend output growth from structural reforms and technological innovation could be large. However, while some progress has been made in the field of structural reform, significant further steps – especially in the labour and goods markets – need to be taken in order to achieve a permanent and significant increase in potential output growth in the euro area. Against this background, the Governing Council will continue to monitor the evidence with regard to developments in productivity growth in the euro area, and the ECB's monetary policy will take such evidence into account as appropriate." See ECB Press Release from December 6, 2001.*

– Fifth, price stability provides markets with an indispensable nominal anchor for adjusting changes in wages consistently with productivity growth.
– Sixth, price stability prevents the considerable and arbitrary redistribution of wealth and income that arises in inflationary as well as in deflationary environments.

In this regard, price stability is a vital element of fostering sustainable growth and of supporting employment and social cohesion, thus supporting the Lisbon process in achieving its objectives. Moreover, as price stability helps to guide economic agents in their decisions to move production factors towards more efficient uses it should help structural reforms to exploit their welfare-enhancing benefits. As an additional aspect, within an environment of stable prices, a decline in relative prices in some sectors resulting from structural reforms would become more visible, supporting acceptance of such reforms. Price stability is thus the most important contribution of monetary policy to the Lisbon process.

Empirical estimations show that even rather low rates of inflation can lead to welfare losses that might be larger than expected. A study for the United States, for example, indicates that a permanent increase in the inflation rate from 0% to 4% can lead to permanent output losses ranging from 0.4% to 1.1%.[8] There are, however, several arguments that support basing a definition of price stability on positive but low inflation rates. The ECB has thus provided a quantitative definition of price stability, namely a year-on-year increase in the HICP for the euro area as a whole of below 2% to be maintained over the medium term. Looking back, over the last five years, despite significant exogenous shocks the ECB's stability-oriented monetary policy following this definition has resulted over the medium term in low and stable inflation. And it has ensured that medium and long-run inflation expectations have been well anchored. Monetary policy has thus delivered its necessary contribution to a stable macroeconomic environment supporting the implementation of structural reforms.

The ECB's and the ESCB's contribution to a stable macroeconomic environment by promoting financial stability is perhaps less well-known but also important. This task is crucial as a well-developed and stable financial system improves the efficiency of financing decisions, favours a better allocation of investment in and among economies and thus supports economic growth. This was also recognised by the Lisbon Council when it called for accelerating the completion of the internal market for financial services and to "exploit the potential of the euro" in achieving this aim. The tasks of the ESCB in this regard consist of systematically monitoring financial stability conditions in the EU and euro area countries. This monitoring particularly aims at identifying potential sources of vulnerability in the financial system of the euro area and the EU and to assess its resilience to shocks.

To sum up, maintaining price stability is a vital contribution to foster non-inflationary sustainable

[8] *Dotsey and Ireland (1996).*

growth and, together with financial stability, supports a stable macroeconomic environment, within which structural reforms can fully exploit their welfare-enhancing effects. Maintaining price stability and promoting financial stability is thus the assistance monetary policy can render to the Lisbon agenda's reform efforts.

5 Global Aspects

Increasing the euro area's insufficient growth potential and its ability to adjust more flexibly to changes in economic variables becomes particularly important against the background of globalisation. This is even more the case as over the last years the international trade in goods, capital and services has witnessed imbalances. These imbalances are signalled by, for example, the persistent US current account deficit, which amounts to around 5% of GDP. This is connected with an increase in US net liabilities vis-à-vis the rest of the world from 5% in the early 1990s to roughly 23% of GDP at the end of 2002.

These imbalances will finally have to be corrected. An adjustment can, however, be brought about in several ways: First, the deficit country's growth rate could decline relative to growth rates in the rest of the world. This would, among others, reduce this country's demand for foreign goods and services, potentially hampering real growth because of reduced exports elsewhere in the world. Second, the global imbalance could be diminished by an acceleration of growth in the rest of the world as this would lead to an increased demand for the deficit country's exports. The more flexible the adjustment to declining global imbalances is, the more orderly the necessary adjustment can be brought about, meaning with less and less sudden disruptions in key economic variables.

One may conjecture that, with its net outflows of goods and capital, part of the adjustment will also fall upon the euro area. In the United States a view seems to prevail, which one could paraphrase with a previous statement by the then US Treasury Secretary Connolly with respect to the US currency: "It may be our deficit, but it is your problem". One characteristic of this "problem" is the large outflow of investment capital from the EU and the euro area towards other regions in the world and the US market in particular. One reason for the large flow of capital towards US markets in the second half of the 1990s were surely exaggerated expectations with regard to the *new economy*. Considering only investment since 1997, rough estimates indicate that EU investors have incurred tremendous losses, ranging from EUR 200 billion to EUR 540 billion until mid-2002. However, the large aggregate outflow of capital from Europe should be taken as a sign for its insufficient attractiveness for internationally mobile capital.

Having said this, the euro area can support the reduction of global imbalances by a much stronger contribution to global growth. This requires that the euro area exploits its growth potential and becomes a more attractive place to invest. Again, this calls for improving the functioning of labour, product and capital markets, as their partly insufficient flexibility has been found to act as impediment to investing in several euro area economies. Raising

the rate of investment with the help of structural reforms is therefore not only a crucial measure to increase the euro area's ability to adjust to declining global imbalances. By allowing them to achieve higher sustainable growth rates structural reforms also contribute indirectly to global growth and thus to reducing global imbalances.[9]

6 Conclusion

The Lisbon agenda presses EU countries to make their homework in the field of structural reform. However, whereas some progress has been made, deficiencies remain, particularly in the labour and service markets. Reforms in labour markets have, however, been found hardest to implement and are most of the times accompanied by tensions. I hope Olivier Blanchard will be right in the end with his assessment that these tensions "are a symptom of change, not of immobility".[10]

The Lisbon agenda has been crucial for raising Europe's attention to the necessity for further structural reforms. Countries now have to implement well-designed policies that remedy the root causes of their particular problems in labour, product and financial markets. These structural reforms will improve the environment, in which the stability-oriented monetary policy is conducted. In turn, this process of reform can best be implemented within a stable macroeconomic environment in which microeconomic policies can fully develop their welfare-enhancing effects. The single monetary policy will continue to play its part in this respect by maintaining price stability and by promoting financial stability. ❧

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[9] *See for a further discussion of this topic Issing (2004).*

[10] *See Blanchard (2004).*

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Structural Reforms and Fiscal Sustainability

1 Challenges Ahead

The central challenge common to all EU Member States over the next few years is to safeguard the sustainability of welfare systems and government finances in conditions under which the economic environment is changing rapidly. These changes relate to the ageing of the population, technology and globalisation. Each of these factors of change is a big challenge in its own right – in combination they impose strong demands on Europe's economic performance and policy.

As the population ages, the labour force in Europe is heading into a pronounced and prolonged decline. The elderly dependency ratio, i.e. the number of labour force outside employment to those with jobs, is weakening substantially in many EU countries. Concurrently life expectancy is lengthening and the old-aged portion of the population is growing. To offset the negative impact of ageing populations on labour force, a substantial rise in the employment rate and productivity in Europe is necessary in order to finance the welfare expenditure without jeopardising the sustainability of government finances.

Rapid technological development means that productivity growth will be based more closely than ever before on human capital. New technology has strengthened the importance of high competence and lifelong learning as key factors for productivity growth at the expense of traditional capital investment. Achieving benefits from technology does not only require more investment in education, research and development but also calls for the flexible allocation of resources. An economy with flexible structures fosters economic growth and higher productivity by facilitating the transfer of resources to new and fast-growing fields. Great demands are placed on the functioning of labour markets in particular as jobs are created and destroyed at a fast rate.

