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der Oesterreichischen
Nationalbank

Möglichkeiten und Grenzen der Geldpolitik

Inhalt

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Tagungs-
eröffnung
und
Einleitung

Sehr geehrte Damen und Herren!

Ich begrüße Sie herzlich zur diesjährigen, 27. Volkswirtschaftlichen Tagung der Oesterreichischen Nationalbank. Ich freue mich, dass auch dieses Jahr wieder so zahlreiche angesehene Fachleute und hochrangige Vertreter aus Österreich und dem Ausland sich die Zeit genommen haben, zwei Tage dem gegenseitigen Meinungsaustausch einem – wie ich meine – wichtigen wirtschaftspolitischen Thema zu widmen.

Wir haben das diesjährige Thema der Tagung „Möglichkeiten und Grenzen der Geldpolitik" unter zwei Gesichtspunkten ausgewählt:

Zum einen meinen wir, dass dieses Thema wirtschafts- und gesellschaftspolitisch höchst relevant ist. Das schwache Wirtschaftswachstum und die sehr hohe Arbeitslosigkeit in Europa lassen die Frage aufkommen, wie die verschiedenen Bereiche der Wirtschaftspolitik zu einer Verbesserung beitragen können. Die Übertragung der europäischen Geldpolitik auf das Eurosystem mit Beginn dieses Jahres wurde dabei in den letzten Monaten auch zum Anlass genommen, die diesbezügliche Rolle der Geldpolitik – teils recht heftig – zu diskutieren. Aber auch die beeindruckenden Erfolge der USA bei Wachstum, Beschäftigung und gleichzeitig hoher Preisstabilität werfen die Frage auf, welche Rolle die Geldpolitik der Fed dabei gespielt hat. Das Eurosystem steht vor der Herausforderung, seine geldpolitische Kompetenz und seinen Weitblick durch kluges und umsichtiges Handeln unter Beweis zu stellen.

Zum anderen ist das Thema aber auch von Bedeutung, weil ihm Notenbankvertreter in gewisser Weise ambivalent gegenüberstehen. Einerseits ist es wohl verständlich, wenn wir als Notenbanker der Ansicht sind, dass eine diskretionäre Geldpolitik wirtschaftspolitisch zweckmäßig ist. Andererseits müssen Notenbanker aber auch sehr vorsichtig sein, die Möglichkeiten der Geldpolitik in der Öffentlichkeit realistisch und nicht allzu optimistisch darzustellen. Lassen Sie mich dazu folgende Anekdote wiedergeben, die der M.I.T.-Professor Olivier Blanchard in seinem Makroökonomie-Lehrbuch berichtet. Alan Blinder, renommierter Professor an der Universität von Princeton, wurde im Sommer 1994 zum Vizepräsidenten des Federal Reserve Board ernannt. Kurz danach vertrat er bei einer ökonomischen Konferenz die Meinung, dass die Fed sowohl die Verantwortung als auch die Fähigkeit besäße, bei hoher Arbeitslosigkeit zu einer Konjunkturankurbelung beizutragen. Die Finanzmärkte und Medien reagierten sehr negativ. Warum? Alan Blinder widersprach mit seiner Aussage dem Bild des „konservativen Zentralbankers" und schuf so Verunsicherung über den weiteren geldpolitischen Kurs der Fed.

Nun, wir wollen bei unserer Tagung versuchen, ohne Verstimmung der Märkte und Medien eine offene und inhaltlich interessante Diskussion über die Aufgaben und Möglichkeiten, aber auch über die Grenzen der Geldpolitik zu führen.

Wir haben uns bemüht, das Thema im Tagungsprogramm von mehreren Seiten zu beleuchten. Der erste Tag spricht, grob gesprochen, Fragen der Makropolitik an. Die

wirtschaftspolitische Koordination, der Problemkreis Geldpolitik bei Preisstabilität, die Herausforderungen an die Geldpolitik durch integrierte Finanzmärkte sowie die Frage nach den realen Effekten der Geldpolitik bilden dabei die Schwerpunkte. Der zweite Tag wird sich vorwiegend mikroökonomischen Aspekten widmen, wobei Arbeitsmarktreformen und der Lohnbildungsprozess Schwerpunkte bilden. Auch der makroökonomische Policy Mix wird angesprochen .

Ich danke allen Vortragenden bereits im Vorhinein sehr herzlich für ihre Mitwirkung und wünsche Ihnen einen interessanten Tagungsverlauf.

Klaus Liebscher, Moderation

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Aufgaben und Grenzen der Geldpolitik

Podiumsdiskussion

Lassen Sie mich zur Eröffnung und zur Einführung aus meiner Sicht fünf Thesen zu den Aufgaben und Grenzen der Geldpolitik formulieren.

These 1: Die Hauptaufgabe der Geldpolitik ist es, Preisstabilität zu gewährleisten. Dies ist der beste Beitrag, den sie langfristig zu Wachstum und Beschäftigung leisten kann.

Glaubte man noch in den sechziger und siebziger Jahren, durch eine Erhöhung der Inflationsrate niedrigere Arbeitslosigkeit erkaufen zu

können, so hat sich später die Auffassung durchgesetzt, dass Geldpolitik, zumindest langfristig, als wachstums- und beschäftigungspolitisches Instrument wirkungslos ist. Langfristig führt eine geldpolitische Expansion nur zu einer höheren Inflationsrate. Diese Erkenntnis um die Grenzen geldpolitischen Handelns hat sich in den meisten Industrieländern auch in den Notenbankgesetzen niedergeschlagen, in denen Preisstabilität als das *primäre Ziel der Geldpolitik* festgelegt wurde. Auch im EU-Vertrag und in der Satzung des ESZB ist Preisstabilität das primäre Ziel der Geldpolitik.

Dies auch deshalb, da Preisstabilität eine *Voraussetzung für langfristig hohes und stabiles Wachstum und damit für eine günstige Beschäftigungsentwicklung* ist.

Preisstabilität ist also einerseits Mittel zur Erreichung anderer wirtschaftlicher Ziele. Andererseits ist stabiles Geld aber auch ein *wirtschafts- und gesellschaftspolitisches Ziel*. Aus einer aktuellen länderübergreifenden Studie[1]) über die Einstellung zur Inflation geht hervor, dass Preisauftrieb von der Bevölkerung in erster Linie aus zwei Gründen als Besorgnis erregend empfunden wird: erstens wegen der damit zusammenhängenden wachsenden Unsicherheit über den künftigen Lebensstandard und zweitens, weil damit ein Willkürfaktor bei der Einkommensverteilung ins Spiel kommt, durch den die soziale Kohäsion untergraben wird.

These 2: Die Geldpolitik hat – zumindest kurzfristig – auch realwirtschaftliche Wirkungen. Es kommt ihr daher auch eine Rolle bei der Abfederung von wirtschaftlichen Schocks zu. Man muss dabei aber auch ihre Grenzen sehen.

In der überwiegenden Anzahl empirischer Studien wird die Existenz kurzfristig realer Effekte der Geldpolitik bestätigt. Der Vertrag von Maastricht anerkennt dies explizit durch *Art. 105*. Vorrangiges Ziel des ESZB ist es, Preisstabilität zu gewährleisten. So weit dies ohne Beeinträchtigung des Zieles der Preisstabilität möglich ist, unterstützt das Eurosystem die allgemeine Wirtschaftspolitik der Gemeinschaft, die auch – aber nicht nur – Wachstum und Beschäftigung einschließt.

Die Geldpolitik kann zwar nicht das Niveau von gesamtwirtschaftlicher Produktion und Beschäftigung beeinflussen – dafür sind andere wirtschaftspolitische Maßnahmen etwa im Bereich der Strukturpolitik erforderlich –, sie kann jedoch *Abweichungen vom langfristigen Trend dämpfen*. Dabei ist der Öffentlichkeit viel zu wenig bewusst, dass eine Geldpolitik, die die Inflationsrate bei realen Nachfrageschocks stabilisiert, in der Regel ohnehin automatisch Konjunkturschwankungen glättet. Schwieriger stellt sich hingegen die Situation bei einem Einbruch des Wachstums infolge eines negativen

Angebotsschocks dar, etwa durch einen abrupten Ölpreisanstieg. Dann muss die Geldpolitik sehr sorgfältig abwägen, ob der Preisniveauschock zu einem permanenten inflationären Trend führt. Dabei spielt unter anderem das Verhalten der Lohnpolitik eine entscheidende Rolle.

Der praktische Einsatz der Geldpolitik zur Konjunkturstabilisierung – im Rahmen des primären Preisstabilitätsziels – ist mit zahlreichen *Problemen* behaftet. Insbesondere ist die Geldpolitik aufgrund langer und variabler Zeitverzögerungen ihrer Wirksamkeit nicht zur kurzfristigen Feinsteuerung der Wirtschaft einsetzbar. Erhebliche Unsicherheiten über ihre Wirkungskanäle und oft auch über die Art der wirtschaftlichen Schocks, mit denen sie konfrontiert ist, sind mit ein Grund dafür, dass die Geldpolitik oft gut daran tut, vorsichtig und schrittweise zu agieren. Überzogene Erwartungen in die Geldpolitik sollten vor diesem Hintergrund jedenfalls vermieden werden.

These 3: In einer Welt international liberalisierter Finanzmärkte und der Informationstransparenz sind Glaubwürdigkeit, Konsistenz, Nachhaltigkeit und breite Akzeptanz zentrale Bedingungen für eine erfolgreiche Wirtschaftspolitik. Dies gilt auch für die Geldpolitik.

Eine erfolgreiche Geldpolitik setzt voraus, dass die Finanzmarktakteure, Unternehmen und Lohnempfänger geldpolitische Schritte nicht als Signal missverstehen und dahingehend interpretieren, dass die Notenbank möglicherweise nicht mehr am primären Ziel der Preisstabilität festhält. Wäre dies der Fall, würden die Inflationserwartungen steigen, und das Ergebnis wäre eine höhere Inflation ohne Wachstums- und Beschäftigungsgewinne. Dieses in der ökonomischen Literatur als „Zeitinkonsistenz" bekannte Problem kann gelindert werden, indem die *Glaubwürdigkeit* der Notenbank etwa durch einen hohen Grad an Unabhängigkeit rechtlich untermauert wird. Dies ist einer der Gründe für den weltweiten Trend zu unabhängigen Zentralbanken, den wir in den letzten 10 Jahren beobachten. Aber auch die Notenbankunabhängigkeit ist kein Allheilmittel: Glaubwürdigkeit muss durch konsistentes Handeln immer wieder verdient werden. Der Spielraum der Geldpolitik muss daher wohl überlegt genutzt werden.

Ein damit eng verbundener Aspekt ist, dass Fehlinterpretationen auch dadurch hintangehalten werden können, indem geldpolitische Entscheidungen gegenüber der Öffentlichkeit *transparent* gemacht und klar begründet werden.

Eine wirkungsvolle Kommunikation mit den Märkten und der Bevölkerung ist daher eine zentrale Komponente einer erfolgreichen Geldpolitik.

These 4: Der Erfolg und Spielraum der Geldpolitik hängen wesentlich von der Bereitschaft anderer wirtschaftspolitischer Akteure ab, den Kurs der Geldpolitik zu unterstützen.

Drei Bereiche sind dabei von besonderer Bedeutung:

Der erste zentrale Bereich ist die *Fiskalpolitik*. Ziel ist ein optimaler Policy Mix. Solide Staatsfinanzen erhöhen erstens den Spielraum der Fiskalpolitik, nehmen daher Druck von der Geldpolitik. Zweitens werden durch die Budgetkonsolidierung niedrigere Realzinsen ermöglicht.

Der Europäische Stabilitäts- und Wachstumspakt spielt dabei eine zentrale Rolle. Wichtig ist nun, dass die Vorgaben des Pakts strikt eingehalten und die bisherigen Konsolidierungsbemühungen verstärkt fortgesetzt werden. Sonst entsteht ein Glaubwürdigkeitsproblem für die europäische Wirtschaftspolitik insgesamt.

Der zweite zentrale Bereich ist die *Lohnpolitik*. Eine verantwortungsvolle Lohnpolitik erleichtert der Zentralbank das Ziel, ohne

restriktive Maßnahmen die Preisstabilität zu erhalten. Österreich und eine Reihe anderer Euroteilnehmerstaaten haben eine lange und erfolgreiche Erfahrung mit einem kooperativen Zusammenspiel zwischen Geld- und Lohnpolitik.

Der dritte zentrale Bereich ist die *Strukturpolitik*. Flexible Güter- und Arbeitsmärkte gewährleisten, besonders in einem so großen Markt wie dem Euroraum, dass nötige Anpassungen auf regionale oder nationale asymmetrische Schocks ohne Zuhilfenahme der Geldpolitik – die ja dazu nicht mehr zur Verfügung steht – erfolgen können. Die Reduktion der hohen europäischen strukturellen Arbeitslosigkeit kann letztlich wieder nur durch strukturelle Maßnahmen erreicht werden. Die diesbezüglich erforderlichen Reformen im Euroraum sind noch keineswegs abgeschlossen.

Die Geldpolitik hat wesentliche Beiträge zu Wachstum und Beschäftigung geleistet, sowohl durch die Schaffung eines stabilen monetären Rahmens als auch durch die erhebliche monetäre Lockerung in den letzten zwölf Monaten. Nun liegt es an den anderen Bereichen der Wirtschaftspolitik, das ihre zur Stärkung des Vertrauens in den Wirtschaftsstandort Europa und damit zur Schaffung von Arbeitsplätzen beizutragen.

These 5:Die Geldpolitik ist bei niedriger Inflation und hoher struktureller Arbeitslosigkeit vor besondere Herausforderungen gestellt.

Eine Situation nahe der Preisstabilität stellt für die Geldpolitik eine Herausforderung dar. In der ökonomischen Theorie herrscht Uneinigkeit darüber, ob Nullinflation überhaupt anzustreben ist bzw. wo die *„optimale niedrige Inflation"* liegt. Insbesondere ist eine offene Frage, inwieweit Nominallohnrigiditäten nach langen Phasen niedriger Inflation weitgehend verschwinden oder ob eine moderate Inflationsrate dauerhaft Anpassungen an reale Schocks erleichtert. Die erwähnten Unsicherheiten, denen geldpolitische Entscheidungen unterliegen, machen eine punktgenaue Landung auf ein Inflationsziel unmöglich und erfordern daher einen gewissen Sicherheitsspielraum auch nach unten. Schließlich bestehen auch systematische Messfehler, die die errechnete Inflationsrate nach oben verzerren. Das ESZB hat anlässlich der Entscheidung über die geldpolitische Strategie diese Argumente berücksichtigt und eine positive Inflationsrate, gemessen am HVPI, von unter 2% als Ziel der Geldpolitik definiert.

Im ausgehenden 20. Jahrhundert ist die Arbeitslosigkeit zum Hauptproblem der EU-Länder geworden. Die Wirtschaftspolitik ist die Lösung für dieses bedrückende Problem bislang weitgehend schuldig geblieben. Gleichzeitig haben wir das Ziel nied-

riger Inflation – zumindest für die nahe Zukunft – erreicht, und in Hinkunft könnte der Bevölkerung das Bewusstsein über die makroökonomischen Kosten von Inflation verloren gehen. Es besteht daher die Gefahr, dass eine langfristig ausgerichtete, stabilitätsorientierte Geld- und Wirtschaftspolitik an *gesellschaftlicher Akzeptanz* verliert. Die Notenbanken müssen sich dieser Herausforderung durch eine umsichtige Geldpolitik und durch laufende breite Informationsarbeit stellen.

1 Siehe Shiller, R. (1996). Why do people dislike inflation? In: NBER Working Paper 5539.

Die sehr peniblen Vorbereitungen zur Wirtschafts- und Währungsunion, welche manchmal – und ich weiß das aus eigener Erfahrung – fast als übertrieben bezeichnet worden waren, waren letztlich erfolgreich. Die Einführung des Euro in den elf Mitgliedsländern ist glatt vor sich gegangen. Die technischen Probleme waren beherrschbar. Ökonomische Friktionen sind dank der guten Vorbereitung der betroffenen Länder, der EU-Kommission und des Europäischen Währungsinstituts

bzw. der Europäischen Zentralbank nicht aufgetreten.

Der wichtigste Teil dieser Vorbereitungen lag ohne Zweifel bei der Herstellung der monetären und fiskalischen Konvergenz, welche letztlich die Voraussetzung für die notwendige Zinskonvergenz auf niedrigem Niveau war. Dafür können die Finanzminister Lob einheimsen, mit ihnen aber natürlich alle unsere Bürgerinnen und Bürger, die bei dieser Budgetkonsolidierung ja mitgewirkt haben, die Unternehmen, vor allem jene des Finanzsektors, und viele Vertreter von ihnen sind ja heute hier, aber auch unsere Beamten, welche exzellent in dieser Einführung gearbeitet haben. Ebenso wichtig waren die Formulierungen der Einzelheiten der Geldpolitik, ihre Orientierung, die operativen Zielsetzungen sowie die Ausgestaltung der Instrumente auf europäischer Ebene. Alles von der Öffentlichkeit eigentlich weitgehend unbemerkt abgelaufene Vorgänge, die aber, wie ich meine, von äußerster Wichtigkeit für das gute Funktionieren der Europäischen Wirtschafts- und Währungsunion sind.

Damit waren also die Voraussetzungen für eine gedeihliche Wirtschaftspolitik geschaffen. Dennoch stellt die erfolgreiche Durchführung der Wirtschafts- und Währungsunion noch auf sehr lange Zeit, wie ich meine, einen Lernprozess für uns alle dar. Bei der Schaffung der Wirtschafts- und Währungsunion handelt es sich um ein in der Wirtschaftsgeschichte einmaliges Vorhaben, daher gibt es keine Blaupausen, keine empirischen Beispiele, von denen man im Vorhinein hätte lernen können. Natürlich gibt es seitens der Wirtschaftswissenschaften eine ganze Reihe von Handlungsanleitungen, Optionen werden aufgezeigt. Doch die Notwendigkeit der Praxis, die Realität von elf doch in manchen Bereichen unterschiedlichen Ländern weicht oftmals von diesen theoretischen Vorgaben ab. Hier gilt es für alle Beteiligten, behutsam zu lernen. Vorgänge zu überprüfen, gegebenenfalls auch zu korrigieren und vor allem – und das möchte ich hervor streichen – miteinander sehr offen zu reden.

Lassen Sie mich ein konkretes Beispiel anführen. Wir alle wissen, dass der Kurs des Euro gegenüber dem Dollar seit Anfang dieses Jahres um etwas mehr als 10% gefallen ist. Wir wissen jedoch auch, dass er sich derzeit in etwa auf dem Durchschnittsniveau des ECU-Kurses des ersten Halbjahres 1998 befindet, ein großer Teil seines Rückgangs war daher nur ein Rückgängig-Machen des Anstiegs seit Sommer 1998. Wir wissen auch, dass ein Großteil des Kursrückgangs mit der Wachstumsdifferenz zwischen Europa und USA erklärbar ist bzw. mit der überraschenden Ausweitung dieser Wachstumsdifferenz. Im Herbst 1998 war

nämlich für die USA, wie Sie alle wissen, noch ein Rückgang der Wachstumsrate prognostiziert worden, für Europa dagegen ein Anstieg erwartet worden. Gerade das Gegenteil ist eingetreten. Das hat natürlich Auswirkungen auf die Finanzierungskosten, Erwartungen, Zinsen und letzten Endes auf den Wechselkurs gehabt.

Zusätzlich drückte in den letzten Wochen sicher auch der Krieg im Kosovo und in Serbien auf das europäische Kursniveau. In dieser Situation haben die Finanzmärkte meiner Meinung nach doch etwas stark auf die Meldung einer Erhöhung des italienischen Budgetdefizits von 2 auf 2·4% ausschließlich für das heurige Jahr reagiert. Diese Revision wurde durch die neuesten Meldungen über eine Italien besonders treffende Wachstumsschwäche notwendig. Ich nenne diese Reaktion etwas stark, weil Italien ja gleichzeitig klar gemacht hat, dass es am Konsolidierungskurs festhalten wird, dass es dazu fest kommitiert ist.

Allerdings zeigt diese Reaktion der Märkte auch, dass unsere Wachstums- und Budgetergebnisse sowie andere wirtschaftspolitische Handlungen, aber auch etwa einander widersprechende Aussagen führender Funktionäre unserer geld- und fiskalpolitischen Institutionen von außen sehr, sehr kritisch, berechtigt kritisch überprüft werden. Da laut EU-Vertrag die Finanzminister für die Wechselkurspolitik in Übereinstimmung mit der Europäischen Zentralbank zuständig sind, diese sich aber verpflichtet haben, nur in sehr krassen Fällen so genannte Orientierungen zur Wechselkurspolitik zu verfassen, ist es wichtig, dass ECOFIN und EZB in diesen heiklen Fragen gemeinsam äußerst behutsam vorgehen, um keine Unruhe in die Märkte zu bringen. Die Geldpolitik der Europäischen Zentralbank bewegt sich wie die jeder anderen Zentralbank der Welt innerhalb eines wirtschaftspolitischen Umfelds und ist daher nicht isoliert.

Trotz der starken Betonung der Unabhängigkeit der EZB im EU-Vertrag ist sie gehalten, unter Beachtung ihres Ziels der Erhaltung der Preisstabilität, das Vorrang hat, zur Verwirklichung der wirtschaftspolitischen Ziele des Art. 2 des Vertrags beizutragen. Dies erfordert fast zwangsläufig, dass die Institutionen der Geldpolitik sich mit

jenen der Fiskalpolitik koordinieren müssen, um gemeinsam einen stabilitätsorientierten wachstums- und beschäftigungsintensiven Policy Mix zu erzielen. Dies tun sie in Form eines Dialogs, welcher bisher hauptsächlich im Rahmen der Euro-11-Gruppe, des EZB-Rats, des Wirtschafts- und Finanzausschusses und des wirtschaftspolitischen Ausschusses geführt wurde. Dieser Dialog dient dazu, die Einschätzung der jeweiligen künftigen Wirtschaftslage zu diskutieren und einander von den laufenden Politikvorhaben zu informieren. Dies ist zur Herstellung eines friktionsfreien Policy Mix unbedingt erforderlich.

Beim Europäischen Rat von Köln wurde nun ein weiterer Koordinierungsschritt im Rahmen des europäischen Beschäftigungspakts gesetzt, welcher beim Rat von Wien beauftragt worden war. Es wurde vom Rat die Einrichtung eines makroökonomischen Dialogs zwischen Finanz- und Arbeitsmini-

stern, der Europäischen Zentralbank und den Sozialpartnern gut geheißen und damit anerkannt, dass Geldpolitik, Fiskalpolitik und Strukturpolitik letztlich notwendig sind, um die wirtschaftliche Dynamik Europas zu sichern. Die Geldpolitik alleine stößt sicher an Grenzen. Durch diesen Dialog werden praktisch alle relevanten Akteure auf europäischer Ebene in den wirtschaftspolitischen Dialogprozess einbezogen. Ohne einen solchen Dialog wäre die Gefahr gegeben, dass die

Instrumente der einzelnen geld-, fiskal-, lohn- und strukturpolitischen Akteure einander widersprechen könnten und damit die Wirtschafts- und Beschäftigungslage ungünstig beeinflussen könnten.

Österreich hat in der Vergangenheit mit einem solchen Dialogprozess, in welchen die Sozialpartner immer eingebunden waren, gute Erfahrungen gemacht. Durch diese Art der Koordinierung – und ich halte das für sehr wichtig – ist es gelungen, dass alle wirtschaftsrelevanten Politikbereiche sich als Teil eines größeren Ganzen gesehen haben und ihre jeweiligen Handlungen auf einander in großer Verantwortung auch für andere Bereiche abgestimmt haben. Ich meine, dass wir ähnliche institutionelle Verfahren auch in Europa benötigen, vor allem aber, da in der Wirtschafts- und Währungsunion wirtschaftspolitische Handlungen einzelner Länder, aber auch einzelner wirtschaftspolitischer oder geldpolitischer Institutionen sehr stark auf andere Länder und andere Institutionen durchschlagen. Daher können einzelne Politikinstrumente nicht vollkommen unabhängig voneinander, oder besser ausgedrückt nebeneinander, agieren und gleichzeitig erfolgreich sein.

Die Europäische Zentralbank hat mit ihrem vor einiger Zeit erfolgten Zinsschritt bewiesen, dass sie sich als Teil der gesamteuropäischen Wirtschaftspolitik in der Wirtschafts- und Währungsunion sieht. Sie hat damit ihre Mitverantwortung für das Wirtschaftsgeschehen bei aller Unabhängigkeit, die noch einmal unterstrichen werden soll, signalisiert. Ich meine, es liegt an uns allen, an der Politik, an den Sozialpartnern und an der Europäischen Zentralbank, diese nun geschaffenen Institutionen zur Koordinierung zu nutzen und mit Leben zu erfüllen. Unser Ziel muss es sein, gemeinsam die wirtschaftliche Dynamik, das Wachstum Europas gemeinsam wieder zu beleben und zu sichern.

The tasks and limitations of monetary policy

It is a pleasure for me to be here in Vienna today, and I should like to start by thanking the conference organisers for giving me the opportunity to elaborate on the *tasks and limitations of monetary policy*.

This topic is extremely important. Looking back over the history of economic thought, it is clear that the perception of what monetary policy can do and what it cannot or should not do has changed. This has clearly shaped the role of monetary policy in economic policy. In the 1960s economic theories suggested a long-run trade-off between inflation and output. These theories provided the intellectual basis for policy-makers to pursue monetary policies biased towards higher inflation. The high inflation experience of the 1970s together with new theoretical findings, especially on the role of expectations, led policy-makers to move towards lowering and stabilising inflation.

Theoretical considerations as well as empirical evidence over several decades suggest that high rates of inflation are clearly unhelpful – indeed detrimental – to growth and employment in the long term. A large number of economic arguments point to the benefits of price stability for economic growth and employment prospects. Stable prices eliminate economic costs such as those arising from unnecessary uncertainty about the outcome of investment decisions, the distortionary effects on the tax system, rising risk premia in long-term interest rates and the reduced allocative effectiveness of the price and market systems. To quote Alan Greenspan, chairman of the Board of Governors of the United States Federal Reserve System, "Price stability is achieved when the public no longer takes account of actual or prospective inflation in its decision-making." Monetary policy must take into account the fact that the horizon for decisions by economic agents is rather long-term in nature. By guaranteeing price stability, monetary policy supports the efficient functioning of the price mechanism, which is conducive to the allocation of scarce resources. Price stability is a means of promoting sustainable economic growth and employment

creation and of improving productivity levels and living standards.

Against this background, the predominant view has emerged that the best and most lasting contribution that monetary policy can make to long-term economic welfare in the broader sense is that of safeguarding price stability. Central banks throughout the world have been moving towards adopting long-term price stability as their primary goal.

In order to achieve this goal most successfully, independence from political interference and a clear legal mandate for price stability are of the utmost importance. A lack of central bank independence and an ambiguous mandate can easily force central banks to focus on the short term and, thus, fail to adopt the forward-looking, medium-term orientation that is crucial for a successful monetary strategy.

All these issues were taken into consideration by policy-makers when drafting the Treaty establishing

the European Community and designing the blueprint for the European Central Bank. Both central bank independence and an unequivocal commitment to price stability are therefore tenets of the monetary policy framework enshrined in the Treaty. There can be no doubt that the European Central Bank (ECB) is determined and well-equipped to tackle its main task, namely that of maintaining price stability in the euro area over the medium term. It will thereby make a significant con-

tribution to the achievement of other Community objectives such as high employment and sustainable, non-inflationary growth. In this connection, the pursuit of sound macroeconomic policies by the EU Member States would considerably facilitate the task of the ECB. The room for manoeuvre in monetary policy and the degree of success in terms of maintaining price stability are crucially dependent on the support of sound fiscal policies and responsible wage settlements in the euro area.

The Treaty establishing the European Community states that the primary objective of the European System of Central Banks (ESCB) is to maintain price stability. Without prejudice to this objective, the ESCB shall support the general economic policies in the European Community. It shall operate in a manner that is consistent with the establishment of free and competitive markets. The Treaty states explicitly how the ESCB shall set its priorities. Price stability is the first goal of the monetary policy of the Eurosystem, and a contribution to the achievement of the other objectives of the European Community can only be made if this primary objective is not compromised. However, there is ultimately no incompatibility between maintaining price stability and pursuing these other objectives. By maintaining price stability, the ECB will also contribute to the achievement of other Community objectives.

Of course, the ECB is concerned about the intolerably high level of unemployment in Europe, but we should realise that the role of monetary policy in reducing unemployment in Europe can only be very limited. Many empirical studies show that the high unemployment rate is mostly the consequence of structural rigidities within the European labour and product markets. The European unemployment rate has, indeed, been high and stable over the business cycles in the past decade. Only structural reforms, preferably of a comprehensive nature, can therefore tackle the underlying impediments to employment growth.

The monetary policy of the Eurosystem is geared towards the euro area as a whole and thus cannot take into account purely national and regional developments. The cyclical positions of participating countries have not yet completely converged, although, with the single currency in place, some national differences may disappear over time. This requires national policies and labour and goods markets to be increasingly flexible so that they may respond effectively to economic shocks. Well-functioning labour and product markets are therefore needed to allow adjustments to wages and prices to be made if local economic conditions change.

Budgetary policies play a major role in conditioning monetary policy. National fiscal authorities have to demonstrate their commitment to the maintenance of price stability in the euro area over the medium term. In this context, the Stability and Growth Pact is a crucial element. Its aim is to encourage the pursuit of disciplined and sustainable fiscal policies by the participating EU Member States and the prospective members. Sound public finances, with lower public debt and tax burdens, contribute to lowering long-term interest rates, reduce uncertainty and increase private capital formation. They not only facilitate the task of monetary policy with regard to the maintenance of price stability, but also strengthen the conditions for sustainable growth conducive to employment creation. Conversely, unsound fiscal policies tend to increase inflation expectations and force monetary policy to keep short-term rates higher than would otherwise be necessary.

The single monetary policy has to be conducted independently of the short-term political considerations of national governments. In this context, the ECB cannot commit itself to move its interest rates in a certain way in response to specific actions or plans of other policymakers. Monetary policy has to take into account the overall economic situation to assess the risks to price stability. Direct ex ante co-ordination with fiscal authorities might endanger meeting the primary objective and would set the wrong incentives for the conduct of sound macroeconomic policies. This does not, of course, role out a constructive dialogue between the Eurosystem and government authorities which clearly respects the independence of the ECB.

When dealing with one of the major world currencies and with the currency of one of the two main world economies, it is inconceivable that price stability might be maintained by setting an exchange rate target as an intermediate objective. However, external developments, including the exchange rate, are taken into account in accordance with our strategy, as they may have an impact on domestic economic developments and thereby on price stability. Referring to recent ex-

change rate developments in this context, it is appropriate for me to quote the President of the ECB, Dr. W. F. Duisenberg, who recently said that "the euro is a currency firmly based on internal price stability, and therefore has a clear potential for a stronger external value."

The absence of exchange rate targets for the euro vis-à-vis other major currencies should not be misunderstood. For smaller, very open economies, fixed exchange rates may be a very reasonable choice. The Austrian example is one of the most prominent in this respect. By pegging the Austrian schilling to the Deutsche mark for over twenty years, it proved possible to import credibility and price stability to Austria. The increasingly close pegging of the Austrian currency to the currency of its main trading partner was, among other features of the Austrian policy mix, the driving force behind the economic conver-

gence process in the run-up to Stage Three of Economic and Monetary Union (EMU). The credibility of the Austrian exchange rate target was also underpinned by an income policy aiming at relatively high real wage flexibility and a fiscal policy geared towards consolidation. All in all, the Austrian model, which set out to guarantee stability in nominal and real terms, has turned out to be very successful.

The example given by past Austrian experience is, I believe, very valuable. It shows that the achievement of sustainable convergence with the euro area can be assisted by means of an exchange rate target. The new Exchange Rate Mechanism of the European Union, ERM II, may play a similar role for those current and prospective EU Member States which have not yet joined Stage Three of EMU.

The achievement of price stability is also of high importance for the stability of the financial system. The financial system of the euro area showed a high degree of stability during last year's period of financial turbulence as well as during the rather dramatic structural shift connected to the changeover to the euro. At the ECB, we play our part in the evolution of the euro area financial system by providing it with stable monetary conditions. By creating an environment of price stability, we allow private sector agents to focus their attention on the questions that are most relevant to their activities and to take advantage of benefits of this stable environment, such as the lengthening of their planning horizons. There is a lot of empirical evidence that safeguarding price stability is the optimal contribution that a central bank can make to the maintenance of financial stability and that those two goals are actually complementary.

I should like to conclude by saying that the main contribution of the single monetary policy to the welfare of the people in the euro area will be the maintenance of price stability in the medium term. The ECB is determined to tackle this task and is well-equipped to do so. Our conviction is that the economic performance of the euro area will benefit significantly from price stability. This will ultimately facilitate the achievement of those objectives, which underlie the general economic policies of the European Community and the individual governments at the national level. However, the economic problems in the euro area cannot be tackled by monetary policy alone. We have to be realistic about the goals which can be achieved by monetary policy. Neglecting the limitations of monetary policy and promising too much could, in the long term, be detrimental to the establishment of a stability culture in Europe, and could also lead to delays in implementing the economic reforms that are crucial to achieving high growth and employment.

I will present the Commission's view of monetary policy in EMU from three perspectives:

- *first,* from the perspective of the Commission as the "Guardian of the Treaty;"
- *second,* from the perspective of the Commission as a Treaty institution with responsibilities in economic surveillance and policy co-ordination; and
- *third,* from the perspective of the Commission as an economic service.

The Treaty assignment for monetary policy

Let me begin by commenting on the role of monetary policy from the perspective of the Treaty. In the context of EMU, the Treaty establishes a clear hierarchy of economic objectives. The Treaty also provides an implicit menu for policy assignment.

- *Monetary policy* should target the maintenance of price stability as its primary objective. It should also contribute to the broader economic and social objectives of the Union, but only to the extent that price stability is not jeopardized. This policy assignment does not downplay the role of monetary policy in supporting the broader economic objectives. On the contrary, it recognises the crucial importance of price stability to the achievement of those objectives.
- *Fiscal policy* should be conducted so as to support monetary policy in pursuit of its price-stability objective. This is the motivation behind the Stability and Growth Pact. The Pact requires Member States to adhere to strict fiscal discipline, while allowing them to respond – without inflationary risk – to cyclical developments in their national economies.
- This assignment of monetary and fiscal policies will help to stabilise economic output at close to potential. These policies should then be complemented by *structural policies and policies on wage formation* designed to raise potential output itself.

The policy framework in EMU can be expected to foster high rates of non-inflationary economic growth and employment creation – but only if economic policies are conducted in a manner consistent with their assigned objectives in the Treaty. We cannot expect monetary policy to be deflected from its priority objective – price stability – in an effort to compensate for shortcomings in other policy areas. An expansionary monetary policy cannot substitute for a fiscal stimulus when the automatic stabilisers are constrained by imbalances in the public finances. Nor can monetary policy replace appropriate structural reforms in stimulating the supply side of the economy.

Some might disagree with these views on economic grounds. But there can be no doubt that such a dilution of the monetary policy assignment in EMU would be in clear violation of the Treaty. On the other hand, the Treaty has assigned secondary objectives to monetary policy insofar as the ECB is required to support the achievement of the wider economic goals of the Union without endangering price stability. If the conditions are right – that is if price stability is not threatened – the obligation on the ECB to support these secondary economic objectives is no less than its obligation to maintain stable prices.

Although the policy assignment in the Treaty is clear, the extent of the economic regime change implied by EMU should not be underestimated. The new single-currency environ-

ment has presented policymakers and financial markets alike with a steep learning curve. The experience of the past five months shows that there remains scope for "misunderstandings." The recent – and much publicised – debate on the response of monetary policy to the slowdown in the euro-area economy is clearly a case in point.

The airing in public of such misunderstandings has been unfortunate. It is likely to have created a perception of tensions between the monetary and other economic authorities in EMU. Such a perception – justified or not – threatens to weaken confidence in EMU. Policymakers must be clear among themselves on the respective roles of economic policies in EMU.

Monetary policy in the process of economic policy co-ordination

The Commission plays an active role in policy co-ordination, mainly by facilitating the decisions to be taken by the Council of Economic and Finance Ministers, the ECOFIN. In each of the areas of policy co-ordination specified by the Treaty, the Commission is required to make recommendations to the ECOFIN. For example, the Commission recommends the annual Broad Economic Policy Guidelines, which form the basis for multilateral surveillance of Member States' economies. And it is the Commission that is responsible for identifying the existence of an excessive deficit and for recommending any necessary actions in the context of the Stability and Growth Pact. With the entry into force of the Amsterdam Treaty, the Commission will now have a pivotal role in developing a co-ordinated strategy for employment.

The ECB also has a role to play in the process of policy co-ordination – although I know that this view causes unease among some central bankers. This unease reflects a tendency to equate policy co-ordination with a formal process of ex ante bargaining, in which interest rate cuts are traded in return for commitments on fiscal consolidation or structural reform. Clearly, ECB involvement in such a bargaining process would not conform to the letter or the spirit of the Treaty.

But, is this the reality of policy co-ordination in EMU? For me, the purpose of ECB involvement in policy co-ordination – at the EU or Member State level – is not to strike bargains. Instead, it is to ensure a smoother-functioning EMU by helping to deliver a consistent mix between monetary and other economic policies. What is required, therefore, is dialogue – dialogue to reach a common view on economic developments and on the appropriate policy responses to those developments.

The Treaty provides ample scope for dialogue – on a strictly confidential basis – between the main participants in economic policy co-ordination. The ECB has shown a growing willingness to engage in this confidential dialogue. This is important. If policy co-ordination is to be effective, the role of all economic policy instruments must be included in any dialogue.

Within the policy coordination process, the role of the Commission differs notably from that of the ECB and that of the Member State authorities. The ECB is responsible for the single monetary policy, which it conducts with respect to developments in the euro-area economy as a whole. The Member State authorities are responsible for most of the other economic policies, which they conduct with respect to developments in their national economies in a

common framework implied by the Broad Economic Policy Guidelines and the Stability and Growth Pact. The Commission does not have a direct responsibility for conducting economic policies. On the other hand, it is responsible for economic surveillance at both the EU level and the national level. This combination of responsibilities leaves it uniquely positioned to foster effective policy co-ordination.

Specifically in the monetary sphere, the Commission can use its combined expertise at the EU and the national level to translate the implications of euro-area monetary policy for the evolution of the Member State economies – and hence for the euro-area economy as a whole. One might contend that the ECB already carries out such an analysis when formulating its monetary policy. Obviously, this is the case. But I am sure that the ECB would agree that there is no harm in having another *independent* assessment of monetary policy implications. In short, I would argue that the Commission is perhaps best placed to act as a sort of institutional "ECB-watcher!"

In this context, my services have prepared an inflation report on developments in the euro area and the Member States. Why have we introduced it? First, it fills a gap left by the ECB, which does not produce an inflation forecast that can be used as a basis for policy-making by the ECOFIN. Second, our inflation report will feed directly into the surveillance process by dealing explicitly with the implications of price developments at the national level for other economic policies – notably fiscal policy. In addition, the implications in areas like competitiveness and – hence growth and employment – at the national level can be explored.

An economic perspective of monetary policy in EMU

In addition to these legal and institutional considerations, the Commission's view of monetary policy in EMU is from the perspective of an economic service. I am not suggesting that the Commission would – or should – question the ECB's conduct of monetary policy. This would be contrary to the principle of central bank independence and would be inconsistent with the Commission's role as the guardian of

the Treaty. However, the Commission – like other institutions in both the public and private sectors – must be clear on the economic rationale underlying the ECB's monetary strategy. After all, how else can the Commission play an effective role in economic surveillance and economic policy co-ordination?

Transparency in the strategy underlying the conduct of monetary policy is essential for at least three reasons:

- *First,* transparency increases the effectiveness of monetary policy by contributing to a better understanding among economic agents of monetary policy. For example, wage-setting behaviour can be better oriented towards monetary policy objectives if the strategy for achieving these objectives is clearly understood.
- *Second,* transparency contributes to improved public accountability of a central bank.

- *Third,* by improving public accountability, transparency can enhance the credibility of the central bank and so increase public confidence that monetary policy targets will be achieved.

The ECB has taken great care in devising a "stability-oriented monetary strategy." Based on the two "pillars" of monetary assessment and price assessment, the strategy has the appearance of a hybrid between monetary targeting and direct inflation targeting. This is not the

occasion for a lengthy technical discussion, but suffice it to note that the strategy represents an innovation in central banking. While the ECB has invested considerable energy in communicating the rationale for this choice of strategy, it will take time for economic agents to grow accustomed to the new monetary regime. In this context, I would urge the ECB to continue its communication efforts to ensure that any remaining uncertainties about the strategy are removed.

Conclusion

In conclusion, I would like to congratulate the Oesterreichische Nationalbank for including a discussion of the role of monetary policy in EMU as a major topic of this conference. In itself, this confirms that there remains scope for differences of view on this issue, even among participants in EMU. If EMU is to function smoothly, it is important that these differences be identified and ironed out. I hope my remarks today have made a contribution to doing so.