Globalisation can be broadly defined as the integration of national markets into a large interdependent global economy. Globalisation has accelerated, particularly in the 1990s, hand in hand with technological development but also as a consequence of deliberate political choices. As in the case of technological development, the importance of human capital and competence has grown in the global economy. This has also changed the pattern of globalisation significantly from the past. For industrial countries globalisation has meant to a great extent the rise of multinational companies investing in low cost countries in low-skilled production mainly for export markets. Today emerging markets compete with very low costs, high skills and rapidly-growing domestic markets.

In many respects the ongoing phase of globalisation can be characterised by quantitative and qualitative change which poses new challenges to industrial countries. The quantitative change derives from the fact that five giant countries – China, India, Brazil, Mexico and Russia – have joined the global open market economy during the last two decades. These countries have a combined population of over 2.5 billion, which in itself represents a considerable impact on the development of the world economy, competition and balance of power.

The shift in the balance of power in industrial production can be illustrated by East Asia's becoming the industrial workshop of the world. Its contribution to the world's industrial production has risen from 15% to 35% over the past few decades. At the same time, Europe's contribution has fallen from around 20% to 13%. The flow of direct investments to East Asia has also burgeoned, increasing by a factor of five between 1990 and 2000. These developments have increasingly spurred discussions about a new phase of globalisation implying rapid outsourcing and offshoring of industrial activities, flight of jobs to China and India and deindustrialisation of Europe.

The qualitative shift in globalisation can be illustrated by the relocation not only of industrial production but increasingly also research and development, corporate information management, product design and services to emerging economies. This is supported by the emergence of complex corporate networks where traditional way of producing goods and services in a particular location is increasingly translated into coordination and management of component and service production in different regions.

This new phase of globalisation poses significant challenge for industrial countries to adapt to a changing environment. At the same time, with good adaptability growing markets in large emerging countries provide increasing opportunities. The main challenges facing Europe as well as other industrial economies involve adapting to the fact that today's global market and rapid technological advances have brought changes in the relative standing of production factors. Labour with the highest level of competence is becoming the most important resource. Countries and regions compete for this kind of labour, which has also become more mobile. The capacity of economies to create, attract and retain competent labour is crucial to their long-term growth and prosperity.

In March 2000, Europe's leaders committed themselves to a ten-year programme, designed to make the European Union "the most competitive and dynamic knowledge-based economy in the world" by 2010. The strategy was intended to deliver "an average growth rate of around 3%" in the years following 2000, and to re-establish the conditions for full employment, reflected in a 70% EU employment target and increased participation rates by 2010.

When the Lisbon strategy was launched, the need to ensure long-term fiscal sustainability in the face of population ageing and growing expenditure pressures as well as Europe's lagging productivity and employment growth relative to the USA were regarded as major factors underpinning the necessity to raise Europe's growth potential and competitiveness. Even though the Lisbon strategy has not yet delivered the success Europe's leaders hoped for, its implementation has became even more crucial in the new phase of globalisation. Structural reforms that improve the capacity of European economies to adapt better to changing environment are unavoidable for the governments in order to be able to provide high quality welfare services to their citizens and deliver the promised long-term obligations for the greying population.

2 Growing Tensions in the Financing of the Welfare State

The change in the population's age structure puts public finances under strong pressures at least for three reasons. First, increasing pension and health care expenditure lead to higher public expenditures. Second, a decreasing labour force will slow down economic growth potential and tax revenue, if productivity growth and the employment rate cannot be raised enough to compensate its negative impact. Third, international tax competition as well as the need to raise employment rate imply the need to lower tax burden on capital and labour in several EU countries. The pressures for lowering tax burden is hardly compatible with mounting expenditure pressures and the need to keep public finances on a sound footing.

Long-term projections based on demographic change show that largest increases in public spending on pensions, health care and long-term care will occur between 2010 and 2030 in most EU countries. The projections of the Economic Policy Committee indicate that the ageing of population will lead to an increase in public spending of between 3 and 7 percentage points of GDP by 2050, if no corrective policy action is taken (Economic Policy Committee, 2003; see also OECD, 2001 and 2003, Dang et al., 2001). These projections also show that expenditure increases are largely driven by the increase in old-age dependency ratios. Potentially offsetting savings in education and unemployment expenditures are likely to be small (relatively).

On the basis of the expected population change McMorrow and Roeger (2003) estimate that ageing is expected to reduce the annual average growth rate by around 0.40 percentage point for the EU and Japan and by around 0.25 percentage point for the USA. Potential growth rate over the period from 2000 to 2050 is expected to fall to 1.3% for the EU and to slightly below 1% for Japan. This is markedly less than in the USA, where annual average growth rates of 2½ percent are predicted over the next 50 years, driven by continuous growth in the working age population contrasted to the declines in the EU and Japan.

Finally, and independently of the population ageing, pressures for higher public expenditures stem from the so called Baumol disease, the impact of which is usually ignored in the long-term expenditure projections. The question here is that long-term calculations are often based on the assumption that productivity growth in the private and public sectors are more or less the same and that real wages in both sectors increase at the same pace determined by the average productivity growth. However, since the productivity growth in the public sector tends to be much lower than in the private sector while real wages tend to grow at the same pace in the long run, public consumption expenditures are bound to increase much faster than the total output of the economy. This implies ever growing share of the public sector and increasing pressures for financing public services, even in the case where the volume of services is kept unchanged.

3 Pension Reforms and Sustainability of Public Finances

Reducing public debt and maintaining sound fiscal positions in accordance with the requirements of the Stability and Growth Pact (SGP) are necessary for the fiscal sustainability. Long-term projections show clearly that the risk of unsustainable public finances increases considerably if EU countries do not achieve and maintain their budgetary positions of "close to balance or in surplus" as envisaged in the SGP in the coming years. As the budgetary impact of ageing starts to take hold between 2020 and 2030, there is a limited, but fast closing, window of opportunity to reduce debt levels.

To contain expenditure pressures several EU countries have undertaken reforms in their pension systems. In many countries these reforms are still lacking or have not been ambitious enough to ensure

the sustainability of public finances and pension systems (Casey et al., 2003, European Commission, 2004).

When assessing the adequacy of pension reforms from the point of view of fiscal sustainability, the EU simulations (Economic Policy Committee, 2003) on the budgetary impact of certain types of parametric reforms to pension systems provide a useful starting point. Three areas of parametric reforms are considered: indexation of pensions, increase in life expectancy and effective retirement age.

Since there is no unique definition for long-term sustainability of public finances, a pragmatic and narrow definition used in the context of the EU is followed here, i.e. sustainability is defined as the ability to meet the EU Treaty reference values for general government gross debt (60% of GDP) in the short and long term without raising the overall tax ratio. However, in a broader sense sustainability is not just a question of meeting the EU Treaty reference values but also whether the current tax ratio is sustainable in the long term taking into account international tax competition and objective to raise employment rate.

According to the simulation results, a reform where indexation of pensions is reduced by half a percentage point per year would decrease on average 30% of the expected increase in pension expenditure by 2050 in earnings-related pension systems. In flat rate systems the effect of indexation is even greater. The adjustment to benefits in line with expected increase in life expectancy at the age of retirement would, on average, reduce 45% of the expected increase in pension expenditure. These types of parametric reforms would contain expenditure pressures, but they would also mean that the benefit ratio gradually decreases.