Johnny Åkerholm

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Johnny Åkerholm

Policy co-ordination in EMU

The new policy environment of EMU

The transition to the third and final stage of Economic and Monetary Union (EMU) on 1 January 1999 marked a historic step in the process of economic integration in western Europe. The eleven Member States participating in the euro area transferred decision making on monetary policy from the Member State level to the European level with the ESCB, the so-called Eurosystem, assuming responsibility for the single mone-

tary policy. Responsibility for other economic policies, notably budgetary policy, remains with the individual Member States.

This configuration of policy responsibilities with monetary policy being rather distant from budgetary and other economic policies presents big challenges for the different policymakers involved.

The task of the European Central Bank is complicated by the fact that it has to conduct a single monetary policy for eleven different economies.Their individual development and the national responses to it, particularly in the budget field, will impact on the euro area as a whole. The ECB will take a big interest in strong co-ordination of national policies.

The task of national policymakers is complicated by the fact that monetary policy is no longer available as an instrument at the national level, and cannot be tailored to the needs of any particular Member State.[1]) Governments and social partners therefore bear a bigger responsibility for achieving the economic objectives with a smaller number of economic policy instruments, and will therefore be interested in joint actions to make them more efficient and harmonious than individual actions on the Member State level. Obviously, this may also require closer co-ordination of policies within Member States.

There is still another reason for closer co-operation and co-ordination. EMU is giving additional impetus to the process of economic integration within the European Union, which has already significantly accelerated in response to the measures aimed at completing the Single Market. It will make prices more readily comparable across the Member States participating in the euro area and eliminate exchange-rate risk. This will strengthen the spill-over effects of Member States' policy measures on other Member States and thus the benefits that can be achieved by properly taking account of these effects through co-ordination.

However, the existence of spill-over effects does not imply a need for co-ordination under all circumstances. Policymakers in one area may align their decisions to those taken by other policymakers (thereby implicitly co-ordinating their policies). Furthermore, for policy co-ordination to be worthwhile, the expected benefits should outweigh the costs of co-ordination involved. The spill-over effects should therefore be sufficiently important. Finally, when co-ordination problems are expected to be frequent and difficult, it might be advantageous to establish clear rules and procedures to deal with them.

An obvious area where cross-border effects may arise is that of

taxation. Important differences in rates and tax bases between Member States may distort economic agents' decisions and cause them to divert from what would otherwise be economically sensible. The distortions may be geographically limited, for example in case of differences in valued-added taxes as consumers engage in cross-border shopping.[2]) In the case of corporate investment decisions, however, the effects may be much wider and longer-term as companies may decide to invest in one country rather than another. Another area which is likely to draw increased attention, also because of increased financial integration in EMU, is that of the taxation of income on financial assets which are highly mobile and therefore sensitive to differences in treatment.

Another area is that of *state aids,* either with the aim of attracting new businesses or in an attempt to keep certain economic activities alive, thereby distorting competition.

Apart from the specific areas mentioned above, it should be stressed that also in a host of other policy areas, Member States may be indirectly affected by each other's policy decisions to the extent that this leads to a sub-optimal performance. For example, Member States may be "punished" by a monetary policy decision from the ECB in reaction to inflationary pressures arising in other Member States that failed to pursue the necessary structural reforms to remove bottlenecks in the economy or failed to control their public finances. There is therefore every reason to try to learn from each other and to apply best practices in the different policy areas (such as labour market policy or the regulation of economic activity).

To summarise, the Member States participating in the euro area live in a *Community of common destiny* and therefore have a common interest in its optimal performance and the contribution thereto of the policies that remain at a national level.

Rules and procedures for economic policy co-ordination

The Maastricht Treaty recognised the need for rules and procedures. It says that for EMU to function properly, there is an enhanced need for economic policy co-ordination to make sure that Member States' economic policies work together efficiently and harmoniously. By taking proper account of the influence (i.e. the positive or negative spill-over effects or externalities) of policy measures taken in one Member State on other Member States, the common policy objectives can be achieved at lesser cost.

Article 102a states that Member States shall conduct their economic policies with a view to contributing to the objectives of the Community. This acknowledgement of the spill-over effects of Member States' economic policies leads naturally to the principle, established in Article 103, that Member States shall regard their economic policies as a matter of common concern and that they shall co-ordinate them within the Council. The Article also establishes a procedure for this co-ordination. It is centred on the formulation and adoption of broad guidelines of the economic policies of the Member States and of the Community.

In addition to these general provisions for active co-ordination, the Treaty has rules for passive co-ordination. They constrain Member States' freedom in conducting economic policies by prohibiting

behaviour that would risk undermining the proper functioning of EMU. In particular, the monetary financing of public deficits is expressly forbidden, as are measures establishing privileged access of public authorities to financial institutions or bail-out operations in favour of public authorities (Articles 104 to 104b). The most obvious threats to monetary stability have thus been firmly contained.

Moreover, Member States are obliged, by instruction of Treaty Article 104c, to avoid excessive government deficits. Given its importance, this provision is coupled with a procedure to identify possible excessive deficits and, if they occur, to further their prompt correction.

Indeed, sound government finances are crucial for strengthening the conditions for price stability and for strong, sustainable growth conducive to employment creation. Therefore, Member States agreed on a Stability and Growth Pact which specifies the provisions for general co-ordination (Article 103), notably with regard to the surveillance of budgetary positions. Even more importantly, the Pact describes in detail how the excessive deficit procedure set out in Article 104c will be applied.

On the relationship between economic and monetary policies, the Treaty provides that, without prejudice to the objective of price stability, the ESCB shall support the general economic policies in the Community (Article 105). The Treaty also provides that the Council consult the ECB on issues wherein the latter is concerned before taking a decision (see notably Article 109). But it is noteworthy that the Treaty does not provide for a co-ordination of policies between the Council and the ECB.

Yet, it is obvious that the success of both the single monetary and other economic policies depend on each other. Therefore, policymakers on both sides have a keen interest in understanding each other perfectly to be able to design and adjust their policies, where necessary, in an optimal fashion. They need to talk to each other and exchange views. The Treaty (Article 109b) provides for the possibility of the Council President and a member of the Commission participating in meetings of the Governing Council of the ECB. Similarly, the ECB President can participate in Council meetings when the Council is discussing matters relating to the objectives and tasks of the ESCB. The Economic and Financial Committee (EFC), set up by Article 109c, is the only forum where all policy actors, i.e. Member State governments, the Commission, the national central banks and the ECB, have a statutory representation.

Economic policy co-ordination in practice

Thus, the EFC, by bringing together high representatives of all relevant policy actors, and considering the tasks conferred upon it, is at the heart of the economic policy co-ordination process in EMU. It provides the ideal forum for frank, open and fruitful dialogue between representatives of governments and those of the ECB.

It contributes to the preparation of the ECOFIN Council, which is the centre for co-ordination of the Member States' economic policies and is empowered to act in the relevant areas. The EFC also contributes to the preparation of the biannual informal meetings between

ministers, the ECB President and central bank governors (the informal ECOFIN), which provide a good occasion for exchanges of views on economic developments and their possible policy implications.

Last but not least, the EFC also contributes to the preparation of meetings of the so-called Euro 11 Group, comprising the ministers of Member States participating in the euro area with only one associate, the Commission and, often, the ECB President. In this small group issues emanating from their shared specific responsibilities for the single currency can be thoroughly explored. The restricted character of Euro 11 Group meetings has nurtured a true club spirit among its participants, fostering open and frank discussions and the willingness to learn from each other.

The process of economic policy co-ordination in the Community is centred on the formulation and the adoption of the broad economic policy guidelines. Regular and close surveillance of Member States' economic policies in the EFC ensures that Member States follow these guidelines.

Particular attention is being paid to Member States' budgetary policies in the context of the Stability and Growth Pact, notably through the examination of the Member States' stability and convergence programmes.

More and more attention is also being given to Member States' structural and labour market policies. Recently introduced procedures support a co-ordinated approach to policies for employment and facilitate the exchange of best practice. Similarly, Member States and the Commission will produce short year-end reports on progress on economic reform, notably with regard to securing the efficient working of labour, product (goods and services) and capital markets.

Although considerable progress has already been achieved in co-ordinating economic policies in all these areas, further progress can and will be made through a process of "learning-by-doing" to make the policy co-ordination process yet more effective.

The challenges ahead

The transition to the final stage of EMU on 1 January 1999 has been

a great success after thorough preparation on an institutional, legal, procedural and technical level. It marked the completion of a long process initiated 30 years ago, and at the same time the beginning of a new era. Policymakers live now in a different world. They are confronted with many new challenges.

For example, money demand functions and the transmission mechanism for monetary policy are changing to yet unknown degrees, requiring policymakers to adapt quickly as data unfold. At the same time, they must act prudently. The ESCB has no track record yet and will have to earn credibility over time. Policymakers are becoming much more interested in developments in each of the participating Member States and their impact on the euro area as a whole, and are building up experience in doing so. The considerable consolidation efforts that have been made in the run-up to the qualification for adopt-

ing the euro must be pursued in future years. Further progress is needed in many Member States to achieve budgetary positions close to balance or in surplus (as agreed in the Stability and Growth Pact). This will give Member States a margin of manoeuvre for budgetary policy that would allow them to deal with normal cyclical fluctuations, notably by letting the automatic stabilisers work, without running the risk of developing an excessive government deficit which could harm neighbouring countries and the area as a whole by raising interest rates.

The achievement of durably sound government finances will also depend on more fundamental reforms. In some cases, budgetary procedures or even political and institutional arrangements may have to be adapted. Furthermore, reforms in labour, product and services markets leading to better functioning economies with less waste of, notably human resources (unemployment) are also essential. In the EMU context, fundamental weaknesses in the participating economies and shortcomings in the functioning of markets resulting in undue rigidities will probably be more clearly exposed than hitherto, and failure to adapt to changing circumstances will be costly not only for the Member State directly concerned, but also for the others.

In mounting these challenges and considering the growing dependence upon each other, policymakers must co-ordinate their economic policies closely. This will not be easy, but the will is there and experience up to now bodes well for the future.

Indeed, the entrance into force of EMU at the beginning of this year has already started to influence the mindset of policymakers. For instance, whereas before EMU, people were used to thinking in terms of their own Member State only when considering issues such as movements in the U.S. dollar and the implications of major developments in the world economy, there is increasing awareness of the EMU dimension and willingness to contribute to its success.

One manifestation of the change in mindset was the initiative of the French finance minister Strauss-Kahn last year to put greater effort into developing more comprehensive and better-quality statistics as a means to gaining better insight into the economic developments in the euro area. The ECOFIN Council agreed to this initiative, and work is now progressing, with priority given to a number of key statistics for the management of the euro area.

Furthermore, there is a growing realisation among the participants in the euro area that they should act in a coherent manner towards the outside world. This has increased their willingness to co-ordinate positions and policies, even on issues where they retain full competence at a national level.

No doubt EMU is creating its own dynamics. The challenges are large, but so are the prospects for success. The signs are that as the challenges mount, so does the policymakers' capacity to deal with them. The EFC will actively contribute to meeting the challenges ahead.

1 Indeed, the monetary policy orientation may even run counter to the other short-term policy interests, making it more difficult to achieve the objectives with the instruments that remain at a national level.

2 An increase in electronic commerce, coupled with mail order services may, however, imply that the geographical impact increases as only goods or services travel rather than the economic agents themselves.


ONB
Volkswirtscha
Tagung 19

Georg Fischer
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Jürgen von Hagen
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Direktor, Zentrum für Europäische Integrationsforschung

Georg Fischer

Comment on:

Policy co-ordination in EMU

This comment will focus on the relationship between economic policy co-ordination and employment policy co-ordination. Several speakers have noted that employment policy co-ordination is indeed an important complement to the Europe-wide provisions on monetary and economic policies. In his interesting presentation, Mr Åkerholm stressed the progress Europe has made in establishing, using and developing the basic instruments for economic policy co-ordination, and he also underlined the need for further improvements in several areas. He and other speakers, including Mr Liebscher and Mr Ruttensdorfer expressed concern about the employment situation in the Union and suggested that improved economic policy co-ordination could substantially contribute to improving the employment prospects in the European Union.

I will first summarise the basic features of the European employment challenge, secondly comment on the contribution of economic policy co-ordination and in particular on the role of the Employment Pact, thirdly outline employment policy co-ordination and conclude

with a general remark on co-ordination as a new methodology for European policies.

First, unemployment is a chronic problem in Europe: It has been exceeding 10% for several years, and half of the unemployed have been without work for more than 12 months. Comparison with the U.S. illustrates the employment challenge. In the mid-1970s, the employment rate (employed persons as a share of working-age population) in Europe was on a par with the U.S. at around 63%. The rate in the U.S. increased to well over 70% by the mid/late 1990s, while in Europe the rate declined to around 60%, and this year, despite recent improvements, will only reach a level of just above 61%. Almost 40% of all Europeans of working age are not employed. To put it another way: Europe could reduce the gap in GDP per capita with the United States by one third if a utilisation of its labour force comparable with the U.S. level could be achieved.

This rough estimate indicates the economic significance of the employment gap between Europe and its main trading partners, which by itself was sufficient reason for Europe to step up action on unemployment and employment. However, there are several factors which explain why employment has gained such prominence in European policies. As regards the economic dimension, there is the fiscal impact of low employment and high unemployment, which is increasingly perceived as a major challenge in the light of the demographic trends in the Union. Then there are changing values and attitudes, which explains why the European Employment Strategy focuses so much attention on equal opportunities. Finally, there is concern about social cohesion – likely to be the most political dimension –,which was clearly expressed at the Luxembourg Summit, *"The issue of employment is central to the concerns of Europe's citizens and every effort must be made to combat unemployment, the unacceptable level of which poses a threat to the cohesion of our societies"*. This point was taken up again by President Herzog of Germany, the present Council Presidency, a few days ago in a major speech, *"if Europe is unable to combat unemployment, the legitimacy of the entire European system will be called into question"*.

All the factors together explain why at the extraordinary European Summit on employment in Luxembourg in November 1997, the Heads of State and Government recognised the significance of the gap in employment performance as a crucial challenge for the European Union as a whole. They stated, *"The objective of these measures (outlined by the employment guidelines), which are to form part of the overall strategy for employment, is to arrive at a significant increase in the employment rate in Europe on a lasting basis"*.

Second, Mr Åkerholm has explained that employment is becoming increasingly important for the economic policies of the Community. Subsequent broad economic policy guidelines are paying attention to the link between economic policies and employment both on the macro and on the structural side of the guidelines. In a nutshell, the message is the following: Higher rates of economic growth on a sustainable basis are clearly identified as one of the conditions for a better employment performance of the Community. There are, however, important linkages between structural policies, in particular employment policies, and growth performance. Three points come to mind: Successful employment policies increase

not only the employment content of economic growth, but also the economic growth potential, in particular by making the labour force more employable and more adaptable. They lower inflationary pressures by reducing bottlenecks in the labour markets. Finally, successful employment policies will also reduce budgetary pressures and thereby help to promote investment and, in turn, economic growth.

The European Employment Pact adopted last Friday in Cologne focuses clearly on this linkage between macroeconomic policies and employment. The Pact targets the smooth interaction of the three main macroeconomic variables in order to maximise the growth performance of the EU economies and to exploit better its employment content. The inclusion of the social partners is crucial in this respect, as they are important players in relation to some of these variables, in particular wages. The Pact is not about formal agreements or negotiations but about improving communication on, and understanding of, these linkages between economic growth and employment, and the complementary nature of monetary, economic and employment policies as well as wage developments.

Third, employment policy co-ordination was introduced into EU policies at the Luxembourg European Council in response to the adoption of the Amsterdam Treaty of the EU. This co-ordination focuses on the structural policies needed to reform European labour markets and to unleash the employment potential, essentially in the services sector. Mr Larsson will describe in depth the policy approach of this strategy. The focus here is on the co-ordination mechanism. The central idea was already clearly described in the conclusions of the Job Summit: *"Such co-ordination will be based on common lines of approach for both objectives and means, the 'employment guidelines', drawing directly on the experience built up in the multilateral surveillance of economic policies, with the success observed in the case of convergence. The idea is, while respecting the differences between the two areas and between the situations of individual Member States, to create for employment, as for economic policy, the same resolve to converge towards jointly set, verifiable, regularly updated targets".*

The co-ordination process followed these basic principles and is now in its second year of implementation. Agreement on common policy objectives was achieved twice, first in Luxembourg and somewhat modified at the Vienna European Council ("The employment policy guidelines"). Given the structural nature of most of these objectives, targets are defined in a multi-annual perspective. To give just one example, Member States have committed themselves within a five-year period to provide all the unemployed with a new start before the first 12 months on unemployment expire. These guidelines have been translated into Member States employment policies ("National Action Plans", which were revised following the Vienna Council).

An analysis of these policies in the light of the agreed objectives was carried out for the first time in 1998. A second round comprising an assessment of policies and performance is under way. It will be discussed by the Council in autumn and may lead to a revision of the guidelines, if necessary. But more importantly, this second round will allow us to draw preliminary conclusions on the success Member States have achieved in moving their policies towards the agreed targets.

The co-ordination process, as stipulated by the Treaty, is based on the recognition that Member States have the main responsibility for employment policies, but consider employment as an issue of common concern and co-ordinate themselves in the Council. The Commission has a twofold role in this respect: First, to initiate the yearly process by presenting to the Council a draft for a so-called Joint Report – an assessment of employment developments and employment policies in the Union – and a proposal for employment guidelines for the following year. Furthermore, the Commission is asked to propose to the Council the issuing of recommendations to Member States if this seems appropriate in the light of the examination of Member States' employment policies. This is an important instrument for co-ordination complementing the yearly guidelines for policies. The second role of the Commission consists in initiating, developing and organising an information exchange and the identification of best practices in the field of employment – so as to allow Member States to learn from each other.

Time does not allow me to explore in detail the differences between economic policy co-ordination and employment policy co-ordination. Obvious differences concern

1) the effects of non-compliance, and in particular related sanctions and costs (financial markets);
2) the initiating countries (Germany and France in the case of economic policy co-ordination, several smaller Member States in the case of employment policy co-ordination);
3) the degree to which the outcomes can be influenced by public policy.

However, given all these differences, one should not overlook the commonality between the driving force behind these two co-ordination processes. Thus, the central expectation of why policy change and reform dynamics in the field of employment should occur is not the fear of formalised sanctions, and indeed, I would doubt that this was the case for the Maastricht process. Peer pressure becomes the main source of policy change, emerging in an annual, continuous policy process among the Member States, and in particular among those lagging behind. As the population and their representatives in Member States lagging behind realise that progress is achievable, criticism will emerge in less successful countries. I recall the heated debate in Germany about the "Dutch" or the "Danish" miracles and the responsibilities different major players, including the federal government, the Laender and the social partners seem to have for achieving similar progress in Germany.

Time will tell whether those are right who see in the Luxembourg process the second application of a European policy methodology successfully applied in the Maastricht progress and continuously used in economic policy co-ordination in the EU as Mr Åkerholm has pointed out. If that is the case, Europe may have created a new type of Community policies half way between legal instruments, the "pure" exchange of best practice and promoting policy dialogue. In other words, a policy instrument which combines the need for developing policies at the European level with the recognition of the fact that Member States are different and that legal instruments may often be inappropriate instruments for achieving common objectives.

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Comment on:

Policy co-ordination in EMU

EMU needs a framework for policy co-ordination

A popular view of economic policy in EMU holds that monetary policy will be responsible for managing the aggregate EMU economy, while fiscal policy will concentrate on smoothing asymmetric shocks that affect the individual states. According to this paradigm, no co-ordination is necessary between monetary and fiscal policy or between the fiscal policies among the individual states. There are several reasons why this view must be refuted. While monetary policy in EMU will aim primarily at price stability, there are other macroeconomic policy goals, such as external balance and full employment, that must be considered. Monetary policy itself would be overburdened with the task of reaching both price stability and external balance and full employment with one policy instrument. This is why the Maastricht Treaty gave the European System of Central Banks the relatively narrow mandate it has today.

The following example illustrates the importance of a proper policy mix in EMU. Consider a situation where EMU on average grows at its trend rate and inflation is below 2%. At a closer look, however, half of EMU, say Germany and Italy, are hit by a negative asymmetric shock, leading to higher-than-usual unemployment and lower economic growth, while half of EMU is hit by a positive asymmetric shock moving his half to the brink of overheating. Conventional reasoning would imply that Germany and Italy run a fiscal expansion to dampen their negative shocks, while the rest undertakes a fiscal contraction.

But this is not the only possible way to deal with such a situation. In particular, one needs to recognize that a fiscal expansion in the sluggish countries could undermine the credibility of the stability pact. Furthermore, policymakers may worry about downside risk: In an uncertain world, there is a possibility that the depressed economies pull down the rest of EMU, which has to be weighed against upside risk, the chance that Germany and Italy will be pulled up by the rest.

One policy alternative would be to tighten monetary policy to allow the booming economies to avoid a (politically unattractive) fiscal contraction. However, this would demand a greater fiscal expansion from Germany and Italy. Another alternative is to ease monetary policy, ask the booming economies for more substantial fiscal consolidation and allow Germany and Italy to refrain from fiscal expansion. The former would reduce upside risk, the latter downside risk.

The point of these considerations is that the same combination of aggregate output and inflation can be achieved via different combinations of the monetary and fiscal stance, and with different implications for the credibility of fiscal consolidation in Europe and for upside and downside risk. Thus, choosing from among these scenarios is far from trivial.

Whatever the choice, it does require some degree of co-ordination among the policymakers. Co-ordination must ensure consistency: If monetary policy eases and Germany and Italy nevertheless embark on fiscal expansions, inflation will increase in EMU. Co-ordination must also ensure credibility: If monetary policy eases, the public must understand that lower interest rates do not signal a move towards a more inflationary monetary policy stance.

It is interesting to note that similar circumstances may have led to the ECB's cut in interest rates on April 8. The absence of a transparent

framework for policy co-ordination, however, forced the ECB to make its move without being able to communicate it properly. As a result, confusion about monetary policy in EMU was increased, while it would have been desirable to create the impression of a clear and consistent monetary policy strategy.

A framework for co-ordination in EMU

A straightforward way to achieve policy co-ordination in EMU would have been to create a common fiscal policy implemented on the basis of a much larger common budget at the EMU level.[1]) But the Maastricht process showed that the Member States did not want that solution. Given this basic condition, policy co-ordination will have to evolve through a mechanism of joint decision making among the participating national governments.

Political economy has long shown that policy co-ordination creates a conflict between individual and collective rationality and, hence, incentives to deviate from the common policy.[2]) To make co-ordination work, it must, therefore, be based on binding agreements on co-ordinated fiscal actions. For EMU, this raises a fundamental difficulty, namely that the current European Treaty provides no basis on which individual member governments can be bound to undertake specific fiscal policy actions. The implication is that a framework for policy co-ordination in EMU must devise its own mechanism to make agreements on co-ordinated fiscal policies binding. This can be achieved if deviating from a common agreement carries significant political or reputational cost for the deviant government. Two rquirements are essential for this: The agreement and the procedure by which it is reached must be sufficiently visible and transparent for the public, forcing a deviant government to justify its action. Furthermore, the other participants and the observers of the process must be convinced of the high quality of the co-ordinated policy.

These considerations imply that the forum for policy co-ordination in EMU should be composed of sufficiently senior representatives of the governments of the Member States and that their meetings must have adequate public visibility. An

informal approach to policy co-ordination that would merely consist of irregular talks and meetings of bureaucrats would not suffice for that purpose. Instead, policy co-ordination should be assigned to an Economic Policy Council (EPC) for EMU consisting of the national ministers of economics or finance or their senior undersecretaries. The role and authority of the Council would be to publish detailed assessments of EMU's macroeconomic stance and to give policy recommendations to all EMU Member States regarding their fiscal policies.

Since the EPC would not be in a position to issue binding directives for the fiscal policies of the Member States, its influence must be built on reputation, specifically with a view to giving sound policy advice and offering high-quality economic judgment. Such a reputation will be unattainable if the EPC suffers from institutional weakness and instability. It requires resources. Thus, the

EPC should be vested with staff providing economic analysis to make it independent of the European Commission and the ECB. Institutional stability could be achieved by a sufficiently long chairmanship, enabling the EPC chair to develop an agenda and a reputation for consistency in policy advice. Coinciding with the terms of most governments, a chairmanship of four years would be preferable.

Deliberations and recommendations of the EPC should be very transparent to force governments to explain why they did not follow its recommendations. The EPC should convene once every quarter to allow the Council to react to current economic developments and make timely recommendations. The chairman of the EPC should be invited to the meetings of the European Council for a report of the EMU economy and to explain its recommendations. This would force the governments to discuss these recommendations in public and reach a public agreement on whether or not to follow them. The chairman should also be invited to hearings before the pertinent committee of the European Parliament, namely that which calls the ECB president to testify. This would raise the status of the EPC in the public debate and give the European Parliament a chance to review and discuss the full macroeconomic picture of EMU.

Critics of earlier proposals for an EPC have raised the fear that such a council would end up making decisions committing the EMU governments to additional government expenditures. In fact, the EPC would risk becoming an instrument of fiscal profligacy if it had the authority to spend money, e.g. in the context of EMU-wide employment programs. Each member would then submit proposals for additional spending which would be paid for in part by taxpayers in other countries and, hence, be considered to be free lunches to a certain extent. The result would be an undesirably high level of expenditures. By contrast, an EPC basing its authority on the quality of its judgment does not need budgetary authority.

Practical alternatives

The current institutional framework of the EU does not include a council as envisioned in the proposal presented above. Under the European Treaty, the president of the European Council and a member of the European Commission can participate in meetings of the ECB's Governing Council. Both, however, are unlikely to serve an efficient co-ordinating function. The president of the European Council changes frequently and can hardly involve himself in the details of economics policy. The Commission is not the relevant institution in this context, since it does not conduct an active European fiscal policy itself. Furthermore, the involvement of the Commission in this matter creates an important agency problem, as the Commission has the task of seeking new initiatives for further European integration. It is easy to see how this mandate could conflict with a co-ordinating function that might often require to limit fiscal activities in EMU.

A more promising candidate to serve the function of the EPC is the new Euro-11 Council of finance ministers. Currently, however, this council does not meet with sufficient frequency and regularity, and its revolving chairmanship does not make for the necessary continuity. Its meetings on the eve of European Council meetings risk being crowded out by issues on the agenda of

the main meeting on the following day, leaving insufficient time to discuss and devise issues of macroeconomic policy. A strengthened Euro-11 Council would need its own, independent schedule of meetings and a rule for determining a more lasting chairmanship. Furthermore, the Euro-11 Council has no resources for economic analysis and must, therefore, rely on the Commission to provide the input for its deliberations. This makes the Council overly dependent on the Commission. One way around this problem would be to create a macroeconomic analysis unit inside the Commission to which the chairman and the members of the Euro-11 Council have direct access.

One problem with the Euro-11 Council is that its strengthening might antagonize the EMU outs, who fear that the EMU Member States might undertake policies against the economic interests of the outs. This problem could be avoided if the task of organizing the Euro-11 Council and of developing the agenda for policy co-ordination was entrusted to the secretariat of the Economic and Financial Committee, of which the outs are members.

ECB and EPC: Friends or foes?

Critics of the proposal for an EPC also fear that a council of the governments coordinating fiscal policies would undermine the leadership of the ESCB in matters of EMU macroeconomics, and that this would endanger the ECB's independence. But there are good reasons to suggest that the central bank will be politically weak precisely because of the lack of an institutional counterpart at the European level. First, absent an EPC, the ESCB will be the only European institution with macroeconomic responsibilities. As such, it will become the focal point of all dissatisfaction inevitably in EMU with macroeconomic developments. Since high unemployment will remain EMU's principal economic policy problem for the foreseeable future, this means that the ESCB will be under constant pressure to ease monetary policy. For a while, it may avoid such pressure by pointing to its mandate for price stability and to the fact that monetary expansion is not the right way to fight high structural unemployment. Like all large institutions, however, the ESCB will eventually yield to sustained political pressure (Issing, 1996). The ultimate result of the institutional imbalance would be an undesirably high rate of inflation.

Central banks in national monetary systems can deflect such pressures by reminding the public of the government's responsibility for labor market policies. In EMU, this would be impossible due to the lack of a central government. The EPC would make the ESCB's position in the public debate easier by forcing the governments to publicly assume responsibility for employment policies. The EPC would redirect public criticism from the central bank to the governments and, thus, help the ESCB maintain a firm price stability orientation.

Furthermore, critics fear that the EPC would exert undue influence on the ECB and pressure it towards a too inflationary monetary policy. A more realistic view, however, must recognize that EMU does not simply abolish the governments' desire to influence monetary policy in their own interest. The way the public debate over monetary policy developed in the few weeks since the German elections in the fall of 1998 illustrates that fact quite forcefully. EMU governments will try to pressure and influence the ESCB

regardless of the existence of an EPC. The issue at hand is, therefore, not whether or not the ESCB will be exposed to political pressures but rather whether or not such pressures take place in an orderly framework.

Without the framework of an EPC, political pressures will manifest themeselves spontaneously and in a nontransparent manner, raising doubts about the ECB's reaction to pressures from individual governments and its credibility. The creation of an EPC would provide an orderly framework for the relations between the ESCB and the governments by structuring their debate and by forcing them to define openly their interpretations of the roles of monetary and fiscal policy in EMU. By making these relations more transparent, the EPC would strengthen the accountability both of national fiscal policies and of the ECB and, thus, raise the quality and credibility of monetary policy in EMU.

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1 This was already foreseen in the MacDougall Report (1977), the first study on the fiscal aspects of European monetary integration. The Report argued that a monetary union in Europe required a Community budget of at least 7% of the combined GDP to adequately provide the functions of a common fiscal policy.

2 The conflict between individual and collective rationality means that it is better for a government to deviate from a co-ordinated policy, given that the other governments adhere to it. Since this is true for all participating governments, co-ordination is inherently fragile. See Fratianni and von Hagen (1992) for a discussion.

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The single financial market

and the restructuring of European banks

Ever since the launch of EMU, all eyes have been on the ECB and monetary policy in the euro zone. That is also the main topic of this interesting conference. However, it is a well-known fact that the central banks also take great interest in the trends in Europe's banking sector. It is a pleasure to be able to speak on this subject today, and an honour to do so before such a distinguished audience.

The impact of Economic and Monetary Union on the banking sector has been commented on in numerous reports and studies, the most recent published by the European Central Bank itself.[1]) The consensus is that EMU is acting as a catalyst to reinforce banking trends that were already underway, such as increasing competition, a reduction of excess capacity and geographical expansion. The general notion is also that market integration will proceed much more rapidly in investment and wholesale banking than in retail banking. The latter, it is often noted, will continue to be heavily influenced by legal, tax and cultural differences. EMU will, in addition, speed up the disintermediation process and stimulate the development of many sectors of the European capital market.

All of this will be to the benefit of bank clients. EMU will help widen the range of services and distribution channels offered to companies and consumers at very competitive prices.

We share these views. But let me discuss some aspects of the banking trends that are currently receiving a great deal of attention.

Consolidation

The most striking current trend is no doubt the new wave of mergers and acquisitions (M&A). This phenomenon can be seen in various industrial sectors, but very prominently also in the financial sector. We are witnessing a rapid formation of large and very large banks, both in the United States and in many European countries, with Italy and France the latest to be in the spotlight. In investment banking and insurance, too, consolidation is an ongoing process.

In this connection, the M&A figures over the past 15 years are telling quite a lot of things. One of the things these figures tell us is that M&A activity in the financial sector since 1985 has been much more extensive in the U.S. than in Europe, even though Europe's financial sector is larger.

The figures also show that *cross-border* M&A activity has been much greater in insurance than in banking and that there have been far more cross-border M&A transactions between European and non-European institutions than among European entities themselves.

This can be put down to several factors. First, it should be noted that the U.S. banking sector has always been and still is even more *fragmented* than its European counterpart. The number of credit institutions in the euro zone is some 8,200 today, whereas there are more than 10,000 insured commercial banks and savings institutions in the U.S., plus almost 11,000 insured credit unions. This fragmentation reflects the geographical restrictions that were imposed by U.S. legislation until the mid-1990s.

Europe may clearly be more *overbranched* than the U.S., with almost twice as many branch offices per head as in America, but the U.S. is more overbanked than most European countries, with twice as many banks per head as there are on average in Europe. The latter is all the more remarkable if one knows that in the U.S. less than a quarter of total

financial flows is led through bank balances. In Europe, more than half is. As a result, the financial market is significantly bigger in the U.S. than in Europe, but total bank assets in the euro zone are more than twice the U.S. figure.

All this means that the *average* size of banks in terms of assets is much smaller in the U.S. than in Europe. The smaller average size of U.S. banks shows up, for instance, in the top 20 banks in the U.S. and Europe, respectively. It also shows up in The Banker's Top 1000, which last year listed some 320 banks in the European Union (270 of them in the euro zone) compared with some 150 U.S. and 120 Japanese banks. As a consequence, the tendency towards consolidation may be stronger in the U.S.

Secondly, the huge number of *co-operative and government banks* in Europe is a major *obstacle to consolidation*. The situation in France and particularly Italy has started to change now, but in Germany there are still many government-owned banks ranging from the fairly large Landesbanken to a myriad of small municipal savings banks. Commercial banks have been complaining that these banks benefit from explicit or implicit government guarantees, which distort the level playing field both on the deposit and on the lending side.[2]) As you may know, the European Commission is currently investigating the extent of these distortions.[3]) For the time being, this feature of the German banking sector is hampering its consolidation. Still, one should not exclude the possibility of a sudden merger wave among Germany's municipal savings banks.

Thirdly, political objections still regularly stand in the way of *cross-border* mergers and acquisitions, particularly among large banks. This is a significant drawback for banks based in smaller countries where the scope for domestic expansion has been used up. This would seem to be the case in the Netherlands, the Nordic countries, Portugal, Greece, recently Belgium and perhaps also Austria. In the larger European countries, there is some scope for further domestic concentration. The insurance sector appears to be less affected by this kind of political "xenophobia."

By the way, even when financial institutions succeed in acquiring some market share abroad, they find that retail banking and insurance remain predominantly a *multi-domestic* business, due to differences in regulation and tax systems, and due perhaps to a certain xenophobia among their clients when considering long-term relationships. In other words, these markets are still far from being homogeneous markets, even within the European Union and the euro zone.

Consolidation has clearly gathered momentum in the past two years on both sides of the Atlantic. In the U.S., interstate banking rules have been largely abolished, and universal banking and bancassurance are gradually gaining ground. In Europe, the euro zone is now a fact. We may therefore expect consolidation to continue at a brisk pace, but facing fewer obstacles in the U.S. than in Europe. As a consequence, U.S. banks may again overtake their European counterparts in the coming years and return to the vanguard of international banking. In fact, we have seen some American mega-mergers already. Last year's merger of Citibank and Travelers has created the world's largest all-finance group, with assets of USD 670 billion and more than 4,000 branches in 100 countries. The merger of BankAmerica and NationsBank

resulted in the first truly nationwide bank in the U.S., with assets of USD 610 billion and 5,000 branches in 23 U.S. states and 37 countries abroad.

The first question asked by the average citizen, politician and supervisor alike is, of course, whether this consolidation trend is justifiable from an economic point of view. The answer is: in general, yes.

Economies and synergies

The launch of the euro has given banks all over Europe a compelling new reason to review their strategy. If they have not done so recently, they should now:

- Identify the most attractive markets,
- try to predict the likely development of their competitive structure,
- seek ways to improve their efficiency and to exploit possible economies of scale and scope on the cost side,
- search for revenue synergies,
- determine whether they have a sufficiently broad diversification across client groups, activities and regions,
- decide on the most suitable institutional configuration, and
- always be aware of the need to keep things manageable.

Depending on each bank's specific situation, the strategy may point towards specialisation or diversification, and to regional contraction or expansion. But whatever the case may be, many will find that they should join forces with other banks. The implied conclusion is that there is a place under the sun for financial institutions of many different sizes and with varying specialisations.

Consolidation may be inspired by economies of scale and scope and by earnings synergies. In some fields with very high fixed costs and important *economies of scale,* there will probably be room for only a few suppliers worldwide selling their services directly to their own corporate clients as well as through white-labelling to smaller banks. This will be the case for cross-border payments and cash management services – an area in which our bank has invested heavily in recent years. It will also be the case for the processing of credit card transactions and various investment banking services. In other fields, such as perhaps private banking and M&A advisory services, there will continue to be ample room for many suppliers.

There may also be important *economies of scope* on the *cost side* thanks to a broadened range of products. These economies may result from sharing of overhead or joint technology development. The in-house information systems may serve many different parts of the organisation. An increased scope may, in addition, lead to a more efficient utilization of bricks and mortar and of the local staff, to provide better advice and a wider range of financial products through the branch offices. As an international and universal bank, we also feel we greatly benefit from the exchange of ideas, not only between the various regions of our international network but also between the various lines of business.

There may also be economies of scope on the *revenue side,* through cross-selling. These economies, or *earnings synergies,* arise particularly if one-stop shopping leaves a client better off than shopping around, taking account of all relevant factors including the client's information, search, monitoring and other transaction costs. Most clients will end up with a variety of financial services bought from only a few financial

providers – if only to keep their financial business simple and manageable. They are likely to shop around at some crucial moments, but still wish to concentrate most of their financial business with one or two preferred diversified suppliers, as long as they do not end up paying significantly more than they would doing business with specialist providers. For this reason, international corporate clients have in recent years been cutting down on the number of banks they hold accounts with – a trend that is reinforced in Europe by the introduction of the euro. As a result, only a limited number of "leading banks" will be able to achieve significant and sustainable cross-selling.

Let me add one word about bank/insurance combinations. Bancassurance in various forms is gradually taking off in a number of European countries. We even saw a first major U.S. example last year, when the giant merger was announced and approved by the Fed, between Citicorp and Travelers, the insurance and investment banking group. As you may know, this merger is a bit of a gamble, in anticipation of a hoped-for abolition of the Glass-Steagall Act. From the angle of the bank, the benefits of bancassurance are the attractive and stable profitability of life insurance, the higher price/earnings ratios and the financial strength. This is supplemented by the new concept of "wealth creation," which points towards an integrated approach of banking and insurance services. For the insurer, the attraction is mainly in the bank's distribution channels and database.

Some economies of scale and scope may arise in overhead components such as asset management, IT and distribution. However, the synergies in marketing and distribution will remain rather modest as long as cross-selling is hampered by the continued existence of multiple labels and separate distribution channels. We feel that banks such as ABN AMRO with one label and integrated distribution channels for their banking *and* insurance services may have a competitive edge in this respect.

Alongside the economies of scale and scope on the cost and revenue side, there may also be significant *diseconomies* of scale and scope. I will

not discuss these or the methods that our bank employs to reduce them. Let me just note once more that each bank will, considering its own situation, have to decide whether it will be able to strike a positive balance by means of expansion and diversification.

All in all, we have seen and still see opportunities for economies of scale and scope as well as earnings synergies in a number of important areas, but also a challenge to counter the ever-present danger of diseconomies. The euro zone will be home to a variety of universal as well as specialist institutions, but monetary union does compel the current players to rethink their strategies, and in some cases, to redirect their activities.

Market structure and concentration

All of this has implications for the market structure in the euro zone. Over the last 10 to 15 years, concen-

tration ratios have been rising in all EU countries, in response to European market integration and partly already in response to currency unification.

The introduction of the euro leads to fiercer competition and lower relevant concentration ratios. The ongoing consolidation trend, on the other hand, will lead to larger banks, and concentration ratios will recover somewhat. Here, I would like to make three comments.

First, it is often argued that margins and cost-to-income ratios tend to correlate positively with higher *concentration ratios,* implying that monopoly power and inefficiency increase with concentration. That may be true in principle, but other factors turn out to have a much stronger influence on margins.

Banking figures do not show a correlation in Europe between concentration on the one hand and interest margins or bank profits on the other. This finding is confirmed by the situation in the U.S., where concentration levels seem lower than in individual European countries, but interest margins are very high – an observation I have made before.

Second, *comparing* concentration ratios by *country* has always seemed a rather futile exercise to me, given the widely diverging sizes of those countries. These concentration ratios are, generally speaking, much lower in large countries than in the smaller ones. This does not say very much about *relevant* concentration levels and actual competition, because the *relevant markets* vary with the banking services in question and do not necessarily coincide with the national economies.

Nowadays, the relevant markets in wholesale banking are mostly larger than the national economies, whereas in retail banking the relevant markets are still significantly smaller. Many corporate clients can now buy their financial services abroad, while most households prefer a bank in their neighbourhood and can usually choose from two to four competitors, whether they live in Belgium, Bavaria or Burgundy. The rise of telephone and electronic banking does, of course, lead to new forms of competition, but it also helps to further blur the geographic definition of markets.