Finally, the simulations show that raising the effective retirement age by one year would on average decrease around 20% of the expected increase in pension expenditure by 2050. This type of a reform has also a positive impact on the labour supply and economic growth.

Unlike the reduction in indexation and adjustment to benefits in line with expected increase in life expectancy, the increase in the effective retirement age would not reduce the benefit ratio and thus would help to maintain adequacy of pension income. In order to offset the impact of expected higher life expectancy on pension expenditure without reducing benefits, the effective retirement age would have to rise on average by two to three years.

In sum, the results indicate that all parametric reforms in simulations have a significant impact on expected pension expenditure. It is however clear that individual reforms taken on their own would only partially absorb the expected increase in pension expenditure by 2050. Comprehensive pension reforms are therefore necessary for fiscal sustainability, but also to ensure the adequacy of the future pension income.[1]

[1] *See also simulations carried out for the EU-15 on an aggregate level by European Commission 2001.*

4 Structural Reforms Necessary for Higher Growth and Productivity

Although debt reduction and pension reforms are very important for fiscal sustainability, they do not help Europe to raise its growth potential and competitiveness. Reform areas important for growth involve trade, financial markets, product markets, labour markets, as well as tax and benefit systems (including pensions) and public sector.

Trade liberalisation has been in general the first and most advanced reform area, followed by liberalisation of international capital movements and financial markets. Evidence that membership in the EU in general, and the creation of the Single Market in 1992 and Economic and Monetary Union (EMU) in 1999, in particular, have fostered reforms in these areas is clear.

Despite important progress in trade and financial market reforms, much more needs to be done in order to meet the targets set in the Lisbon strategy. Raising productivity, potential growth and employment in Europe implies structural reforms that reduce labour market rigidities and price inflexibility as well as impediments to competition and innovation. In general, these reforms entail measures that improve the functioning of markets by changing institutional frameworks and regulations than govern market behaviour and performance. Very often structural reforms can be boiled down to various forms of deregulation.

Potential growth is determined by the changes in productivity and labour input. As ageing tends to lower productivity growth additional measures are needed to improve total factor productivity even to keep productivity at the current level. If Europe wants to improve its competitiveness in the globalised world higher productivity growth is needed.

Total labour input depends on employment and hours worked. There has been a long trend in Europe of decreasing working time. So far this has not been a constraint for growth as increasing labour supply has offset the negative impact of shorter working hours. In the future the situation will change for the worse as the supply of labour will decrease when large age cohorts are retiring and smaller age groups are entering the labour market. To combat these two trends reducing labour input and potential growth in the future, reforms that increase average working life and working time are required. Since labour input will diminish anyway, productivity growth becomes critical for potential growth.

A common quest for structural reform and deregulation does not however mean that all regulation is harmful and should be abandoned altogether. Many of the regulations at the national and EU level have been adopted in order to address problems related to market failure and inefficiency or due to consumer protection, health, security and environmental reasons. Government regulations, if appropriately designed to minimise risks of government failure, can prevent harmful market outcomes and are thus beneficial.

Finally, to tackle the Baumol disease and to constrain the pressure for increasing unit costs in the public service provision, the productivity and efficiency of welfare services have to be improved significantly in many European countries. With roughly half of the average

projected increase in age-related spending over the next decades coming from health spending, productivity improving reforms in this area are expecially important (OECD, 2003).

5 The Impact of Structural Reforms: Hard to Quantify and Politically Difficult to Justify and Implement

In many cases the impact of structural reforms is not easy to quantify which makes it difficult to communicate the benefits to public at large and thus gain policitical support for reforms. Uncertainty concerning the magnitudes of the dynamic costs and benefits of reforms is usually significant and short- and long-term impact may differ substantially or be of the opposite sign. As uncertainty increases with time, policymakers tend to focus primarily on the expected short-term costs of reforms and heavily discount the long-term benefits, which their political successors are likely to accrue.

Lacking political support is often based on the uneven distribution of the costs and benefits of reforms across the economy and over time. Although the economy as a whole benefits from the reforms over time, some groups in the society will lose at least in the short term.

As product, labour and capital markets are interdependent, simultaneous progress in various areas may lead to complementarities that can alleviate the situation of losers of a particular reform or undermine the case against reform by those benefiting from existing regulatory framework and institutions (Blanchard and Giavazzi, 2003). Reforms in one area may also reinforce the benefits in other areas (see Boeri et al., 2000, Coe and Snower, 1997, OECD, 2002). By reducing short-term economic costs or by reinforcing the benefits, a comprehensive reform package may help in gaining political support for reforms.

The existing empirical evidence supports the view that reforms in-

crease average productivity and long-term growth potential through more efficient allocation of resources, increased factor utilization (labour) and stronger incentives for innovation.[2] Labour, tax and product market reforms typically lower unemployment, but their impact on employment across sectors may vary, as factors of production are reallocated more efficiently as a result of reforms. Overall, very little evidence of adverse effects of trade liberalisation, financial market reforms and product market reforms on wages and income inequality has been found (see IMF, 2004, and the references therein).

6 Concluding Remarks

Although a broad consensus about the objectives and need for reform

[2] *On the positive impact of trade reforms, see Berg and Grueger (2003); of product market reforms, see Nicoletti and Scarpetta (2003); on less distortionary tax systems, see Kneller et al. (1999).*

exists among the EU countries, the lack of progress is visible. The Lisbon strategy has so far produced much more recommendations and talk at the EU level than concrete results in terms of national implementation. To close the widening implementation gap, it is crucial that commitments made at the EU level will be better integrated in the national policy and decision making. ❧

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Comment on Anne Brunila, "Structural Reforms and Fiscal Sustainability"

1 Fiscal Sustainability Is not Just Related to Ageing

In practical politics of modern industrial societies, sustainability of public finance is associated with the pressing need to reform pension and health care systems, both related to the *ageing of populations*. As Anne Brunila has stated in her presentation, the prominence of the ageing debate derives from the dynamic development of pension expenditures as well as from the fact that the savings potential in other areas of public spending (such as education or unemployment benefits) is relatively small.

Beyond the narrow focus on ageing, fiscal sustainability and its relation to economic reform requires a much broader view. It is closely related to the virtues of "fiscal responsibility", the "quality" of public finance and eventually to the people's trust in government.

Of course, the issue of ageing itself is a broadly-based concept which in many countries constitutes an im-

portant element of ongoing reform efforts. The dynamics of ageing depend on a number of parameters (such as demographic developments, life expectancy and employment rates) which can, with reasonable degree of certainty, be projected far into the future (Economic Policy Committee, 2003). It is less obvious how the effects of, say, administrative reform or innovations in the health care system impact on long-term fiscal sustainability.

During this conference, we have had discussions on various aspects of structural reform, the umbrella covering all the topics being the *Lisbon strategy*. Disregarding the feasibility of the aspiration to develop the EU in time to the most dynamic and competitive region in the world, this goal is currently pursued by European governments, and it rests, among other factors, also on the sustainability of public finance.

The major focus of the current session is to search for the *optimal structural reform* package which helps achieve the given (intermediate) goal of fiscal sustainability. Since this requires a number of preparatory steps, such as a concrete definition of "sustainability" and a theory concerning the impact of structural reform on sustainability, practical politics is often just concerned with the *impact of a given reform agenda on sustainability*. In this more eclectic version, a number of policy measures are put in place and the effects are eagerly watched with the desire that at some time the one or the other instrument may hit the goal. The difference between the two approaches may not seem decisive, as in both cases the causality direction runs from structural reforms to sustainability. The outcome, however, can be quite different and need not be efficient in the latter case.

From Anne Brunila's presentation we know that it is not just structural deficiencies but a number of driving forces that could endanger fiscal sustainability, in particular:

(i) the underlying pressure to increase public expenditures which is not only due to population ageing and the related increase in the old-age dependency ratio, but generally to the daily demands from various interest groups,

(ii) a growing resistance of the population to further increases in the tax burden, and

(iii) the tendency towards lower potential GDP growth, partly induced by ageing which is seen to cause labour supply and productivity to decline.

Fiscal sustainability is not a terminal policy goal, but contributes to long-term economic growth. By losing fiscal sustainability, a country would be stripped of its credibility as a debtor, its citizens would revamp their expectations concerning the future tax burden, and economic policies would have to devote much effort to regain the previous growth potential. In this vein, Henriksson (2003) stated at last year's Conference that "sound public finances are a prerequisite for growth". It is thus not only the influence of structural reforms on fiscal sustainability that

is of interest, but also the reverse impact of sustainability on growth as well as the feedback from growth on the size of public expenditures and on the tax burden. These interdependencies are chiefly of the reinforcing type: Sustainability furthers growth which later on improves sustainability. Therefore, structural reforms that limit public expenditures and simultaneously foster growth would be most desirable.

2 "Fiscal" Sustainability Usually Means "Debt" Sustainability

Although "fiscal sustainability" has become a catchword in economic policy, it lacks a universally accepted definition. Anne Brunila uses an operational definition in the context of EU requirements: Sustainability prevails if the Maastricht reference value for the general government gross debt of 60% of GDP is maintained in the short and in the long run without raising the overall tax burden (i.e. the tax ratio as a percentage of GDP). Put in a broader international setting, sustainability could be understood to "maintain a constant ratio of public debt to GDP, in the context of low inflation and market-determined interest rates" (Offerdal, 1996).

Apart from the concrete definition, sustainability is a relative concept. As mentioned by Levy (2003), the US budget deficit is approaching 4% of GDP which is comparable to the budget deficits in a number of European countries (including France and Germany). However, US total federal spending amounts to less than 20% of GDP and total spending of federal, state and local governments is approximately 35% of GDP. In the average European nation, general government spending is as high as 47.5% of GDP. To broaden the coverage of the sustainability concept, the IMF and the World Bank, in their financial institutions approach, have suggested "Guidelines for Public Debt Management". It is argued that solvency *indicators* should be used to examine debt sustainability. Actual indicators used include tax revenue over debt service and interest payment over total revenue.

More general sustainability indicators are used in the Finnish Stability Programme 2002 which include expenditures over GDP, pension expenditures over GDP and the elderly dependency ratio (people over 65 relative to population of working age, i.e. 15 to 64 years). The EU's Economic Policy Committee (EPC) and its Working Group on Ageing (AWG) employ indicators that are even more general, including the budget balance and gross debt position, long-run risk factors to the government financial position, and other public policy concerns such as intergenerational fairness. To improve the assessment of sustainability, the AWG suggested (i) to improve transparency, (ii) to undertake sensitivity analyses, (iii) to improve the link between quantitative and qualitative indicators, and (iv) to improve the interpretation of results concerning high-debt countries.

Many definitions of "fiscal sustainability" are incarnations of the standard debt sustainability approach which means that the fiscal stance must permit repayment of the stock of debt. If this is not secured, policies must be designed to increase future primary surpluses of the general government budget (Perry, 1997).

3 The Growth-Enhancing Role of the Public Sector

Given the public's resistance in most countries to further increases in the tax burden, the possible remedies mentioned by Anne Brunila against the loss of sustainability are confined to two areas, first containing expenditure pressures (by implementing, e.g., general expenditure controls, pension reforms, or public sector reforms to improve efficiency), and

second furthering potential growth, in particular through structural reforms to increase labour supply and productivity. Structural reforms comprise the abolition of impediments to market behaviour, changes in the institutional framework to permit markets to work (deregulation), and re-regulation to reduce administrative and legal impediments.

Anne Brunila rightly cautioned on the effects of structural reforms on sustainability because of the uncertain magnitudes and the uncertain distribution of costs and benefits of reforms across the economy and over time. The empirical evidence on the effects of reforms which are designed to raise productivity and the long-run growth potential via more efficient allocation of resources, increased labour utilisation, and stronger incentives for innovation, is rather mixed.

Let us consider in somewhat more detail the role of the public sector concerning the growth and productivity potential of an industrial economy. There are three major channels for the public sector to influence the overall economy, and they are briefly considered one by one below:

(i) the constitutional environment of a society, including the law traditions, religions and institutions,
(ii) the size, structure and efficiency of the public sector, and
(iii) the impact of public sector activities on the private sector.

3.1 The Constitutional Environment Can Only Be Adjusted in the Long Run

The first channel is particularly relevant for inter-country comparisons in a world-wide context. A number of empirical studies come up with the result that "institutions" are relevant for development (e.g. Persson, 2004). La Porta et al. (1999) report from their regression analyses that governments tend to perform inferior in countries which are poor, close to the equator, ethnically and linguistically heterogeneous, use French law, and have a high proportion of Catholics or Muslims. A country's law tradition also seems important for the degree of government intervention. Civil law (as prevailing in many continental European countries) was used as a power instrument of the state, though to a lesser extent than under socialist (i.e. communist) law. English common law cares much more for the private rights of individuals (property rights) and attempts to restrain government. However, even if a given constitutional environment would be considered harmful to growth, major changes would most

likely meet with resistance and could therefore be implemented only in the long run.

3.2 Uncertain Effects of the Size of Government

As to the second channel, it is undisputed in the theoretical and empirical literature that an increasing efficiency of government exerts a positive impact on growth, directly by releasing resources for better uses elsewhere in the economy or indirectly by strengthening the trust in government.[1] This includes efforts to improve the effectiveness of public spending. Joumard et al. (2004) stress the importance of fiscal rules (tax, expenditure, budget balance or debt ceilings), extending the planning horizons, reducing budget fragmentation (into extra-budgetary funds and contingent liabilities) and focussing on public spending outcomes. Medium-term budget projections have already been introduced in many countries. In the EU, the "stability programmes" for members of the euro area and "convergence programmes" for other Member States serve that purpose.

Since a society's decision on the functions to be carried out by government not only bears on economic rationale, but also on political and historical grounds, the optimal size of government is not easy to determine by just relying on economic theory or empirical investigation. In economic terms, a larger size may be due to the larger scope of government duties or to inefficiencies which tend to hinder private activities and innovation. Empirical estimates concerning the relationship between government size and efficiency are conflicting. According to Afonso et al. (2003), countries with small public sectors report significantly higher government efficiency, indicating diminishing marginal returns on public spending. This is in contrast to the results reported by La Porta et al. (1999) who found that larger governments are able to provide more and better public services. It seems undisputed, however, that a larger size of government deters people from working hard: Because of a current or expected future high tax burden, people are driven off from work into leisure, and this has important negative implications for the financing of the government budget (Prescott, 2004).