All of this goes for the United States as well. An American law such as the Riegle-Neal Act, which limits the market share captured by mergers to 10% of retail deposits nationwide and to 30% in each state, does not take account of differences in size between states. A market share of 25% in a large state such as California might conceal a much larger share in, say, its northern half which, by the way, has a population equalling that of the Netherlands. The same might be true for seemingly modest market shares in large European countries.

This said, one might make a comparison between the U.S. and the euro zone, which are of roughly similar size in terms of population and GDP. It turns out that the U.S. may have the larger number of small banks, but also more pronounced concentration at the top. Its largest domestic bank, the new Bank of America after the merger with NationsBank, has a nationwide market share of roughly 8%. In the euro zone, a hypothetical merger of Deutsche Bank and ABN AMRO Bank would lead to a combined market share of just 5%. The C-5 concentration ratio, measuring the market share of the five largest banks, is now some 30% in the U.S., that is roughly double the ratio in the euro zone, which stands at less than 15%.

Third, it is sometimes argued that the euro is unlikely to have much of an impact on market concentration in wholesale financial services, which is already a globalised industry. Perhaps so, yet we feel that the arrival of the euro *has* removed a funding cost advantage of domestic banks over banks from elsewhere in the euro zone. Therefore, we expect competition in wholesale banking to become even keener in the wake of Monetary Union.

I would conclude that the creation of the euro zone has significantly reduced relevant concentration in wholesale and investment banking, but much less so in retail banking. Given the concentration ceilings guarded by the competition authorities, this may sooner rather than later lead to major cross-border mergers, in spite of national sensitivities. We have already seen numerous such mergers in other sectors of the economy, but also the first in banking in the Benelux bloc and Scandinavia.

Disintermediation

One last word on convergence and disintermediation: Looking ahead, the general expectation is that the financial systems in the United States and Europe will converge due to deregulation in the U.S. and very sizeable *disintermediation* in Europe. If Europe were to become exactly like the U.S. in this last respect, this would mean that the aggregate balance-sheet total of Europe's banks would eventually be halved, in favor of Europe's capital markets. It should be noted that the impact on bank income would by no means be *that* dramatic, as there will be a further shift from interest revenue to fees and other non-interest revenues related to financial transactions. Securitization of bank assets will play an increasing role here. But I also think a reduction of bank balances by 50% is a scenario that is too extreme to be likely.

One interesting difference between European and American banks is the interest margin. U.S. banks have survived the international debt crisis, the real-estate crisis and the savings and loans crisis of the 1980s. They now enjoy sound balance sheets and healthy profits. At the same time, their interest margins are well above European levels. This may partly explain why disintermediation has taken place on a much

greater scale in the U.S. than in Europe. It may also imply that Europe is unlikely to ever experience the same degree of disintermediation, assuming that margins in Europe stay relatively low.

But that assumption depends, of course, on the causes of this remarkable difference in interest margins between the U.S. and Europe. In fact, interest margins in Europe may well be considered too low, and one cause might be the prominent role of government-supported and co-operative banks in Europe's financial system. Looking at the demand side, consumer credit related to credit cards is much more popular in the U.S., and the Americans, just like the British, seem to be more prepared than many continental Europeans to pay for their bank services. Another factor might be a better debtor quality on average in Europe than in the U.S., where the best debtors turn directly to the capital markets. Apart from that, return on

equity objectives in Europe may also be lower.

Several of these factors will be very slow to change. Therefore we expect that disintermediation in the euro zone will be a rather gradual process and that we will not rapidly see U.S. proportions here.

Tomorrow's financial sector in the euro zone and the U.S.

We expect that supply- *and* demand-related factors both in the euro zone and in the U.S. will lead the market to some kind of dynamic equilibrium, in which universal banks will at least play an important role alongside more specialized institutions in specific areas. EMU-wide players will arise particularly in money-market activities and large issues, corporate finance services, cross-border payments and cash management services.

The current wave of mergers will continue for some time yet. The economies and synergies in a number of important lines of business are compelling arguments in favour of further consolidation. The dominance of the U.S. investment banks and the challenge by the new U.S. commercial banking giants will add to the sense of urgency in Europe. At the same time, anti-trust authorities should be expected to prevent regional and national concentration from exceeding certain levels. In cases in which national authorities fail to do so, for the sake of creating large national champions, European anti-trust authorities might interfere. The first *cross-border* merger between two large European banks will therefore be only a matter of time. And if one sheep leaps over the ditch, more are bound to follow . . .

We feel that – allowing for a certain degree of trial and error, and perhaps with some sacrifice of national pride – all of this will lead to ever better financial services, at ever better prices . . .

1 ECB (1999). Possible effects of EMU on the EU banking systems in the medium to long term. February. ECB (1999). Banking in the euro area: structural features and trends. In: ECB Monthly Bulletin, April. See also Professor Ingo Walter – Financial services strategies in the euro zone (paper, to be published in 1999).

2 Declaration on public credit institutions in Germany (declaration nr. 37 adopted by the Conference and annexed to the Treaty of Amsterdam), followed by a similar Declaration of Austria and Luxembourg on credit institutions (Declaration nr. 1 of which the Conference took note and annexed to the Treaty of Amsterdam).

3 See the Report of the European Commission to the Council of Ministers: Services of general economic interest in the banking sector (presented to the ECOFIN Council on November 23, 1998).

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Monetary policy and the real economy

The discrepancy between economic theory and practice

Often, there is a discrepancy between what practical people such as business executives or government decision makers and academic economists think about the same questions. Benjamin Friedman (1995) illustrated this phenomenon in the light of the still open issue of whether monetary policy affects real economic activity. Only a few policymakers and central bankers doubt that raising interest rates will have an impact on output and employment growth in the short run. Economic research however, still focuses on whether monetary policy affects real activity at all, and on how large such effects might be.

Whereas the phenomena we are examining are highly complex, progress in economic science seems to be only possible with simplification. In the simplest economic models monetary policy does not affect the real economy. As long as economists use simple models, where markets clear instantaneously, the idea of a world in which money is a veil will continue to have strong appeal.

In the recent past, we have seen growing literature on models (dealing with such topics as market imperfections and resulting rigidities, asymmetric information, and the like) implying that monetary policy has significant short-term real effects, which is more in line with the results of empirical studies.

Thus the aim of the conference is to present some thoughts on both academic research and central bank experience and to suggest where one may benefit from the other.

I will briefly review some of the most recently debated issues in this field and then proceed to ask what the general implications for the conduct of monetary policy are.

Does inflation grease the wheels of the labor market?

It is widely accepted that high inflation is associated with significant welfare costs[1]) and that price stability is an appropriate goal of monetary policy. How to define price stability is still controversial. Several arguments have been put forward against zero inflation targets. It has been argued that high and medium rate inflation should be a fundamental policy priority, but that ruducin already low inflation even more is not likely to significantly improve the functioning of the market. Akerlof et al. (1996) demonstrate that the prevalence of downward wage rigidity interferes with a firm's ability to adjust real wages in the case of shocks. Nominal wage rigidities are usually attributed to the money illusion, social standards and nominal contracts. Whether downward wage rigidity would disappear under a regime of low or zero inflation is open to debate. If nominal wages are downwardly rigid, a reduction to a zero inflation rate would increase unemployment through a corresponding increase in real wages. Against the background of historically low inflation rates, the idea that inflation would "grease the wheels" of the labor market, originally stressed by Tobin (1972), was revived in academic literature as well as in the political debate (Groshen and Schweitzer, 1997).

The main policy conclusion is that targeting zero inflation will lead to a unnecessarily high rate of unemployment. Groshen and Schweitzer (1997) state that this is only true if the benefits of moderate (above zero) inflation due to facilitating adjustment to shocks when wages are rigid downwards (grease effect) outweigh the cost caused by distortionary price and wage fluctuations (sand effect). They quantify the

grease and the sand effect for the U.S. and conclude that, at levels of up to 5%, the net impact on inflation on unemployment is beneficial but statistically indistinguishable from zero. Thus the results seem to suggest that grease and sand effects exist but offset each other.

Nominal rates bound at zero

Another argument in favor of a moderate inflation rate above zero is that it allows the central bank to direct the real interest rate below zero if a negative demand shock occurs (Orphanides and Wieland, 1998). The contractionary effect of a negative demand shock would even increase real interest rates if the shock rises expectations of falling prices. Negative real interest rate prevailed during the recession of the 1970s.

Hysteresis and the costs of disinflation

The traditional analysis implies that inflation can be reduced without long-term costs in terms of output and employment. Short-term costs depend on the degree of wage and rice rigidities in the economy and on how quickly expectations are adjusted. The Phillips curve approach describes the path of unemployment as the sum of two independent components, a structural (NAIRU) and a cyclical component. The latter is determined by demand shocks (monetary or fiscal policy shocks) that have a transitory impact on unemployment only. The former is influenced by supply shocks that have a permanent impact. If there is hysteresis in the labor market, the notion that the cyclical component does not affect the trend no longer holds true. Due to a loss of occupational skills or the elimination of real capital, a temporary demand shock may have a permanent effect on unemployment.

The phenomenon of hysteresis implies that a temporary shock has a lasting effect on unemployment. In the case of a negative demand shock, such as restrictive monetary policy or any other demand shock, the long-term Phillips curve shifts to the right if there is hysteresis in the labor market. However, against the background of hysteresis, any demand shock will have asymmetric affects: Restrictive monetary policy

will increase the NAIRU, while it is less likely that the NAIRU will be reduced through expansionary policy (Bean, 1994).

Whether hysteresis exists and whether demand shocks have a permanent effect is still open to debate. But even if this is the case, macro demand stimulation cannot redude unemployment permanently because of the asymmetric persistence mechanism.

Credit channel

Most economists agree that at least in the short run, monetary policy has a significant impact on the real economy. There is far less agreement, however, about exactly how monetary policy exerts its influence. According to the money view, an increase of interest rates depresses aggregate demand by raising the cost of capital. With the pure cost of capital effect, two problems arise (Bernanke and Gertler, 1995): First, empirical studies have had difficulty

in identifying a quantitatively important effect of the neoclassical cost-of-capital variable. Second, in empirical studies, monetary policy has a strong impact on housing or production equipment, which should be responsive primarily to real long-term interest rates. However, the central bank, controlling the short-term interest rate should have a weaker impact on long-term rates.

The obvious discrepancy between the conventional view and empirical evidence could be explained by the predominance of the credit channel of the transmission mechanism. In this view, monetary policy directly constrains the ability of banks to make new loans, making credit less available to borrowers who are dependent on bank financing. Thus, in the credit channel, restrictive monetary policy works not only by raising interest rates, but also by directly restricting bank credit. The empirical relevance of the credit channel is still unclear.

Conclusion

The brief review of selected new lines of research has shown that not only policymakers, but also academic economists seem to believe that monetary policy has short-term real effects. This implies that in principle, the central bank could moderate economic recessions as well as cyclical expansions. Two questions arise:

1. What can we conclude for the conduct of monetary policy? and
2. Can monetary policy help mitigate the unemployment problem in Europe?

Even if real effects exist, central bankers have to be careful when using monetary policy as a countercyclical policy instrument, because they have to take time inconsistency into account. Central bankers could be tempted to reach for short-term employment gains by means of discretionary measures, which would induce an inflationary bias. Smoothing business cycle fluctuations is only consistent with the primary goal of price stability if central bank's policy is credibly committed to this ultimate goal. Making central banks independent was an important step towards mitigating time inconsistency problems.

Whereas real effects exist in the short term, there seems to be evidence that monetary policy measures have no medium- or long-term effects. The growing literature on causes of high unemployment in Europe suggests that unemployment is to a large extent a structural phenomenon calling for structural, supply-side policy measures to lower structural unemployment. However, explaining persistently high unemployment solely by supply-side factors, such as too strict employment protection regulations, is implausible, since unemployment increased further in the 1980s, when rigidities were reduced. It could well be argued that cyclical factors combined with structural factors may to some degree explain high unemployment in Europe (Blanchard, 1997). Along these lines of thought, expansionary monetary policy as a response to negative demand shocks could help to avoid a further rise in structural unemployment.

We know that in Monetary Union, a high degree of real wage flexibility is a crucial prerequisite for its smooth functioning. Institutionally, this requires a wage bargaining process appropriate to the prevailing macroeconomic conditions. The question here is whether labor unions will easily adapt to the new monetary regime (i.e. whether they will adapt to the fact that national central banks will no longer

accommodate high wage demands). A European social partnership, an institutionalized dialogue between all relevant policymakers including the ECB, might well be conceivable if we consider that the recent EU Council meeting took the important step of adopting the European Employment Pact.

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Tobin, J. (1972). Inflation and Unemployment. In: American Economic Review, Vol. 62, No.1; 1–18.

1 *The primary argument in favor of low and stable inflation is that high inflation implies high variability of inflation. Thus, when inflation is difficult to predict, prices function less well as signals in the distribution of resources. It becomes difficult to distinguish between a change in relative prices, which motivate a reallocation of resources, and a general increase in the price level.*

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Monetary policy and price stability

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Karen H. Johnson

I Introduction

The decade of the 1990s has witnessed a surprising, and most welcome, slowing of inflation in most industrial countries and many developing countries. Average consumer price inflation in the OECD countries has declined from 12 1/2% in 1980 to less than 2% in 1998.[1]) Along with this price deceleration has come a generally accepted view among policy authorities, and also in academic circles, that the primary responsibility of central banks and monetary policy should be to maintain at least this degree of price stability, if not to reduce inflation even further.

In response to these developments, some debate has emerged about whether conditions of price stability pose special problems for monetary policy. In this paper, we explore some issues that arise with respect to implementing monetary policy under conditions of sustained price stability. In particular, we summarize the analysis undertaken on these issues at the Federal Reserve Board. Before beginning this discussion, we review recent experience and selected historical episodes of price stability in the United States and Japan. Experience with near price stability has been limited, and does not yet provide a basis for reaching definite conclusions about the implications of near price stability for monetary policy.

When the inflation rate is clearly higher than desired, policymakers are primarily concerned with the transition costs of lowering inflation and the speed with which they should seek to accomplish that objective. A considerable literature on these issues exists. In this paper, we will not be addressing the question of transition costs. Rather, we focus on monetary policy under conditions of ongoing price stability. We study the implications of price stability both for the *formulation* of monetary policy (that is, for setting inflation objectives and choosing a strategy for meeting them), and for the *implementation* of monetary policy (that is, the use of various tools in carrying out the chosen policy).

We begin by reviewing briefly episodes from historical and current experience to show that under conditions of very low inflation or even deflation, such as during the Great Depression in the United States or Japan now, there can be limits on the ability of monetary policy to restore aggregate demand in response to economic collapse. However, during other episodes, such as in the United States in the mid-1950s and in the current period, we have observed price stability or near price stability and continued economic expansion.

We next discuss several issues that concern the selection of the inflation objective. First, there are price measurement questions that have to be recognized in articulating the goals of monetary policy under sustained low inflation. Second, there are questions of the behavior of other key nominal variables, wages in particular, when price increases are on average about zero. If nominal wages behave in an asymmetric fashion and rise in markets when demand is strong but resist declining in those markets where demand is weak, firms will on average face higher labor costs in periods of very low inflation or declining prices. Third, there may be other channels through which conditions of very low inflation change relationships within the real economy. Examples of such channels include factors linking inflation with productivity growth and with the rate of unemployment consistent with stable inflation (the NAIRU – nonacceler-

ating inflationary rate of unemployment).

A major constraint on both the formulation and implementation of monetary policy under conditions of price stability is the "zero bound" on nominal interest rates.[2]) Nominal rates cannot fall below zero because cash is an alternative store of value. Cash dominates all other nominal assets in terms of liquidity and other characteristics save one: cash pays no interest. So if any other nominal asset paid a negative interest rate, private agents would refuse to hold that asset until its rate of return rose at least to zero.

The zero lower bound on nominal interest rates is likely to become a constraint on monetary policy when nominal interest rates are low on average, which will tend to be the case when long-term inflation is low. In that case, when confronted with a weakening economy, the central bank may find that even though it has lowered its normal policy rate very close to zero, the economy has not recovered. In order to avoid such an outcome, policy authorities might choose a higher inflation objective so that, on average, nominal interest rates are higher and there is more room to lower interest rates should the need arise. Also, policymakers might alter their policy reaction function when the economy is at or near the target of price stability in contrast to when it is somewhat farther from it.

In this paper, we summarize the results of research done at the Federal Reserve to clarify these issues for the United States. We also consider the availability and effectiveness of alternative policy tools when the nominal interest rate tool is at the zero bound constraint. Finally, we present a framework for analyzing monetary policy reaction functions that can illuminate the choices facing policymakers in a regime of price stability.

2 Historical and current experience with price stability

History offers only limited opportunities to examine industrial countries in an environment of sustained low inflation. Some of those experiences have been quite painful for the countries involved, notably for the United States during its Great Depression and for Japan currently. But for the United States in the 1950s and early 1960s, very low inflation by and of itself did not seem to hinder the conduct of monetary policy. And over recent years, the low inflation in the United States has been associated with strong economic growth and a need to keep short-term real interest rates rather high.

2.1 Low inflation and economic stagnation

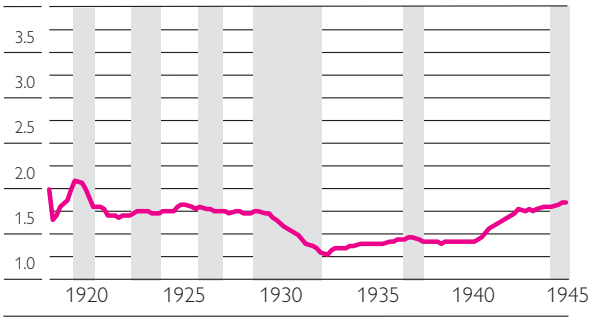
An overview of the performance of the U.S. economy during the period of the Great Depression is provided in Graph 1. As can be seen in the top two panels, the price level in the United States was little changed in net terms from 1920 to 1945, although the rates of inflation and deflation were quite variable and, presumably, quite unpredictable. As shown by the thickest shaded region in all panels, the Great Depression started in 1929, as dated by the National Bureau of Economic Research (NBER), and continued into 1933. During this period, the Federal Reserve lowered short-term nominal interest rates from about 4% in 1929 to virtually zero in 1933, with the short-rate staying at about zero into the 1940s. However, as deflation took hold over this period, estimated short-term real interest rates actually rose through

Graph 1

The U.S. Great Depression

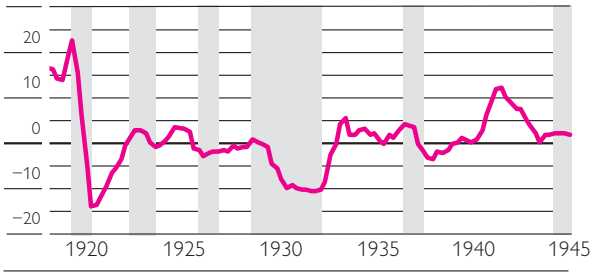
Consumer Price Index

Ratio Scale



Inflation (four-quarter change)

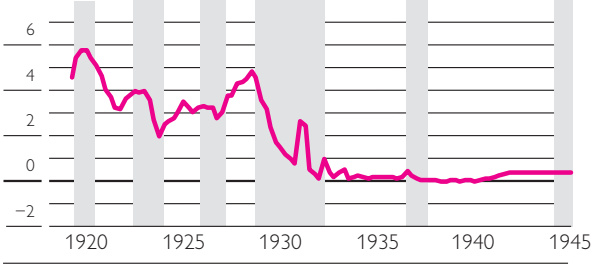
Percent



Calculated using the consumer price index.

Short-Term Nominal Interest Rate

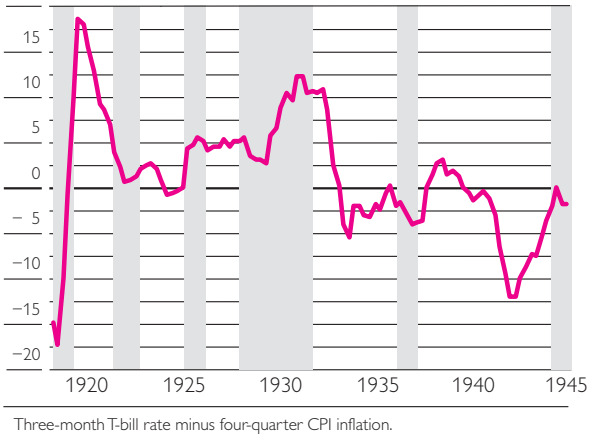
Percent



Rate used is three-month T-bill rate.

Short-Term Real Interest Rate

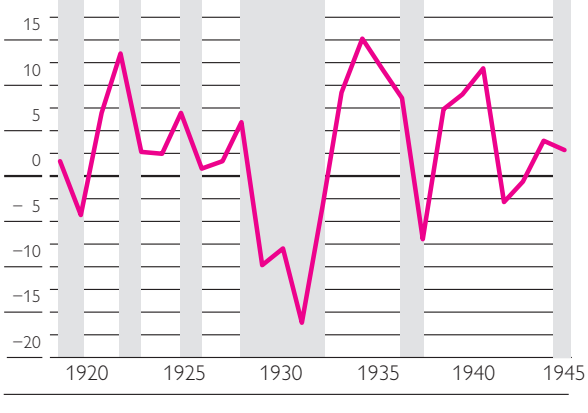
Percent



Three-month T-bill rate minus four-quarter CPI inflation.

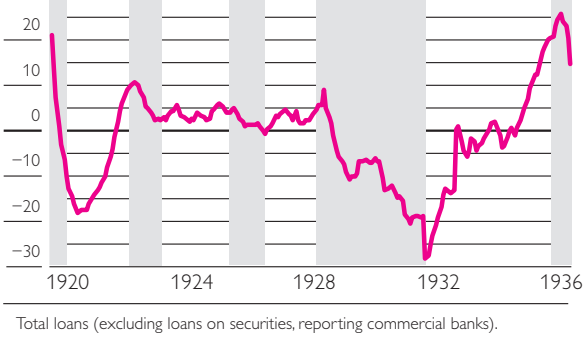
Real GNP Growth (four-quarter growth)

Percent



Growth in Bank Loans (four-quarter growth)

Percent



Total loans (excluding loans on securities, reporting commercial banks).

1933, as shown in the middle right panel.

In retrospect, if the Federal Reserve had lowered nominal interest rates earlier and more aggressively, the deflation of the Great Depression might have been more modest, or perhaps even avoided, because inflation would have been higher and real interest rates lower even though nominal rates were zero. But the Great Depression was also characterized by a banking sector that, at times, was either literally shut down or was open but was contracting loans to businesses and individuals. As shown in the bottom right panel, loan growth at commercial banks was negative for most of the Great Depression and for some time thereafter. This undoubtedly was a drag on aggregate demand and shut down a channel through which monetary policy, in normal times, affects aggregate demand. Reaching the zero bound is almost certainly more problematic in such situations of financial stress than it is when financial intermediaries are healthy.

Stated alternatively in terms of the tools of monetary policy, if the zero bound is a potential problem, the monetary authority would want to monitor the health of financial institutions with extra vigilance and take precautions that it has at its disposal tools that can directly address any problems with intermediaries. Tools such as these were used in the United States in the early 1990s to deal with the problems in the thrift industry. The need for such tools is less pressing when nominal interest rates are positive. At such times, the central bank can boost the values of bank assets, improving the liquidity and solvency of banks, by lowering interest rates.

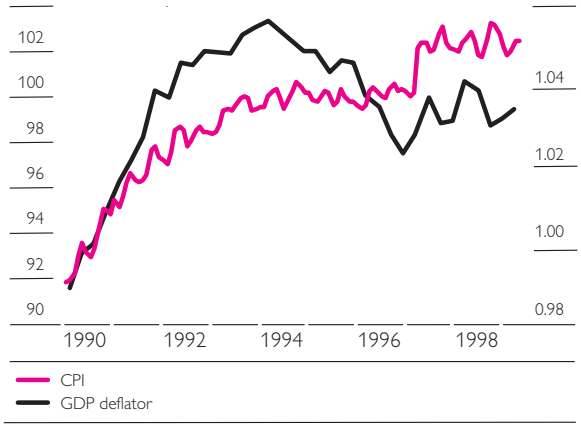
The zero bound has also arguably been a problem recently for Japan, as shown in Graph 2. Japanese economic experience has been strongly influenced by asset price declines and shifts in the stance of fiscal policy over recent years. It is beyond the scope of this paper to consider the impacts of these fiscal measures in particular. But, in the event, monetary policy has apparently been constrained by the zero bound. Short-term interest rates are near zero, as the Bank of Japan's overnight rate has been reduced below five basis points. And as in the United States during the Great Depression, the growth in loans by the banking sector has fallen dramatically, as shown in the bottom right panel of Graph 2.

In this situation, the Bank of Japan (BoJ) has used new tools to try to stimulate private-sector lending. In late 1995, the BoJ implemented repurchase agreements using commercial paper, in an attempt to circumvent the traditional bank-lending channels and provide new funds to the commercial paper market. On average during 1998, the BoJ held, through such repurchase agreements, about one-third of the outstanding stock of commercial paper. In November 1998, the BoJ expanded its commercial paper activities by extending from three months to one year the maturity of the commercial paper eligible for repurchase. It also established a temporary lending facility, which was in existence through the first quarter of 1999. This temporary facility made funds available to financial institutions equal to 50% of the increase in loans extended by each institution during the fourth quarter of 1998, provided that 50% or more of the collateral consisted of private corporations' debt obligations. The BoJ has also moved to initiate policy operations in which pools of corporate bonds and loans on deeds would be formed and the BoJ would

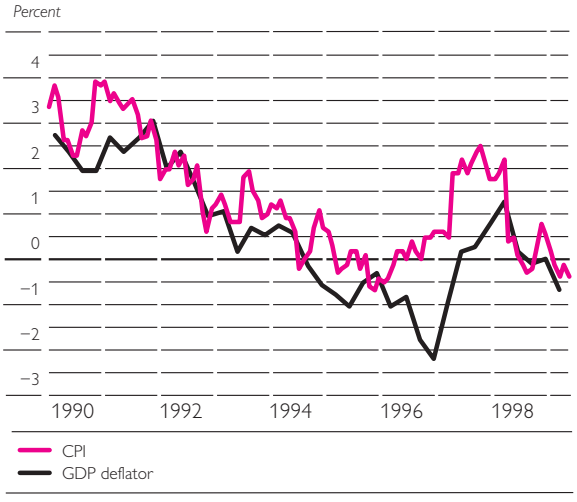
Graph 2

Recent Japanese Economic Performance

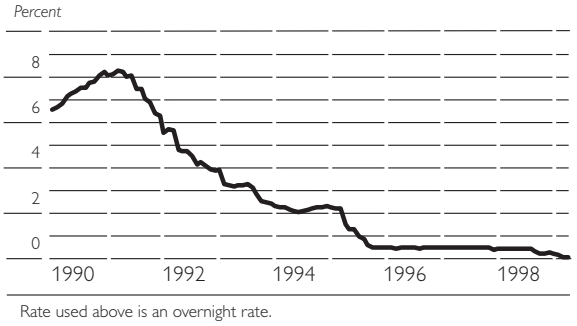
Price Level



Inflation (twelve-month change)

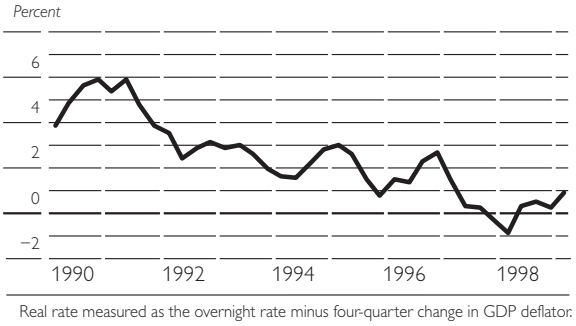


Short-Term Nominal Interest Rate



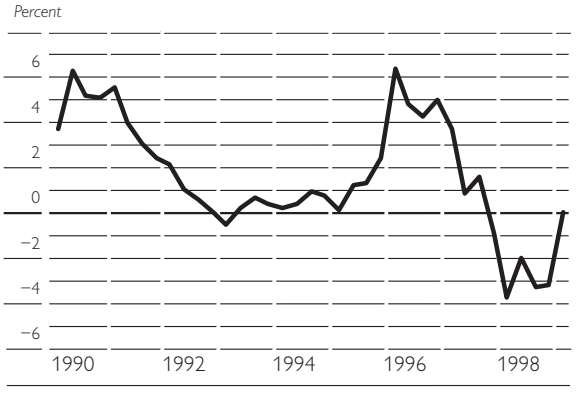
Rate used above is an overnight rate.

Short-Term Real Interest Rate

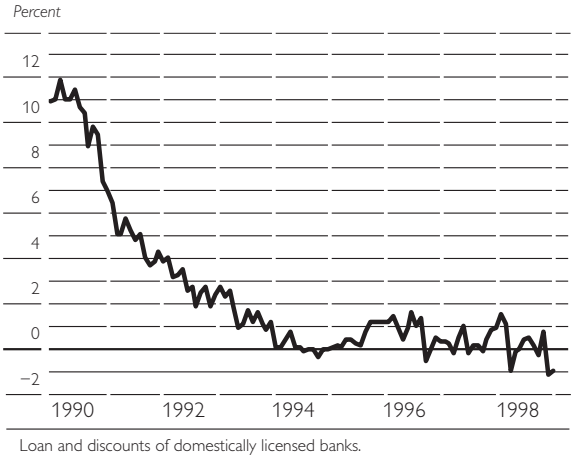


Real rate measured as the overnight rate minus four-quarter change in GDP deflator.

Real GDP Growth (four-quarter growth)



Growth in Nominal Loans (four-quarter growth)



Loan and discounts of domestically licensed banks.

purchase bills collateralized by such pools.

Although such programs allow the BoJ to enter the corporate debt market, at least indirectly, the BoJ structures these programs so as to limit the corporate default risk it takes onto its balance sheet. In the repurchase operations, the commercial paper must be endorsed by the seller (i.e. by the BoJ's counterparty, typically a bank) and the pools of corporate debt likewise limit the credit risk taken on by the BoJ. To the extent credit spreads are high in such circumstances and the central bank structures its operations so that the credit risk is not transferred to its balance sheet but remains in the private sector, the direct impact of these programs through reducing the cost of funds might be quite limited. However, programs such as these can potentially increase the liquidity of banks and thereby spur lending.

2.2 Low inflation and good economic performance

Although low inflation can bring nominal interest rates close to their lower bound of zero, history provides cases in which low inflation produced no discernable problem for monetary policy and the economies performed very well. One example is the United States economy in the 1950s and early 1960s. As shown in Graph 3, inflation varied between about 0 and 4% from 1952 to 1958, but was fairly steady at $1^1/_2$% from 1958 through 1965.[3]) Over this period, economic growth averaged about $3^3/_4$%. Even though the U.S. economy experienced three recessions, as defined by the NBER, the zero bound on nominal interest rates was never reached. Indeed, short-term rates tended to move up over the period. As shown in the lower right panel, as the U.S. economy moved into recessions, loan growth at commercial banks slowed. But loan growth stayed positive and rebounded sharply in the economic expansions.

More recently, as shown in Graph 4, the United States has enjoyed another period of low inflation. In the early 1990s, inflation fell to about 3% as the U.S. economy suffered a recession associated with financial stress at depository institutions. But more recently, inflation has ebbed to below 2% (using the CPI) even as output growth has remained robust. Underlying these developments has been strong growth in productivity, which has helped hold down inflation, boosted investment in plant and equipment, and produced gains in equity markets that have spurred aggregate demand. Financing conditions, as indicated by equity prices and by loan growth (lower right panel), have been generally conducive to growth.

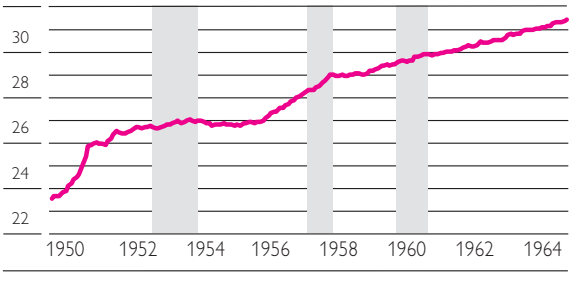
In this economic environment of low inflation, the Federal Reserve has faced no threat from the zero bound. Indeed, while the current nominal federal funds rate of $4^3/_4$% is toward the lower end of its range since the 1960s, the real Treasury bill rate, as estimated in the middle right panel, is towards its high end, excepting the period during the early 1980s when Federal Reserve policy was restrictive in order to reduce inflation from very high rates. As pointed out below, an open question discussed at the Federal Reserve is the extent to which the lower inflation may have contributed to the pickup in productivity growth and the higher equilibrium levels of real interest rates. To the extent lower inflation has such an effect, the zero bound becomes a less pressing problem at low (but not negative) rates of inflation.

These historical experiences may indicate that economies can do quite

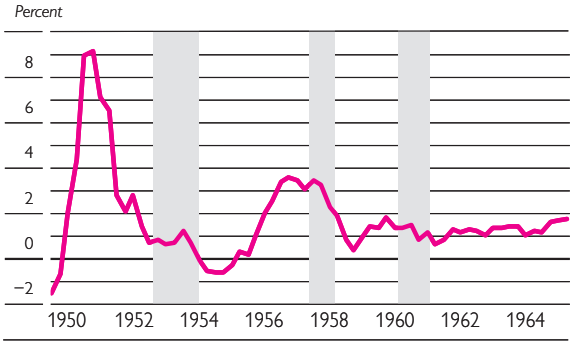
Graph 3

U.S. Economic Performance: 1950 to 1965

Price Level

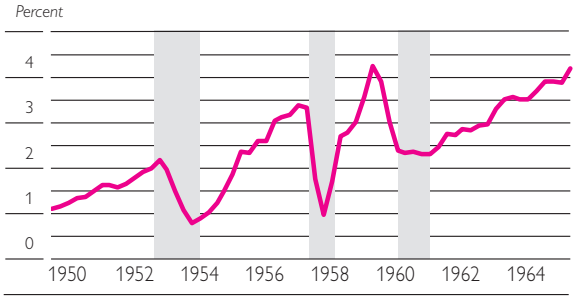


Inflation (four-quarter change)



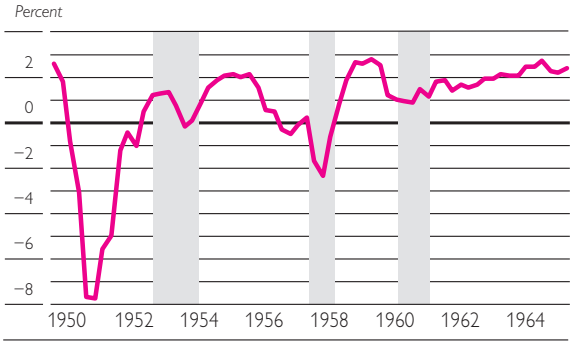
Inflation above is measured by the Consumer Price Index.

Short-Term Nominal Interest Rate



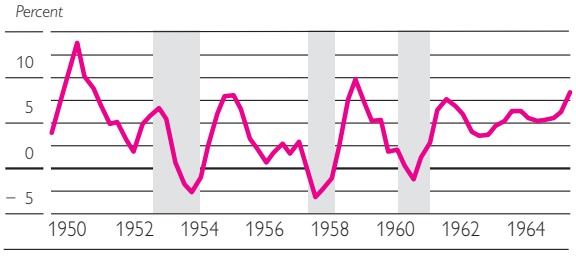
Rate used is three-month T-bill rate.

Short-Term Real Interest Rate

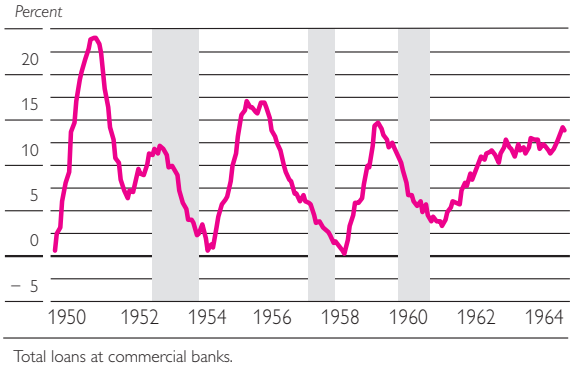


Rate used is three-month rate minus four-quarter change in consumer prices.

Real GDP Growth (four-quarter growth)



Loan Growth (four-quarter growth)

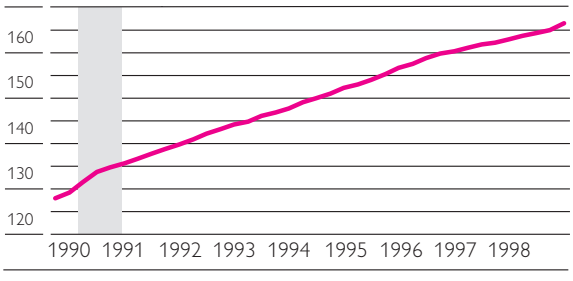


Total loans at commercial banks.

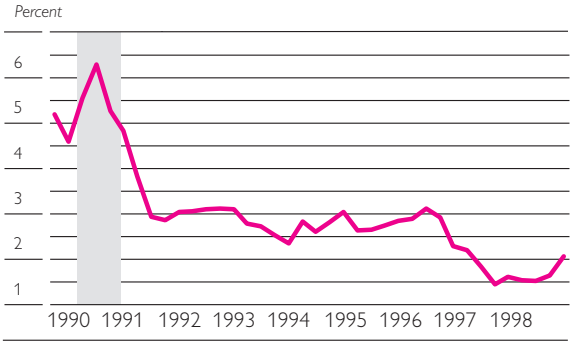
Graph 4

Current U.S. Economic Performance

U.S. Price Level

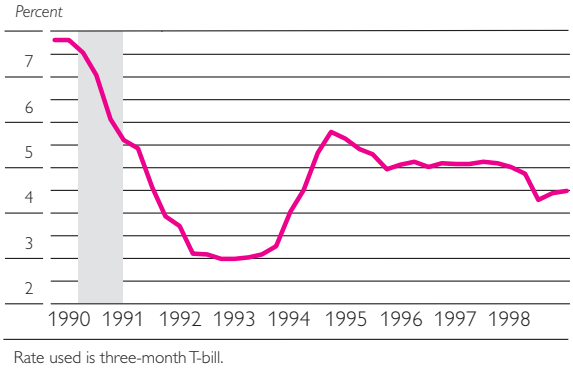


U.S. Inflation (four-quarter change)



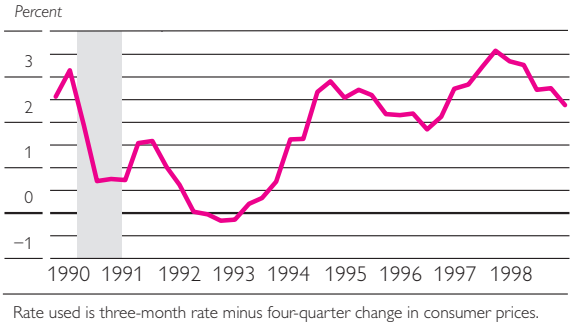
Inflation above is measured by the Consumer Price Index.

Short-Term Nominal Interest Rate



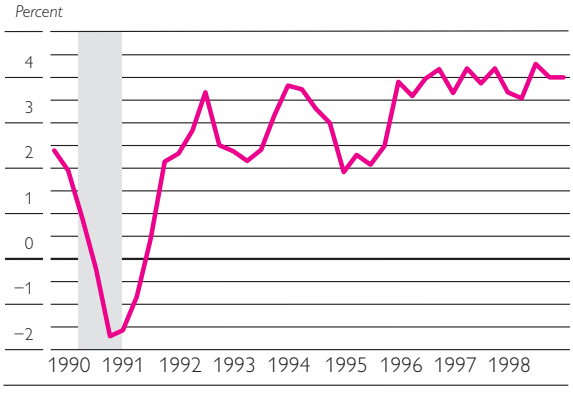
Rate used is three-month T-bill.

Short-Term Real Interest Rate

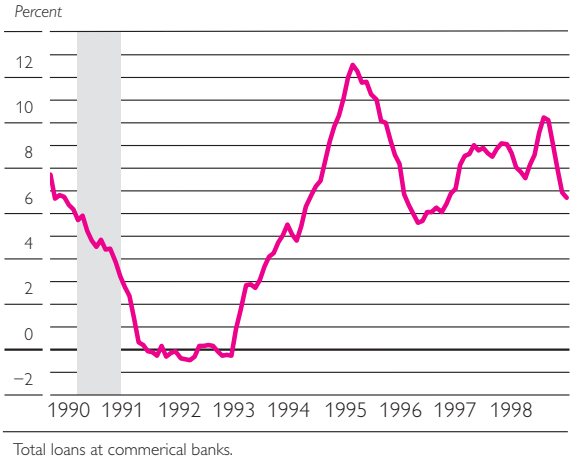


Rate used is three-month rate minus four-quarter change in consumer prices.