3.3 Public Spending and Regulation Are Decisive for Economic Growth

The third channel is probably the most important one and covers the effects of public spending (in areas such as physical infrastructure, education, R&D, and health), of taxation and of regulation on private sector productivity. Because of the various sub-channels, the results of theoretical analyses of the effects of public sector activities remain ambiguous. Empirical investigations are also not conclusive, even not in

[1] *Afonso et al. (2003) employ a Free Disposable Hull analysis to measure the input and output efficiency of public spending or the relative "wastefulness" of government expenditures across countries. As a result, the USA, Japan and Luxembourg turn out to be the most efficient countries in the sample, followed by Australia, Ireland and Switzerland. Most of the EU countries lie well inside the production possibility frontier, implying that much less input would be necessary to achieve the same result as up to now.*

well-defined areas of public spending such as infrastructure, education and R&D. With regard to public infrastructure, there is evidence of positive effects, but also of decreasing marginal returns. The quantity and quality of education raises the productivity level in the long run, but there is no clear understanding of how public expenditures can improve productivity growth and, above all, there is little evidence for the presence of externalities in schooling (Hanushek, 2002). With regard to public sector expenditures on R&D, externalities seem to prevail, but it is by no means clear whether government assistance is complementary to private R&D or just substitutes for it (David et al., 2000).

With regard to *taxation*, most empirical studies support the notion that higher direct taxes, because of their distorting effects on the decisions of private agents, reduce growth more than higher indirect taxes (OECD, 2003).

Regulations are government-imposed limitations on the behaviour of individual firms. They range from the competition regime to setting standards and enacting social, health and environmental regulations, to mention just a few of them. Since the end of the 1970s there has been a tendency to cut back regulation in an attempt to revive market forces. However, it is also generally accepted that market processes to function properly need a certain level of regulation. With regard to the impact of regulations on private sector productivity, the most important areas are product market regulation (including the liberalisation of network industries), privatisation, environmental regulation and labour market regulation. Environmental regulations have gained in importance, while in other areas the degree of regulation has generally been reduced. Labour market regulations, which are regarded a pillar of the "European welfare state", have long been a battleground for the lobbying of interest groups.

The overall long-term impact of economic reforms on growth is mostly positive if reforms are comprehensive in scope and as long as they are carried out with the determination to be successful. Politics should engage in reform projects early on and not wait until internal or external crises trigger off reforms anyway.

4 Pension Reform in Finland and in Austria

Anne Brunila has covered the impact of structural reform on sustainability rather comprehensively in her statement, and she has added experience from the *Finnish pension reform* of 2002. It comprised a reduction in the annual indexation, an increase in the effective retirement age and adjustments of the benefits. As a result, the increase in public expenditures on pensions (currently at some 11½ percent of GDP) is seen to be limited to just above 14% by 2050 which is 2 percentage points less than in a baseline scenario without reform.

In *Austria*, public sector expenditures on pensions amount to 14½ percent of GDP in 2004, the largest share of all EU-25 countries. Pension reform has come in various stages; the last one, decided in mid-2003, comes into force during 2004 and will reach its full effect only after 25 years. It phases out early retirement schemes and includes a

stepwise increase in the statutory retirement age to 65 years. The accounting period for the pension basis will gradually be extended from currently 15 to 40 years by the year 2028. Still pending is the introduction of harmonised pension accounts for all citizens under 35 years, and the introduction of individual pension accounts which are supposed to provide additional financial incentives for postponing retiring.

However important these pension reforms are, in each of the two countries[2] they purchase less than a decade in terms of fiscal sustainability. Therefore, it can be guessed that further measures will be required soon.

5 Summary

The concept of fiscal sustainability usually encompasses debt sustainability which means that the fiscal stance must permit repayment of the stock of debt. One of the most important threats to sustainability is the ageing population in industrial countries and its effect on pension and health expenditures as well as on the tendency to reduce the growth potential. When remedies are discussed, these threats have to be addressed by containing expenditures and the tax burden, and by designing growth-enhancing structural reforms that take interdependencies into account. Structural reforms should address all aspects of public sector involvement, in particular the legal setting, the efficiency of government and the impact of government on private sector productivity. Given the uncertainties concerning the overall impact of public sector activities, reform strategies must be well-designed to secure their positive effects on fiscal sustainability and thereby on growth. Eclectic measures are likely to result in ambiguous, and therefore partly undesirable, effects. Pension reforms enable countries to "purchase time" without removing all threats to sustainability, and should therefore be complemented by growth-enhancing structural reforms. ❧

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[2] *Other countries have also embarked on pension reforms, among them Belgium (1996/97), France (2003), Germany (1997, 2003), Hungary (1998, 2001), Poland (1999), and Sweden (1993, 1999). For more details see, e.g., Disney (2003).*

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Concluding Remarks

Ladies and gentlemen, as this conference is about to close, let me share with you a few notes that I made during this conference here on this paper and I have ten points that I would like to present to you which have come during this conference for several times, I think, which are important and which are worth being kept in mind.

First, the ambitions of the Lisbon agenda are high but implementation lags behind – but, we should not give up. I think that was also clearly said by Professor Sapir: Don't give up!

Second, structural reforms are necessary – no doubt to improve long-term growth and to improve the efficiency of monetary policy, especially important for us as central bankers.

Third, concentrate on the most important issues which can be different between different countries. So, do the most important things first.

Nevertheless, fourth, labor markets are crucial – that has been mentioned nearly by every speaker.

Fifth, promotion of competition is essential, too. Especially in the field of services we are clearly lagging behind the internal market concept.

Sixth, greater attention on expenditure control and the quality of

public finances on a national level as well as on the EU level.

Seventh, R&D subsidies sometimes can have counterproductive effects, especially if mobility barriers are here and we should think about that.

Eighth, numerical targets and benchmarks are essential. Try to give more targeting and benchmarking to the Lisbon agenda.

Ninth, price stability and financial stability will help to implement the Lisbon agenda.

Tenth, convince your citizens, convince your electorate of the necessity of reforms and the implementation of the Lisbon agenda.

Thank you very much, ladies and gentlemen, for being here at this OeNB-conference and hope to see you next year again. ❧

Franz-Weninger-Stipendien
Franz Weninger Award

Überreichung der Franz-Weninger-Stipendien der Oesterreichischen Nationalbank

Herr *Direktor Christl* überreichte am 27. Mai 2004 im Rahmen der diesjährigen Volkswirtschaftlichen Tagung der Oesterreichischen Nationalbank die Franz-Weninger-Stipendien an drei Preisträger. Das Franz-Weninger-Stipendium wird von der OeNB jedes Jahr für hervorragende Dissertationen und Diplomarbeiten auf dem Gebiet der Geldtheorie und Geldpolitik vergeben und erinnert an den vor acht Jahren tödlich verunglückten Leiter der volkswirtschaftlichen Abteilung. Die Stipendien werden vom Direktorium der Oesterreichischen Nationalbank auf Vorschlag einer Fachjury vergeben.