Real GDP Growth (four-quarter growth)



Loan Growth (four-quarter growth)



Total loans at commerical banks.

well at price stability, in particular if they are not hit by downward aggregate demand shocks, although they do suggest that the health of the financial sector may be particularly important should the zero bound be hit.[4]) However, this historical review gives little guidance as to how low central banks can aim to reduce inflation, and what structural aspects of the economy the lower limit to inflation depends upon. We now turn to these questions.

3 Selecting inflation objectives

3.1 Price measurement issues

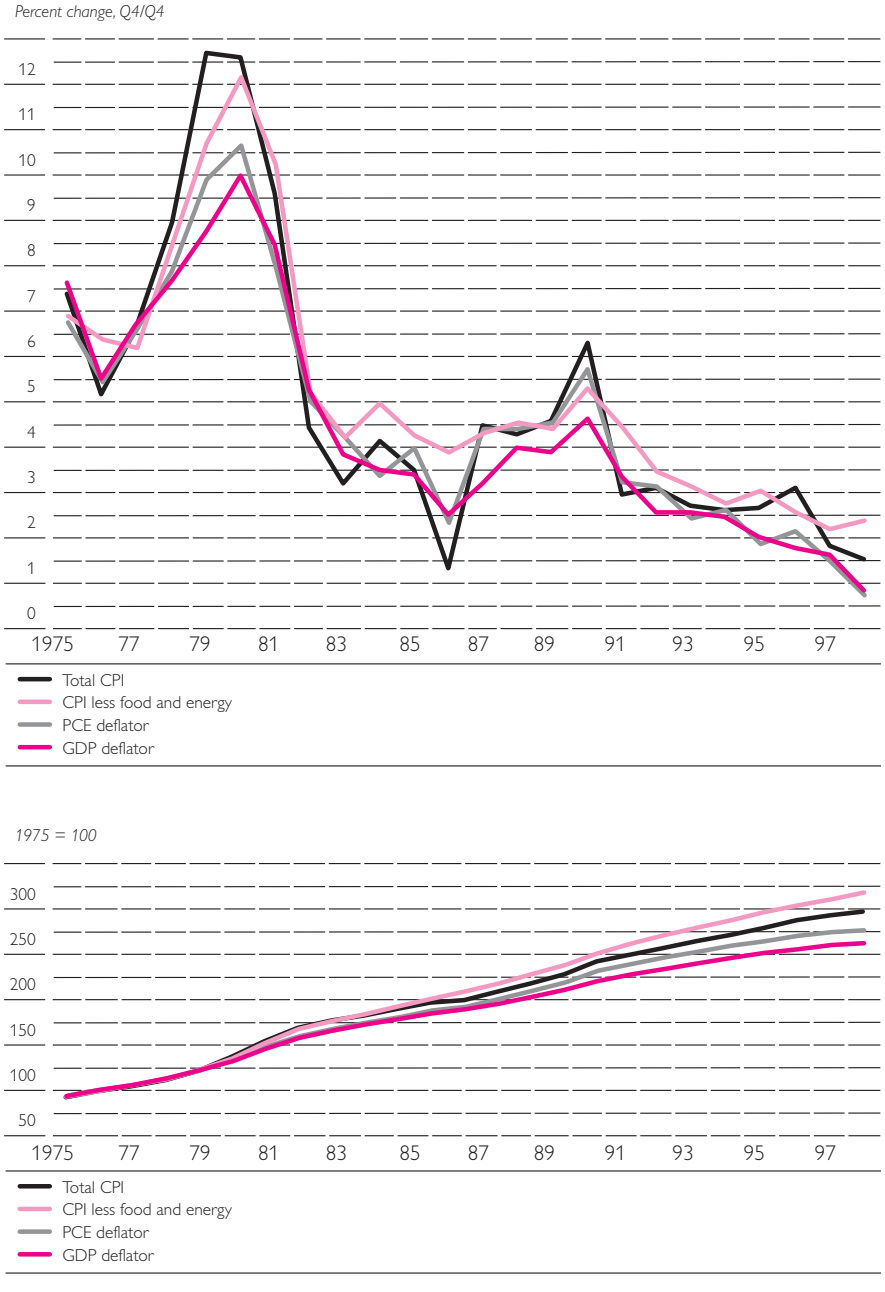
In order to seek to maintain price stability, policy authorities must form an implicit or explicit notion of what is meant by price stability or the target rate of inflation. This implicit or explicit goal may be a point target, a range, or a ceiling on the rate of price increase; however, the interpretation of price stability as a ceiling raises questions of whether measurable rates of price deflation do not constitute violations of price stability. Clearly, for an explicit goal, and even for an implicit goal, it is necessary to confront the measurement problems inherent in the index numbers commonly computed for prices. Those measurement problems include issues of (1) differences in the alternative index numbers that might be used, i.e., questions of composition and definition and (2) bias in particular measures owing to the techniques used to construct the index.

The range of alternative price measures commonly used includes consumer prices, producer or wholesale prices, and deflators from the national income accounts. Because producer or wholesale price indexes normally cover only a limited range of particular goods and no services, these indexes are not suitable as indicators of general price stability. Consumer price indexes are usually fixed-weight index numbers that cover a wide basket of goods and services, typically updated at discrete intervals. Subindexes are frequently cited, such as the index excluding energy prices or other volatile price series. Among the deflators, that for personal consumption is an alternative to the consumer price index, with similar coverage. Alternatively, the GDP deflator reflects the mix of production, rather than consumption, within the economy and so effectively excludes prices of imported goods and services. Deflators are typically constructed using a weighting scheme that distorts year-to-year comparisons.[5]) In the United States, the national income accounts have been redefined to be chain-weighted measures, so the deflators are essentially defined as the percent change of each year from the year earlier for an up-to-date set of weights.

When policymakers are seeking to induce significant change, over time, in the inflation rate, the differences at any point in time of these alternative measures are generally not sufficient to be important. But when the goal is to maintain inflation within a fairly narrow range of zero or some low number, these differences can be significant. Graph 5 shows the annual rate of change, fourth quarter to fourth quarter, in four alternative measures of U.S. inflation since 1975. As is evident from the chart, there have been times when inflation, as measured by these indexes, has differed significantly. These episodes include periods of high inflation, such as 1979/80, but they also include an interval such as 1986, when world oil prices fell sharply. As inflation has generally declined in recent years, these measures have been quite close

Graph 5

Consumer Price Indexes: United States



at times, such as in 1994, but less so at others, in 1996 and 1998. More importantly, the consumer price index less food and energy signaled an increase in inflation in 1998 from the rate in 1997 while the other measures recorded a decrease. Using the GDP deflator as the standard, one might plausibly claim that the United States has achieved virtual price stability, with measured inflation recently under 1%, but based on the core CPI, with measured inflation of over 2%, there remains work to be done in lowering inflation.

As can be seen in the bottom panel of Graph 5, the alternative

index numbers have tended to display consistent differences over time, resulting in evident differences in price level measurement over two or three decades. More important for our purposes, however, is the fact that at near price stability, the differences between the alternative inflation measures, at 1 percentage point or more, are large compared with the measured rate of inflation of 1 to 2%. Thus, consideration of which index or indexes to use and how to interpret "price stability" in terms of that index can be important. There is no right or wrong answer to the question of which index to use, but it is important to understand the characteristics of the measure being relied upon to guide policy.

Because the CPI or subindexes of the CPI have been quoted in the media and used in various contracts, etc., for cost-of-living adjustments, these indexes have tended to be regarded most frequently as the widely-accepted measure of inflation. For these indexes, in particular, there are serious questions of bias. In the United States, the sources of bias in the measures of consumer prices have been examined closely.

For analytical purposes the bias is thought of as falling into three categories: substitution bias, new product bias, and quality change bias. Substitution bias refers to the fact that with a fixed market basket of goods and services, the index does not allow for substitution by the consumer in response to changes in relative prices. In addition, the index does not take into account the substitution of alternative sources for a good when relative prices at different outlets change. New product bias arises because of the difficulty of introducing new products into the index and capturing their effect on inflation when the basket is updated to include them. Quality change bias results from improvements in the quality of products that are not adequately captured, but instead are recorded as price increases. On balance, these biases lead to an overstatement of inflation by the standard consumer price index.

A study done several years ago of the total bias in the U.S. consumer price index by the Boskin Commission estimated that the bias led to an overstatement of inflation of 1.1% per year, with a plausible range around that estimate of 0.8 to 1.6% per year.[6]) In recent years, in response to concerns about the bias as evidenced by this study and others, the U.S. Bureau of Labor Statistics has introduced reforms into the calculation of the Consumer Price Index. Related improvements have been made by the Bureau of Economic Analysis to the indexes in the national income accounts.[7]) These methodological changes (some of which are still to be implemented) are estimated to lower measured annual consumer price inflation by nearly 0.7 percentage points and measured inflation of the GDP deflator by almost half that amount.[8]) Not all of these improvements can be thought of as reducing the biases discussed above as some of the changes were anticipated in the calculation of the bias. Nonetheless, on balance the bias in the consumer price index and the deflators have been reduced significantly.

In conducting monetary policy under conditions of price stability, it is essential that the policy authority recognize the differences in alternative price indexes and have a reasonable estimate of the extent of bias, if any, in each. Otherwise, there is a risk that too low a target for inflation will be set. If, for example, a target of zero is set for an index with significant positive bias, the mone-

tary authority would, in effect, be imposing deflation on the economy. As a result, distortions such as increases in the real value of nominal debts would occur, thereby creating windfall gains for creditors and losses for debtors.

In general, as long as the imperfections in our various standard measures of inflation are well understood both by the public and by the central bank, it should be possible to formulate monetary policy in terms of one or more of them at times of price stability. If the various agents in the economy are aware of the "true" inflation rate that is relevant for their decisions, they will correctly perceive price stability; and their decisions will not be distorted. However, if some agents respond to a biased measure of inflation as if it were "true" while others do not, distortions could result. Such an outcome might occur if labor market contracts or decisions treat inflation as measured by a given index as "true" inflation when it is in fact biased. Similarly, in assessing various measures of real interest rates, the bias embedded into the measures of inflation needs to be taken into account. In explaining prospective monetary policy in the semiannual Humphrey Hawkins Report to Congress, Federal Reserve officials do not set an explicit target or range for any price index. Considerable attention is paid, however, by Federal Reserve officials to the differences in the standard measures of U.S. inflation and to the biases that remain in those measures.

3.2 Inflation and real economic behavior

"Price stability" has near-universal acceptance as an appropriate objective of monetary policy, and there is a similarly broad consensus that the monetary authorities should seek to keep inflation rates, properly measured, "low," if not actually at zero. But what are the arguments for choosing among alternative low rates, including zero? In the United States, price inflation as measured by the consumer price index has remained between 1.3 and 2.3% (12-month changes) for the past 24 months. Would an even lower rate be better?[9])

One reason why low, but positive, inflation rates may actually help the economy is that positive inflation

may make it easier for real wages to adjust downward. If nominal wages are sticky downwards – if workers are particularly resistant to cuts in their nominal, as opposed to real, wages – firms may find it difficult to make changes in real wages. In this case, firms will face higher than optimal wage costs, and sustainable output will be lower as a result. If the central bank were to pick a very low target rate of inflation, rigidities in the economy would emerge that could be avoided at a slightly higher target rate.

It may also be the case that the negative effects of inflation on the economy are lower at lower inflation rates, and therefore the potential gains from reducing inflation further, once it is already below some threshold, are less. (For example, it may be the case that inflation is less variable, and therefore more predictable, at lower rates.) The empirical literature finds only weak evidence, at best, of a negative relationship

between inflation and economic growth at very low levels of inflation. As a consequence, central banks may see little gain from risking greater problems from the zero bound constraint by selecting an extremely low target rate of inflation.

However, some recent evidence suggests that lower inflation is associated with faster productivity growth, even at low inflation rates. This correlation appears most pronounced in recent data for the United States – it is obviously of interest to see whether it emerges in Europe and other areas as well. Where it holds, this relationship implies an interaction between the target rate of inflation and sustainable growth.

All of these factors are essentially empirical phenomena – some will characterize a particular economy more than others. Their importance for choosing a target rate of inflation will similarly vary across countries. In the remainder of this section we review some of the evidence on the importance of these factors in the United States.

3.2.1 Inflation and real wage adjustment

In his presidential address to the American Economic Association in 1971, James Tobin famously suggested that inflation "greases the wheels" of the labor market, and by implication, argued that some positive rate of inflation was desirable for the economy. A substantial literature has used survey data to address the empirical question of whether wages in the United States do in fact exhibit signs of downward nominal rigidity. The basic approach is to test for truncation in the sample distribution of individuals' wage changes – most investigators report a significant concentration of nominal wage changes at zero and a significant truncation of the lower (negative) tail, suggesting that nominal wage cuts occur less frequently in the data than they would if they were unconstrained.[10]) There has been only limited work on this topic done for countries outside the United States. Because the nominal wage rigidity presumably reflects a variety of cultural and institutional factors, it is hard to say how important this effect might be in other countries.[11])

While most observers agree that there is credible evidence of downward rigidity in U.S. wages, assessing the macroeconomic or welfare implications of this fact is not straightforward. In a recent and influential paper, Akerlof, Dickens, and Perry (1996) use stochastic simulations of a dynamic general equilibrium model to obtain a substantial negative impact on welfare of a reduction in inflation from 3 to 0%. This paper makes an important contribution in that it analyzes downward wage rigidity in a complete macro model, but the model used is highly abstract and is only loosely calibrated to U.S. data. It is fair to take their results as suggesting that the welfare effects of downward rigidity should not be dismissed out of hand, but they should not be regarded as definitive. Critics have argued, in contrast, that the effects of downward wage rigidity in the United States are too small to be important to the overall economy and that recent experience with low and falling inflation rates in this country has not provided any evidence of the effects of increased wage rigidity. More recent work at the Board by Lebow and others uses a new dataset to obtain results supporting the existence of downward wage rigidity. Other authors have argued that evidence of downward rigidity reflects historical

levels of moderate to high inflation, and that in a world that actually achieved near-zero inflation, worker resistance to nominal wage cuts would be reduced.

3.2.2 Inflation and economic growth

There is a substantial literature that uses cross-country data to test for an empirical relationship between inflation and economic growth.[12]) Using a simple cross-country "growth regression" framework, in which a country's average growth rate over one or more decades is regressed on average inflation and other explanatory variables, investigators have generally found evidence of a negative relationship between average inflation and real growth rates over the period since 1960. This approach has also been used to identify a negative relationship between the variability of inflation and economic growth: Countries with a more variable inflation rate tend to have lower average rates of economic growth. However, because of the high positive correlation between the rate and the variability of inflation, these studies have not been able to demonstrate with any precision that the level of the inflation rate affects economic growth independently of its effect on variability. In other words, simple cross-country growth regressions do not tell us whether high inflation is bad for growth because it is high, or because it is unpredictable. Further, these studies have had only limited success in identifying a nonlinear relationship between inflation and growth – an increase of 1 percentage point in the inflation rate has the same effect on growth whether the inflation rate itself is 0 or 50%.

Two Federal Reserve economists, Ruth Judson and Athanasios Orphanides, have adopted another approach in a recent paper to investigate these points.[13]) They use a cross-country panel regression of annual data, rather than averages over the entire sample, and they construct intra-year measures of inflation variability using quarterly data for many of the countries in their sample. This approach yields sharper estimates than the basic growth regression approach. The authors are able to identify separate, significantly negative effects of inflation and the variability of inflation on economic

growth. These results confirm that lower inflation is good for economic growth, even if the variability of the inflation rate remains the same, and thus reinforce the case for reducing inflation as much as possible, even down to zero.

Judson and Orphanides also obtain good estimates of the concavity of the response of growth to inflation. They allow for a differential response for inflation rates below 10% per year, between 10 and 40%, and above 40%. In these results, the negative relationship between growth and the level of inflation is insignificant, or in some cases reversed entirely, for countries with inflation rates below 10%. In contrast, the negative relationship between the variability of inflation and growth is preserved at low levels of variability of inflation. These results, which are similar to those reported in Sarel (1996), suggest the intuitively appealing conclusion that low levels of inflation do not in fact

reduce economic growth, as long as inflation remains predictable. However, they do not directly support the idea that eliminating low levels of inflation helps the economy.

3.2.3 Inflation and increases in productivity

In recent years, the United States has seen low inflation associated with unusually high productivity growth and an apparent downward shift in the NAIRU, the rate of unemployment consistent with stable inflation. This correlation has led some observers to postulate a causal relationship between low inflation and high productivity growth. If such a relationship exists, it would provide a powerful additional motivation for policymakers to try to bring inflation rates as close to zero as possible.[14]) However, while evidence of a statistical relationship linking lower inflation with higher productivity growth is fairly robust, it is more difficult to demonstrate a structural relationship between the two. Rudebusch and Wilcox (1994) present some initial work on this topic, which has been extended in Federal Reserve Bank staff work by Berkowitz (1997). There is some evidence that inflation "Granger-causes" productivity growth, meaning that a reduction in inflation in the current period is associated with faster productivity growth in the future, while the data do not suggest that productivity growth Granger-causes inflation. These results provide some support for the existence of a structural relationship through which lower inflation boosts productivity growth.

One explanation for these empirical results is that common supply shocks, such as commodity price increases, simultaneously affect both inflation and productivity growth, perhaps with different lags. Berkowitz tests for this possibility by estimating a simple macro model for the United States and using the residuals from the estimated equations to represent unanticipated shocks to the economy. He finds that including these shocks in the inflation-productivity regressions does not significantly affect his earlier results, which is consistent with the existence of a causal link from inflation to productivity growth. Berkowitz also looks for evidence that lower inflation raises the return to capital, increasing investment and thus labor productivity, but his results are inconclusive. If a structural relationship between productivity and inflation does hold, it could lessen the potential impact of the zero bound. If lower inflation raises productivity growth and thus raises the equilibrium real interest rate, it thereby raises the equilibrium nominal interest rate for any given rate of inflation and increases the scope for lowering nominal interest rates.

Another interpretation of the negative correlation between inflation and productivity growth in the U.S. data is that both result from structural shifts in the economy, perhaps generated by technological change, that have also led to a fall in the NAIRU. This recent shift emerges from estimated Phillips curve equations linking wage or price growth to unemployment or output gaps. There is clear evidence of a downward shift in the NAIRU at some point in the 1990s, although again, it is difficult to place a structural interpretation on this change.

The evidence linking inflation and productivity growth should be viewed as preliminary – it is based on very recent U.S. data and has not yet been confirmed for other countries. If this result proves to be robust, it would suggest that low

inflation does in fact promote economic growth.

4 The zero bound on nominal interest rates

The zero bound on nominal interest rates is a feature of any economy in which cash holdings are a medium of exchange, are not taxed, and do not pay interest.[15]) Phelps (1972), Summers (1991) and Fischer (1996) have argued that the zero bound poses a potentially serious problem for monetary policy. If economic activity is weak or contracting and interest rates hit the zero bound, a dangerous dynamic can be set in motion. Falling inflation, or even escalating deflation, would increase real rates of interest. As this depresses aggregate demand further, downward pressures on prices would raise real interest rates further: The economy would potentially face a downward deflationary spiral.

These authors have conjectured that the likelihood of encountering this problem could be significantly lessened if long-term inflation is not allowed to decline to zero but is kept in a range of 1 to 3 percentage points. With a rate of expected inflation of this magnitude built into nominal interest rates, the economy would be entering any potential recession with nominal interest rates that much higher than they would be if long-term inflation was zero-providing more scope for monetary policy to ease by lowering nominal interest rates.

Assessing the degree of risk from hitting the zero bound – and the severity of the consequences – are essentially empirical issues. Detailed empirical studies of the U.S. economy by Fuhrer and Madigan, Orphanides and Wieland, Tetlow and Williams, and Reifschneider and Williams indicate the risk associated with zero inflation may be significant, but that an inflation rate of 1 to 3% is sufficient to alleviate most of that risk.[16]) For example, Orphanides and Wieland find that the zero bound on nominal interest rates has a significant detrimental impact on economic performance if policymakers strive to target inflation below 1%. Recessions are not only more frequent and last longer, but output is below potential – by the order of 0.1 percentage point on average.[17]) Output is at potential, on average, when long-term inflation is high enough to prevent interest rates from ever hitting the zero bound. But when inflation is so low that the zero bound is reached, the ineffectiveness of policy in stimulating aggregate demand keeps output below potential, on average.

Reifschneider and Williams use the Federal Reserve Board staff's econometric model of the U.S. economy and model the Federal Reserve as setting the short-term interest rate in response to deviations of inflation from a presumed target and of output from potential – the Taylor rule. They also find that the zero bound becomes important for inflation targets below 1%. At an inflation target of zero, they find the policy rate is essentially at the zero bound nearly one-fourth of the time (compared to about 2% of the time when inflation averages 3%) and the percentage of the time the economy is in a state of low economic activity is 10% (versus 2% at average inflation of 3%).[18])

These studies were all conducted using stochastic simulations of empirical macro models in which the Federal Reserve was assumed to set short-term interest rates in accordance with a fixed policy rule and to have complete credibility with the public that it will continue to follow the rule in the future. Because finan-

cial markets are forward-looking in these models, this gives the Federal Reserve a powerful ability to affect longer-term interest rates and thus to stimulate the economy in response to an adverse demand shock. Nonetheless, the zero bound still can significantly handicap monetary policy.

But these studies also make assumptions that potentially limit the effectiveness of monetary policy. First, open market operations are implicitly used to purchase only short-term Treasury debt. And second, the transmission mechanism of monetary policy is solely from short-term rates to longer-term Treasury rates and then to other asset prices and rates of return. The stock of money, and the monetary base in particular, do not play a role in the transmission mechanisms in these models. If there are other effective channels of policy transmission or other effective policy tools not considered, then the zero bound may be less of a problem than envisioned in these studies. Indeed, recent experience in Japan suggests that should an economy become mired at the zero bound, central banks will consider creative new ways to make their policy tools more effective.

5 Alternative channels for open market operations in Treasury bills[19])

5.1 Direct effects through increases in the quantity of the monetary base

When short-term interest rates are at zero, further open market purchases of Treasury bills cease to have their direct impact on the Treasury bill (T-bill) rate, but continue to increase the stock of the monetary base. The question for policymakers is whether increases in the base brought about in this way are likely to have a stimulative impact on the economy.

When interest rates are positive, the monetary base (and perhaps other forms of money) is a form of liquidity, but T-bills are not – as evidenced – by the interest rate that households forego in order to hold base money rather than T-bills. At a zero rate of interest on T-bills, the monetary base and T-bills essentially are perfect substitutes in households' and firms' portfolios as reflected by their equal (zero) rates of return. Even though open market purchases of T-bills increase the monetary base, an open market operation in two perfect substitutes does not cause households to reconsider either their portfolio allocations or their spending decisions.

From the perspective of financial intermediaries in particular, as part of their portfolio adjustment, intermediaries equate the risk-adjusted marginal returns across the various assets in their portfolios. When Treasury bills and federal funds lent have interest rates of zero, the quantity of loans would be adjusted until their risk-adjusted return also equals that on Treasury bills (namely, zero). Further open market purchases of Treasury bills cannot lower the Treasury bill rate further and therefore do not affect the equilibrium quantity of loans. Open market purchases of Treasury bills would simply boost the level of excess reserves.

5.2 Indirect effects on expectations

If a central bank were to continue to purchase T-bills even after the interest rate hit zero, the public, upon observing these transactions, could alter its expectations of both future short-term nominal rates and of future inflation. These changed expectations could, in turn, affect current longer-term nominal and real interest rates.

To avoid the potential downside risks associated with the zero bound, Krugman, Mishkin and others have relied on an ability of central banks to increase inflation expectations to help stimulate an economy at the zero bound. For example, in the context of Japan's recent sluggish growth and near-zero short-term interest rates, Krugman has suggested:

"The way to make monetary policy effective, then, is for the central bank to credibly promise to be irresponsible – to make a persuasive case that it will permit inflation to occur, thereby producing the negative real interest rates the countries need."

Likewise, Wolman finds that

"monetary policy can offset the zero bound by generating temporary expected inflation. With real rates thus unconstrained, the existence of the zero bound does not appear to constitute an argument against a low inflation target."

This flexibility in inflation expectations is brought about in part by a Federal Reserve policy rule that targets the level of prices in the long run. As a result, temporary declines in aggregate demand and the price level generate increased expected inflation as the price level returns to target. This inflation is anticipated and lowers ex ante real interest rates.[20])

So it may be that if a central bank continued open market purchases of Treasury bills, perhaps in massive quantities, there would be a direct effect of increasing inflation expectations. But while this effect is possible, and may be worth trying at least to some degree, it may be somewhat ineffective for two reasons. First, if economic activity is relatively low and unemployment is relatively high, this is likely caused in some considerable part by wages and prices that are sluggish. This sluggishness suggests that expectations of future inflation would incorporate this sluggishness and therefore not rise quickly to lower real interest rates.

Second, for monetary policy to affect expectations of future inflation, market participants must believe that in the future the central bank will have the ability to stimulate aggregate demand and thereby increase inflation. An unfortunate implication of the zero bound is that the worse the current economic downturn, the longer may be the period over which interest rates are expected to remain at zero; in other words, the further out in the future may be those periods in which interest rates are expected to be positive and, therefore, in which the central bank can use its standard tools to stimulate aggregate demand. If this is so, the central bank has limited ability to increase the public's expectation of inflation and, thereby, lower current real interest rates.

5.3 Alternative policy tools

In light of these possible limitations to continued open market purchases of T-bills after the interest rate has hit zero, a central bank may wish to either replace or reinforce these purchases with other policy actions. Several of these alternatives (purchasing Treasury bonds, writing options on interest rates, and purchasing foreign exchange) can be viewed as extensions of conventional open market operations, while others (purchasing private sector securities, discount window lending to the nonbank sector, and direct cash transfers to the public) represent potentially new directions for U.S. monetary policy.

5.4 Purchasing Treasury bonds

Perhaps the most obvious extension of a central bank's policy actions beyond the purchase of T-bills is to

engage in the open market purchase of longer-maturity government debt. The effects that such actions can be expected to have on longer-term Treasury rates depend on how one sees interest rates as being determined. Following fairly standard views, we view long-term Treasury rates as composed of expectations of future short-term interest rates and term premiums. To have an impact, open market operations would have to affect at least one of these two components.

It is not clear why purchases of government bonds should affect expectations of short-term interest rates. The current impact on the monetary base is the same whether bonds or bills are purchased. And just because bonds have a longer maturity than bills, it does not follow that the increase in the base from a bond purchase will be sustained over a longer time period than would an increase brought about by a purchase of a T-bill.

Therefore, it would seem that bond purchases would have to affect interest rates through impacting term premiums. Purchasing bonds, and decreasing the public's holding of bonds, can decrease the term premium if bonds and other assets are imperfect substitutes in the public's portfolio. In order to induce the public to hold fewer bonds, the central bank would bid up the price of those bonds and thereby lower their yield. However, historical evidence, such as Operation Twist in the United States in 1961, does not seem to support this notion of significant interest rate effects stemming from changing the relative supplies of assets. But what the effects of truly massive purchases of government bonds would be remains an open question. A central bank could presumably overwhelm the markets and raise Treasury bond prices. Indeed, the Federal Reserve fixed the yields on U.S. Treasury securities during and immediately after World War II. Presumably, bond purchases on a large enough scale could drive Treasury bond rates to zero, or nearly so.

5.5 Writing options

With long-term interest rates importantly affected by expectations of future short-term rates, a central bank may find interest rate options a valuable tool for affecting longer-term interest rates. With options, a central bank can convey its intentions regarding the future course of short-term rates. In particular, the central bank could enter options contracts in such a way that if future short-term interest rates rose above a specified level, the central bank would be obligated to make a payment to its counterparty. Not only would this inject reserves when interest rates rose, it would penalize the Federal Reserve for its failure to keep rates low. And the private market would gain financially – the options would essentially be providing some insurance should short rates rise above the specified levels.

To accomplish these goals, the central bank would be the party to write the option and would set the strike price to correspond to the particular interest rate ceiling (i.e. a specific floor for T-bill prices) it desired to convey to the market. Then, if market rates were to rise above the ceiling rate, the price of the Treasury bill would fall and the holders of the option would have an incentive to exercise the option – purchasing a T-bill at a low price in the market and "putting" it to the central bank at the higher strike price.

Options not only provide a way for the central bank to specify its ceiling for a particular interest rate

over a specified future period, but the day-to-day changes in the price of the option also provide a market-based index of the credibility of the particular interest-rate ceiling specified in the options contract. Should the central bank's commitment to low interest rates be questioned in the market, the central bank could read this from the option prices and could attempt to provide a policy response – either with options or other instruments.

5.6 Purchasing foreign exchange

By purchasing foreign exchange, a central bank could hope to depreciate its currency and spur net demand for domestic goods and services. When interest rates are above zero, unsterilized intervention causes more depreciation than sterilized intervention.[21]) This is because an unsterilized intervention lowers the domestic interest rates, whereas a sterilized intervention does not. However, at the zero bound, the two types of intervention have the same effects because the unsterilized intervention cannot lower the interest rate.

With risk neutrality and current U.S. interest rates fixed at zero, foreign exchange intervention could cause the dollar to depreciate in the current period if (and only if) it caused private agents to expect the dollar to be depreciated more in the future than they expected it to be before the intervention. At issue is whether U.S. authorities could create expectations of a future depreciation by credibly signaling their intentions for the future course of the short-term nominal interest rate. If U.S. authorities sold dollar assets in the current period and used the proceeds to purchase foreign assets, they would stand to gain if the dollar were to depreciate in the future. Observing current foreign exchange purchases by U.S. authorities, market participants might expect the U.S. authorities to lower interest rates in the future to bring about this depreciation. If so, with interest rates in the current period fixed at zero, the dollar must depreciate in the current period in order to maintain interest rate parity. The empirical literature provides only limited support for the existence of such signaling effects and suggests that if they are present at all, they vary from episode to episode and disappear fairly quickly.

Alternatively, foreign exchange purchases could succeed in causing the dollar to depreciate if U.S. and foreign assets are imperfect substitutes because agents are risk averse. In effect, changes in relative supplies of assets would then affect relative returns, and by purchasing foreign exchange, the Federal Reserve would be increasing the supply of dollar-denominated assets relative to foreign assets. However, an extensive empirical literature has almost universally concluded that such relative supply effects have little or no lasting impact on exchange rates.

5.7 Purchasing private-sector securities

While using a credible rule to set short-term interest rates, purchasing government bonds, and using options may all help to lower and flatten the Treasury yield curve, the yield curves for private sector securities could remain somewhat elevated. In particular, if short-term Treasury rates are at zero and the economy is floundering, credit risk premiums could be quite high. If these risk premiums are holding back an economic recovery, the central bank could potentially unlock credit flows and jump start the economy by taking this credit risk onto its balance sheet, for example,

through purchases of private sector securities. The key issue for a central bank contemplating such actions, however, is whether it is authorized to and whether it wants to take such private-sector credit risk onto its balance sheet.

The Federal Reserve, for example, faces some important restrictions regarding the type of private-sector securities that it is authorized to purchase. The current statutory authority for open market operations is still strongly influenced by the intent of the original framers of the Federal Reserve Act. One intent of the Federal Reserve Act was to spur the development of the bankers' acceptance market. It was thought that if the Federal Reserve could purchase and sell bankers' acceptances and similar types of securities, this would stimulate the development of private markets for these types of credit instrument. Accordingly, even today, while the Federal Reserve can purchase virtually all types of Treasury and agency securities, it can purchase only certain types of private sector securities – bankers' acceptances and bills of exchange. Accordingly, the Federal Reserve is not authorized to purchase notes, such as corporate bonds and mortgages; nor can it purchase equities or real property such as land or buildings.[22])

Even within the class of bankers' acceptances and bills of exchange, Federal Reserve purchases are limited to those instruments that arise out of transactions in real commerce.[23]) It was thought that by tying Federal Reserve purchases to instruments financing real commerce, the money stock would expand and contract in line with real business activity. By this means, there would be enough money and credit to provide for real business needs, but excessive money growth and its inflationary consequences would be avoided.

As mentioned above, a key aspect of the purchase of any asset by a central bank would be whether the central bank can take onto its balance sheet the credit risk inherent in the asset. For open market purchases, there does not seem to be any explicit instruction that the Federal Reserve cannot take credit risk onto its balance sheet. The limitation to taking on credit risk would seem to stem from the types of instruments that it can purchase – namely bankers' acceptances and bills of exchange arising out of real commerce. In practice, the Federal Reserve has stipulated that, as stated by Woelfel (1994), "a bill of exchange is not eligible for purchase until a satisfactory statement has been furnished of the financial condition on one or more of the parties." This condition, if not changed subsequently by the Federal Reserve, would seem to limit the private-sector credit risk the Federal Reserve would be taking onto its balance sheet by way of open market operations.

5.8 Discount-window loans

A central bank can also attempt to spur private aggregate demand by extending loans to depositories, other financial intermediaries, or firms and households. By making the loan, the central bank turns an asset that may be illiquid for the lender into a liquid asset. This may be particularly helpful in spurring aggregate demand should the financial sector be under stress and in need of liquefying its assets.

In the United States, the Federal Reserve currently lends only to depository institutions. But in contrast to the limited type of securities the Federal Reserve can purchase, it can accept as security for a loan

virtually any security that the Federal Reserve Banks themselves deem acceptable. And in fact, the Federal Reserve accepts mortgages covering one-to-four-family residences; state and local government securities; and business, consumer, and other notes. These notes can be open market securities, such as corporate bonds and commercial paper, or can be commercial and industrial loans extended by banks, for example.

Perhaps the most important limitation on Federal Reserve lending activity regards the credit risk associated with the security used for collateral. It has generally been seen as the intent of Congress that, in the event of a default on the collateral, the Federal Reserve should look to the depository as a source of payment. Therefore, the credit risk of the underlying security stays off the balance sheet of the Federal Reserve and in the private sector. In a situation in which nominal rates are zero and the economy is in adverse straights, credit-risk premiums could be high and holding back aggregate demand.

The Federal Reserve also has the authority to make loans directly to individuals, partnerships, and corporations (IPCs). Use of this authority is limited to cases of "unusual and exigent" circumstances and for cases in which credit is not available from other sources. Also, the discounted securities must be "endorsed or otherwise secured to the satisfaction of the Federal Reserve Bank." As interpreted by Hackley (1973), this requirement seems to limit the credit risk that the Federal Reserve could take onto its balance sheet:

"In any case, it seems clear that it was the intent of the Congress that loans should be made only to credit-worthy borrowers; in other words, the Reserve Bank should be repaid in due course, either by the borrower or by resort to security or endorsement of a third party."

Again, if the Federal Reserve cannot take credit risk onto its balance sheet, there may arise times in which elevated credit-risk premiums are holding down aggregate demand and the Federal Reserve would itself lack a tool to lower these risk premiums.[24])

5.9 Printing money to induce wealth effects

When interest rates are positive and policy actions lower them, one channel through which aggregate demand is raised is the wealth effect generated by higher asset prices. But if interest rates are at the zero bound, then there are no wealth effects from the open market operations in these assets. This leaves wealth effects operative only if the central bank can directly engineer increases in wealth either by purchasing assets at above market values or by "printing" money and somehow distributing it to the public as a transfer payment.

Regarding the purchase of assets at above market values, this would appear to be problematic, at least on the political level if not on legal grounds. Deciding which types of assets to purchase at above market value would entail distributing wealth to some members of the public and not others based solely on their asset holdings. However, on strictly legal grounds it would seem possible for the Federal Reserve to purchase assets at above-market prices even if this results in negative interest rates on those purchased assets.

Printing money and distributing it to the public probably is not legal under the Federal Reserve Act. Under the Act, after all expenses have been paid and the stockholders have received a dividend of 6%, the net earnings of the Federal Reserve

must be put into a surplus account. It appears that direct transfers from the surplus account are not authorized by the Act. Even if allowed, the printing of money would entail issues of fairness and equity: Would checks be mailed out to individuals, or would money be given to deposit holders through depository institutions? Questions affecting the distribution of wealth may best be left to the political process.

The printing and distribution of money could have to be achieved in conjunction with the political process by means of a money-financed reduction in income taxes. But any such action can be seen as composed of two components – a tax cut financed by new issuance of Treasury bills, and an open market purchase of the bills. Since the later effects are likely to have little effect at the zero bound, the total effect would come from the fiscal stimulus. Of course, if the fiscal stimulus were large enough to raise the nominal interest rate above zero, standard open market operations would regain their stimulative impact.

6 Monetary policy and price stability

6.1 A framework for understanding monetary policy

The theory and practice of monetary policy in a regime of price stability has much in common with the theory and practice of monetary policy at low or moderate inflation, and we begin by considering how our framework for characterizing and understanding monetary policy (whether at moderate or low inflation) has evolved over the last decade. The Barro-Gordon (1983) view in which authorities have an incentive to inflate unexpectedly to pump up the economy has been supplemented by models of independent central bankers with a "taste" for price stability, such as Rogoff (1985).

And at least in the U.S.A., the focus has shifted from viewing a monetary aggregate as the authorities' control variable, with estimated money demand equations to guide policy, to the use of policy reaction functions, or "rules," linking the short-term interest rate directly to inflation and output targets. This concept provides a useful framework for modeling and understanding monetary policy.

To illustrate, consider the following regression equation reported in Levin, Wieland, and Williams (1998):

$$(1)\quad r_t = -0.0042 + 0.795r_{t-1} + 0.635B_t + 1.171y_t - 0.967y_{t-1}$$

where r_t is the federal funds rate, B_t is the four-quarter moving average of the inflation rate, and y_t is the current output gap (the percentage difference between potential and actual GDP). This equation, which was estimated using quarterly U.S. data over the period from 1980 to 1996, suggests that the Federal Reserve tended, as one might expect, to raise the funds rate in response to increases in inflation and in the excess of actual over potential output. There are no explicit terms for the *target* values of inflation and the equilibrium real interest rate in this equation – these values are implicitly assumed to be fixed and are subsumed in the regression's constant term. The coefficient on the lagged funds rate indicates a fairly high degree of interest rate smoothing, while the lagged term in the output gap suggests that the Fed responded to the growth of output as well as to the level.

In reality, the process through which the Federal Open Market Committee reaches a decision to

raise or lower the funds rate in a given period is substantially more complex than this estimated equation suggests. However, such a characterization may for many purposes be a useful summary of the underlying decision-making process, and in any event captures some of the key elements of that process.[25])

The optimal form for a policy rule depends on the objectives of the monetary authorities, which are here assumed to be to minimize (some combination of) the variability of inflation, output, and the interest rate itself. It also depends on the structural relationships in the economy, and different estimated models will imply different estimated optimal policy rules for given objectives. Optimal rules may include many more variables, and more lagged terms, than the equation given above. Obviously, in order to implement an optimal rule, the "true" structural model of the economy must be known. Since this model is not in fact known with certainty, it is of interest to identify policy rules that perform well for a variety of models.

Taylor (1993), and Henderson and McKibbin (1993) both propose simple rules of this form:

$$(2)\ r_t = (r^* + B_t) + \forall\,(B_t - B^*) + \exists\, y_t$$

where r^* is the equilibrium real interest rate and B^* is the target for the inflation rate, both assumed to be constant. (The target for the output gap, y_t, is assumed to be zero.) These authors argue that rules of this type not only characterize actual policy fairly well, but are likely to perform well in the face of a variety of shocks to the economy.[26]) Levin, Wieland, and Williams examine this hypothesis using four different macroeconometric models of the U.S. economy. They confirm that simple rules are indeed robust across the model structure, although they find that rules that incorporate more interest rate smoothing generally perform better than do the simple Taylor and Henderson-McKibbin rules.

6.2 Monetary policy and price stability

Monetary policy at low or zero inflation rates faces some special problems that distinguish it from policy in regimes of higher inflation.[27])

One practical question is whether to set a target for the inflation *rate* or the path of the price *level*. The difference is essentially whether the authorities attempt to offset periods when inflation is above the long-run target with periods when it is below target, or whether they merely attempt to bring the inflation rate back to the desired long-run value. In the case of zero inflation, of course, a price-level target would require periods of actual deflation in order to offset any inflationary shocks.

Credibility and transparency are always important in formulating and implementing monetary policy because of their effect on interest rates and on wage and price formation through expectations of future policy. These factors are no less vital at near-zero inflation rates, because it is particularly important to place a floor under inflation expectations to avoid a deflationary spiral in the event of a negative shock. Krugman (1998) makes this point in connection with the current situation in Japan, using a simple model to show that if the Japanese authorities could credibly commit to raising inflation in the *future*, it would lower current long-term real rates and stimulate the economy even without lowering current short rates. Of course, for such a commitment to be credible,

the authorities must have some feasible way of raising future inflation. One possibility is that if nominal long-term rates are above zero and market expectations are rational, expected short rates must be above zero at some point in the future. By announcing a (credible and transparent) policy to lower those future rates, the authorities can affect long rates in the current period.

The lower bound on nominal rates doubly complicates the policy-making problem – monetary policy instruments become less effective at the same time the economy becomes less stable.[28]) Perhaps the simplest policy response is to choose a target inflation rate that is somewhat above zero. As this target is incorporated into market expectations, the short-term nominal interest rate will rise as well, giving the authorities extra room to cut short rates as needed. As discussed in the previous section, several recent papers by the Federal Reserve Bank staff economists have studied the effectiveness of different policy rules in the neighborhood of the zero bound. These results suggest that a target inflation rate of 2% is high enough to greatly reduce the effect of the zero bound on policy in all but the most extreme shocks.[29])

Using simple rules of the Taylor/Henderson-McKibbin form, these papers demonstrate that more aggressive policies that respond to shocks with larger changes in interest rates may be helpful. While with these policies interest rates will hit the zero bound more often, because they respond more, the stronger response tends to bring the economy back to the baseline faster. For example, Taylor proposed parameter values of $\forall = 0.5$, $\exists = 0.5$ for equation (2), meaning that the Fed is assumed to raise the funds rate by 50 basis points in response to an increase in the contemporaneous inflation rate of 100 basis points, over and above the increase of 100 basis points needed to maintain a constant real interest rate.[30]) Henderson and McKibbin proposed values of $\forall = 1.0, \exists = 2.0$, implying a substantially stronger interest rate response to a deviation of inflation or the output gap from their target values. Orphanides and Wieland (1998) use stochastic simulations of their model to show that the Henderson-McKibbin rule succeeds in keeping inflation and output closer to their targets, on average, despite the presence of the zero bound. This is because the stronger response "cuts off" recessions faster, tending to prevent the economy from moving into prolonged recession in which interest rate cuts would be ineffective.

An extension of this point is that asymmetric rules that provide a stronger response to negative shocks may be even more efficient in meeting policy objectives. In the face of inflationary pressures the authorities can increase interest rates smoothly in response, raising rates as much as (but no more than) desired. Confronted with a negative, deflationary shock, the response can be more aggressive, up to the limit imposed by the zero bound. Suppose that absent considerations of the zero bound, the optimal parameters for a policy rule of this type, taking into account the authorities' preferences for trading off the variability of inflation, output, and the interest rate itself, were $\forall = 0.5$, $\exists = 0.5$. At high target inflation rates, the authorities can use this policy rule without regard to the zero bound. At low inflation targets, and therefore low nominal interest rates, the zero bound may bind, and potentially prevent, the authorities from stabilizing the economy in the face of

large negative shocks. In this case it might be desirable to use, say, the Henderson-McKibbin parameters of $\forall = 1.0$, $\exists = 2.0$ when output or inflation fall *belo*w target in order to return to baseline as quickly as possible even at the cost of larger interest rate changes. In the face of a positive shock to output, however, the authorities could respond more moderately, with the Taylor parameters, to limit the variation in interest rates somewhat.

Despite the effectiveness of rules of this type, it remains the case that large negative shocks to demand can push the economy into ongoing deflation in which conventional interest rate policy becomes ineffective. Such a case may require use of alternative policy instruments such as those described earlier, or indeed they may require a more aggressive fiscal intervention in order to stabilize the price level.

7 Conclusions

The experience of the United States during the Great Depression and of Japan at the present time demonstrates the potential for stable (or falling) prices to be associated with near-zero nominal interest rates and, in these cases, with falling real output. In two other cases, the United States in the 1950s and at present, a low and stable inflation rate has been associated with steady real growth and positive nominal rates. While the zero lower bound on nominal rates is potentially a very serious problem for stabilization policy, price stability is often associated with a very prosperous economic environment.

In setting inflation objectives in a regime of near price stability, the authorities must consider a number of factors whose empirical magnitudes may well be country specific. The existence of significant measurement bias in published price indexes suggests that a small positive target for measured inflation corresponds to true price stability, at least in the United States. A low but positive rate of expected inflation may help real wages adjust appropriately and may also reduce the risk that policy will be constrained by the zero lower bound on nominal interest rates. However, the observed negative correlation between inflation and productivity growth may imply that, relative to low inflation, price stability may raise productivity growth and, by raising *real* interest rates, make the zero bound a less pressing problem.

The zero lower bound on nominal interest rates is a potentially serious problem, since it means recessions may be longer on average and the risk of a downward deflationary spiral may increase. Empirical analysis using stochastic simulations of macroeconometric models has confirmed the significance of these effects for the United States. Alternative policies, such as open market operations in government bonds, or writing options on future short rates, may be effective at the zero lower bound, but ultimately fiscal policy action may be needed to bring the economy out of a deflationary spiral. Historical episodes suggest that a healthy banking sector may play a key role in avoiding problems due to the zero lower bound.

Policy rules, or reaction functions, provide a useful framework for analyzing monetary policy. U.S. policy over the past two decades can be summarized by an estimated equation relating interest rate changes to changes in inflation and the output gap. A stronger response to inflation or output shocks, all else being equal, may help avoid zero lower bound problems by moving

the economy more quickly back to the baseline. An asymmetric rule that responds more aggressively to deflationary impulses near the zero lower bound may also be appropriate. The choice of policy rule depends on the empirical importance of the factors considered earlier, which may differ from country to country.

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1 Annual average; excluding the Czech Republic, Greece, Hungary, Mexico, Poland, and Turkey.

2 For simplicity, we assume the lower bound for nominal interest rates is zero. Nominal yields dropped very slightly below zero in the United States during the Great Depression and in Japan recently.

3 The large spike in inflation in 1951/52 is due to the Korean War.

4 Indeed, in Switzerland in the late 1970s, near-zero nominal interest rates coincided with positive economic growth. In this case, expectations of continued exchange appreciation stimulated capital inflows at extremely low interest rates.

5 Deflators are often constructed as Paasche price indexes that compare a base year to the current year using fixed quantity weights from the current year. While comparison between the base year and any other year in the index is appropriate, comparison of growth rates between adjacent years, for example, is not.

6 Toward a More Accurate Measure of the Cost of Living. Final report of the Advisory Commission to Study the Consumer Price Index, December 4, 1996 (chaired by Michael Boskin). Estimates of the bias in the U.K. retail price index are provided in: Measurement Bias in Price Indices: an Application to the UK's RPI, Cunningham, A.W.F. In: Bank of England, Working Paper Series No. 47. That paper reports plausible upper and lower bounds on U.K. bias of 0.35 to 0.8 percentage points per year.

7 Some of the changes include the use of geometric rather than arithmetic means to reduce substitution bias, improvements in the procedures used to measure health services, improvements in the formula used to calculate increases in rent, and a switch to hedonic price measures for personal computers.

8 Estimates are taken from Table 2 to 4 of the 1999 Economic Report of the President, page 94.

9 Friedman (1969) argued that in order for an economy to enjoy all the benefits from the transactions "services" of money, central banks should strive for a rate of deflation that keeps nominal interest rates at zero on average, keeping the demand for money high. On the other hand, while positive inflation does impose a burden on society, it also increases government revenue from the inflation tax, or seigniorage. Based on consideration of tax efficiencies, the optimal rate of inflation is the one at which the marginal burden from the "seigniorage tax" equals the marginal burden from other (distortionary) taxes. However, efforts to find empirical implications of this reasoning for the optimal rate of inflation have been inconclusive. In general, neither of these lines of economic theory have had a major impact on policy decisions.

10 Lebow, Stockton, and Washer (1995) and Akerlof, Dickens, and Perry (1996) both briefly summarize the literature, although they reach different conclusions about the interpretation of the empirical results. A number of methodological issues arise in this work, most notably whether and how to correct for possible measurement error, so the interpretation of the survey results is not unambiguous.

11 Akerlof, Dickens and Perry cite some results for Canada and argue that they support the existence of downward rigidities.

12 Clark (Economic Inquiry, January 1997) provides a survey.

13 Judson and Orphanides (1999).

14 It is implicit in our entire discussion that bringing the inflation rate below zero would be undesirable. Negative inflation would in general impose the same types of uncertainties, costs, and distortions on workers, consumers, and firms that positive inflation would; in addition, the effects of the zero lower bound on nominal interest rates would constrain the monetary authorities even more at negative rates of inflation.

15 *For simplicity, we assume that the lower bound for nominal interest rates is zero. Nominal yields dropped very slightly below zero in the United States in the Great Depression and in Japan recently.*

16 *None of these studies incorporates a linkage through which low and stable inflation makes it easier for businesses to plan for the future and thereby boosts long-term investment, productivity and growth. As discussed above, such a causal linkage has not been demonstrated conclusively in empirical studies, but the paths of inflation and productivity growth in the United States during the 1990s are certainly consistent with such a relationship.*

17 *Orphanides and Wieland conduct their analysis using a small macro model with rational expectations estimated using quarterly data for the United States.*

18 *A state of low economic activity is defined as a situation in which a two-quarter moving average of the output gap is greater than 6% in absolute value.*

19 *This section draws heavily on Clouse et. al.*

20 *Wolman (1998), page 17. Wolman also shows that with policy rules that target the rate of inflation (and not the price level), the zero bound can be an impediment to achieving full employment.*

21 *In unsterilized intervention, the authorities exchange cash or reserves for securities denominated in foreign currency, with the result that the domestic monetary base changes with the intervention and, normally, domestic interest rates change. In sterilized intervention, the change in the domestic base is offset by a purchase or sale of domestic currency securities and domestic interest rates are normally left unchanged.*

22 *The private-sector debt instruments that the Federal Reserve can purchase are limited to those eligible for discount, which generally excludes corporate debt and mortgages, for example. However, the class of private-sector debt instruments eligible for purchase could be expanded to include corporate bonds, mortgages and other instruments under section 13 (3) of the Federal Reserve Act. Under 13 (3), if the Board of Governors found there to be "unusual and exigent circumstances" and voted by a majority of at least five governors to authorize lending under 13 (3), the Federal Reserve could discount to individuals, partnerships, and corporations "notes, drafts and bills of exchange . . . indorsed or otherwise secured to the satisfaction of the Federal Reserve Banks . . ." This broadening of the class of instruments eligible for discount would correspondingly broaden the class eligible for purchase.*

23 *Unless the purchases were done under section 13 (3) of the Federal Reserve Act.*

24 *The Federal Reserve may not be in the best situation to deal with elevated risk premiums directly. Any social benefits to having the Federal Reserve lending directly to IPCs and take on credit risk would have to be weighed against the potential costs of placing the Federal Reserve squarely in process of evaluating credit applications and allocating credit.*

25 *Among other advantages, reaction functions of this type allow model-builders to incorporate policy responses explicitly in their models and maintain at least a degree of consistency between government policy and private-sector behavior. This approach to some extent mitigates the effects of the well-known Lucas (1973) critique.*

26 *The performance of a rule is often measured by computing the variability of output and inflation using the rule, assuming a particular model structure. In some cases this computation can be performed analytically; in others, stochastic or "Monte Carlo" simulations are used to estimate the variances in question.*

27 *Again, we neglect the question of policies used to get to a regime of price stability. Some countries have successfully used target ranges and central bank "contracts" to lower inflation (Canada, New Zealand), some have used a combination of fiscal and monetary policy to meet announced goals (EMU members), and others have pursued a more opportunistic approach to lowering inflation (the United States).*

28 *Indeed, in order to solve a macroeconometric model in the neighborhood of the zero bound on interest rates, it may be necessary to assume that fiscal policy responds to negative shocks in order to stabilize the economy. See Orphanides and Wieland (1998).*

29 *In view of the upward bias in measured price indexes, one might assume that the authorities would target a positive inflation rate in any event. However, this inflation would only be passed on to nominal rates if market participants used the biased price index in calculating their own purchasing power, which might or might not be the case.*

30 *This increase is reflected in the first term of equation (2), $(r^* + B_t)$.*

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Monetary policy in an integrated financial world

I The present world situation

The central feature of the present so-called "globalisation" of markets is the growing importance of international *capital* markets – an increase in importance both conceptionally and in fact. Therefore, I shall limit my talk to the importance and the consequences of global capital markets. First, I shall attempt *seven basic clarifications.* Then I shall show that in the interwar period (that is to say at a time when the profession in general still understood financial

markets, though actually these were already breaking down) two economists, as far apart theoretically as ideologically, namely Hayek and Keynes, thought that disequilibria in financial markets were the main causes of cyclical disturbances. In fact, Hayek and Keynes used nearly the same framework of analysis; and we can learn much from them. It is not in diagnosis but only in therapy that they differed. In the third and last part of my talk, I shall try to sketch some consequences for central bank policy with regard to problems created by global capital markets.

First clarifying remark: As to service markets and even commodity markets, the world has actually seen very little globalisation up to now. Both the U.S. and Japan have a trade share in GDP of only about 10%. EMU countries have a slightly higher level of trade, a level around 12%; yet only as long as the United Kingdom remains outside the euro. In a more extended historical perspective these trade shares become even less significant. For the main industrial nations, especially Great Britain, these shares were considerably higher a century ago, around 1900. If we look at the growth of world trade, on the other hand, the period of most rapid *growth* and thus of the highest degree of "globalisation" in the sense of a *process* of growth was that of the 1960s and 1970s – once more not the present.[1])

International capital market integration, on the other hand, is much more extensive. And while trade refers primarily to trade with neighbouring countries, capital markets are truly global in their interaction. This is so because financial capital, though heterogeneous to an astonishing degree, is still much more homogeneous than all the various services and commodities which are exchanged internationally. Thus, the international capital market is close to being *a single global market,* while it would not make sense to speak of one single market for traded goods and services. Perhaps even more important: international capital transactions vastly *dominate* international flows of goods and services. Around 98% of all foreign exchange transactions are transactions on capital account and only a mere 2% on current account. In other words, actual international payments are almost exclusively capital payments.

One should not try to measure capital movements merely by the size of current account surpluses and deficits. As is the case with government debt, not only yearly increases or decreases count, but also the much larger amount of repayments and conversions. Trade in *existing financial instruments* as such is important, not only their periodical increase. In oder words, the exchange

of title counts, not merely the creation of new titles.

Second clarifying remark: Does this vast amount of titles to the ownership of capital, this vast amount of financial instruments, still have anything to do with the "real" economy? Has it not already become completely divorced from economic reality?

One should not even ask such a senseless question, such a question of mere *ideological* content. If you nevertheless do so you have simply fallen victim to one of the greatest ideologues of economic doctrine; and I do not mean Karl Marx, but much rather Adam Smith. Adam Smith *defined* anything which had to do with more sophisticated commercial transactions, in particular financial instruments, as not part of the "real" economic world.[2]) Actually, transactions in financial capital are much more real economically than, for instance, the production of steel. Also, you will find that many "mere" financial transactions are indirectly very closely linked to international commodity transactions. But even if they were not, they are economically more real because they increase considerably the average level of income of a nation by increasing the amount of insurance available to it, by lowering its *transaction costs* and by improving the conditions and lowering the *price of borrowing,* while increasing that of *lending.* Transactions have considerable effects on income distribution and on allocation.

On the other hand, transactions not only reduce the cost of risk, they also *create new risks*[3]*)* and, thus, help to shape the whole social framework of a nation. It would be correct to say that we are all speculators now, that we all *have to* be speculators now. In a world of multifarious financial instruments we cannot help making decisions which refer to a vast number of future capital prices. And even those who falsely pride themselves on not speculating are – in a rapidly changing environment – merely among a particularly irrational kind of speculators: They are "no-change speculators," speculators who assume, usually quite wrongly and for them disastrously, that no price will change in the future. For to speculate is but to take into account future prices in profit calculation and utility maximisation. Prices of any kind of capital in integrated international financial markets tend to change rapidly, and, as we shall see, more and more rapidly.

Third clarifying remark: Oh, terrible brave new world where we are all prey to the whims of international finance. All this is frighteningly new. We have to grasp the inter-nettles of global capital and get burnt!

Once more, this is only a myth. Integrated financial markets are very old. English terminology is particularly significant: a "bill of exchange," so to speak of *all* exchange, is an instrument of international trade. And the "exchange rate," so to speak the rate of all economic intercourse, is the price of international commodity transactions as well as of capital transactions.

Let us be very parochial. When do you think did Austria take out its first large international loans, denominated in foreign currency? The answer is 1706, and then in 1710, and then more or less in peacetime in 1735 and 1737.[4]) All these loans were denominated in pound sterling and were raised in England by a very conservative monarch, Charles VI, the last Habsburg and father of Maria Theresia. Studying the British authors of economics of the late seventeenth and of the eighteenth centuries, you will find that they all

understood international financial transactions very well and instinctively thought in their terms.[5]) They understood integrated international markets much better than present-day American monetarists, who have the very parochial idea that increases in the amount of money will primarily change prices and who constantly forget about capital flows.[6]) If commodity markets are both fully internationally integrated and fully competitive, changes in the amount of money in any one country cannot lead to significant price movements. Monetary changes mainly shift financial means between countries and shift prices very little, with the exception of the most volatile type of prices, i. e. the exchange rates.

Another thing which is not new in international financial markets is near-instantaneous communication the world round. True, here we cannot go back to the eighteenth century but merely to the time around 1900, when international capital market integration reached its last apogee: The telegraph and, then even more so, the telephone, introduced at the time, made international communication nearly as quick as the modern internet.

There are, however, *three aspects* of international financial markets which, as seen from a long-term historical and from a global perspective, *are new.*

First, never before did we have a world in which the *great international currencies were as unlinked in value* as they are now. Formerly, all currencies were denominated in gold or at least in silver. Thus, their exchange rates could, in a well-understood manner, not diverge very far from their gold or silver parities. Even if the redemption of paper money in gold coin was temporarily suspended, one could rightly assume that such a suspension would only be temporary and that eventually there would be a return to the old parity. Thus, currency speculation was stabilising, while, as we shall see, there is no anchor whatsoever to exchange rate speculation even with respect to the three large currency blocks of the "triad".

*Second, n*ever before was the most important, i.e. the *dominant financial nation in the world, a debtor nation;* and the largest debtor nation of the world to boot. On the contrary, the dominant financial nations had been creditor nations, Holland and England in the eighteenth century, Great Britain up to the first World War, and the United States from then on up to the mid-1980s. That the U.S. is such a large and rapidly increasing debtor nation now is frighteningly new and a source of great instability as yet unplumbed.

Third, hardly perceptible long-run inflation and therefore very low nominal interest rates of about $2^1/_2$ to 4% on long-term, e. g. about 10-year loans, are only normal, the historical norm. It is the highly inflationary twentieth century which is exceptional, a century which we are leaving behind just now. What is new, however, is that investors in the most advanced countries have become accustomed to very high nominal interest rates, have even written high nominal interest rates into long-term contracts. They consider high nominal – and even real – interest rates their birth right and are even frantically searching for them the world over. What is more, the average investor regards *high nominal interest rates which are riskless* as his birth right and is very astonished when he finds out – I say he on purpose, for *she* appears to be more realistic – that high nominal rates can, if at all, be realised only at extremely high risk.

Fourth clarifying remark: It is the most normal thing in the world that, as long as international capital markets exist, capital should flow from countries or maybe just regions rich in capital to countries and regions poor in capital. Or to put it differently, that capital should flow from regions with low investment opportunities but high savings rates to regions with better investment opportunities and lower savings rates.

Capital flows conformed to this efficient pattern in the 1980s and 1990s. They conformed to this pattern once more largely on a commercial basis, and much more so than merely a few decades ago. Furthermore, financial capital flows increased, as can be shown, real capital formation in the less developed world substantially.[7]) They did not remain financial gambles without any "real" effect. Two things have to be remembered, however: Firstly, international capital movements do not aim at any particular country or even any particular region. They just strive for the highest possible return. If transaction costs are low and if there is much intermediation in the time of commitment to given investments – and both the reduction of transaction costs and the securitisation of commitment is progressing apace in the course of financial market integration –, then international capital will shift frequently from one foreign market to another in search of a higher return. Secondly, rates of return in developing nations are higher because these nations still have a long way to go in terms of prosperity and still have more unexploited investment opportunities. Their development tends to be more uneven as well, occuring by fits and starts. Thus, they offer higher returns, but there is also higher risk inherent in these returns, even without calculating exchange rate risks.

If we add exchange rate risks, the constant search of finance for the best rates of return and the constant shift in opportunities in international investment countries inevitably causes *frequent financial crises.* It is quite normal that international capital flows are *accompanied by financial* crises. They are part of the picture and are, therefore, always to be expected.

The situation of the United States of America is, however, indeed novel. It has a relatively high rate of investment, conforming more or less with other developed nations. But it has by now one of the most underdeveloped savings rates of the world. Actually, its national private savings rate equals zero. As the government budget is now in balance, the whole amount of private investment in the U.S. is financed by foreign borrowing, by international capital flows perversely going *into* the most developed and nearly the richest nation. The next financial crisis that is due should be one of the United States of America! International financial crises are always largely unexpected, at least as to their precise timing; otherwise they would not be crises. Still, the expectation of a sudden shift of international capital out of the U.S., triggered above all by a fall in stock market prices on Wall Street, is not at all absurd and, in fact, very likely.

Fifth clarifying remark: All measures of economic policy have unforeseen consequences. It is fortunate if they do not only have unforeseen consequences. The Maastricht budget deficit criteria quite naturally increased international capital movements. And as all large international capital movements also necessarily entail financial crises, *the Maastricht budget deficit criteria more or*

less necessarily increased the number and the volume of financial crises.

The aim of the Maastricht deficit criterion for government budgets is to decrease the average amount of government deficits in Europe. It makes it very costly for a country to have a temporary budget deficit, and it also makes it very desirable to have a very low budget deficit on average. The intent is therefore to reduce (to use a national income accounts term) government dissaving. As long as private saving in Europe does not

fall to the same amount to which government dissaving is reduced, which seems unlikely, and as long as the sum of public and private investment is not *increased* (!) by the Maastricht restrictions, which seems even more unlikely, the Maastricht deficit criterion tends to increase in Europe the total surplus of saving over investment (private and public alike). But a higher surplus of saving over investment necessarily increases the excess of exports over imports in the current account balance. The budget deficit criterion thus causes additional creation of capital to be invested outside Europe. This is good in a sense: more capital is set free to be invested in developing nations (including, interestingly enough, investment in the U.S., which, in terms of international capital, are ever more becoming one of those nations which, sometimes very inappropriately, are commonly called "developing"). But in the light of the previous remark we can also say: The Maastricht budget deficit criterion is a key cause of more and more financial capital movements in the world. *European financial policy is ultimately also the cause of more and more international financial crises.*

Of course, the Maastricht deficit criterion also led to a lowering of *interest rates* in Europe to a level not seen on the Continent for decades. The low European interest rates and the increase in the balance on current account combined made for the Wall Street boom.

A side remark: Among the larger European countries it is, of course, Italy that has contributed or is contributing the most to the European surplus on current account. This is due to the fact that over time the drop in relevant interest rates, those associated with the low inflation rate of the euro in comparison with those associated with the high inflation rate of the lira, meant most for Italy. At about 125%, Italy's public indebtedness is the highest among all larger EU Member States. A drop in interest rates from 12 to 4% thus means for Italy a full 10% of GDP improvement in its government budget deficit and, according to the "twin deficit" rule, ceteris paribus a full 10% potential improvement in its international current account. Thus, in the long run, Italy, and not Germany, will make the primary material contributions to the value of the euro by creating current account surpluses. And Italy will also contribute most to it ideologically: For Italy is most interested in low inflation in Europe, as this also spells out low interest rates. Financial markets, so far misled by German misconceptions, please take note of this!

Sixth clarifying remark: All capital prices of readily marketable capital, be it the prices of financial capital or of so-called real capital, are highly

volatile. Actually, they are just the stream of expected future returns, including expected future periodical increases in capital value, discounted to the present by some notional interest factor. When calculating the stream of future returns, it is the opinion of the average investor that counts. And as investors in an uncertain world show strong herding behaviour, we might call all capital prices somewhat crassly and unkindly, though not without justice, merely *discounted mass hysteria*.

It is important to understand that in highly developed and thick resale markets all capital prices are always divorced from "fundamentals." Whether it is the "old masters" or antique furniture and rugs, whether it is real estate or gold, whether it is common stock or foreign exchange (for foreign exchange is also, above all, an asset price), the value of all these assets corresponds but to the discounted expectations and is therefore volatile. This is not due to the particular *nature* of a capital asset; it is only due to the importance or unimportance of its *resale* market. Only indirectly does the nature of the capital good enter; for resale presupposes great durability of the commodity traded. Financial asset prices may be more volatile than those of so-called real capital, but only because their respective resale markets are more highly developed; and that is so because they are better homogenised for resale.

What are "fundamentals"? Or, equivalently, what are the economic reasons for price stability? The *classical* argument for price stability was the *stability of production cost*. But this argument only applies to commodities which are constantly produced because they are constantly used and which are relatively short-lived. At base, no resale was considered. The *neoclassical* argument for price stability, as far as it was used (for many neoclassical authors already argued in terms of price volatility), was *stability of preferences.* Again, this only applies to currently consumed commodities or capital goods of short use. The essence of every really long-term capital good, above all a capital good of notionally infinite durability, as real estate, or an old master, or gold, or common stock of a viable company, or the value of one large currency relative to another, i.e. the exchange rate, is that its possible production cost is always a by now irrelevant sunk cost, and the preferences, which may have been formerly responsible for its coming to market, are by now bygones. If reproduction is of small volume relative to current trade, the only thing which counts is the expected future return. The price which is backward-looking in time (reproduction) becomes irrelevant and the forward-looking price (discounted expectations) becomes divorced from it. In such a nearly exclusively forward-looking market the only valuation that matters is what the market thinks average opinion is; or, what Keynes dubbed the beauty contest. That is the typical situation of the international capital market, financial or otherwise: *by necessity it deals in inherently unstably priced goods, prices without any anchor.* And it does so because it is a highly organised resale market in which, in the terminology of auctions, only common, not private values count.

Seventh clarifying remark: The volatility of the price of internationally traded assets is not a teething problem of the adjustment to new world conditions. It is not something which will be reduced by progressive learning. It is not a state of economic disequilibrium. Much rather, this *volatility* of the price of inter-

national financial instruments, especially of foreign exchange, as well as that of so-called "real" capital, if of long duration, *will even be increasing over time*.

Two examples may suffice. In many countries we have witnessed not only particular, but average prices of built-up real estate falling to no more than 40% of the national value at the time of building. And in October 1998, we witnessed the yen appreciating by 20% relative to the U.S. dollar in a mere three days without any perceptible change in "fundamentals."

A side remark: Anyone who thinks that one can stabilise international financial markets by a Tobin tax, a small percentage tax on all foreign exchange dealings, is far behind the times. He has got his facts wrong. He should look at day-to-day changes, perhaps of the average absolute amount, in the main foreign exchange markets, especially those relative to the yen. If the yen jumps by 20% within three days, even without any apparent news about fundamentals, how could a $^1/_2$% tax help to stop that? Even more fundamentally, he does not understand that in organised resale markets of long-term assets, prices are without anchor. Price changes do not build up in small steps.

Why will the volatility of prices in international financial markets increase? Because markets increase both in volume and in sophistication, i. e. assets improve in marketability.

We can also put this in more theoretical terms. It is well known empirically that financial market prices are very close to a random walk. They are not quite a pure random walk, as they show both periodical, yet unforecastable, changes in the underlying variance of the process and a slight mean reverting tendency. But they are hardly distinguishable from a random walk over the short run. And the very essence of a random walk, as far as its variance is concerned, is that the variance increases linearily with time. This implies, in particular, that – as far as exchange rates fluctuate at all around their fundamental values – these fluctuations, i.e. their volatility, should constantly *increase* over time.[8])

But what about the possibility of stabilising speculation? John Stuart Mill's famous theorem on stabilising speculation,[9]) which today is traded in the market for economic ideas under the name of its rediscoverer, Milton Friedman,[10]) reads: Speculation, as long as it is on average profitable, has to stabilise prices. For profitable speculation means buying when the price is low, thus pushing the price up towards its mean and reducing its variability; and selling when the price is high, thus pushing the price down, which in turn, reduces its variability. But this argument, however convincing at first sight, crucially hinges on the ability of knowing when the price is low or high. It was correct in the case of John Stuart Mill, who used it for the wheat market, a market for *current* consumption with stable preferences, where supply variation is mainly due to the weather and average price is therefore forecastable with considerable accuracy and the "lowness" or the "highness" of price is determinable. Friedman, however, used the argument for foreign exchange speculation. He thought of the foreign exchange market as a market for *current* consumption, the market of exports and imports; and he thought what counted was therefore only purchasing-power parity as the exchange price of exports for imports. Alas, the foreign exchange market is by now to the tune of 98% a capital market, i.e. a market

for the resale of foreign exchange at some indeterminate future date. It shows random walk behaviour in the short run, as demonstrated by Meese and Rogoff.[11]) The best forecast of a price with random walk behaviour without drift is just the present price. Thus, you can never say whether a foreign exchange price is high or low; or, alternatively, you may say it is always both low and high at the same time. You cannot speculate profitably in an on-average stabilising way. Or, to put it differently, in a pure random walk without drift, you have to wait on average infinitely long until any price is again realised. Thus, the speculator waiting for a given price finds his waiting on average infinitely costly if he pays a positive interest rate. Consequently, we cannot hope for stabilising speculation in international financial markets from private investors with only a profit motive.

II Financial markets as the ultimate cause of cyclical instability

In the interwar period, financial markets were seen by many influential authors as the ultimate cause of cyclical instability; and rightly so. This idea is at the core of the analyses of business cycles of both Hayek and Keynes.

Hayek thinks of a world dominated in financial terms by *bank credit,*[12]) a notion still appropriate for continental Europe, for Japan and for many emerging markets. According to him commercial banks periodically extend bank credit at a supply price much below the rate of return on capital invested, which is the demand price. This is typical of banks which credit-ration their customers: They do not exactly know whether and how the customer will actually use the bank credit.[13]) Then there is a fixed optimal rate of interest for any class of customer, which remains unchanged even if, not understood by the bank, the actual rate of return on investment changes. For if the bank were to raise that rate of interest, the perceived probability of default of the customer would increase to such an extent that the higher rate of interest on the loan would not compensate the bank for the increase in default risk. Banks therefore vary the quantity of their credit outstanding considerably, while holding its price, the rate of interest, rather steady. Whenever banks engage in substantial lending activity, they cause an investment boom. In terms of the credit contract, the bank credit Hayek considers is short-term in nature (though the actual period during which credit is extended may very well be, and actually is likely to be, unintentionally long). The credit contract is a short-term contract in the sense that it may be terminated at short notice or the rate of interest may be increased steeply at frequent intervals. If long-term investment is largely financed by such legally short-term bank credit, credit curtailing typically touches off a bust. Also, credit will typically be terminated or made much more costly at short notice and frequently before investment projects are completed.

There are several cases which illustrate this point: Real estate and oil prospecting booms in the United States in the 1970s caused large overhangs of investment and contributed to serious bank failures. The Scandinavian problems after bank deregulation in the 1980s and Canary Wharf in Great Britain come to mind. Japan and its real estate market around 1990 is perhaps the most glaring example. Above all, most of the recent Southeast Asian financial problems were of the

Hayekian type: International financial capital flowed in, the local banks considered this inflow to be a secure base for credit extension because they were overoptimistic as to the stability of their local exchange rates relative to the currencies in which international capital was contractually denominated, and they extended credit to local firms on the basis of the short-term credits they themselves had received. So, international lenders acted like Hayek's banks. When they curtailed their loans, the boom went bust.

According to Hayek, the market sentiments of private individuals in financial markets are the cause of boom and bust; but it is above all shifts in the mood of the *suppliers* of finance, of banks. *Keynes* also identifies the market sentiments of private individuals in financial markets as the cause of boom and bust; but with him the *demand side* is basically more important: individuals change their attitudes with respect to *assets they wish to hold.*[14]) Thus, Keynes' world is not so much one of bank credit, but one of *debt instruments extensively traded, of bonds and of common stocks* (though the latter are, of course, not actually debt instruments in the legal sense). At present, this more or less corresponds to the Anglo-American world, the U.S. and Great Britain. But given the ever-increasing importance of financial markets along with the rise in average per capita income and even more so in average per capita wealth, the whole world is shifting more and more towards financial markets dominated by "securities" – by securities, what an inappropriate term! – or, in other words, by stocks and bonds. And everybody knows that one frequently tends to shift from one type of finance to another, in particular in the course of financial crises: Who does not know today about the possibilities of "securitisation" of debt?

With Keynes, changes in market sentiments of investors, above all in the market sentiments of financial investors, change interest rates. Changes in interest cause changes in the quantity of real investment demanded; and, explicitly in Keynes, also changes in the price of new investment goods, just as in Hayek. Changes in the real quantity of new capital demanded and in its prices trigger booms and busts, just as in Hayek. As a matter of fact, Hayek and Keynes hardly differ in their analysis of cyclical general demand patterns.

It should be noted that for both Hayek and Keynes central banks hardly figure. They are mostly hidden, somewhere in the wings of the stage; and if they come into view, they play a supporting role at best. Instead, private market sentiments matter, either more those of suppliers or more those of present holders of financial assets. And that is very realistic: The volume of private financial capital is huge; and central banks, comparatively speaking, have very limited funds. Neither Hayek nor Keynes considered base money to be of very great importance. Being mesmerized by base money and its creation is a vice of postwar monetarists. A base money view is appropriate only if commodity transactions dominate. It is inappropriate with transactions in already existing financial instruments, which are merely exchanged against each other. In other words, base money is of paramount importance only in a very primitive financial world. Or, I should be more careful: It is of *direct* importance only in such a primitive world. It may be of *indirect,* i.e. of basically *psychological* importance, even in sophisticated financial markets.

Yet, while in a sense both Hayek and Keynes played down the importance of central banks in modern, internationally integrated financial markets, in another sense they implicitly gave them greater importance. When David Hume created modern monetarism in 1752[15]) – though some of you might know Hume better under his twentieth century pseudonym, Milton Friedman[16]) – , he argued that monetary policy could not change the rate of interest because it was determined by real investment and possibly also saving decisions.

This, however, is only true when the supply price of finance is brought into equilibrium with its demand price. It is the essence of credit rationing that the supply price of credit is permanently divorced from its demand price, the rate of return on capital, because the lender can never make out what the average real rate of return is; and, moreover, this is also largely irrelevant to him, because he is only interested in one tail end of the return distribution, namely that which generates default risk. The same is true in the market for new debt instruments and even new common stock, when there is extreme uncertainty about the rate of return of the underlying real capital.

When the supply price of finance gets divorced from the demand price, central banks gain an important influence on the level of interest rates on financial markets. In these cases neutrality of money does not even hold in the medium run, as both Hayek and Keynes knew. The influence of the central bank may be only temporary, because the "real" rates of return on capital will *eventually* assert themselves. But this temporary influence may last for quite a while and may have significant feed-back effects on commodities and employment.

When, for instance, Eastern Europe and, in particular, the former German Democratic Republic were opened up to the West, large new investment opportunities were created and real interest rates surged all over Europe. There was an evident and dominating increase in the demand price of capital; to blame the German Bundesbank for the increase in interest was obviously wrong. With regard to such a situation, Hume hits the nail on the head. But in situations which are not as clear-cut central banks may be able to influence the supply price of finance to a considerable extent and for a considerable period of time.

At this point it is probably best to quote Keynes in more detail: "Circumstances can develop in which even a large increase in the quantity of money may exert a comparatively small influence on the rate of interest. For a large increase in the quantity of money may cause so much uncertainty about the future that liquidity preferences due to the security motive may be strengthened; whilst opinion about the future rate of interest may be so unanimous that a small change in present rates may cause a mass movement into cash. It is interesting that the stability of the system and its sensitiveness to changes in the quantity of money should be so dependent on the existence of a *variety* of opinion of what is uncertain. Best of all we should know the future. But if not, then, if we are to control the activity of the economic system by changing the quantity of money, it is important that opinions should differ".[17]) There is really nothing to be added. He who believes in the stability of money demand in a world dominated by financial flows in inte-

grated financial markets is a, well, monetarist.

To expect too much from the central banks' ability to affect the rate of interest was Oskar Lafontaine's grave misconception. His ideas were, as we have just seen, evidently not the ideas of Keynes, though possibly conforming, as would befit a physicist, to hydraulic Keynesianism. On the one hand, a fall in real interest rates, though basically a stimulating activity, would at present probably not have done

much to increase private investment; and, in particular, at a time when entrepreneurs expected a decline in their real net rates of return due to increased taxation. On the other hand, as is well known, the central bank has at most direct control over short-term interest rates, if at all. Pushing down short-term rates, one may only increase the steepness of the yield curve and actually *raise* long-term rates, which is just what happened this year (1999). But it is long-term rates which are of interest to real investment; and they actually went up. Lafontaine's big mistake was to forget about how his statements would affect international financial markets. He created inflationary expectations and talked the euro down in the eyes of East and Southeast Asian traders. In contrast to what was true up to the 1970s, when inflation still actually lowered real interest rates, with the "triad" we may now have a world of a Super-Fisher-Effect, where nominal interest rates rise by more than the expectation of additional inflation, so that even real interest rates go up on the fear of inflation.[18]) This would have to be the correct reaction if you believe Martin Feldstein, the president of NBER and as such one of the most influential present-day economists: higher inflation automatically means higher real business taxation, because depreciation allowances are unindexed.[19]) So try not to create unfavourable financial expectations. In a nutshell, Oskar Lafontaine's big mistake, which has affected the euro unfavourably for quite some time, was simply that he talked.

III Monetary policy in a world of active and integrated international financial markets

So far, we have discussed what the world is like and will be like in the 21st century. What are the policy conclusions to be drawn from this description? We shall first turn to policy conclusions for the central banks of the large currencies, the European Central Bank in our case. Then we shall consider the role of the local central banks within a common currency, e. g. the Oesterreichische Nationalbank. I shall close with a tentative remark about the monetary system of the world. Altogether there will be seven propositions on policy.

Proposition One: With rapidly shifting international capital flows, the *nominal amount of money* in a country necessarily becomes *endogenous.* (I assume, of course, full convertibility.) Central banks are frequently unable to control base money. Therefore, they should not try too hard to do so and should not hitch their reputation on such control.

If finance shifts out of a country, the central bank can, of course,

always make good the decrease in domestic currency by buying in the open market. If there is a large inflow, on the other hand, the bank may become powerless to reduce the explosion of its base money: it may easily run out of financial instruments to be sold against cash in order to mop up currency. The situation will be complicated by the fact that the inflationary inflow of funds will, at the same time, cause an *appreciation* of the currency.

On the other hand, a central bank with an unusually large financial capital inflow will be wise to neutralise part of this inflow by immediately reinvesting part of it in other countries, including the one where the finance mainly came from. Private individuals will not do that to a sufficient extent because this policy entails a certain loss of interest. It is, however, an *insurance policy* against the time when capital will shift out again: then it will not only prevent too drastic a currency depreciation but also entail an exchange rate profit. This seems to be harsh counsel for a country which urgently needs international capital and therefore seeks to attract it. But such a country will fare best if it immediately returns part of what it so urgently needs, because that policy is bound to prove appropriate.

A further problem with gauging the quantity of base money too precisely is that the central bank responsible for any large international currency can never know exactly the volume of banknotes actually circulating at home. It is said that at present only 40% of all U.S. dollar notes circulate in the U.S. But the tendency of foreigners to hold your base money may shift rapidly, so that you cannot control the amount of your base money circulating at home. It so happened in the U.S. in 1985, while at the same time foreign holdings of Deutsche mark notes shot up.

Proposition Two: With the financial markets gaining in size, *interest rates* and *exchange rates* acquire *much greater importance* and thus, once again, become final goals of monetary policy. Pre-empting inflation, on the other hand, becomes less important: The price level at whose stability an anti-inflationary policy aims is merely the price level of current commodities and services, which count for little in the total volume of financial transactions.

However, zero inflation, in a sense, is still very important as a policy aim. Buying a financial asset of longer duration is, by definition, *not* buying current goods and services. Conversely, the same is true of selling. But it is buying the *potential* to purchase goods and services in the future. What is most important is *all the future price levels.* Present inflation may be of little significance except *indirectly* in influencing *inflationary expectations* with regard to the future. It is essential to create the expectation of near-zero inflation, which makes it easier to calculate future values of financial assets in terms of future purchasing power, and, above all, to create the expectation of a stable rate of low inflation in the future. An accurate yardstick for future capital values is what counts.

Proposition Three: But what is the correct price level in a world of strong financial markets? Is it really the consumer price level? Should the central bank completely ignore asset prices? The prices of real estate and of common stock? I think it should not, or at least not always do so.[20]) I think the argument against the Fed that by its interest policy it is actually furthering a stock market boom which is unsustainable in the long run is well placed.

However, as I pointed out, asset prices are inherently restless. No bank will be able to stabilise them very much. They will have to fluctuate much more than the prices of commodities and services. This does not mean, however, that sharp asset price rises should be ignored by central banks as not inflationary. And, by the way, central banks always do take into account large asset price falls.

Proposition Four: Like war, like central bank policy: What counts is not *what one actually does, but how it is perceived.* It is all about morale and expectations. A wise central bank will primarily try to stabilise asset prices and expectations at home while profiting – in the narrower sense of financial profit – from asset price volatility abroad.

We have just had a beautiful example of this, though not actually in central bank behaviour. It is not the *size* of the budget deficit of large European countries that matters to financial markets. What matters is not fulfilling promises.