Die Franz-Weninger-Stipendien des Jahres 2004 wurden folgenden Personen zuerkannt:

– **Dr. Herwig Immervoll** für seine Dissertation „The Effects of Inflation on the Taxation of Income in Europe. An Empirical Investigation Using Microsimulaton"
– **Mag. Stephan Gruber** für seine Diplomarbeit „Purchasing Power Parities: The Evidence from International (ICP) Price Data"
– **Mag. Christian Lininger** für seine Diplomarbeit „Austrian-German Interest Differentials and Economic Fundamentals"

Wie Herr Direktor Christl anlässlich der Überreichung betonte, ist eine hohe Qualität der wissenschaftlichen Ausbildung und Forschung eine wichtige und notwendige Voraussetzung dafür, langfristig das Wachstum in Österreich und in Europa zu sichern. Vor allem ein besseres Verständnis wirtschaftswissenschaftlicher Zusammenhänge ermöglicht die Entwicklung einer sachorientierten öffentlichen Meinungsfindung zu wichtigen wirtschaftspolitischen Reformen in Europa. ❧

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1952

Present Position

– Executive Director of the Oesterreichische Nationalbank

Professional Experience

– Chief Economic Advisor to the Austrian Minister of Finance (2001–2003)
– Chief Economist of Creditanstalt (1993–2001)
– Professor at the University of Economics in Vienna (as of 1992)
– Senior Economist at Creditanstalt (1984–1993)
– Assistant Professor for Economics at the Institute for Advanced Studies in Vienna (1980–1984)
– Economist at the Ministry of Social Affairs (1978–1979)

Research Interests

– Monetary theory and monetary policy
– Labor economics
– European integration and business cycle research

Education

– Business administration at the University of Graz
– Economics at the University of Vienna
– Economics at the Institute for Advanced Studies, Vienna

Other Activities

– Member of the supervisory board of
  - Austrian Financial Market Authority (FMA)
  - AUSTRIA CARD-Plastikkarten und Ausweissysteme GmbH
– Alternate Governor of Austria to the International Monetary Fund

Selected Publications

Various publications in the fields of monetary theory, monetary policy, labor economics, European integration and business cycle research

E. Philip Davis

Born

1957

Present Position

– Professor of Economics and Finance at Brunel University, West London

Professional Experience

– Oxford University (1980–2000)
– BIS (Bank for International Settlements)
– European Monetary Institute

Research Interests

– Pensions, financial stability, institutional investment, Euromarkets, banking, corporate finance, and financial regulation

Education

– Oxford University

Other Activities

– Visiting Fellow of the National Institute of Economic and Social Research
– Member of the European Shadow Financial Regulatory Committee
– Associate member of the Financial Markets Group at the LSE
– Associate Fellow of the Royal Institute
– Research Fellow of the Pensions Institute at Birkbeck College

Selected Publications

– Debt, Financial Fragility and Systemic Risk. OUP. 1992
– Pension Funds. OUP, which emerged. 1995
– The Foundations of Pension Finance. (Edited with Z. Bodie. Edward Elgar. 2000
– Institutional Investors. (With B. Steil). MIT Press. 2001
– Financial Structure. (With J. Byrne). Cambridge University Press. 2003

Erhard Fürst

Born

1942

Present Position

– Director for Industrial Policy and Economics in the Federation of Austrian Industry (as of 1993)

Professional Experience

– Assistant professor and head of the Economics Department at the Institute for Advanced Studies (1966–1969)
– Economist in the European Department of the International Monetary Fund, Washington D.C. (1969–1971)
– Economist at the Austrian Institute for Economic Research (1971–1973)
– Associate Director of the Institute for Advanced Studies, Vienna (1973–1983)
– Head of Economics Department of Creditanstalt, Vienna (1983–1992)

Education

– Study of Law at the University of Vienna (1960–1964)
– Post-graduate Study of Economics at the Institute for Advanced Studies, Vienna (1964–1966)

Karl-Heinz Grasser

Born

1969

Present Position

– Federal Minister of Finance (as of 2000)

Professional Experience

– Speaker for Tourism and European Integration in the parliamentary group of the Freedom Party (1992)
– Secretary General of the Austrian Freedom Party and Managing Director of the Freedom Party's educational centre (1993)
– Second Deputy Governor of the Province of Carinthia (1994)

– Vice President for Human Resources and Public Relations at Magna Europa (1998)
– In addition, Managing Director of Sport Management International (SMI) which belongs to the Magna Group (1999)
– Up to the end of 1999: Member of the Managing Board of the Sir Karl Popper Foundation, still a member

Education

– Master degree in Applied Business Administration in Klagenfurt, Austria (1992)

Other Activities

– Austrian Governor at international organisations:
  - World Bank Group
  - Asian Development Bank
  - Inter-American Development Bank
  - Inter-American Investment Corporation
  - African Development Bank
  - African Development Fund
  - European Bank for Reconstruction and Development
  - European Investment Bank

Heinz Handler

Born

1941

Present Position

– Senior research fellow, Austrian Institute of Economic Research (WIFO) (as of 2003)

Professional Experience

– Economist, Foreign Trade Department, Austrian Institute of Economic Research (WIFO) (1968–1973)
– Economist, European Department, International Monetary Fund, Washington, D.C., USA (1973–1976)
– Senior research fellow at WIFO for monetary policy, balance of payments and banking affairs (1976–1993)
– Member of the WIFO Management Board (1987–1993)
– Deputy Director of WIFO (1991–1993)
– Director General, Economic Policy Center, Austrian Federal Ministry for Economic Affairs and Labour (1993–2003)

Research Interests

– Monetary and exchange rate policies, financial markets, foreign trade, structural and locational policies, European economic integration, public sector economics

Education

– Laws and economics, University of Vienna (1960–1965)
– Postgraduate studies in economics, Institute for Advanced Studies, Vienna (1966–1968)

Other Activities

– Austrian member and head of delegation, Economic Policy Committee of the European Union, Brussels (1994–2004)
– Deputy State Commissioner of Oesterreichische Nationalbank, Vienna (as of 1999)
– Member of the Supervisory Board of Statistik Austria, Vienna (as of 2000)
– Member of the Supervisory Board of Österreichische Elektrizitätswirtschafts AG (Verbund), Vienna (as of 2000), Deputy Chairman (2000–2004)
– Member of the Executive Board of the Austrian Standards Institute (as of 2003)

Publications

Several books and numerous other publications in Austrian as well as international journals

Christian Helmenstein

Born

1966

Present Position

– Chief Economist of the Federation of Austrian Industries (as of Sept. 2004)
– Managing Director of the ESCE Economic and Social Research Center

Professional Experience

– Head of the Department of Economics and Finance at the Institute for Advanced Studies in Vienna
– Department of Mathematics and Computer Science at the Institute for Advanced Studies in Vienna
– Board member of IHS Burgenland and IHS Carinthia

Research Interests

– Finance, macroeconomics, international migration, regional economics, and structural change

Education

– Ph.D. in Economics at Ruhr-University Bochum
– M.A. in Economics at University of Cologne
– M.A. in Business Administration
– Diploma in Operations Research

Selected Publications

Author of numerous economic publications

– Hindsight Bias and Individual Risk Attitude within the Context of Experimental Asset Markets. (With T. El-Sehity, H. Haumer, E. Kirchler and B. Maciejovsky). In: Journal of Psychology and Financial Markets 3. 2002. 227–235
– The Dynamics of Migration in the Presence of Chains. (With Y. Yegorov). In: Journal of Economic Dynamics and Control 24. 2000. 307–323
– Capital Markets in Central and Eastern Europe. (Ed.) Cheltenham Northampton (MA.): Edward Elgar Publishing. 1999

Andrew Hughes Hallett

Born

1947

Present Position

– Professor of Economics at Vanderbilt University, USA and St Andrews University in Scotland

Professional Experience

– Previously Professor at Strathclyde University in Scotland
– Visiting Professor at Princeton University

Research Interests

– International economic policy, political economy of monetary integration, game theory, dynamic systems, and the theory of economic policy

Education

– D.Phil. Oxford University
– M.Sc. London School of Economics
– B.A. University of Warwick

Other Activities

– Research Fellow in the Centre for Economic Policy Research, London
– Fellow of the Royal Society of Edinburgh and chair of their Economics Committee
– Joint editor of the Scottish Journal of Political Economy
– Correspondent of the American Mathematical Society

Selected Publications

Author of numerous publications in refereed journals and books

Otmar Issing

Born

1936

Present Position

– Member of the Executive Board of the European Central Bank (as of 1998)