There will be government budget deficits larger than 2.4% in Europe in 1999 or 2000; yet what came as a shock is that the Italians had increased their forecast from 2.0 to 2.4%. *So always be cautious in your promises; and then try to overfulfil the task you have set yourself.* What you do is much less important than that you appear better than your word.

Proposition Five: So far, these are rules for, as it were, the "central" central banks, though partly also for the local ones. Is there at all an independent role for local central banks, as for instance, the Oesterreichische Nationalbank, in an ever more globalised financial world? I am quite sure there is. Actually, their importance is increasing in spite of the fact that they have lost their own independent currencies. (By the way, Austria lost comparatively little through no longer having its own currency to manage, for the schilling notes were already, in the apt words of a banker, merely an issue of Deutsche marks with other symbols printed on them.)

Stepped-up international financial capital movements mean an increased number and volume of international financial crises. European investors, desperate because of the low interest rates at home, will search frantically for better returns abroad. And that is bound to result in an increasing number of defaults, or, at least, of serious liquidity problems of domestic financial institutions, an increasing number and volume of what is so nicely, though euphemistically, called "Schieflage in German." But this means that the role of the central bank as a lender of *last resort* is gaining importance; and this role is best fulfilled locally.

In order to serve as a lender of last resort, the central bank needs *a good reputation and large reserves.* (Actually, what it lends in many cases, if intervention as lender of last resort is at all well directed, is merely the *lower borrowing cost* of its good name.) Central reserves, to be tapped in cases of need, are important. In fact, many financial crises, in particular currency crises, do not even materialise if the other side knows that there are sufficient reserves to be tapped, as we Austrians know so well. Large financial reserves of the central bank, thus, first and foremost serve a *preventive* purpose. Most of the recent international crises would not have occurred if reserves had been sufficient. Reserves, of course, serve a *curative* purpose as well.

The local central bank must be a strongbox of reserves. But curiously, while apparently in the strongbox, reserves can be put to work as

well, i. e. to earn handsome returns while they are there. Reserves need not be held in very liquid form; or largely not in very liquid form. Speculation in international financial markets is much too serious a business to be left to private investors alone. A central bank can reap profits very successfully there; and its success is likely to be greater than that of private investors, not only because it tends to know more, but also and above all because there are large economies of scale in international financial transactions, and the central bank will normally be large.[21])

There is nothing shameful about handling your reserve funds profitably in the interest of your citizens; and I know of a central bank that has done so. But "speculation" of a central bank in financial markets, which is a mere *side product* of using necessary reserves best, might also sometimes be the exact opposite of private speculation: for it might be a stabilising *counter-speculation*.

Proposition Six: As the local central bank will again have to serve, as in the nineteenth century, to an increasing degree as a lender of last resort, it is also ideally placed to serve as the *operational center of bank control*. In fact, not only of bank control, but of the control of all *financial institutions,* including insurance companies. For all these institutions tend to invest in international financial markets, and frequently hazardously so. Even if they do not invest in foreign capital markets, they may, if large, influence capital markets strongly, as has been the case with Long Term Capital Management.

If the central bank acts as a lender of last resort, it must constantly observe financial institutions anyhow, and it must take pre-emptive measures. It constantly extends credit; and credit requires control. Furthermore, the central bank is the *only institution capable* of controlling commercial financial institutions effectively. In light of the continuous stream of innovations in international financial markets the central bank will be the only institution with sufficient expertise simply to understand what the commercial players are actually doing.

Control of financial institutions in ever more proliferating international financial markets probably also entails the *need for new instruments*. We have reserve requirements with regard to domestic deposits with banks. We will also need stringent reserve requirements with respect to *short-term foreign loans* to local banks and requirements for any kind of short-term foreign loan. Such reserve requirements would have helped enormously in emerging markets, yet they may also become important in developed ones. Another need concerns *special requirements* for underlying *equity* capital for many risky international investments. And such rules have to be adaptable in a flexible way.

Proposition Seven: Finally, I come to the question of the future international monetary system. I am fully aware of the fact that at present all the great currencies wish to safeguard their maneuverability relative to each other; and especially as long as the euro is not yet fully established. But policy independence may also entail, by and by, excessive risks of hectic movements of the

great currencies of the "triad" against each other.

A well-known testament started with the memorable phrase: "If I die . . ." In the same vein, I should like to make the statement: "If" a great financial crash in the U.S. occurs, I think the United States of America will find it in their interest to seek some kind of arrangement in order to limit exchange rate fluctuations of the great world currencies against each other, either semi-permanently or permanently. Whether that will be a new world-wide gold standard, I cannot as yet say.

To conclude: How is monetary policy to be pursued in the future of ever wider, ever deeper, ever more integrated international markets? What will it be? A very astute central banker recently answered the first question: It will have to be pursued *pragmatically,* she said. I fully agree. And what will the policy be? It will be an art, what else? And happily so, for central bankers! We live in exciting time – and that need not be, as the pessimistic Chinese think, a curse.

1 *See Tichy, G. (1998). Wirkungen und Herausforderungen der Globalisierung – Innovation und Technologie. In: Conturen, II/98, 49–67.*

2 *Smith, A. (1776). An Inquiry into the Nature and Causes of the Wealth of Nations. Book I, ch. V and Book II, ch. III. London 1776.*

3 *See, e.g., "the price of uncertainty", The Economist, June 12th – 18th 1999 (vol. 351 Number 8123), 81–82; or, more fundamentally, Genotte, G., Leland, H. E. (1990). Market Liquidity, Hedging and Crashes. In: American Economic Review 80, 999–1021.*

4 *Dickson, P. G. M. (1967). The Financial Revolution in England – A Study in the Development of Public Debt 1688–1756. London. The first two loans were, of course, still under the emperor Joseph I.*

5 *Notably, and above all, of course, Cantillon Richard.*

6 *This is already the difficulty with David Hume. Political Discourses, Edinburgh 1752. He is generally considered the father of monetarism. In Discourse III, "Of Money", he says: "If we consider any one kingdom by itself, 'tis evident, that the greater or less plenty of money is of no consequence; since the prices of commodities are always proportion'd to the plenty of money" (p. 41). This cannot be true of prices fixed through international competition. Then he considers "the greater plenty of money (advantageous) . . . in its wars and negotiations with foreign states", (p. 41), which assumes an outflow of money without, of course, any effect on prices. Finally he considers a "large . . . sum, lying ready at command . . . a great convenience in times of public danger" (p. 45), which assumes neither an outflow of money nor an effect on prices. In Discourse IV, "Of Interest", on the other hand, he gives an explanation of the rate of interest in purely real economic terms and explicitly denies any monetary effect.*

7 *See Corbo, V. Macroeconomic Policy Issues Raised by Capital Inflows. In: Gacs, J., Holzmann, R., Wyzan, M. L. (eds.) (1999). The Mixed Blessing of Financial Inflows: Transition Countries in Comparative Perspective. Cheltenham, 13–27, here 16.*

8 *I have stressed a time-increasing variance of exchange rate fluctuations around their "fundamentals" as a consequence of random shocks in my 1998 Thünen Lecture. Streissler, E. W. (1999). 6[1]/2-Wechselkurse. In: Schriften des Vereins für Sozialpolitik.*

9 *Mill, J. S. (1848). Principles of Political Economy – with Some of their Applications to Social Philosophy. Book IV, ch. II, §5. London.*

10 *Friedman, M. (1953). The Case for Flexible Exchange Rates. Originally 1950, In: the same, Essays in Positive Economics. 157–203, here p. 174–177. Chicago and London.*

11 *Meese, R. A., Rogoff, K. S. (1983). Empirical Exchange Rate Models of the Seventies: Do They Fit Out of Sample? In: Journal of International Economics 14, 3–24.*

12 *See especially von Hayek, F. A. (1932). Prices and Production. London.*

13 *Hayek stressed the importance of the assumption of credit rationing for his analysis in von Hayek, F. A. (1969). Three Elucidations of the Ricardo Effect. In: Journal of Political Economy 77, 274–289.*

14 *Keynes, J. M. (1936). The General Theory of Employment Interest and Money. In particular ch. 13: The General Theory of the Rate of Interest. London.*

15 *See footnote 16.*

16 *See in particular Friedman, M. (1956). The Quantity Theory of Money: A Restatement. In: the same (ed.), Studies in the Quantity Theory of Money, Chicago, 3–21; Friedman, M. (1959). The Demand for Money: Some Theoretical and Empirical Results. In: Journal of Political Economy 67, 327–351.*

17 *Keynes, J. M. (1936). loc. cit. in footnote 14, 172.*

18 *For example, Clarida, R., Gertler, M. How the Bundesbank Conducts Monetary Policy. In: Christina and David Romer (ed.) (1997). Reducing Inflation, Chicago and London, ch. 10, 363 – 412 shown on p. 401 that "when the inflation gap is positive, the Bundesbank raises day-to-day [interest] rate 160 basis points in response to a 1% rise in expected inflation". Or is it the market that actually does this?*

19 *Originally in Feldstein, M. (1976). Inflation, Income Taxes, and the Rate of Interest: A Theoretical Analysis. In: American Economic Review 66, 809–820. Feldstein, M. (1983). Inflation, Tax Rules and Capital Formation. Chicago and London; most recently in Feldstein, M. (1997). The Costs and Benefits of Going from Low Inflation to Price Stability. In: Romer and Romer, loc. cit. in footnote 18, ch. 3, 123–156.*

20 *This passage has been altered and brought into its present form due to valuable comments by F. P. Bakker, whom I would like to thank very much.*

21 *I have elaborated on scale economies in international finance, especially for governments in the widest sense of the word (including central banks). In: Streissler, E. W. (1998). Neue finanzmarktpolitische Aufgaben des Staates. In: Conturen, II/98, 7–23.*

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Comment on:

Monetary policy and price stability,

and

monetary policy in an integrated financial world

In light of the rather recent inflationary history of industrial countries, it is remarkable that we have come so far as to discuss monetary policy under price stability. The love affair central bankers have with price stability now has grown into a widespread consensus, not only among other policy-makers, but also among mainstream economists. Inflation no longer is seen as greasing the economic wheels – as James Tobin once said – but more like putting sand in the wheels, incidentally another James Tobin expression. Actual inflation figures have come down substantially, as have inflationary expectations. Thus, Karen Johnson's comprehensive paper addresses a topical issue, and I find myself in general agreement with her analysis. Overall, I would be hesitant to take issue with the views of a central bank that has steered the economy with such mastery and success as the Fed, having maintained a virtuous combination of stable prices and buoyant economic growth over the better part of this decade. Nonetheless, let me try to address some general issues that are open to debate.

A first question is what constitutes the optimal inflation rate that central banks should strive for? Is putting a number on this rate desirable, and, if so, should this be 0%, 1%, or some other number? In the paper several considerations are put forward that need to be taken into account: statistical measurement biases, downward rigidity in nominal wages and prices, interaction between inflation and productivity growth and, last but not least, the impossibility of lowering nominal interest rates below zero. This latter restriction implies that an inflation rate close to zero constrains the establishment of negative real interest rates in times of recession and thus reduces the ability of monetary policy to stabilise economic developments. All these are valid considerations. From a practical viewpoint, however, considerable caution is needed before translating these insights into actual monetary policy objectives. For instance, while it is now commonly agreed that consumer price inflation is subject to substantial measurement biases, estimates of these biases are subject to considerable uncertainty and differ markedly between countries. Studies for European countries tend to arrive at significantly lower figures than the Boskin Report did for the United States. More fundamentally, one may question the wisdom of aiming for some "optimal" inflation rate on the grounds that any estimate of this rate is not only uncertain, but is also likely to vary as economic structures change and economic behaviour adapts. Academics who have come forward with 3% as an optimal rate base themselves on historical data which may have less relevance for the present-day environment. For example, wage-setting behaviour may change significantly in an environment of sustained price stability. Moreover, the downward stickiness of wages may in practice become less pronounced as the share of incidental, profit-related wages is increasing. Actually, to mention one example, because of the bonus system, nominal wages in Japan decreased 4% in 1998.

Besides these technical considerations, I would argue that there is also a political economy case not to base monetary policy on estimates of an "optimal" inflation rate, but rather to adopt a normative commitment to maintaining price stability. Creating expectations of a near zero inflation rate is very important. Indeed, once the beacon is shifted to, say, 3%, it is a small step to 4%, and from there further up. Sticking to a normative

goal of price stability also follows from the insight that the higher inflation gets, the more variable it becomes. And, beyond a certain point which may lie in the higher single digit numbers, inflation is definitely detrimental to economic growth. Furthermore, a price stability goal avoids the arbitrary and inequitable redistribution of wealth and income that inflation brings about.

In this context, I would take issue with the suggestion made by Krugman and others that a central bank may at times need "to credibly promise to be irresponsible – to make a persuasive case that it will permit inflation to occur, thereby producing the negative real interest rates the countries need" (as quoted by Karen Johnson). In addition to the criticism offered in her paper, I would contend that the impact of such a policy on expectations may well run counter to the stated objective. This is because such a commitment to central bank "irresponsibility" is likely to increase uncertainty, and thus to spur household savings, rather than expenditures, thereby deepening any deflationary tendencies. I doubt whether it is possible to raise inflationary expectations without at the same time fuelling uncertainty.

This leaves open the question of what price stability exactly – quantitatively – means. Given the uncertainties mentioned earlier as well as the likelihood that any estimate may change over the course of time, I would be hesitant to define price stability as a single figure. Here, too, modesty is called for. The Federal Reserve has tackled this issue by advocating a somewhat vague definition of price stability, which in the words of Chairman Greenspan and his predecessor Volcker is when economic agents no longer take account of (expected) inflation in their day-to-day-decisions on consumption and investment. However, this is a rather imprecise definition that does not provide clear-cut guidance to those in the wage- and price-setting process and that certainly does not establish an unequivocal accountability yardstick. However, up until now it has fitted nicely in the successful just-do-it policy of the U.S. authorities.

Indeed, in terms of transparency, this description contrasts with the precise definition of price stability adopted by the European System of Central Banks: "a year-on-year increase in the Harmonised Index of Consumer Prices (HICP) for the euro area of below 2%". Using this definition of price stability as the overriding objective of monetary policy has considerable appeal: It signals a normative aversion to inflation, but also allows for marginal price increases to offset statistical measurement biases and even to reduce the constraint set by the zero lower bound on nominal interest rates. In this respect, the evidence presented by Karen Johnson suggests that an inflation rate at close to the ceiling of this definition would largely mitigate the constraint posed by the limited downward flexibility of the nominal interest rate.[1])

Beyond this, I would raise one related further general issue, namely the role of monetary policy in output stabilisation. As is well known, the U.S. Federal Reserve has a dual mandate encompassing both price stability and employment. By contrast, many other central banks (including the Eurosystem) have been mandated to assign priority to price stability. The underlying view is that such a prioritisation improves price performance without reducing output growth and, more subtly,

without increasing output growth variability. This is not to say that monetary policy does not fulfil an important role in stabilising output growth – to the contrary. In fact, the Eurosystem demonstrated this two months ago when it reduced its key interest rates in the face of downside growth risks. But the forward-looking focus should primarily remain on price stability. Recent research at the Bank of England supports this approach: A monetary policy rule that aims at stabilising prospective price developments over a judiciously chosen time horizon naturally embodies the desired degree of output smoothing.[2])

Of course, any inflation objective must leave some room to accommodate short-term price deviations, since central banks are routinely faced by price changes which they cannot – or do not want to – offset. This may especially hold for first round effects of supply-side shocks such as changes in value added taxes or energy prices. The Eurosystem has taken this into account by explicitly stating that the price stability objective is to be maintained over the medium term. Perhaps this nuance complicates the objective function of the system, but I would argue that this is also part of transparency: not making monetary policy look any easier than it actually is.

Karen Johnson's paper is a courageous one, because it also discusses some possible unorthodox monetary policy measures to act in a situation of zero-bound interest rates. Let me briefly comment on two of these instruments, i.e. open market operations in government bonds and writing options on future short-term interest rates. As regards the former, I am quite sceptical. In the Netherlands, we ourselves in the past have engaged actively in the bond market with a view to influencing the yield curve. On the whole, this has been a failure. Unless this is done at a massive scale – which only can be justified in a severe crisis situation – I am doubtful of any lasting effects on the markets. The other alternative – writing options – is not a normal day-to-day activity of central banks either. Actually, in the run-up to 1 January 1999 the instrument was discussed among European central banks, not to influence the interest rate, but to set future exchange rates, in case the fixing of the exchange rates at parity would be called into doubt. Fortunately, we did not have to use this instrument. Also, here I would be very hesitant: The central bank which writes options would tie its hands with respect to future interest rates because it might otherwise stand to lose a considerable amount of money. Both alternatives – tying one's hands or losing money – might be extremely awkward. The central bank should keep room for manoeuvre to act swiftly and should not feel constrained by the fear of substantial losses, which would be difficult to explain to the general public and the Minister of Finance. So I agree that there are limits to what monetary policy can do in a situation of zero-bound interest rates. Ultimately, fiscal or quick-fix-structural policies may be needed to bring the economy out of a deflationary spiral.

Let me turn now to Professor Streissler's highly interesting paper on the possibilities of monetary policy in an integrated financial world. I will limit my discussion to a few points, highlighting practical issues that stem from the more theoretically oriented insights in the paper.

In Professor Streissler's rather unorthodox view, European financial policy in general and the Maastricht

budget deficit criteria in particular may be the cause of international financial crises. It will not surprise you that I do not share this point of view. In any event, compliance with the Maastricht criteria, especially those preventing excessive budget deficits, has diminished the number of crises within Europe. In meeting these criteria, public deficits have been substantially reduced and the debt and interest burdens have been brought to more sustainable levels. Declining long-term interest rates during the last few years in the countries that have joined the Monetary Union have validated this budgetary consolidation and have at the same time enhanced prospects for financial stability in the euro area, and they also hold out the prospect of more stability in surrounding countries, e.g. in Central and Eastern Europe.

Professor Streissler's "clarifying" remark on savings was, at least for me, not very clear. In his view, savings are too high in the euro area, and this will cause a financial crisis. And in the United States, in his view, savings are too low, which will also prompt a financial crisis. Can savings ever do anything good at all? As to the United States' savings rate, I think one should not be unduly pessimistic. He states that private investment in the United States is completely financed by foreign borrowing. However, while the household savings rate is indeed negative, the national savings rate, i.e. including the business sector, is amply positive, and this provides some finance, although not enough, for private investment activity. Thus, although I would agree that the economy in the United States is fragile, it is not as weak as suggested. Moreover, savings and investments in a globalised world are increasingly decoupled.

Professor Streissler further argues that a central bank should try to stabilise asset prices. In my view, however, making asset price stability one of the objectives of monetary policy would be ill advised. First, because central banks (unfortunately) do not have the knowledge to determine with any degree of precision whether a prevailing level of asset prices is sustainable, or constitutes a price bubble. Second, even if policy-makers would have this knowledge, a policy of stabilising asset price movements would increase the volatility of monetary policy and would thus, in turn, risk destabilising the economy. The best way to prevent boom/bust cycles is not to target asset prices, but rather to ensure that a resilient and robust financial system is in place which is strong enough to deal with asset price instability. This is a task for prudential supervision and regulation, not for monetary policy.

At a general level, I find it difficult to subscribe to the view that disequilibria in financial markets are the main causes of cyclical disturbances. Perhaps financial markets can better be considered as a meeting point of shocks originating elsewhere, such as shifts in expectations, structural adjustments or simple macroeconomic policy misjudgements. This view supports the case to limit the restrictions on financial markets. Over time, as can be distilled from the historical elements in Professor Streissler's presentation, the benefits of deregulated and liberalised financial markets have come to be seen as larger than the risks that go with global financial market integration.[3]) Although intangible, these benefits are important: a potential improvement in the allocation of savings, an enhanced transfer of (financial) technology, and a disciplinary influence on

policy-makers – involving both a carrot and a stick. These benefits can be combined with sustained nominal stability. Indeed, not only Austria, but also the Netherlands have shown for the past twenty odd years that fully liberalised capital flows and a fixed exchange rate commitment can go hand in hand.

Nonetheless, as Professor Streissler has emphasised and as we have witnessed in recent years, the integration of international capital markets does not come without risks. To a certain extent these risks can be moderated by putting more emphasis on the need for countries to pursue stability-oriented macroeconomic policies, implement sound supervision practices, and create transparent and accountable institutional frameworks. But these risks cannot be eliminated altogether. Financial crises are not new and will occur again in the future. As Professor Streissler concluded, this will continue to make economic policy, and particularly monetary policy, not only a science but an art.

1 *See also Orphanides and Wieland (1998). Price Stability and Monetary Policy Effectiveness when Nominal Interest Rates are Bounded at Zero. In: Finance and Economics Discussion Series 98–3. Board of Governors of the Federal Reserve System, Washington, D.C.*

2 *See Batini and Haldane (1999). Monetary Policy Rules and Inflation Forecasts. In: Quarterly Bulletin. Bank of England, Vol. 39, No. 1, 60–67.*

3 *In Europe, the favourable attitude towards capital liberalisation only came about gradually. For a detailed analysis of this progress, see: Bakker (1996). The Liberalisation of Capital Movements in Europe. In: Financial and Monetary Policy Studies. Kluwer Academic Publishers, Dordrecht.*

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On the real effects of monetary policy

1 Introduction[1])

The impact of monetary policy on the economy and in particular on output and prices has long been a key issue in macroeconomic theory. It is also of fundamental importance from a policy perspective, given how central bankers must have a proper understanding of the consequences of their actions to determine at every moment what monetary stance is appropriate for reaching their final goal.

This paper attempts to address the question posed by the organisers of this Conference: "Does monetary policy have real effects?" Although one might be tempted at first sight to give a more or less conclusive standard macroeconomics textbook answer drawing on popular perceptions about what monetary policy does, on reflection things are not so simple.

Firstly, when we talk about the impact of monetary policy on the economy, a distinction has to be drawn between the shorter term and the medium term: Indeed, the effects of monetary actions on nominal and real variables can – and generally will – differ considerably depending on the reference horizon.

Secondly, when we ask "what is the impact of a 1 percentage point change in the official interest rate by the central bank?" it may be important to consider that while monetary policy may affect the economy, it also reacts to it. For this reason, it is of interest to distinguish whether such policy action is an unexpected or exogenous shock or is rather part of an explicit or implicit policy rule whereby the central bank systematically responds to evolving economic conditions in pursuit of its final goals.

Thirdly, while in central bankers' jargon an increase in the official interest rate is always taken to mean a policy "tightening" and a reduction a policy "loosening", measuring the stance of monetary policy is no trivial task. For instance, a rise in official interest rates in response to a prospective worsening in price developments may ultimately be "accommodating" in so far as the nominal interest rate increase is not as large as the increase in inflationary expectations, thus letting real interest rates drop at a time when they should rather be increasing to counter future inflationary pressures.

Finally, the effects of monetary policy on the economy do not take place in a vacuum. Rather, they critically depend on what the starting conditions are regarding, for example, the credibility of the central bank's policy, the degree of economic slack, the functioning of goods and labour markets, the initial rate of inflation and the initial level of interest rates.

Keeping these considerations in mind, this paper attempts to provide an updated assessment of what we know – and what we still do not know – about the impact of monetary policy on the economy, and what implications follow for the conduct of monetary policy in today's world.[2]) In so doing, our main aim is to bring together economic principles, empirical evidence and central banking experience so as to derive some practical lessons which may be useful to performers of the "art of central banking".

The paper is structured as follows: Section 2 reviews the key conceptual issues that have to be considered when studying the conditions under which monetary policy can be expected to affect real economic activity. It presents what we consider to be the most policy-relevant empirical results on the impact of monetary policy on the

economy over the short and medium term. The section concludes with a look at the existing evidence and with an assessment of the empirical regularities which seem most robust and thus useful for policy-making.

Section 3 takes stock of the results in the previous section and focuses on the implications that the empirical regularities have for the practical conduct of monetary policy. An initial issue concerns the risks incurred when monetary policy is repeatedly employed as a tool for trying to influence real economic activity without due regard to the maintenance of price stability. A second issue deals with the practical lessons than can be drawn from the evidence regarding the design of monetary policy frameworks. The last part of the section addresses the issue of whether the impact of monetary policy on the economy may differ under circumstances like the present ones, characterised by very low rates of inflation and nominal and real interest rates. Section 4 completes the paper, summarising its main conclusions.

2 The impact of monetary policy on the economy in theory and in practice

In discussing the impact of monetary policy on the economy, modern macroeconomics draws a distinction between the short and the medium term. This distinction is essential for a proper understanding of what monetary policy does. In the short term, price and output dynamics are likely to be quite complex due to the potential presence of certain frictions and market imperfections. By contrast, in the medium term certain conditions hold which greatly simplify the analysis. For this reason, we start with the medium term and then move to the short term. In both cases the main conceptual elements are presented and the empirical evidence is reviewed.[3])

2.1 The medium term

A most firmly established behavioural relationship in *monetary theory* is that which links in the medium term the inflation rate, the growth of output and the rate of money growth. This relationship states that, on average, the rate of monetary expansion finances the trend growth of output and the sustained increase in the general price level. Thus, the inflation rate equals, on average, the rate of monetary expansion which exceeds that which is needed to finance the potential growth in the economy.[4])

While the above relationship necessarily holds in any economy, regardless of its economic structure, the concrete monetary policy strategy adopted by the authorities or the specific features of the monetary policy transmission mechanism, something else is needed to turn it into an explanation of the long-run effects of monetary policy in the economy. This "something else" is nothing more than the widely shared view that there is no medium-term trade-off that the authorities can exploit for increasing output at the cost of higher inflation. This general result hinges, in turn, on two very reasonable assumptions: that regardless of what the short-run situation is, economic agents eventually learn from their past mistakes and end up having a pretty good idea of how the

economy works and, in particular, of the monetary policy being followed; and that prices and wages become fully flexible over time, thus making it possible for goods and labour markets to fully clear.

While the above implies that over the medium term inflation is primarily a monetary phenomenon, and that central banks cannot increase output by engineering higher inflation, it must also be acknowledged that inflation may actually be detrimental to economic activity. Indeed, the belief that inflation entails costs to society's economic well-being is certainly behind the widespread acceptance of the principle that the best contribution that monetary policy can make to society is to maintain an environment of price stability over the medium term.

As concerns the economic costs of inflation, it is generally assumed that such costs arise when the economy deviates over a prolonged time from what is a situation of price stability. Along with the well-known "shoe-leather" and "menu costs", the most important costs are those that arise as a result of the impact of inflation within a tax, legal and contractual framework which is not fully adapted to it. In addition to these macroeconomic and efficiency costs, when inflation affects the public's economic entitlements and obligations, a significant redistribution of income and wealth ensues which tends to affect adversely those segments of society with less knowledge and fewer resources to protect themselves against inflation.

Turning now to the *empirical evidence,* we first provide some justification for inflation being primarily a monetary phenomenon over the medium term and then briefly discuss what evidence there is on the costs of inflation.

Most studies confirm that over the medium term there is an extremely high correlation (almost unity) between the growth rate of the money supply and the inflation rate.[5]) Since in the present circumstances of deregulation and continuous financial innovation it is often difficult to identify which specific monetary aggregate corresponds most closely to the relevant concept of "money" or "liquidity", it is comforting that the above results hold for alternative definitions of "money". We have also looked at national macroeconomic trends with a view to evaluating how important monetary developments are in explaining cross-country differences in inflation over extended periods, taking into account that the inflation rate equals, on average, the rate of monetary expansion which exceeds the needs for financing the medium-term growth of the economy. This confirms that the existing differences among national inflation rates are mainly accounted for by different rates of expansion of liquidity in the various countries. This fact comes as no surprise if it is borne in mind that, generally speaking, average output growth rates recorded in highly diverse economies fluctuate within a fairly limited range – particularly in the industrial countries – while, by contrast, rates of monetary expansion vary considerably.

While this body of preliminary evidence is consistent with the traditional interpretation that it is monetary developments which lead to sustained price changes, in practice it may also occur that inflation is initially triggered by non-monetary factors (such as oil price shocks). Still, inflation cannot go on permanently unless it is accommodated by money creation.

As regards the available evidence regarding the size of the economic

costs of inflation, the existing analyses usually start from the assumption that, regardless of the ways in which inflation may adversely affect an economy, to be costly it should undermine per capita income or welfare over the medium term. Given the diversity of approaches, geographical coverage and time frame of the existing empirical studies, it should come as no surprise that their results differ considerably. Admittedly, most of these studies may be criticised, owing to the fact that inflation and growth are mutually determined variables in a general equilibrium framework. However, the results generated by those cross-country studies having a theoretical framework more firmly anchored in growth theory generally conclude that countries which enter into an inflationary process, even at moderate rates, never see an improvement in per-capita income prospects and have a high probability of experiencing a deterioration in such prospects.[6])

Very recently, the question of whether reducing inflation to go to price stability is also beneficial when starting from relatively low rates of inflation has been the subject of intense research. In particular, it is worth mentioning a recent study under the aegis of the National Bureau of Economic Research (NBER).[7]) The NBER project tries to approximate empirically on a country-by-country basis the net benefits of going from low inflation to price stability. The general conclusion is that industrial countries tend to experience significant welfare gains in net terms when achieving price stability even if the starting inflation rates are moderate, say, 4 to 5%. Consequently, it is our view that the empirical evidence is generally consistent with the widespread public perception that inflation erodes standards of living and economic welfare.

In sum, the fact that, over the medium term, inflation is primarily a monetary phenomenon and because inflation entails significant economic costs, explains the monetary authorities' concern, even in countries which have adopted highly divergent monetary policy arrangements, with reaching a rate of liquidity creation that is compatible with financing potential economic growth under conditions of price stability in the medium term.

2.2 The short term

It is in the discussion of the short-term effects of monetary policy where the complexities arise. In principle, in a world where prices and wages are fully flexible instantaneously, so that goods and labour markets clear continuously, and where private agents are reasonably well informed about the workings of the economy and the nature of the policies implemented by the authorities, the medium-term result also applies to the short-term: Monetary policy influences prices, but leaves real economic conditions unaffected.[8])

Nevertheless, central banks know too well that, unfortunately, reality is far from this idealised world, as revealed, for example, by the interest with which monetary policy decisions are awaited by the public, which would be very hard to justify if money were "just a veil". Moreover, the presumption that monetary policy has, at least under normal conditions, real effects on the economy over short horizons is rooted in the empirical evidence that we will be discussing later in the paper. The attempts theoretically to justify this presumption have been most important in furthering macroeconomics over the years.

For the school of thought that believes that prices and wages are *fully flexible* in the short term, the main reason why monetary policy has temporary real effects is that it leads to misperceptions on the part of the public. Therefore, in so far as agents make appropriate use of all the information available to them to form expectations, monetary policy will have real effects only when it is unanticipated. As originally stated by Milton Friedman, Edmund Phelps and Robert Lucas, monetary policy moves which are not anticipated by the public lead agents to misinterpret changes in the price level as changes in relative prices and therefore to modify their economic behaviour.[9]) While in the short run this would be reflected in an insufficient adjustment of the general price level to the new prevailing monetary conditions and in a change in output, once agents learn and modify their expectations over time, prices will eventually adjust fully, and output will return to equilibrium in the medium term. By contrast, when monetary policy actions are fully expected by the public, agents will take this information into account when making decisions and monetary actions will lead to a full and instantaneous movement in the price level without any short-run output effects.

The immediate policy implications from the above are twofold: Firstly, only monetary policy actions which are not systematic have a short-run influence on output, with a monetary loosening leading to an output expansion and vice versa; and secondly, systematic policy changes – which by definition are anticipated by the public – influence prices but not output in the short term. Consequently, the choice of the policy rule by the monetary authorities is of no consequence for short-run output developments, and thus matters only for price developments.

A problem with the practical relevance of the results from the "flexible price/imperfect information" school is that it is hard to reconcile them with the facts. In particular, it is not easy to explain why monetary policy actions lead to a gradual adjustment of prices which lasts well after agents have become fully informed about the nature of such actions. Moreover, in practice, it turns out that monetary policy decisions lead to adjustments in instruments – like official interest rates – which do not behave erratically but follow smooth paths that are correlated over the business cycle with macroeconomic variables. Yet while this would suggest that most policy actions can be interpreted as systematic responses to the state of the economy rather than as exogenous policy shifts, according to the above-mentioned school, only the "non-systematic" part matters for the course of short-run output. It thus becomes very difficult to understand why the public shows so much concern with monetary decisions, which in most cases are a systematic response to economic developments in pursuit of the central bank's final goal.

Properly understanding what happens in the real world becomes very difficult if it is not acknowledged that wages and prices are *not fully instantaneously flexible,* regardless of how well agents are informed about the nature of the policy actions. While the microeconomic underpinnings of short-term wage and price stickiness are typically based on the existence of some reason which makes it costly for agents to change prices continuously in an imperfect-competition setting, and while several such reasons may

be debatable, we do seem actually to observe that wages and prices are not fully instantaneously flexible, due to the presence of long-term contracts, etc.[10]) As Solow once put it, while we do not understand why giraffes have very long necks, for practical purposes it is considerably more reasonable to assume that this is indeed the case rather than to assume that they have short necks.

Once the introduction of short-term nominal wage and price rigidities is allowed, it follows that both systematic and unsystematic monetary policy actions will have a temporary effect on output. Yet, it will still be the case that as wages and prices fully adjust over time, output will come back to its starting level. According to Blanchard and Wolfers (1999), "hysteresis" effects may be present and thus, under certain circumstances, there may be a permanent effect on output. Nevertheless, we consider as much more plausible that monetary policy affects output in a prolonged fashion, but not permanently unless the rate of inflation is permanently increased, in which case there will be permanent economic costs. Thus, the policy implications from the "imperfect price flexibility" school are twofold: Monetary policy actions temporarily impact output regardless of whether they are systematic or not; and the choice of policy rule by the monetary authority is relevant for the short-run course of both prices and output.

Moreover, it should be recognised that not only nominal price and wage rigidities but also *real or, in general, structural rigidities* are important for assessing how monetary policy impacts the economy. Indeed, if we lived in a world where only real or structural rigidities were present, this would imply that monetary policy is totally powerless to have any transitory effect on real output, merely affecting wages and prices instantaneously without modifying real wages or any other relative price in the economy. Interestingly, in such an extreme setting, the policy implications would be rather similar to those of the "flexible price – imperfect information" school. However, if it were the case, as seems much more likely, that nominal and real rigidities do coexist, the policy implications turn out to be qualitatively similar to those of the "imperfect price flexibility" school. For this reason, in the rest of the paper we group all rigidities under this school.

Because things may not really be either black or white, as implied by the schools of thought reviewed above, it may be useful to come up with an integrated view more closely tailored to the actual needs of monetary policy-makers. From this angle, the main implication of what was discussed in this section is that the more rapidly agents adjust their inflationary expectations and the more flexibility there is in the setting of prices and wages, the greater the impact of systematic monetary policy actions on prices with lower or no temporary output effects. This is so because the better agents understand the policy pursued and the more confident they are that the authorities will stick to it, the more intense and rapid will be the adjustment of expectations. And because, when goods markets are highly competitive and the labour market is

flexible enough to permit the rapid adjustment of wages, prices will also respond faster and there will be lower output effects in the short term. In these circumstances, it will also be the case that the capacity of monetary policy to influence real economic conditions will be increasingly limited to unexpected or unpredictable policy shifts.

Finally, it could be argued that there are also a number of factors that have to be properly taken into account when studying the transmission mechanism of monetary policy and which are associated with the complexities of modern financial systems. Still, in our view, the stylised description provided so far in this section concerning the reasons why monetary policy may temporarily affect output captures the key issues to be borne in mind when analysing the empirical evidence and discussing its policy implications. For this reason, we now turn to discussing the empirical evidence on the short-term effects of monetary policy.

2.3 What we know and do not know about short-term effects

Although the empirical evidence reviewed does not claim to be exhaustive, it yields several results which are useful for central bankers when assessing the consequences of their policy decisions.[11])

Firstly, the international evidence both from structural and reduced-form models suggests that while monetary policy actions only influence nominal variables in the medium term, they nevertheless impact real variables in the short term, albeit with differing degrees of intensity across countries and economic areas.

Secondly, following a monetary policy tightening, output displays a "hump-shaped" pattern.[12]) In particular, there seems to be a gradual decline in output which reaches its peak typically after four to eight quarters, before it progressively starts to return to its original situation as prices adjust and/or the policy change is reversed. In general, a large part of the initial output effects disappear after eight to twelve quarters. As far as prices are concerned, they respond with longer lags than output, the fullest effect on prices occurring with a lag of two years or more.

Thirdly, it seems that monetary policy actions have transitory output effects both when they reflect the systematic response of the authorities to the economy and when they correspond to exogenous policy shocks which depart from this pattern. Yet, at least for continental Europe, it is found that the output effects of systematic or anticipated monetary actions take longer to be felt than those resulting from policy shocks.

Fourthly, in practice it turns out that movements in monetary policy instruments typically correspond to responses by central banks to the state of the economy, exogenous policy shocks playing only a relatively small part.[13]) This feature – which reflects the prevalence of systematic or expected policy changes relative to unexpected changes – should not come as a surprise once it is recognised that policy decisions are normally guided by the specific monetary policy strategy with which the central bank tries to fulfil its final goal.

Finally, in general, it seems reasonable to expect that the short-term effects of monetary policy on output will be smaller the higher the credibility of the monetary authority and the degree with which private-sector expectations adjust are, and

the faster the adaptation of wages and prices to the changing monetary conditions is.

In principle, these results appear to be quite reasonable and in fact may not be that far from what central bankers of many countries consider, based on their actual experience, to be a plausible description of reality. Still, beyond this it would be much harder to find any agreement concerning what the precise timing and magnitudes of the output and price effects of monetary policy are. As is well known, monetary actions are transmitted with relatively long and variable lags which differ not only across countries but also across time. In particular, the "typical" responses estimated by econometric models correspond to the normal conditions prevailing in the economy over relatively long periods of time. Consequently, they may not be applicable under specific or new circumstances which depart, in one way or another, from what is considered to be normal from a historical perspective.

Furthermore, even the more widely acceptable empirical regularities listed above have to be used cautiously in a policy environment, since they come from econometric models with certain limitations. As is well known, structural models generally rely on a priori assumptions on how the transmission mechanism of monetary policy works, which may artificially bias the estimated responses of output and prices to official interest rate changes. Furthermore, such models are subject to the Lucas critique and are in general not prepared to handle issues related to the credibility of monetary policy which, in practice, are of fundamental importance for how private agents respond to the policy change. As concerns reduced-form models, while they are well suited to give information mainly on the impact of the non-systematic part of monetary policy, the economic interpretation of the policy simulations performed with such models frequently relies on a priori assumptions on "what precedes what" that are debatable and that, if changed, may modify the simulated responses in significant ways. Finally, policy exercises performed with these models may be quite sensitive to the specific set of economic variables considered, the addition of an extra variable often having important effects on the results.

3 Implications for the conduct of monetary policy

After having reviewed the evidence on the impact of monetary policy on the economy, we will now turn to discussing the implications which follow from the less controversial aspects of such evidence for the conduct of monetary policy in today's world. The focus is on whether the existence of short-run real effects can and should be exploited by central banks, and on what adaptations should be made to take into account how differently monetary policy may operate in a low-inflation, low-interest-rate environment.

3.1 Can and should the existence of short-run real effects be exploited by monetary policy-makers?

Although our summary of the international evidence concluded that monetary policy generally influences the short-run behaviour of real variables – albeit with an intensity which varies significantly across countries and presumably also depends on the circumstances –, caution should be exercised when extracting policy implications.

On the one hand, knowledge about the existence of transitory real

effects from monetary policy actions can and should be used by central banks – albeit prudently – for steering monetary conditions, so that price stability over the business cycle is maintained and economic activity is promoted whenever necessary without prejudice to price stability. Yet, policy-makers have to take into account the uncertainties surrounding the transmission mechanism of monetary policy to the economy so as to avoid any sort of fine tuning and the well-known problems of instrument instability. If the central bank succeeds in conducting monetary policy prudently, the outcome will be an environment of price stability that is conducive to growth.

An entirely different matter, however, is whether the evidence on the short-run effects of monetary policy on output can be used to achieve, through an expansionary policy, a consistently higher output level or growth rate, on average, than warranted by potential. Here, the answer is certainly "no". Indeed, even if the continuous pursuit of a more expansionary monetary policy stance than would be required to maintain price stability can at best stimulate output temporarily, it definitely leads to higher inflation which – as discussed in Section 2.1 – entails significant permanent economic costs.

Notwithstanding, as the literature on dynamic inconsistency has long recognised, under certain conditions the authorities may still succumb to the temptation of exploiting the perceived short-term output-inflation trade-offs to attempt to consistently boost economic activity beyond what is warranted by potential output.[14]) In particular, this temptation will be stronger, as will the resulting inflationary bias, when there are more economic policy targets than instruments, when price stability is assigned little value relative to other policy objectives, when there are significant structural distortions and real rigidities in goods and labour markets that limit potential output, and when policy-makers are convinced that they are able to consistently boost economic activity through monetary expansions. Let us briefly discuss each of these issues.