Professional Experience

– Member of the Board and the Council of the Deutsche Bundesbank (1990–1998)

– Chairs of Economics at the Universities of Würzburg and Erlangen-Nürnberg

Research Interests

– Monetary and international issues

Education

– University degree in Economics, University of Würzburg
– Doctorate and Habilitation in Economics, University of Würzburg

Other Activities

– Member of the Council of Experts for the Assessment of Overall Economic Developments (1988–1990)
– Active member of the Akademie der Wissenschaften und der Literatur (Academy of Sciences and Literature), Mainz, and of the Academia Scientiarum et Artium Europaea (European Academy of Sciences and Arts)

Selected Publications

Author of numerous publications and articles in the areas of monetary policy and economics

– Einführung in die Geldtheorie (13th edition) 2003
– Einführung in die Geldpolitik (6th edition) 1996
– Monetary Policy in the Euro Area (1st edition) 2001

Mads Kieler

Born

1963

Present Position

– Chief Advisor, Danish Ministry of Finance. Macroeconomic Policy and Analysis Division

Professional Experience

– Economist, Danish Confederation of Industries (1990–1993)
– Economist, European Commission. DG Economic and Financial Affairs. Economic forecasting, EU policy coordination, monetary and exchange rate surveillance (1994–1999)
– Senior Economist, IMF EU Policies Division euro area policies (2000–2003)

Education

– Master of European Economic Studies at the College of Europe, Bruges, Belgium
– M.Sc. in Economics at Copenhagen University

Research Interests

– Fiscal sustainability, labor market reforms, European Monetary policy

Selected Publications

– Is Inflation Persistence Higher in the Euro Area than in the United States? IMF Selected Issues, Euro Area Article IV Consultation. August 2003
– The ECB's Inflation Objective. IMF Working Paper 03/91. April 2003
– Tracking the Pass-Through of External Shocks to Euro-Area Inflation. IMF Selected Issues, Euro Area Article IV Consultation. October 2001
– Budgetary Policy Coordination. Chapter 10 in: Buti, M. and A. Sapir (eds.). Economic Policy in EMU. Oxford: Clarendon Press. 1998
– Differences in Monetary Policy Transmission across EMU? A Case not Closed. (With T. Saarenheimo). Economic Paper 132. European Commission. November 1998

Dirk Krueger

Born

1970

Present Position

– Professor (C4) of Economics, Johann Wolfgang Goethe University, Frankfurt am Main

Professional Experience

– Assistant Professor at the University of Pennsylvania, Philadelphia, PA (2003–2004)

– Assistant Professor at the Stanford University, Stanford, CA (1999–2003)
– Research Fellow at the National Bureau of Economic Research, Cambridge, MA Faculty (as of 2002)
– Research Affiliate at the Centre for Economic Policy Research, London, UK (as of 2004)

Research Interests

– Macroeconomics, Public Finance, Economic Growth and Development, Computational Economics, International Economics

Education

– Ph.D. in Economics at the University of Minnesota
– Diploma in Economics at the University of Bielefeld

Selected Publications

– US-Europe Differences in Technology-Driven Growth: Quantifying the Role of Education. (With K. Kumar). In: Journal of Monetary Economics. Vol. 51(1). 2004. 161–190
– Skill-Specific rather than General Education: A Reason for US-Europe Growth Differences. (With K. Kumar). In: Journal of Economic Growth. Forthcoming
– On the Distributional Consequences of Child Labor Legislation. (With J. T. Donohue). In: International Economic Review. Forthcoming
– On the Welfare Consequences of the Increase in Inequality in the US. (With F. Perri). In: 18th NBER Macroannual. Forthcoming
– Computing Equilibrium in OLG Models with Stochastic Production. (With F. Kubler). In: Journal of Economic Dynamics and Control. Vol. 28(7). 2004. 1411–1436

Klaus Liebscher

Born

1939

Present Position

– Governor of the Oesterreichische Nationalbank (as of 1998)
– Member of both the Governing Council and the General Council of the European Central Bank (as of 1998)
– Represents the OeNB at the Bank for International Settlements Governors' Meeting (as of 1995)
– Austria's governor to the International Monetary Fund (as of 1995)

Professional Experience

– Raiffeisen Zentralbank Österreich AG (1968–1995)
  - Member of the Executive Board (1980–1995)
  - Chief executive officer and Chairman of the Board (1988–1995)
– President of the Vienna Stock Exchange Council (1990–1995)
– Member of the supervisory boards of several banks and other corporations in Austria and abroad (1980–1995)
– Member of the General Council of the OeNB (1988–1998)
– President of the OeNB (1995–1998)

Education

– Law degree (Dr. iur.) from the University of Vienna

Selected Publications

Author of numerous publications and articles in the areas of monetary policy and economics

Edgar Meister

Born

1940

Present Position

– Member of the Executive Board of the Deutsche Bundesbank responsible for the Department of Banking and Financial Supervision (as of 2002)

Professional Experience

– Chairman of the Banking Supervision Committee of the European System of Central Banks (ESCB) (as of 1998)
– Member of the Directorate of the Deutsche Bundesbank (responsible for the Department of Banking and Minimum Reserves and the Cash Department) (1993–2002)
– Minister of Finance of Rhineland-Palatinate (1991–1993)
– Member of the Board of Deutsche Pfandbriefanstalt (renamed Deutsche Pfandbrief- und Hypothekenbank AG on 1 January 1990), Wiesbaden (1980–1991)
– Bank für Gemeinwirtschaft AG, Frankfurt am Main (1970–1980)

Education

– Studied law in Marburg/Lahn (1961–1966)
– Second State Law Examination of Hesse (1969)

Jussi Mustonen

Born

1955

Present Position

– Director and Chief Economist, the Confederation of Finnish Industries and Employers

Professional Experience

– Senior Research Fellow at the Research Institute of the Finnish Economy (1981)
– Scientific Director of the Yrjö Jahnsson Foundation (1987)
– Senior Vice President and Chief Economist, Kansallis Bank Ltd (1989)
– Managing Director of Merita Fund Management Ltd (1996)

Education

– Master of Social Sciences (Economics) at the University of Helsinki
– Licentiate of Social Sciences (Economics) at the University of Helsinki

Other Activities

– Member of the Conference Board's European Council of Economists
– Chairman of the Board of Management for the Research Institute of the Finnish Economy.
– Member of the UNICE ECOFIN Committee
– Member of the Board, Nordea Investment Funds Company Finland Ltd.
– Council Member of the Centre on International Research on Economic Surveys (CIRET)
– Member of the Supervisory Board of Finnish Doctoral Program in Economics

Selected Publications

Author of numerous publications and articles in newspapers and magazines

– Forecasting Turning Point of Indus trial Production with Business Survey Data. (With P. Urrila). In: Economic Research and Decision Making Essays on Structural Change, Growth and Economic Policy. (Ed. by Alho and Ylä-Anttila). ETLA A 36. Helsinki. 2003
– Location Decisions of Finnish Companies, in Finland, EU and the World. In: Economic Policy Debates. (Ed. by Pekkarinen and Kavonius). TSL. Helsinki
– Finnish Economic Crisis. In: The Finnish Economic Journal. 3. 1992
– Balanced Trade under Uncertainty: A Multiperiod Non-Cooperative

Game Approach. (With V. Kanniainen). In: European Journal of Political Economy 5. North-Holland. 1989
– Oligopolistic Bank Competition and Credit Supply under Uncertainty. ETLA C 44. Helsinki. 1987

André Sapir

Born in
1950

Present Position
– Advisor within the Group of Policy Advisers of the European Commission's President and Executive President of the Group of Economic Analysis (GEA), whose meetings are chaired by President Prodi

Professional Experience
– Economic Advisor to the Director-General for Economic and Financial Affairs

Research Interests
– International economics, with special emphasis on economic integration, monetary union, commercial policy and North-South trade

Education
– B.A. at ULB (Université Libre de Bruxelles) Brussels.
– Ph.D. at John Hopkins University

Other Activities
– Professor of Economics at the Université Libre de Bruxelles (ULB)
– Member of ECARES (the European Centre for Advanced Research in Economics and Statistics)
– Research Fellow of CEPR (the London-based Centre for Economic Policy Research)
– Member of the International Scientific Advisory Council of the Kiel Institute of World Economics
– Member of the Steering Committee of the Robert Schuman Centre for Advanced Studies at the European University Institute (EUI) in Florence

Selected Publications
Author of numerous publications in refereed journals and books.