One of the main problems traditionally faced by the authorities is that of having to achieve a variety of policy targets with an insufficient number of instruments. As originally stated by Tinbergen and as later qualified by Brainard, economic policy dilemmas arise when there are not at least as many instruments as there are policy targets. Thus, when the authorities' goal is to reach a high rate of economic activity under conditions of price stability and only monetary policy is available for this purpose, there is an overburdening of monetary policy. Under such circumstances, the lower the priority given to price stability relative to other goals and the more pressure there is on the authorities to shorten the horizon of monetary policy decisions – owing, for example, to elections at regular intervals –, the greater the inflationary bias of monetary policy will be.

In a context of multiple policy targets, another factor which – according to the models of dynamic inconsistency – influences the medium-term stance of monetary policy is the difference between the level of an economy's potential output and the output targeted by the authorities. For instance, if the authorities' target is to achieve the level of potential output that could prevail in a more efficient and competitive framework while the level of potential output actually attainable is

lower owing to structural rigidities and distortions that preclude the smooth functioning of goods and labour markets, this introduces an expansionary and inflationary bias to monetary policy. In practical terms, the more constrained the levels of output and employment are due to the presence of market rigidities and distortions, the greater the social and political pressure is for monetary policy to "do something" to stimulate economic activity.

The final factor which influences the size of an inflationary bias in monetary policy is the extent to which the authorities are able to boost economic activity in the short term through monetary surprises; that is, the slope of the short-term Phillips curve. Hence, the stronger the policy-makers' conviction is, erroneous or not, that monetary policy can stimulate the economy in the short term, the greater the temptation is to expand liquidity systematically and thus the greater the departure from price stability is.

From the above description it follows that, while the existence of some short-run real effects from monetary policy actions uncovered by our summary of the available evidence can certainly be a factor which may, in principle, exacerbate the temptation to pursue more expansionary policies than is warranted by price stability, as was mentioned earlier succumbing to the temptation is self-defeating and imposes permanent costs on society's welfare.

In principle, recognition of this failure should be enough to deter any central bank from conducting monetary policy in an activist manner. Still, to make sure that the risks of engaging in such inappropriate policy are minimised, in recent years it has been deemed advisable to do something to counter the other factors which also contribute to exacerbating temptations in this domain. In this connection, in addition to the pleas by central banks to the economic authorities for them to remove the structural rigidities and distortions hindering an appropriate working of goods and labour markets – something which applies particularly in the European context –, recent changes in central banking legislation in many countries – and particularly in Europe – have made price stability the primary goal of monetary policy and have given the central bank full independence to effectively pursue this goal. These principles ,which are enshrined, for example, in the Statute of the European Central Bank, seek to avoid the risks of short-term subordination of price stability to other policy goals and allow monetary policy decisions to be adopted with a sufficiently long horizon and independently of the political cycle.

To conclude, a sensible reading by central bankers of the evidence on the short- and medium-term impact of monetary policy would be that while the medium-term monetary stance must be set consistently with the maintenance of price stability, this does not preclude exercising a certain margin of flexibility to respond to macroeconomic disturbances in the short run, provided this does not jeopardise the primary goal of price stability. An important practical question is which strategic policy framework best accomplishes these aims.

3.2 Implications for monetary policy practice

At the risk of oversimplifying what has proven to be an arduous and complex process in many countries, recent developments in monetary policy strategies may be said to have been marked by the endeavour to

find a framework capable of blending rigour and discipline in the medium-term monetary policy stance with certain margins of flexibility to respond to macroeconomic disturbances in the short run.

This endeavour of monetary authorities reflects the desire to avoid two sorts of difficulties. On the one hand, dynamic inconsistency problems arise from an excessively discretionary management of monetary policy, which – as explained – makes it virtually impossible to achieve and maintain price stability. On the other hand, there are drawbacks associated with fixed or rigid rules which, by predetermining the course of monetary variables, leave no scope for monetary policy to play the welfare-improving role of reacting to certain macroeconomic disturbances.

While this "search for the lost nominal anchor" has already developed into the widespread acceptance that price stability should be the primary goal of monetary policy and that the central bank should be granted independence to effectively pursue this goal, this commonly accepted institutional framework is nevertheless complemented by alternative strategic frameworks in different countries and monetary areas. This is reflected, for example, in the "implicit" strategy chosen by the Fed, the direct inflation targeting strategy of the UK, Canada and Sweden, the monetary targeting strategy which prevailed until recently in Germany, and the stability-oriented strategy adopted by the European Central Bank. Still, while formally different, in practice the central banks which follow these alternative strategies look at broadly similar sets of information variables and make interest rate decisions that are rather similar when faced with similar economic circumstances.[15])

Lastly, some features which are common to all these strategies can be rationalised in terms of the empirical evidence which was provided earlier in the paper.

A first such feature is that all of these strategies are forward looking, in the sense that policy reacts in anticipation of prospective economic developments. This is only natural once it is recalled that monetary policy affects prices gradually, so that it becomes important to react with enough lead time, for example, to changes in the price outlook so as to avoid a future departure from price stability in whichever direction. Furthermore, since in practice recessions are very often preceded by significant increases in inflation, keeping inflation from rising through an appropriate forward-looking use of monetary policy is of paramount importance so as to have, on average, more stable output and employment conditions. Indeed, it is the view in most central banks that interest rates should be adjusted in a timely manner whenever there are signs of persistent inflationary pressures, so as to avoid having to increase such rates by larger amounts later on, with the correspondingly higher output costs. Yet, a well-known practical problem is that what may be clear to the central bank may not be so apparent to the public if inflation has not yet risen. Consequently, to avoid the risk of delaying taking the appropriate policy measures for fear of them not being socially understood or accepted, it is most important that central banks explain in a clear and transparent manner the reasons why the measures are being taken.

A second feature is that central banks typically tend to adjust monetary instruments gradually so as to avoid sudden reversals, for example, in the path of interest rates. This is consistent with the by now generally

accepted empirical finding that most monetary policy actions consist of smooth responses to the state of the economy rather than exogenous policy shifts. Were the latter to prevail instead, it would be frequent to encounter sudden increases in interest rates followed by sudden decreases, rather than the gradualistic interest rate movements which are observed in reality, and which are furthermore consistent with the relatively smooth course of prices and output over the business cycle.

A final feature is that while all these strategies are firmly oriented in the medium term to the maintenance of price stability, in the short term they also adapt somewhat flexibly to respond to macroeconomic disturbances which affect output. This would be warranted insofar as central banks' objectives included the promotion of output on an equal footing with, or subordinated to, price stability. Moreover, even for those central banks which have price stability as their only goal, it will always be appropriate to take into account the behaviour of real variables – like output – when deciding whether official interest rates ought to be adjusted, since such behaviour is generally informative about the price outlook. Indeed, since the empirical evidence suggests that, in general, output adjusts somewhat faster than prices in the presence of demand shocks – and, in particular, of monetary shocks –, the course of output may signal to policy-makers with some anticipation how prices may move later on. This would help in assessing whether further official interest moves are likely to be needed to reach the intended price objective.

While it is of interest to note that there are key features common to the various monetary policy strategies employed in different countries and that, as mentioned, central banks tend to look at broadly comparable sets of information and make interest rate decisions that are broadly similar when faced with similar circumstances, it would be mistaken to conclude that the alternative monetary policy strategies are equally effective. Indeed, given the imperfect knowledge that we have on how the economy works, the most suitable strategy will be that which, while adopting a medium-term perspective, tends to work well across different models of the economy, can cope with shocks from different sources, and can be clearly and transparently communicated to the public, thus effectively anchoring price expectations.

3.3 Some uncertainties regarding the impact of monetary policy in a low-inflation, low-interest-rate environment

The policy issues discussed so far in the paper have been addressed bearing in mind the empirical regularities characterising the workings of the economy in the past. Yet, the central banks of industrial countries are currently faced with the challenge of having to conduct policy in an environment of low or very low inflation and interest rates. While in the case of the U.S.A., this challenge must be met in the context of a very dynamic economy, in the euro area growth is envisaged to be rather more subdued. In Japan, by contrast, not only are interest rates extremely low, but the economy is still depressed and prices are actually falling. Consequently, it has become very important for central bankers to ascertain to what extent monetary policy actions can be trusted to have similar effects in the short term to those observed in normal times in the present environment of low inflation and interest rates.

Certainly, the concept of a "liquidity trap" is an old one. Still, it may be worthwhile to revisit it in a context such as that faced today by central bankers, a context characterised by the existence of highly sophisticated financial markets and globalisation. For this reason, and without wishing to engage in a full discussion of what is certainly a complex issue, in what follows we try to speculate on how such an environment may influence what is typically regarded as the main blocks of the monetary transmission mechanism. In doing so, we discuss the transmission of movements in official interest rates to market interest rates, the effect of changes in market interest rates on private spending, and the impact of spending on prices and output.

Starting with the impact of official interest rates on market rates, it is widely recognized that movements in official rates impact the economy all the more the fuller their repercussion on the various maturities of the term structure of interest rates and, ultimately, on long-term rates is. Thus, insofar as both short-term nominal and real interest rates and inflation are considered by markets to be at historical lows in a context, for example, of sluggish economic growth, a further interest rate cut may not trigger as significant a reduction in long-term yields – and could in some cases even generate an increase – if markets perceive this cut to be the last one or as likely to be reversed in the future. On the other hand, the impact of, e. g., an interest rate cut on the term structure will generally also depend on how credible monetary policy is in the eyes of market participants. Thus, if price stability were well enough established to make markets confident that central bank actions are always in line with the maintenance of price stability, they would regard the interest rate change as sustainable and would not raise their inflationary expectations. Consequently, one would expect the downward movement in the term structure of nominal and real interest rates to be larger than if price stability is absent to begin with or not yet sufficiently consolidated. Which of these two opposing forces prevails remains an open question worthy of further study.

As concerns the banking system, lending interest rates might respond less to a cut in official rates in an environment where initial rates are already very low and there is no room for deposit rates to fall much further (in fact, many forms of deposit are remunerated at zero or close to zero rates). The reason is that, in such a case, an interest rate cut could make banks much more reluctant to decrease lending rates for fear of excessively squeezing net interest margins and eroding profitability.

Specific environments may also be characterised by very low nominal and real interest rates and depressed – rather than sluggish – economic conditions where further cuts in interest rates, even if still possible without turning negative, might be quite ineffective in stimulating the economy through the interest rate channel. This would be the case, in particular, if there were severe problems in the banking system that make banks extraordinarily reluctant to lend to the public given the considerable credit risks involved. While this does not refute the fact that a monetary easing may still stimulate spending by inducing, for example, an exchange rate depreciation which boosts exports, the total size of such a stimulus is likely to be smaller since the traditional interest rate effects will not directly

help demand due to the existence of a "credit crunch".

In a low-interest-rate environment there is also the question of whether – for a given impact of the official interest rate change on market rates – the repercussions on private spending may differ from what would happen under other circumstances. Specifically, whenever the starting cost of capital is already sufficiently low, it may be hard to find investment projects that are not undertaken but which would be if the cost of capital fell further. Therefore, a given size reduction in official interest rates, starting from a very low level, might stimulate private spending by less than if the starting situation had been characterised by a higher cost of capital.

In turn, the way that a given change in spending is split into price and output changes may also depend on the initial inflation rate. In this regard, it has been pointed out that as inflation reaches progressively lower values, it becomes harder and harder to reduce it further, implying that the short-term Phillips curve becomes flatter at low rates of inflation.[16]) While this assumption is broadly supported by the experience of those countries which have undergone disinflationary processes starting from high or very high inflation rates, it nevertheless remains very controversial as concerns the experience of industrial countries, which started their disinflation processes from significantly lower inflation rates. Certainly, the experience of various European countries – like Spain, Italy, Portugal and Greece – in recent years shows that reducing inflation even from moderate rates has not been costlier than in previous disinflation episodes; quite the contrary, although it has to be recognised that favourable supply shocks may have helped. Still, it is worth studying further whether the existence of low inflation rates like those prevailing today may in other ways affect the short-term impact of monetary policy on the economy, and also the extent to which things may differ depending on whether the low-inflation environment is more or less consolidated.

Finally, it should be acknowledged that the actual effects of monetary policy on the economy may also differ depending on whether the policy move involves an easing or a tightening of monetary conditions, something Milton Friedman referred to a long time ago when he said that "You can pull a string but cannot push it". In this regard, the reasons why an easier monetary policy may not be as effective in stimulating demand in a context of low interest rates and a sluggish or depressed economy also suggest that a policy tightening – were it to be required to preserve price stability in a more dynamic economic setting – may still be quite effective in slowing down the pace of demand. In particular, an official interest rate increase will more readily be reflected in higher lending rates, which reduce the demand for loans, it will lead to a contraction in the actual supply of loans, and the higher cost of capital will put a dent in private spending. As concerns the split of the resulting changes in spending into prices and output, insofar as wages and prices tend to show a higher degree of flexibility in an upward than in a downward direction due, for example, to the desire of economic agents to avoid losses in their real incomes, the demand stimulus from a monetary easing may be reflected less in output increases, and the demand contraction from a tightening may be reflected more in output decreases.

To summarise, this section has sought to explain how the short-term impact of monetary policy on the economy may differ in specific circumstances like those prevailing today, which depart from those observed, on average, during the period over which such impact was observed or estimated with the help of more or less sophisticated econometric models. Since this may significantly influence the absolute and relative sizes of the short-run effects on output and prices, it shows how important it is that when making policy decisions central banks take fully into account not just what the current state of the economy is and what forces are shaping it, but also the envisaged direction of the policy move. Notwithstanding this fact, on the basis of the reasoning put forward it may be concluded that, in the present environment of low inflation and interest rates, a monetary policy easing may actually be less effective in promoting economic activity than under different circumstances, even when such a move does not jeopardise price stability. However, this is a highly speculative conclusion that needs to be further scrutinised.

4 Conclusions

This paper has tried to deal with an old issue which nevertheless continues to be of great relevance for central bankers: the impact of monetary policy on the economy. The empirical evidence discussed in the paper suggests that since, over the medium term, inflation is primarily a monetary phenomenon and entails significant economic costs, the best contribution that monetary policy can make to society's welfare is to maintain price stability. Still, over the short-term, monetary policy seems to affect real economic variables regardless of whether policy moves are systematic responses to the state of the economy or to exogenous shocks, presumably as a result of the coexistence of nominal and real rigidities.

While these general results appear quite reasonable, beyond this it would be much harder to find any agreement concerning what the precise timing and magnitudes of the output and price effects of monetary policy are over the short term. From a central banker's viewpoint, a sensible reading of the evidence would be that while the medium-term monetary stance must be consistent with the maintenance of price stability, this does not preclude central banks prudently exercising a certain margin of flexibility to respond to macroeconomic disturbances in the shortrun, provided this does not jeopardise the primary goal of price stability.

Finally, our discussion of the potential uncertainties surrounding the impact of monetary policy in a low-inflation, low-interest-rate environment – like that prevailing today in many countries and economic areas – reaches the highly tentative conclusion that a monetary policy easing may become less effective in promoting economic activity in that context, even when such a move does not place at risk the maintenance of price stability. An implication of the above would be that, in the present circumstances, monetary policy should not be overburdened with the responsibility of solving problems which are better tackled through other policies directly aimed at improving the functioning of the economy. Indeed, attention should be called to the need for preserving a stable nominal environment at the present juncture, when the low inflation rates prevailing might lead the general public to forget or, at least, not to take

sufficiently into account the pervasive economic costs associated with inflation.

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1 We wish to thank our two discussants, Michael Artis and Ewald Nowotny, and our colleagues Enrique Alberola, Javier Andrés, José Luis Escrivá, Ignacio Hernando, David López Salido, José Luis Malo de Molina, Eva Ortega and Fernando Restoy for very helpful comments and suggestions. The views contained in this paper are purely personal and are not intended to represent those of the Banco de España or the Eurosystem.

2 In a recent paper, Friedman (1995) also addresses these issues.

3 This section partially draws on Viñals (1998).

4 To be precise, trend changes in velocity should also enter into the relationship.

5 See the recent survey by McCandless and Webert (1995), and also Lucas (1996).

6 For recent surveys of the economic costs of inflation, see Fischer (1994). See Andrés and Hernando (1999) for new results.

7 See Feldstein (1999).

8 In what follows, it should be understood that monetary policy actions do not affect real variables over the medium term unless they permanently affect the rate of inflation.

9 The traditional references are Friedman (1968), Phelps (1968) and Lucas (1972).

10 The traditional references are Fischer (1977), Phelps and Taylor (1977) and Taylor (1979).

*11 A detailed review of the evidence is contained in a Working Paper by the authors with the same title of this paper, published by the Oesterreichische Nationalbank, see footnote *.*

12 In this section we take the example of a policy tightening. Clearly, the same results apply to a policy easing, although the directions in which variables move will be opposite. See the BIS (1995) study.

13 See, for example, the Taylor-type rules estimated by Taylor (1993) and Clarida, Gali and Gertler (1997), which track the evolution of short-term interest rates quite well. The empirical dominance of the systematic part is discussed, for example, by Leeper, Sims and Zha (1996) and McCallum (1999).

14 The seminal contributions in this literature are Kydland and Prescott (1977), and Barro and Gordon (1983).

15 On this issue, see EMI (1997), Clarida, Gali and Gertler (1997) and Laubach and Posen (1997).

16 See Akerlof, Dickens and Perry (1997).


Möglichkeiten und Grenzen
der Geldpolitik
Bakker















Nationalbank, 10. und 11. Juni 1999, Hotel Marriott, Wien








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Comment on:

On the real effects of monetary policy

This is a very stimulating and interesting paper, which successfully combines the orthodoxy of central bank research departments with empirical openness and common sense. As I am very skeptical with regard to the relevance of equilibrium economics, I took special note of the emphasis given in this paper to what the authors call the short term, i.e. a policy period of 2 to 4 years. In this connection, my favorite quote of the paper is: "A problem with the practical relevance of the results from the flexible price/imperfect information school is that it is hard to reconcile them with the facts."

Concentrating on the short term, the authors reach clear conclusions:

1. Monetary policy actions do impact real variables.
2. There is a different lag structure concerning real output and prices.

The effect on output reaches its peak typically after 4 to 8 quarters, the effect on prices may have a lag of 2 years or longer. These effects vary according to a number of circumstances, which the authors analyzed in a very sophisticated way.

In my view, the authors provide clear and convincing analytical and empirical evidence for these conclusions. I want to add some further points that underline why the connection between short-run and long-run interest rates and generally the impact of interest rates on the economy may be stronger than often assumed in traditional economic analysis.

First, an important aspect is the fact that the largest part of financial liabilities of the enterprise sector of an economy consists of bank credits with variable (!) interest rates. In Germany (and Japan), about 85% of total financial liabilities of the enterprise sector consist of bank credits and "other liabilities" (trade obligations), in the U.S. this percentage is about 70% (Schulmeister, 1996, p. 46). Although the role of capital market financing and increased profit shares have recently reduced the role of bank credits in financing the enterprise sector, bank credits still remain the by far most significant form of external financing in Austria and Germany. These interest rates (e.g. the "prime rate") show much larger variations as compared to the typical long-run interest rate on government bonds. These enterprise-related interest rates are directly linked with central bank monetary policy via the refinancing costs of the banking sector (Nowotny, 1999).

Variations of the variable "prime rate" not only influence the costs of new investments, but also have a direct effect on the total financing costs of the accumulated (credit-financed) debt of the enterprise sector. Total financing costs are thus subject to the effects of an "interest-rate accelerator." If, for instance, all financial liabilities of an enterprise consist of bank credits with flexible interest rates, an increase in the interest rate from 5 to 6.5% means an increase in interest payments of 30%. In other words, a larger share of the operating surplus will have to be used for interest payments, which will, in turn, result in a profit squeeze of the enterprise sector of the economy.

Enterprises cannot react immediately to changes in their cost – and financing – structures. Several empirical studies (surveyed in Schulmeister 1996) have shown that after about 2 years higher interest rates will result in lower investment and employment. This is consistent with the findings of this paper. In a following recession the flow-of-funds

deficit of the enterprise sector would decline (due to lower investments). Automatic stabilizer effects, ceteris paribus, will lead to increasing budgetary deficits. This, of course, also works the other way round, as can be observed at present in the U.S. In this respect an increase in interest rates has to be seen not as the result but as the cause of public deficits.

Eventually the recession would also induce monetary authorities to follow a more expansionary policy, which would be reflected in lower interest rates. Given strong fluctuations in credit interest rates, the rate of return on real investment, however, becomes more uncertain, pushing up risk premiums and in general raising the attractiveness of financial investments as compared to real investments. Thus, also in a climate of low credit interest rates and – due to the credit accelerator – fast rising profits, it may take quite a long time for a substantial increase in private investments to occur. This may be an additional explanation for the asymmetries with regard to the tightening and easing of monetary policy, as it is discussed in this paper (see also Lüscher, 1999).

Second, real effects of monetary policy, especially in relation to interest rates, also occur via the link with the public sector. It is an old discussion whether changes of government borrowing have effects on the level of interest rates. In a recent Federal Reserve survey, Elmendorf/Mankiw (1998) found no clear-cut empirical evidence for this position. But, on the other hand, lower interest rates obviously have a direct and strong effect on public interest expenditures. This is clearly reflected in the recent experiences of EU countries. According to a recent study of the Austrian Institute of Economic Research (Marterbauer, Walterskirchen, 1999), for all EU countries taken together, about 20% of the progress in fiscal consolidation from 1995 to 1997 was due to interest rate reductions. In countries which were confronted with a high risk premium these developments were even more important. In Greece and Italy almost 50% of total deficit reduction was due to lower public interest payments.

Third, given the fact that the lags of monetary policy with regard to real output are shorter as compared to the price level and given the importance of transformation channels to the real economy, the concept of pre-emptive adjustment of interest rates, which the authors describe in point 3.2, seems to be a rather risky strategy. Together with an interest rate induced revaluation of the exchange rate such a policy could lead to lower levels of capacity utilization and, thus, especially in industry, to higher unit costs. Over a relevant period of time a policy of pre-emptive adjustment of interest rates may therefore lead to a situation of stagflation, which would be counterproductive.

Unfortunately there is no time left to comment on the very interesting discussion about monetary policy in a low inflation, low interest environment and the perspective of a liquidity trap. But I may say that I find the arguments of the authors very convincing. I also fully subscribe to the authors' final conclusion that "a sensible reading of the evidence would be that while the medium-term monetary stance must be consistent with the maintenance of price stability, this does not preclude central banks prudently exercising a certain margin of flexibility to respond to macroeconomic disturbances in the short run, provided this does not jeopardize the primary goal of price stability." As I see it,

this has been the strategy of the U.S. Federal Reserve Board. It would be beneficial for Europe if the ECB could also gain a reputation for following this line of policy. I am very optimistic that this will be the case.

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Comment on:

On the real effects of monetary policy

I can congratulate the authors on having produced a well-written and well-argued paper on a difficult issue.

As is usually the case, the authors claim personal responsibility for what they have written, exonerating their Central Bank(s) from any association with the views they put forward. Nevertheless, one can perhaps view the paper as providing a reasoned framework for central bank "idées reçues" (conventional wisdom) about the proper scope of monetary policy. This is rather well exemplified in the authors' concluding sentences For example: "From a central banker's viewpoint, a sensible reading of the evidence would be that while the medium-term monetary stance must be set consistently with the maintenance of price stability, this does not preclude central banks prudently exercising a certain margin of flexibility to respond to macroeconomic disturbances in the short run, providing this does not jeopardize the primary goal of price stability." And, rather less promising: ". . . our discussion of the poten-tial uncertainties surrounding the impact of monetary policy in a low-inflation, low-interest-rate environment – like that prevailing today in many countries and economic areas – reaches the highly tentative conclusion that a monetary policy easing may become less effective in promoting economic activity in that context, even when such a move does not place at risk the maintenance of price stability. . . . in the present circumstances, monetary policy should not be overburdened with the responsibility of solving problems which are better tackled through other policies which directly aim at improving the functioning of the economy." Reading these remarks, one is bound to feel that the recognition that monetary policy has short-term real effects and so could be aimed at stabilization objectives is somewhat grudging.

The authors' key points are developed as follows:

- Monetary policy can affect employment and output in the short term.
- However, this cannot be exploited in the medium/long run.
- Inflation is costly and central banks should fight inflation (only?).
- There are some interesting measurement issues to be discussed regarding the time profile of monetary policy effects.

It is common to find monetary policymakers disavow any responsibility for unemployment in Europe and emphasize the need for a structural reform of labor markets. Whilst it is difficult to deny the need for some labor market reforms, it is possible to find such disavowals too glib. Some labor market analysts stress the importance of *hysteresis* in the natural rate of unemployment. That is to say, the experience of actual unemployment may influence the equilibrium rate itself. There are a number of ways in which hysteresis might set in, which are quite well-known (a partial review appears e.g. in Romer's textbook (Romer, 1996). An implication of the presence of hysteresis in the natural rate is that deflationary monetary policy must be conducted with extreme care. The view that European monetary policies may have violated this caution in the late 1980s is not implausible: at the time, European monetary policies were bent on targeting the Deutsche mark – and indeed continued to be, even when the Bundesbank was bent on fighting the German Ministry of Finance. The point is: monetary policy was almost certainly too tough for too sustained a period at that time. It

should also be noted that the corpus of evidence in favor of the view that "structural reforms" are the *sine qua non* of better labor market performance in Europe is not large (at least, relative to the strength of conviction with which this view is often put forward). Europe did not have an unemployment problem, even though it had much the same (or more rigid) labor market institutions then, as now. What kind of shock brought about the rise in unemployment? One candidate must be monetary policy: compared to the United States, fiscal policy did not become significantly more deflationary in Europe through the 1980s and early 1990s, but monetary policy did (see Artis, 1998). Blanchard and Summers (1986) long ago formulated the view that Europe's unemployment problem is grounded in hysteresis and negative macro shocks. Ball's examination of disinflation episodes in OECD countries (Ball, 1996) is also consistent with the operation of hysteresis effects in labor markets.

The authors of the paper do not disagree that monetary policy can have short-run real effects. I think they may implicitly understate them and thus the burden on monetary policy of having to be judiciously controlled.

The second leg of the authors' argument is that central banks should target inflation because inflation is costly. I agree; and I can offer an additional possible reason. Monetary policy may be neutral in the medium run (assuming hysteresis effects to be less than "full-blown"). It may not be "super-neutral."The long-run post-war evidence for most OECD countries reveals a progression of decade averages of inflation (or interest rates) and output growth (or employment) which suggests a negative relationship between the two. A long-run inflationary monetary policy is a policy with long-run high nominal interest rates. Nominal (not real) interest rates are an argument in the money demand function. So, real money balances will be "lower than they should be" and through a "money-in-the-production-function" argument could induce lower growth and employment. The authors cite a caveat about high inflation in all their statements about the neutrality of monetary policy without saying what they have in mind. The above – suggested to me by my colleague Roger Farmer – is a possible mechanism. If accepted, it is not just that inflation is costly *per se,* but that it impairs growth, which is a reason for avoiding it.

Having argued that central banks should target inflation, the authors then use the familiar argument that this is best done in the context of central bank independence. This is very widely accepted, but it is reasonably clear that:

1. it may not be necessary to go beyond instrument independence;
2. there are drawbacks to central bank independence from the viewpoint of policy coordination and
3. Japanmay be used as a long-standing example to show that independence may not be necessary at all.

Finally, the authors produce some interesting new evidence on the transmission mechanism of monetary policy. The results supplied illustrate – I think for the first time – estimates of EU-11 policy effects measured (a) by a VAR and (b) by a macroeconometric model. The status of impulse response function measures of monetary policy obtained from VAR estimates, it must be remembered, is of a very

special kind. They are measures of monetary policy effects when monetary policy is not being used in its normal (responsive) way. They come from a shock to the relevant equation and represent an "unexpected" policy shock effect. As you may know, somebody once defined comparable measures for Federal Reserve monetary policy as an indicator of "what happens when the air-conditioning in the offices of the FOMC breaks down." Rudebusch (1998) affords a comprehensive critique of VAR methodology. The measures obtained from multi-country econometric model simulations suffer from other problems.

The fact that what the authors offer us here are – to my best knowledge – "first-time" presentations of EU-11-wide models, is a timely reminder of the enormous difficulty the ECB must have in interpreting its database. In this light, simplifying the *objectives* of the ECB's task seems even more attractive.

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Viktor Klima

Kamingespräch:

Aktuelle Fragen der Wirtschaftspolitik

Herzlichen Dank, Herr Gouverneur. Ich bedanke mich auch bei Ihnen, meine sehr geehrten Damen und Herren, dass Sie mir die Gelegenheit geben, am Abend eines sehr positiven Tages mit Ihnen über Wirtschaftspolitik zu diskutieren. Zwei Ereignisse haben diesen Tag bestimmt.

Das erste Ereignis: Wir haben sehr, sehr gute Chancen, nach nahezu drei Monaten Krieg in Europa wieder Frieden zu erreichen. Nach Abschluss der militärischen Gesprä-

che und nach den Verhandlungen im UN-Sicherheitsrat über eine Resolution der Vereinten Nationen; nach dem begonnenen Abzug der serbischen Truppen gibt es nun die klare Chance auf eine dauerhafte Friedensregelung.

Wir wissen, dass das noch keine ausreichende Bedingung für den Frieden ist, sondern nur eine gute Chance. Wir wissen, dass wir gemeinsam große Anstrengungen unternehmen müssen, um eine Umgebung zu schaffen, in der das Miteinanderleben von Menschen, die sich bis vor wenigen Stunden im ethnischen Hass, im Rassismus gegenseitig Gräueltaten angetan haben, wieder möglich wird. Es ist eine sehr große Aufgabe für die internationale Politik, nachdem nun die militärischen und politischen Maßnahmen zum Erfolg geführt haben, Bedingungen herzustellen, die eine Stabilisierung dieses wesentlichen Teils Europas ermöglichen. Es ist eine große Aufgabe für die Politik, in Südosteuropa jene gesellschaftlichen Bedingungen wiederherzustellen, von denen wir geglaubt haben, dass sie im Europa der Nachkriegszeit bereits verwirklicht sind, nämlich ein friedliches Zusammenleben der Menschen ohne Ansehen religiöser oder rassischer Unterschiede. Wir hatten wohl alle geglaubt, dass Gräueltaten, Völkermord und Vertreibungen endgültig aus Europa verschwunden wären.

Wir müssen diese Aufgabe nun rechtzeitig mit dem so genannten Stabilitätspakt beginnen. Dabei kann es nicht nur darum gehen zu diskutieren, sondern um konkrete Maßnahmen. Der erste „Arbeitstisch" (working table) des Stabilitätspakts wird der Frage der Sicherheit gewidmet sein. Die Präsenz internationaler Friedenstruppen wird lange dauern müssen, genauso wie sie auch in der Region Bosnien-Herzegowina noch lange nach dem Dayton-Abkommen notwendig ist. Internationale Friedenstruppen werden für ein Mindestmaß an Sicherheit und die Chance für ein friedliches Zusammenleben sorgen müssen. Der zweite „Arbeitstisch" des Stabilitätspakts wird sich um die politische Stabilisierung kümmern müssen. Es wird darum gehen, Menschenrechte und Demokratie in diesem Teil Europas zu fördern. Das betrifft nicht nur den Kosovo, das betrifft die gesamte Region.

Der dritte „Arbeitstisch" wird schließlich eine gewaltige Herausforderung für uns alle sein: Wie wir gemeinsam die wirtschaftliche Entwicklung in dieser Region so fördern können, dass sie gewährleistet, dass es ein Mindestmaß an Hoffnung, an Wohlstand und damit auch an sozialem Frieden in dieser Region geben kann. Das wird eine Aufgabe sein, die die Staatengemeinschaft gemeinsam mit internationalen Institutionen angehen wird müssen. Europa wird

daher in besonderer Weise gefordert sein.

Wir müssen Modelle entwickeln, um den Wiederaufbau der zerstörten Infrastruktur im Kosovo, ebenso wie letztlich auch in einem demokratisch erneuerten Serbien sicherzustellen. Der Wiederaufbau erfordert auch eine entsprechende Unterstützung für die Frontstaaten, Albanien, Mazedonien, aber auch Montenegro. Diese Aufgabe wird selbstverständlich finanzielles Engagement von uns verlangen. Sie macht aber auch Nachdenken notwendig, welche Bedingungen wir schaffen können, um Privatinvestoren wieder dazu zu bringen, sich in dieser Region zu engagieren. Ein, glaube ich, sehr entscheidender Punkt.

Das zweite Erfreuliche an diesem Tag ist eine österreichbezogene Nachricht. Wir haben heute einen neuen Bericht der OECD über unser Land bekommen, der durchaus positiv ausgefallen ist. Die OECD stellt fest, dass unsere Anstrengungen, unter anderem jene des erfolgreichen Abschlusses des Sparpakets, zu einer Konsolidierung der öffentlichen Haushalte beigetragen haben. Diese Stabilität gilt es jetzt natürlich zu bewahren. Neuen Ausgaben sind damit Grenzen gesetzt.

Auch die arbeitsmarktpolitischen Daten zeigen, dass sich Österreich auf einem guten Pfad befindet. Wir freuen uns nicht nur über einen Beschäftigtenrekord mit knapp über 3 Millionen. Es ist uns auch gelungen durch engagierte Maßnahmen, z. B. Anhebung der Mittel für aktive Arbeitsmarktpolitik, auch die Arbeitslosigkeit zu senken. Wir haben Programme für Frauen, für Wiedereinsteigerinnen, für die Jugendausbildung und Jugendbeschäftigung und sind durchaus stolz, dass wir die geringste Jugendarbeitslosigkeit in der Europäischen Union haben. Jetzt sind wir dabei, spezifische Programme für ältere Arbeitnehmer zu machen. Dank der Vorbereitungsarbeiten der Sozialpartner haben wir einen Pakt für ältere Arbeitnehmer geschlossen, der uns die Hoffnung gibt, dass es für ältere Menschen leichter wird, in Beschäftigung zu bleiben bzw. wenn sie arbeitslos wurden, leichter wieder in Arbeit zu kommen. Darüber hinaus haben wir eine geringe Inflationsrate von 0˙3%. Mit einem prognostizierten Wirtschaftswachstum von etwa 2˙6% für das nächste Jahr werden

wir auch weiterhin durchaus gute Bedingungen haben.

Der OECD-Bericht zeigt natürlich auch bestimmte Schwächen auf, z. B. eine niedrige Selbständigenquote. In diesem Bereich versuchen wir allerdings durch öffentliche Anreize, durch entsprechende Vereinfachungen bürokratischer Regeln, aber auch durch finanzielle Anreize Neugründungen zu unterstützen. Der fehlende Unternehmergeist ist zweifellos ein europäisches Problem im Vergleich zu den Vereinigten Staaten. Aber im europäischen Vergleich weist Österreich ein besonderes Defizit auf. Es fehlt bei uns oft an dem Mut, den Schritt in die Selbständigkeit zu gehen. Wir haben uns hier konkrete Programme vorgenommen, um Neugründungen und wachsende Unternehmen besonders zu stärken, weil wir davon ausgehen, dass das auch in Zukunft der Bereich sein wird, wo wir Beschäftigung für die Menschen in unserem Lande sicherstellen können. Das gilt vor

allem für den technologieorientierten Sektor und den Dienstleistungssektor.

Eine relativ schmerzhafte Kritik in diesem OECD-Bericht gibt es für die Universitäten. Das ist ein besonders kritischer Punkt. Betrachtet man die Entwicklung Österreichs in der Nachkriegszeit, bekommt man ein sehr klares Bild darüber, welche Faktoren für die Erfolgsstory Österreichs ausschlaggebend waren; welche Faktoren uns zu einem wohlhabenden, mit Stabilität und sozia-

lem Frieden ausgestatteten Land gemacht haben. Die Frage ist allerdings, wieweit diese Erfolgsfaktoren auch im nächsten Jahrhundert noch wirken werden. Ob nicht die Veränderungen durch die Globalisierung, durch die Öffnung der Reformländer und anderer Parameter neue Wettbewerbsfaktoren von Bedeutung sind. Ein Erfolgsfaktor wird allerdings auch in Zukunft sicher bleiben, das ist die Qualität der Ausbildung der Mitarbeiterinnen und Mitarbeiter. Daher ist eine massive Kritik am Universitätswesen in Österreich besonders schmerzhaft. Wir können, glaube ich, zurecht stolz auf die gute Qualifikation der Facharbeiterinnen und Facharbeiter sein. Wir haben auch große Anstrengungen unternommen, um dieses wichtige Gut zu behalten. Wir haben hervorragende Einrichtungen im Bereich der berufsbildenden höheren Schulen. Was allerdings scheinbar nicht gelingt, ist, die Universitäten zu motivieren, dass die Qualität der Ausbildung dem internationalen Standard entspricht und dass sie sich am wirtschaftlichen Bedarf orientieren. Für mich ist es sehr schmerzhaft, wenn mir Generaldirektoren der Elektronikindustrie mitteilen, sie können bestimmte Projektentwicklungen nicht mehr nach Österreich geben, weil wir zu wenig Software-Ingenieure haben. Und wenn diese Aussagen vom Rektor der Technischen Universität (TU) bestätigt werden, mit dem zusätzlichen Hinweis, dass es unter den gegenwärtigen Bedingungen sehr schwierig sein wird, Reorganisationen durchzuführen, um die durchschnittliche Studiendauer an der TU und die Drop-out-Quote zu reduzieren.

In einem freien Markt des Bildungsangebotes wählt ein Großteil der Studenten jene Studien, die sich in kürzerer Zeit und mit geringeren Drop-out-Quoten erledigen lassen. Daher werden volkswirtschaftlich benötigte Qualifikationen hier nicht in ausreichendem Maß angenommen. Es wäre nicht Österreich, versuchten wir nicht Substitute durch Umgehen zu schaffen, zum Beispiel die Fachhochschulen. Ich halte die Einrichtung der Fachhochschulen für sehr positiv. Wir haben uns auch zum Ziel gesetzt dieses Angebot auszubauen, sodass in wenigen Jahren jeder vierte Beginner im tertiären Sektor in einer Fachhochschule anfangen soll. Ich glaube aber, es wäre schlecht, wenn wir nicht auch die Anstrengung unternehmen würden, die Universitäten in einen Zustand zu versetzen, dass sie entweder bei gegebenem Autonomiestatut selbst die nötige Reform- und Organisationskraft entwickeln oder durch gesetzliche Maßnahmen diese Reformen und Organisationen durchgeführt werden. Natürlich kann da die Möglichkeit, private Universitäten einzurichten, um ein bisschen

„Hecht im Karpfenteich" zu spielen, auch etwas bewirken. Ich glaube aber, dass das alleine nicht genügt. Was wir in Europa und insbesondere in Österreich nicht zulassen sollten, ist ein System mit einigen wenigen Eliteuniversitäten und durchschnittlicher bis schlechter Qualität für die übrigen. Wir brauchen auch für öffentlich und frei zugängliche Universitäten eine hohe Qualität. Das muss Ziel der Universitätsreform sein. Ich halte das für einen ganz entscheidenden Punkt.

Zusätzlich zu wichtigen Reformmaßnahmen auf nationaler Ebene ist es auch notwendig, über die Weiterentwicklung der Wirtschaftspolitik auf europäischer Ebene nachzudenken. Die Wirtschafts- und Währungsunion kann nicht das Ende der Entwicklung sein.

Wir haben während der informellen Tagung der Staats- und Regierungschefs in Pörtschach im vergangenen Herbst Gelegenheit gehabt, dieses Thema zu diskutieren. Ohne Zwang der Tagesordnung ist dort sehr offen über die politischen Notwendigkeiten Europas nach der Wirtschafts- und Währungsunion diskutiert worden. Es gab ein klares Bekenntnis dazu, dass uns die gegenwärtige Integrationsstufe nicht reicht; dass die Staats- und Regierungschefs der Meinung sind, dass Europa als politischer Prozess der Integration weiterlaufen muss, eine Vertiefung erfahren muss. Durchaus parallel zu dem zweiten herausfordernden Prozess der schrittweisen, gut vorbereiteten Erweiterung dieser Europäischen Union. Die politische Vertiefung muss im Wesentlichen in drei Bereichen erfolgen, wie wir sie in der Wiener Strategie am Gipfel von Wien zusammengefasst haben: Erstens, im Weg zu einer gemeinsamen Außen- und Sicherheitspolitik der Europäischen Union. Wir sind auf einem Weg, der, wie ich glaube, es ermöglichen wird, aus dieser Europäischen Union nicht einen zweiten Militärpakt zu machen, sondern eine gemeinsame Außen- und Sicherheitspolitik zu entwickeln, die eine Konfrontation mit einem allfälligen russischen Block verhindert. Zweitens, der Weiterentwicklung der Innenpolitik der Europäischen Union; z. B. im Bereich der inneren Sicherheit die Schaffung eines gemeinsamen „Raumes für Freiheit, Recht und Sicherheit" der Europäischen Union. Es geht dabei um

rechtspolitische Fragen genauso wie um die sehr wichtigen Fragen einer gemeinsamen Asyl- und Migrationspolitik.