Klaus Schmidt-Hebbel

Born in
1955

Present Position
– Division Chief of Economic Research, Central Bank of Chile, Santiago (as of 1996)

Professional Experience
Field experience and government advice in:
– Indonesia (2003), Slovakia (2003 twice), Uruguay (2003), Paraguay (2002), Poland (2002), Bangladesh (2001), Venezuela (2001), Peru (2002 twice, 2001), Turkey (2000), Argentina (2004, 2003, 2000), The Philippines (1999), Germany (1999), Macedonia (2002, 1999 twice), Brazil (2000, 1999, 1992), Malaysia (1999, 1998), Czech Republic (1998), Mexico (2002, 1998, 1997, 1994), Colombia (1999, 1995, 1994), Egypt (2003, 1994, 1993, 1992, 1991), Latvia (1993 twice), China (1992), Morocco (1991, 1990, 1989), Zimbabwe (1989), Costa Rica (2002, 2001, 1988), Jamaica (1986, 1983).

Research Interests
– Macroeconomics (Saving, Growth, Fiscal Policy)
– Social Security (Pension Systems and Reforms)
– Monetary Economics (Inflation, Monetary Policy)
– International Finance (Open Economy Macro, Capital Flows)
– Development, Economics (Structural Reform, Stabilization Programs)

– Cultural Economics (Heritage Conservation)

Education

– Ph.D. in Economics at the Massachusetts Institute of Technology (1986)

Selected Publications

Author of 7 books and many articles in academic journals

Dennis J. Snower

Born

1950

Present Position

– Professor of Economics at Birkbeck College, University of London
– President, Institut für Weltwirtschaft, Kiel; Professor of Economics, Christian-Albrechts-Universität zu Kiel (as of October 2004)

Professional Experience

– Fellow of IZA (Institute for the Study of Labor, Bonn)
– Fellow of CEPR (Centre for Economic Policy Research, London)
– Adviser to the European Commission
– Consultant for the IMF, World Bank, OECD, SNS, and the UN
– Visiting professor at many universities around the world, including Columbia, Princeton, Dartmouth, Harvard, the European University Institute, the Hebrew University of Jerusalem, Stockholm University and the Vienna Institute of Advanced Studies

Research Interests

– Labour economics
– Microeconomics
– Macroeconomics
– Public policy

Education

– B.A., New College, Oxford University
– M.A., Princeton University
– Ph.D., Princeton University

Other Activities

– Fellow, CEPR (Centre for Economic Policy Research)
– Fellow, IZA (Institute for the Future of Work), Bonn
– Associate Fellow, SKOPE (ESRC Centre on Skills, Knowledge and Organisational Performance), Oxford and Warwick Universities
– Fellow, CESifo
– Fellow, EABCN (Euro Area Business Cycle Network)

Selected Publications

Author of numerous publications, e.g.

– Insiders versus Outsiders. (With A. Lindbeck). In: Journal of Economic Perspectives 15(1). 2001. 165–188
– Unemployment in the European Union: A Dynamic Reappraisal. (With M. Karanassou and H. Sala). In: Economic Modelling 20. 2003. 237–273

Beatrice Weder

Born

1965

Present Position

– Professor of economics at the University of Mainz

Professional Experience

– Economist at the World Bank
– Economist at the International Monetary Fund

Research Interests

– International macroeconomics, in particular financial crises, emerging markets finance, monetary policy, growth and development

Education

– Ph.D. in economics and business administration from the University of Basel

Other Activities

– Consultant for various international organizations, including
  - International Finance Corporation
  - World Bank

- IMF
- United Nations University
- OECD Development Center

Selected Publications

– Spillovers Through Banking Centers: A Panel Data Analysis. (With C. Van Rijckeghem). In: Journal of International Money and Finance 22. 2003. 483–509
– A Free Press Is Bad News for Corruption. (With A. Brunetti). In: Journal of Public Economics 87. 2003. 1801–1824
– Do Corrupt Governments Receive Less Foreign Aid? (With A. Alesina). In: American Economic Review 92(4). 2002. 1126–1137
– The Puzzle of the Swiss Interest Rate Island: Stylized Facts and a New Interpretation. (With P. Kugler). In: Aussenwirtschaft, Swiss Review of International Economic Relations 57(1). 2002. 49–63
– Sources of Contagion: Is It Finance or Trade. (With C. Van Rijckeghem). In: Journal of International Economics 54(2). 2001. 293–308

Georg Winckler

Born in

1943

Present Position

– Rector of the University of Vienna (as of 1999)

Professional Experience

– Vicepresident and Member of the Board of the European University Association (as of 2001)
– President of the Austrian Rectors' Conference (as of 2000)
– Professor of Economics at the University of Vienna (as of 1978)
– Director, Center for International and Interdisciplinary Studies (Zentrum für Internationale und Interdisziplinäre Studien/ZIIS), Universität Wien (1994–1999)
– Visiting Professor of Economics at Georgetown University, Washington D.C./USA (1995)
– Visiting Scholar, Research Department, International Monetary Fund, Washington D.C./USA (1990–1991)

Education

– Princeton University, Princeton, N.J./USA
– University of Vienna/Austria (1968)

Selected Publications

Author of numerous books and publications, most recently

– The Austrian Current Account Deficit: Driven by Twin Deficits or by Intertemporal Expenditure Allocation? (With S. Kaufmann, J. Scharler). In: Empirical Economics. 27(3). 2002. 529–542
– Monetary Union: European Lessons, Latin American Prospects (With E. Hochreiter, K. Schmidt-Hebbel). In: North American Journal of Economics and Finance 13. 2002. 297–321
– Sozialpartnerschaft und Österreichische Schule. In: Kraus, C., B. Lamprechter, K. Leube. Festschrift für Heinrich Treichl. Sonderdruck des Friedrich A. von Hayek Institutes. Frankfurt/Main. 2003. 166–173

Die Volkswirtschaftliche Tagung der OeNB stellt eine wichtige Plattform für den internationalen Meinungs- und Informationsaustausch zu währungs-, wirtschafts- und finanzmarktpolitischen Fragen zwischen Zentralbanken, wirtschaftspolitischen Entscheidungsträgern, Finanzmarktvertretern und der universitären Forschung dar. Der Konferenzband enthält Beiträge der Tagung und ist überwiegend in Englisch verfasst.

The Economics Conference hosted by the OeNB represents an important international platform for exchanging views on monetary and economic policy as well as financial market issues. It convenes central bank representatives, economic policy decision makers, financial market players, academics and researchers. The conference proceedings comprise papers of conference participants, most of them in English.

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