Der dritte Bereich, auf den ich auch besonders eingehen möchte, ist die Frage der Nutzung der Potentiale Europas durch eine Koordination der Wirtschaftspolitiken. Was kann das bedeuten? Ich glaube, es ist unbestritten, dass Europa mit dieser gemeinsamen europäischen Währung auch eine Außenvertretung für den Euroraum braucht. Die angenehme Zeit ist bald vorbei, dass das Land, das den Vorsitz in der Euro-11-Gruppe führt (nämlich Deutschland) gleichzeitig Mitglied der G-7 ist. Spätestens am 1. Juli wird der Wahrheitsbeweis anzutreten sein, ob das, was unter österreichischer Präsidentschaft vereinbart wurde, auch gilt: dass nämlich der Präsident der Euro-11-Gruppe auch, wenn er nicht aus einem G-7-Mitgliedsland ist, gleichberechtigt am Tisch der Finanzminister der G-7 sitzt. Ich

halte das für einen wichtigen, symbolischen Schritt, den wir gemeinsam tun müssen.

Eine gemeinsame europäische Position brauchen wir auch zur Frage der Reform des internationalen Finanzsystems. Da ist es notwendig, dass Europa lernt, mit einer Stimme zu sprechen; die europäischen Interessen im internationalen Konzept einzubringen und die richtigen Lehren zu ziehen. Zum Beispiel die Koordination der Vorgehensweise im Rahmen des IWF zu ver-

bessern; oder die Entwicklung des internationalen Finanzsystems in Richtung bessere Frühwarnkapazitäten und höhere Transparenz weiterzutreiben.

Ich halte es auch für wichtig, eine koordinierte europäische Position in den Außenwirtschaftsverhandlungen zu haben, etwa in den WTO-Verhandlungen, die demnächst neu beginnen. Hier geht es auch darum, die Chance zu nützen, die ein 370 Millionen Menschen großer Markt uns gibt. Europa hat trotz des Wirtschafts- und Währungsraums noch immer unter Fraktionierungen zu leiden, die durch Protektionismus bedingt sind. Wir haben zwar alle formalen Handelshemmnisse beseitigt, trotzdem versuchen wir noch immer viel zu viel, die eigenen Volkswirtschaften durch „Non-Tariff-Barriers" vor Wettbewerb zu schützen, zum Beispiel durch unterschiedliche technische Normen oder andere unterschiedliche Rechtsvorschriften. In diesem Bereich müssen wir zu gemeinsamen Standardisierungen und Normen kommen und das als europäische Stärke nützen, denn damit haben wir auch die Chance, globale Standards vorzugeben. Europa hat im Bereich der Innovation, im Bereich der neuen Märkte gewaltige Chancen, wenn es uns gelingt, die nationalen Fraktionierungen zu beseitigen. Das beste Beispiel dafür ist die gemeinsame Norm GSM im Bereich der Mobiltelefone. Nur weil europäische Widerstände von Nationalstaaten überwunden wurden, haben wir es geschafft, eine gemeinsame Norm zu erreichen. Und nur das ist der Grund, dass sich eine europäische Technologie weltweit durchgesetzt hat; dass Sie heute von Peking bis Cape Town mit GMS-Technologie telefonieren können, dass Sie eine europäische Technologie verwenden können und damit der europäischen Informationstechnologie in diesem Bereich große Chancen für diese Märkte geben. Da gibt es noch gewaltige Möglichkeiten für das Potential Europas, ob das Satellitensteuerungen, Verkehrsleitsysteme oder ähnliche Technologien sind. Wir müssen nur die Gemeinsamkeit über einheitliche Normen in den Vordergrund stellen.

Ein gemeinsamer Wirtschafts- und Währungsraum braucht in Ergänzung zu den regionalen und nationalen Handlungsfeldern der Politik auch eine europäische Ebene der Politik. Es gibt nun ein Beschäftigungskapitel im Vertrag von Amsterdam. Damit wurde ein Prozess in Gang gesetzt, der nicht – wie das die Sorge noch von Helmut Kohl und anderen war – bedeutet, dass gutes Geld der Nettozahler nach Brüssel geht, um es von dort mit der Gießkanne zu verteilen. So haben wir europäische Beschäftigungspolitik nie verstanden. Es wurde ein Prozess eingeleitet, der es uns ermög-

licht, gemeinsame Ziele zu formulieren. Diese beschäftigungspolitischen Ziele müssen natürlich durch Maßnahmen realisiert werden, die auf nationale Besonderheiten abgestimmt sind. Dieser Prozess ermöglicht uns, voneinander zu lernen durch „peer-group-review" und „best-practice-Modelle".

Beschäftigungspolitik basiert auf mehreren Säulen: Erstens auf Wirtschaftsreformen (dem so genannten Cardiff-Prozess) um die Wettbewerbsfähigkeit Europas zu erhöhen. Zweitens auf dem so genannten Luxemburg-Prozess, der die Beschäftigungsfähigkeit durch arbeitsmarktpolitische Maßnahmen stärkt. Wir haben uns dabei Ziele gesetzt, was die Frage Jugendausbildung und der Langzeitarbeitslosigkeit betrifft, wir haben Quoten von aktiver Arbeitsmarktpolitik für alle EU-Staaten festgelegt und Maßnahmen zur Förderung der Chancengleichheit verlangt. Und schlussendlich, (das kam in Köln hinzu), der dritte Prozess, eine stabilitätsorientierte, aufeinander abgestimmte Wachstumspolitik. Ich sage bewusst das Wort „stabilitätsorientierte" Wachstumspolitik. Denn es ist richtig, dass die Stabilität gewahrt bleibt.

Ich möchte mich zur Wachstumspolitik auf einige Bemerkungen beschränken. Zur Geldpolitik sage ich selbstverständlich kein Wort. Es gibt ja auch die Möglichkeit der Fiskalpolitik, es gibt die Möglichkeit der Investitionspolitik. Wir haben uns vorgenommen, einen Prozess in Gang zu setzen, der Wachstums- und Beschäftigungsimpulse durch abgestimmte Maßnahmen erreichen soll, ohne die Geldpolitik zu tangieren, ohne die Stabilitätspolitik insgesamt zu verletzen. Dieser Prozess soll mit einem Sondergipfel unter portugiesischer Präsidentschaft, im ersten Halbjahr des kommenden Jahres, abgeschlossen werden. Dieser Prozess soll durch den so genannten makroökonomischen Dialog unterstützt werden. Ich bin übrigens immer ganz einfach davon ausgegangen, dass auch unabhängige Partner miteinander reden können und die Unabhängigkeit der Europäischen Zentralbank daher keineswegs in Frage gestellt wird. Dieser makroökonomische Dialog gibt uns die Chance, Einschätzungen und Erwartungen zwischen der Politik, der Europäischen Zentralbank und den Sozialpartnern auszutauschen. Auch

die Sozialpartner sind eine Einrichtung, die in der Zwischenzeit auf europäischer Ebene Einzug gefunden hat. Eine weise Einrichtung, wie ich glaube. Denn es ist nicht gut, wenn die Politik immer Dinge im Detail regelt, die andere Institutionen, etwa Arbeitnehmer- und Arbeitgebervertreter in eigener Verantwortung besser selber lösen können. Nur wenn sie nicht in der Lage sind, das Problem zu lösen, sollte die Politik eingreifen. Ich erinnere mich an einen „Mini-Summit" mit den Vertretern der UNICE, der UEAPME, des EGB und der CEE, der während unserer Präsidentschaft in Wien stattfand. Dort gab es ein sehr klares Bekenntnis dazu, dass die Sozialpartner in diesem Dialog auf europäischer Ebene Gesprächspartner sein sollen, aber nicht so, dass sie bloß mitreden, sondern die Verpflichtung haben, auch Verantwortung zu übernehmen. Es gibt einige Erfolge in diese Richtung, z. B. die Frage der Arbeitszeitverhältnisse. Es

wäre nicht gut gewesen, wenn die Politik hier von sich aus irgendeine Norm festgelegt und über alle 15 Staaten der Europäischen Union verfügt hätte. Die Sozialpartner haben übrigens auch die Verpflichtung übernommen, sich einen genau definierten Arbeits- und Themenbereich zu geben, wo sie aus ihrer Verantwortung heraus problemlösend sind und damit eine neue Qualität des sozialen Dialogs schaffen.

Zusammengefasst: Ich glaube, dass der makroökonomische Dialog unter Einbindung der EZB, der Sozialpartner und der Politik ein Instrument ist, das uns auf dem europäischen Weg weiterbringen wird. Schließlich geht es darum, den europäischen Weg insgesamt zu stärken. Unter „europäischem Weg" verstehe ich, dass wir Reformen in einer Form durchführen, die den Zusammenhalt der Gesellschaft in Europa nicht gefährdet; in einer Form, dass das europäische Gesellschaftsmodell – das nichts mit Gleichmacherei zu tun hat, aber doch mit einem gewissen Maße an Verteilungsgerechtigkeit – dafür sorgt, dass es keine große Gruppe von Menschen gibt, die sich im Stich gelassen fühlt, die wenig Chancen, wenig Hoffnung sieht; in einer Form, die sicherstellt, dass keine sozialen Konflikte in unserem Europa aus Not und Hoffnungslosigkeit entstehen. Ich glaube, dass das ganz wichtig ist und ich weiß, dass es dazu ein breites Bekenntnis der Regierungen in Europa gibt. Das hat nicht einmal etwas mit Parteizugehörigkeit zu tun. Auch viele konservative Parteien in Europa vertreten diesen europäischen Weg.

Ich glaube, dass es uns gelingen wird, in allen drei Bereichen, die ich dargestellt habe, Außenbeziehungen, innere Sicherheit und Koordination der Wirtschaftspolitik, die Europäische Union einen Schritt weiterzuentwickeln, sodass wir aus einer Wirtschafts- und Währungsunion auch eine Beschäftigungsunion und schließlich langfristig eine politische Union machen.

Europa, das sich in diesem Jahrhundert in zwei Weltkriegen ja fast selbst zerstört hat, ist vier Jahrzehnte dieses Jahrhunderts mit einer bipolaren Welt konfrontiert gewesen. Da war der große Pol der Sowjetunion und der vielen Satellitenstaaten und auf der anderen Seite gab es den von den USA geführten Pol. Der eine, der von der Sowjetunion geführte Pol ist – ich sage dazu Gott sei Dank – zerfallen. Ich glaube aber nicht, dass es im nächsten Jahrhundert eine unipolare Welt geben wird. Ich glaube, dass es im nächsten Jahrhundert eine multipolare Welt geben wird. Ich hoffe, dass es in dieser multipolaren Welt nicht ein Gegeneinander geben wird, sondern ein Miteinander. Ohne Zweifel wird und muss Europa ein Pol in dieser multipolaren Welt sein. Dazu bedarf es aber auch einer Entwicklung zu einer politischen Union Europas, die über die Wirtschafts- und Währungsunion deutlich hinausgeht. Ich hoffe, Sie teilen meine Ansicht, denn ich bin ein leidenschaftlicher Europäer.

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Allan Larsson

Europe's labour markets –

The Achilles' heel of the EMU process?

1 Introduction

As the title of my speech, I have chosen a provocative phrase from last year's IMF report on the World Employment Outlook: Europe's labour markets: The Achilles' heel of the EMU process?

The IMF raised the spectre of European labour market sclerosis in its World Economic Outlook last year. This year's World Economic Outlook has taken a deeper look at the European situation. There is still a warning, but the judgement is more measured. The IMF is offering Europe a challenging agenda by discussing Europe's capacity to achieve the same economic performance that we have seen for several years in the U.S.A.

Europe will have to develop policies that make it possible to maintain good price stability (that means inflation below 2%) with a stronger and sustainable economic growth (3% or more) in order to increase employment and reduce unemployment to below 5%.

Will Europe really be able to achieve such a strong economic performance? That is the question.

First, I will offer you the most recent findings from our research on comparisons between the employment situation in Europe and the more successful developments in the U.S. I will offer you a picture that is somewhat differ-ent from the one you are used to hearing in the general political debate.

Second, I will discuss the policy implications of this new picture of Europe's employment shortcomings, and what we can expect from the new initiatives launched by the European Council over the last two years in Amsterdam, Luxembourg, Cardiff, Vienna and Cologne.

2 Roots of the problem I: What is the macroeconomic component of the failure of the past?

My starting point is the same as that in the IMF report, namely that EU unemployment contains both a cyclical and a structural component. Hence, both structural and demand management policies have a role to play. To find the right mix between these policies, however, we need a clear understanding of the roots of the problem.

Therefore I will begin by presenting an illustration of Europe's employment performance from the 1970s to 1999.

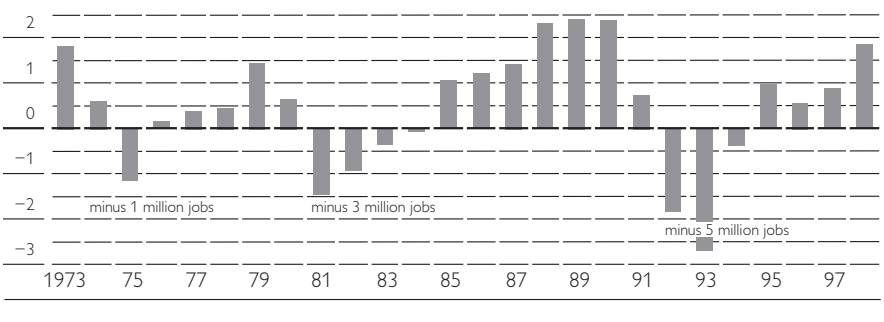
Europe's employment history, as Graph 1 shows, is a story of three economic shocks and big job losses – the oil price increases in the early

Graph 1

Changes in employment

EU 15

Million

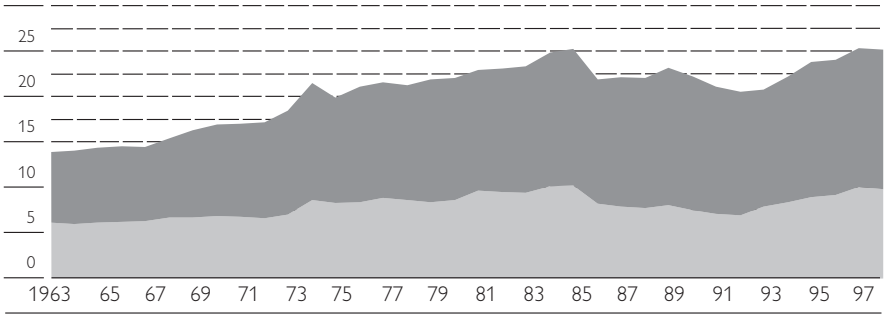


Graph 2

Internal market and extra-EU trade

Trade and export of goods – EU 15

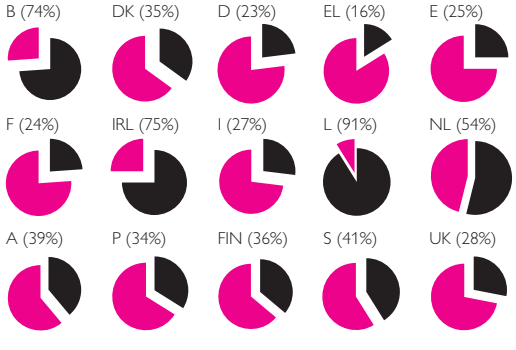
% share of GDP



Graph 3

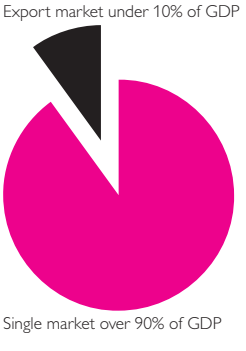
European trade

Member States



Black segment = total trade in goods (intra and extra EU) for each Member State, as % of GDP

Europe as an economic entity



Red segment = extra-EU trade in goods for EU as a whole

1970s and 1980s, and the aftermath of German reunification in the early 1990s. These three periods were not the result of a sudden introduction of new regulations and rigidities in the labour market, but rather the consequence of an inability to handle demand shocks.

Graph 2 shows how trade has developed in Europe. Europe has moved from a position where internal trade was no more important than trade with the rest of the world, at about 8% of GDP, to a new situation in which the importance of internal trade had doubled to 15% of GDP, while external trade has remained more or less at the same level.

In other words – as Graph 3 shows – Europe has moved from being a set of relatively independent economies into a large and increasingly integrated economic entity very similar to the U.S. economy, where domestic demand generates 90% of GDP, while 10% is generated by demand from global markets.

However, the Member States of the Union continued to act individually and separately. The consequences of the lack of a common strategy and co-ordination of Member States' policies became more and more

serious as our interdependency grew. The effect of increased interdependency was to reinforce the effects of any cyclical economic fluctuations, or of any contractionary and expansionary policies, across national borders. The introduction of the EMU, the establishment of the ECB, and the preparation for the single currency represent a major step forward in building the capacity to handle macroeconomic shocks much better in the future.

3 Roots of the problem II: What is the structural component of the failure of the past?

I will disregard the macroeconomic perspective for the moment and turn to my second question: What role have structural factors played in the emergence of high and persistent unemployment?

Conventional wisdom offers a simple answer to this question: We hear that trade unions are too strong, taxes and benefits are too high, and labour law and labour market regulations too rigid.

Thus Europe cannot compete either with high-tech countries or with low-wage countries. In this view, unemployment is by and large structural, and nobody is doing much about it. However, when we look at the employment situation in Europe in more detail, and compare it with that in the U.S.A., we find different evidence and perspectives, which opens up a new agenda.

Demand-side weaknesses

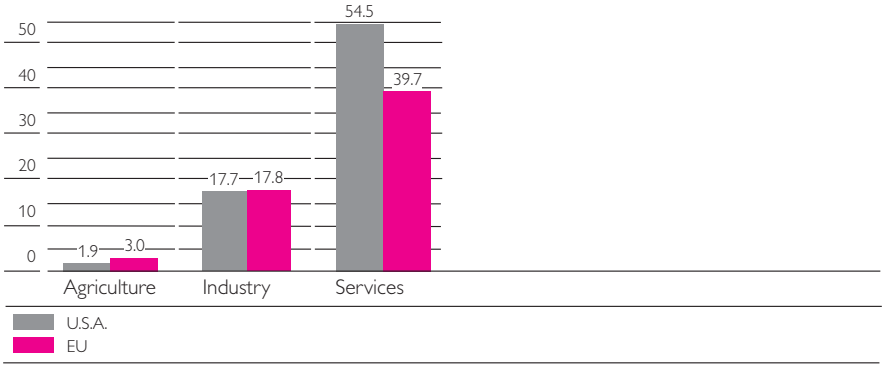
First of all, as Graph 4 shows, the difference between the European Union and the United States is not in manufacturing.

In Europe employment in industry is as strong as that in the U.S.A., about 18% of the working age population. Added to that, the EU manufacturing industry creates a trade surplus, while the U.S.A. has a permanent deficit. The real difference between Europe and the U.S. is employment in the services sector, as the Graph shows. If service sector employment was as high in Europe as in the U.S.A., there would be more than 30 million additional jobs in Europe. We have differences in all parts of the private services sector – distribution, financial services, hotels and restaurants, leisure – as well as in the communal services sector (which mainly includes education, health care and

Graph 4

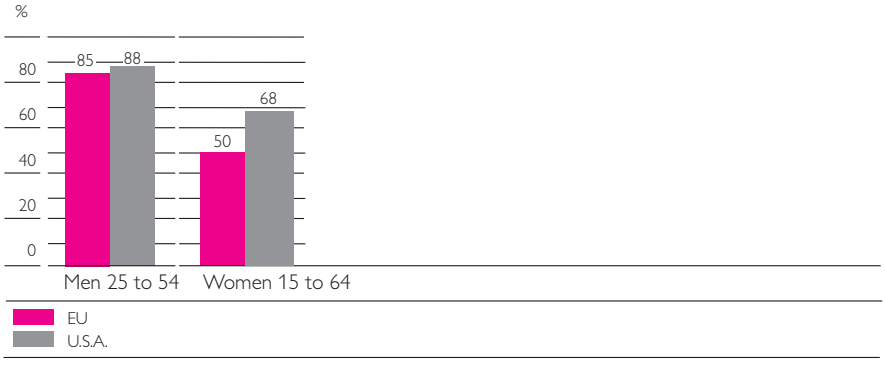
Employment rates – U.S.A. and EU 15

Employment as a percentage of the working age population 1997



Graph 5

Employment rates – EU 15 and U.S.A.



social services). If employment in communal services was as high in Europe as in the U.S.A., there would be some 10 million more jobs in this sector alone. These are the main differences on the demand side of the labour market, and they are important ones.

Supply-side potential

Let us look at the supply side of the labour market, the labour force.

The first thing we discover is a striking similarity between the EU and the U.S.A. in terms of the employment of men aged 25 to 54, with employment in the EU at around 85%, almost as high as in the U.S.A., with 88% (see Graph 5).

In some countries in the EU, male workers in this age group have an employment rate that is even higher than the U.S. average. That goes for Austria, Denmark, Greece, Portugal and the Netherlands. These countries have very different labour market regimes, yet they all have high employment rates for men in this core group.

The most striking difference between the EU and the U.S.A. is in the employment of women. In Europe around 50% of women in all age groups, from the age of 15 to 64, are employed. In the U.S.A. almost 68% of women are working. This difference costs Europe 21 million jobs. There are only two Member States, Denmark and Sweden, with the same level of female employment as the U.S.A.

These facts give an insight into our real structural problems. We see also how under-performance is mainly concentrated in four big Member States – Germany, France, Italy and Spain – with a combined working age population approaching that of the U.S.A.

If we compare female employment in these four Member States with employment in the U.S.A., we find that this accounts for almost 16 million of the difference in employment between Europe and the United States.

There is a clear link also between the low level of female employment in these countries and the development of the services sector. There is a difference of the order of 24 million jobs between employment in the U.S. service sector and employment in the service sector in the four big Member States.

Social protection

You might well ask if these structural weaknesses are not due in part to the operation of our social protection systems, and you would be right to do so.

There is a long tradition in some Member States of dealing with cyclical and structural employment problems through early retirement programmes, which offer an exit from the labour market. If we compare employment for men and women in the 55 to 64 age group in the EU and in the U.S.A., we find that 10 million more people are employed in the U.S.A. than in the EU.

However, there are also big differences inside the EU. At one end of the spectrum you find UK (48%), Denmark (52%) and Sweden (61%), where half or more of the age group are still employed, on a par with the U.S.A. At the other end of the spectrum, you find Member States that seem to have given up the idea that the most experienced workers could continue their working life until the official retirement age.

In some countries less than a third of those aged 55 to 64 are still employed. That goes for Luxembourg (21%), Belgium (22%), Italy (27%), France (29%), Austria (29%) and the Netherlands (30%). It goes without saying that such early retirement schemes put heavy pressure on pension systems and on the whole economy.

There is another problem, too, that provides an important explanation for the stubbornly high rate of long-term unemployment, namely the way Member States treat the unemployed. In most Member States the main support for the unemployed has been in the form of unemployment benefits.

The principal problem does not seem to be the level of unemployment compensation. On the contrary, the Member States with the highest compensation rates have higher employment rates. The key factors are the work tests that are built into the benefit systems, and the degree to which policy measures actively promote employability.

In the past, two thirds of the financial resources for labour market policies were spent on benefits, only one third on active measures. Where there are active employability measures, such as training, retraining, occupational rehabilitation, work experience and so on, these are, in many Member States, available only for those who have already been out of work for 12, 18, 24 or even 30 months.

There has been an unholy coalition of different interests behind these policies. Some people have seen this form of targeting as a way to save public money. Others have seen it as a way of showing solidarity with those most in need of support. However, this way of designing active measures demonstrates a lack of understanding of how markets work. As a result, policies have often had the opposite of the intended effect.

Instead of fighting unemployment and preventing long-term unemployment through early action, these policies have held back public intervention until it was too late. The high degree of long-term unemployment in some Member States is closely linked to this design defect in their labour market policies.

This leads me to a final observation before I draw some conclusions from this presentation of the structural factors behind Europe's employment problems. I would like to go into the mismatch between the available range of skills and the demand for new, higher level, and more broadly based skills.

During the 1980s, the number of higher skilled jobs grew by some 3% a year. This trend has continued in the 1990s, with employment in higher skilled occupations increasing and manual jobs decreasing in nearly

all Member States. This change in the structure of demand has not been fully matched from the supply side. Serious shortages have emerged in some areas, not least in information technologies. It is not surprising, therefore, that 80% of enterprises consider training for IT skills to be the top priority.

4 Five conclusions on the structural problems as a basis for policy reflections

The following conclusions may serve as a basis for our reflections on structural policies:

1. First of all, we can dismiss the argument that our employment problem is a consequence of excessive European regulation emanating from Brussels. We have the same European social legislation in all Member States, yet some Member States are as successful in their job creation as the U.S.A., while others are underperforming. What the EU has done is to contribute to flexibility by replacing 15 different national regulations, economic as well as social (for example health and safety, and free movement), with one *Single Market regulation*. This leads to more and fairer competition and to more success for the more productive enterprises. In short, the rigidities that are causing the problems are to be found not on the EU level, but in the Member States.
2. Second, *Europe is strong in manufacturing, but weak in the service sector.* There is still, in Europe, a widespread mercantilistic attitude in the debate on economic policies. This means that we focus most of our attention on demand for goods from export markets, from the rest of the world, and neglect the domestic market, which accounts for 90% of total demand in the EU. Europe needs more entrepreneurship and better framework conditions for the services sector, including strong and stable economic growth.
3. Third, a big part of the labour market problem is linked to the lack of *equal opportunities* for men and women. The tax and benefit systems in the Member States do not seem to create major obstacles for men, but there are serious disincentives for women to enter, or re-enter, the labour market in some Member States.
4. These two problems – an underdeveloped services sector and disincentives for women – are concentrated in *four big countries:* Germany, France, Italy and Spain. These Member States hold the key not only to achieving a more successful employment situation in their own countries, but also to higher employment in the rest of the Union. If these four countries became more successful in developing their service sector, and in offering more equal opportunities to men and women, they would release a strong growth potential in the whole of the Union.
5. The *abuse of social protection systems* to create early exits from the labour market, and the prevalence of wait-and-see attitudes in labour market policies are no longer sustainable practices. There is an urgent need for a decisive move from welfare to work in all Member States, from passive policies to active employability measures to create springboards to new skills, competences and jobs.

5 The European employment strategy: How is it working?

This analysis of structural problems is the background to the ongoing work on the European employment strategy. It is based on the new Amsterdam Treaty and agreed at the Jobs Summit in Luxembourg 1997. It was confirmed and further developed at the Summits in Cardiff and Vienna in 1998 and in Cologne in 1999.

This strategy – with European guidelines and a highly developed national action planning process – has introduced a new way of dealing with employment issues for Member States' authorities, as much as for the social partners. We have moved from management by regulation to management by objectives.

This strategy is built around four pillars and addresses four priority concerns.

The first pillar, employability, is about a new active labour market policy to equip the workforce with the skills to fulfil the jobs of the future. We know that to fight unemployment, we must fight long-term unemployment. The only way to be successful in fighting long-term unemployment is to act early to prevent people from drifting into long-term unemployment.

The second pillar, entrepreneurship, is about ensuring that the jobs we need will be forthcoming. It contains measures to make it easier to start and run businesses in order to create a new culture of entrepreneurship in Europe. It pays particular attention to the potential of the service sector and the need to focus public policy on supporting entrepreneurs to realise that sector's potential.

The third pillar, adaptability, is about a new working life policy to handle the process of change. The social partners are being invited to take the lead in the process of technological and organisational change and to seek a new productive balance between flexibility and security in employment.

The fourth pillar, equal opportunities, is about achieving a better reconciliation of family and working life. It is motivated by both social justice and hard economic reality – the new demographic perspective of slow population growth. Our economies need inclusive policies that will enable women to take an active part at all levels and in all sectors of the labour market.

All Member States are now engaged in translating this strategy with the four pillars into National Action Plans (NAPs), and in putting in place the necessary budgetary and administrative provisions.

There are now more than 600 pages of structural reform plans – accessible on the DG V website[1]) – all good, solid information with which to fuel the debate about progress in the reform of Europe's labour markets.

The Commission will now evaluate the Member States' plans. It will present its conclusions and recommendations in September as a basis for its consultations with the European Institutions and the Member States en route for the decisions in the Council and the European Summit in Helsinki in December 1999.

6 The European Employment Pact: What can we expect?

The European employment strategy was launched as an integrated strategy including both macroeconomic policies and structural measures, and so it remains. But some dimensions have been less developed than others.

That is why the German initiative of an Employment Pact was important. The European Summit in Cologne led to a political agreement to establish a dialogue between governments and the main actors in the labour and financial markets on macroeconomic policies in order to build confidence for the future.

Will this dialogue work? Will it help us build confidence? We can foresee that the central bankers will use the opportunity to tell governments what to do to improve public finances, and to tell social partners to stick to a stability-oriented wage policy.

However, this dialogue will also give both governments and social partners the opportunity to demonstrate that they are reforming their labour markets, and that these reforms will contribute to a more growth-oriented economic policy.

What happens in the first half of the year 2000 will be particularly important. Proposals for the broad economic policy guidelines will be presented by the new Commissions, and the Portuguese Presidency will organise an extraordinary European Summit on Employment, Economic Reforms and Social Cohesion.

7 Can Europe achieve what the U.S.A. has?

I would like to finish my speech by returning to the question put on the agenda by the IMF in its World Economic Outlook about bringing the macroeconomic and structural policy perspectives together. Is it possible for Europe to achieve what the U.S.A. has achieved in terms of low inflation, good growth and a reduction of unemployment to below 5%?

We have agreement to keep inflation below 2% as a basis for monetary policy. We know that we need stronger growth – 3% and more – if we are to make headway in increasing employment and in absorbing the vast unused labour supply potential we have in Europe.

The question is – should the European Union establish *challenging and integrated targets for economic policy?*

The debate has started. Some Member States are in favour of having not only a target for price stability, but also a growth target. Others are more hesitant.

It appears that the IMF has more confidence in our potential than we have ourselves, and has taken 3% growth as a basic objective in its forecasts.

On the basis of the experiences of our most successful small economies, I am optimistic. I see no reason why we cannot emulate the United States and bring unemployment down to 5% or even less while maintaining good price stability.

The evidence is clear. Austria has consistently mastered unemployment and inflation; Ireland has transformed its economic and employment performance in less than a decade; the Netherlands has shared its employment widely; Portugal is very close to achieving the 2 and 5% targets; and Denmark has a performance which leads the rest of the Union.

If a number of smaller Member States can do it, if the U.S. economy can do it, all the Member States can do the same.

I do not believe that any Member State, large or small, can afford or will want to let its labour market become the Achilles' heel of its economic performance.

That is why they have all embraced the European employment strategy. That is why you will see significant improvements in the performance of Europe's labour markets in the coming months and

years, which will bring rich employment rewards and which will greatly ease and support the conduct of monetary policy.

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Möglichkeiten und Grenzen

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Comment on:

Labour market reform and employment:

The Dutch experience

with part-time employment

1 Introduction

In his Adam Smith lecture to the European Association of Labour Economists, Harvard economist Richard Freeman defined the Netherlands as "the only part-time economy of the world, with a finger in the dike of unemployment" (Freeman, 1998). What kind of reforms and policies made this outcome possible? Why have part-time jobs become popular in the Netherlands? What kind of jobs are these and whose jobs are they? Can a one-and-a-half-job-per-household economy work? Is it a solution to Europe's predicament of unemployment? Is there a lesson to be learnt for other countries? These are the questions that I will address in this paper.

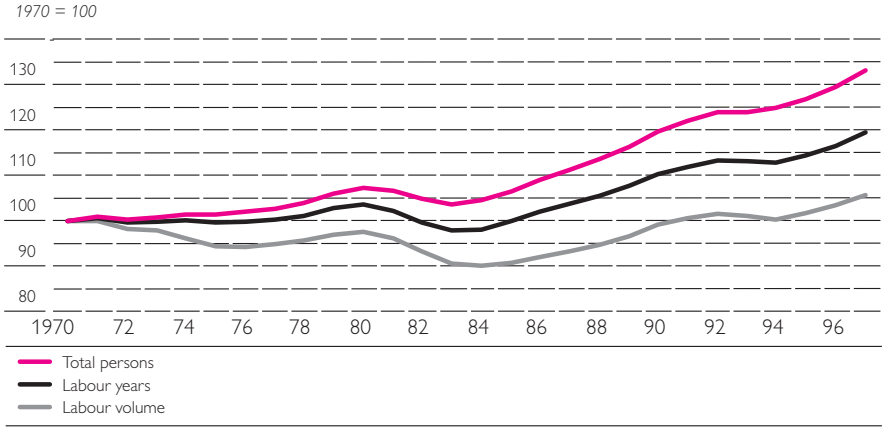
2 The transformation of the Dutch labour market

Fifteen years ago, the Dutch labour market was in a very depressed state. Around 800,000 people, 13% of the labour force, were unemployed. An almost similar proportion had left employment due to illness, disability or early retirement in advance of the legal retirement age of 65. One of every four non-school-going youth under the age of 25 was unable to find a job. The employment/population ratio of the Netherlands had dropped to under 50% and was one of the lowest in Europe.

The first half of the 1980s was the culmination of a decade of stagnation of employment. It was also a turning point (see Table 1). Looking back from today's perspective, we observe a trend reversal in nearly every aspect. Labour participation has increased again, among all age groups, but especially among women between 25 and 49 years. The average rate of job growth during the past decade and a half was 1.8%, accelerating to 2% in 1997 and 1998. This is no less impressive than the American job machine and many times better than the European average of 0.4% during the same period. Many of these jobs are part-time jobs, hence, if employment is expressed in full-time equivalents or hours worked rather than jobs or persons, employment growth is lower (see Graph 1). Note that full-time equivalents (or labour years) have become shorter with the annual reduction of working hours of full-time workers (0.3% per year between 1984 and 1996). But even if measured in hours, employment growth since 1984 has still run above 1% per year and has made up for the losses in the previous decade.

Graph 1

Employment development in the Netherlands 1970 to 1997



3 A reversal of trends

We observe that sectoral developments differed sharply between the two periods under consideration. In the 1970s the subsidised sector (health, education) and government employment witnessed the strongest growth, whereas private sector employment stagnated. After 1984 the picture is different. The job decline in industry and agriculture has stopped. Employment growth is strongest in private services (trade and transport, financial and personal services, retailing, hotels and restaurants). The public sector in the Netherlands absorbs only 13% of total employment, which is very low by comparison to most European countries. However, if we include health, culture and social assistance, supported through public subsidies and voluntary associations, the public and subsidised sector absorbs a quarter of total employment.

There was a strong rise in part-time and atypical employment in both periods, especially since 1984. Three-quarters of all jobs created since 1984 were part-time jobs. It is to be noted that full-time jobs grew marginally as well, again in sharp contrast with the period before 1984. Further contrasts between the two periods under consideration concern wage and equality trends. There was real wage growth, but much smaller than in the preceding decades. This development was accompanied by a reversal of the trend towards greater earnings equality, a reversal that is also found in other industrial countries (OECD, 1998). The number of low-paid jobs has increased partly as the result of deliberate policies to create more employment opportunities for low-skilled workers with little job experience, partly through additional job programmes with subsidies to employers.

Finally, unemployment has fallen from its very high levels of the mid-1980s (see Graph 2). The standardised unemployment rate – based on ILO criteria – dropped to 5.5% in 1997 and was 4.0% in the third quarter of 1998, which is the lowest rate in twenty years and half the EU average. The low open unemployment rate, combined with the appearance of difficult-to-fill vacancies in a number of regions and jobs in both the private and public sectors, suggests that the Dutch economy is presently running close to full employment. On the other hand, there are still considerable pockets of hidden unemployment: of older workers who have no longer needed to register for unemployment benefits since 1984; of workers in disability programmes, many of whom may in fact be unemployed and of workers who have taken early retirement. In recent years the number of long-term unemployed, i.e. people who have been out of a job for one year or more, has fallen with 30%. However, with the low influx of new unemployed, the share of the long-term unemployed in total unemployment is still close to 50%. It suggests that not all is well in the Dutch labour market, especially for those with low skills and little job experience and for ethnic minorities with unemployment rates persistently three times the national average.

4 Three policy changes

Although it only attracted international attention in the 1990s, the "Dutch miracle" has its basis in policy changes in the early 1980s (Visser and Hemerijck, 1997). The recession from 1981 to 1983 was exceptionally severe. Between 1981 and 1983, 300,000 jobs were shed, mostly in industry. Unemployment soared at a rate of 10,000 to 15,000 per month

and seemed unstoppable. The trade unions lost 17% of their members, and nearly one-quarter of the remaining members were out of work, on social benefits or in retirement (Visser, 1991). Union density plummeted and stood at a mere 25% by 1987 compared to 35% before 1980. The average disposable income of employed workers fell by nearly 10% in three consecutive years (1981 to 1983); social benefits for people without employment fell even more. Reflecting on the origins

of the Dutch miracle, de Nederlandsche Bank argues that "a limit was reached" and "a change in policy and mentality" had become necessary. The crisis did create a sense of urgency and worked as a triggering device for social learning and policy change after a decade of policy stalemate.

The first and most important policy change was the recognition by the trade unions that a higher level of investment, essential for the creation of more jobs and the struggle against rising unemployment, in fact required a higher level of profitability. Unions once again placed jobs and job redistribution before wage growth. This view became the basis for a sustained policy of wage moderation, beginning with the central (Wassenaar) agreement of November 1982. According to the Central Planning Bureau (CPB), the government's official economic forecasting bureau, wage moderation has been "Holland's single most important weapon in international competition". The CPB estimates that the effect of lower labour costs has dominated the effect of lower aggregate demand. For the 1980s it estimates that two-thirds of job growth can be attributed to wage moderation and one-third to the expansion of the world economy (CPB, 1995). De Nederlandsche Bank points out that whereas unit labour costs in manufacturing rose by 2% in France and 2.6% in Germany between 1983 and 1995, the rise was 0% in the Netherlands. During this period employment increased by 0.1% per year in France, 0.4% in Germany, and 1.5% in the Netherlands.

Negotiated wage restraint entailed two compensations to the unions. On the one hand, employers did concede a collective reduction of the working week from 40 to 38 hours between 1983 and 1986. As agreed in Wassenaar, this was done in a cost-neutral way for firms. However, it did lead to reduced business hours and not to the hiring of new staff, as most firms at the time had excess capacity. Only later, when the economy moved out of recession, did employers become interested in longer operating hours and more flexible working hours. On the other hand, the government tried to cushion the impact on the disposable income of workers by lowering taxes and social charges. In addition and especially in the 1990s, the government offered subsidies and tax reductions, as an incentive to employers to recruit or retain low-skilled workers, with special programmes for youth and the long-term unemployed. Through the Foundation of Labour *(Stichting van de Arbeid),* which is a rather small joint institution owned by the social partners, the central union and employers' federations negotiated

Graph 2

Unemployment rate of the Netherlands 1970 to 1997

various recommendations to lower level negotiators, including the agreement to continue wage moderation and deepen the decentralisation of collective bargaining below the level of sectors (1993), the pact to combat ethnic unemployment (1990, 1996), to encourage part-time jobs (1989, 1993), lower wage rates, which were just above the national minimum wage, for the low-skilled (1993), to improve the security of temporary workers in exchange for measures to enhance the flexibility of the labour market (1996), to name only a few recommendations. A delegation of the Cabinet meets twice every year with the Foundation in order to discuss and co-ordinate policies (Visser, 1998).

The second policy shift involved a gradual reform of the social security system. Initially, the government's objective was to contain costs and reduce the deficit in government spending. This was implemented in a slow, step-by-step programme, initially through a small decline in public employment and a reduction of civil servants' pay. During most of the 1980s and again between 1992 and 1995, minimum wages and social benefits did not follow private sector wages, as they had in the 1970s. Beginning with the halt in social benefits in 1983 and an overhaul of unemployment insurance in 1987, the major welfare reforms took place in the early 1990s with the tightening of the two main exit routes from the labour market: namely disability insurance and early retirement.

The third policy shift concerns the innovation of labour market policies. The new policy objective was no longer a reduction in overt unemployment, partly achieved by diverting unemployment into other channels such as early retirement. It is was now considered essential for reasons of financing the future welfare state and social integration that a higher level of labour force participation should be achieved. This constituted a break with the traditional passive labour market policies of the past. In 1994 the new policy orientation was translated into the "jobs, jobs, and more jobs" approach of the government. It implied a new emphasis on activating measures of various kinds, particularly targeted at the core of the younger long-term unemployed. This combines with further reforms in social security, and the removal of disincentives to offer and accept low-paid employment. A series of special employment programmes have been established; the two most innovative

ones are the creation of 40,000 new jobs in the public sector for unemployed people who have been out of a job for six or twelve months, and the creation of 20,000 jobs in the private sector for those without a job for six months, with a HFL 18,000 subsidy to employers who undertake to provide training and to create permanent jobs. Further conditions are that these jobs are for 32 hours per week and that wages are lower than 120% of the statutory minimum wage.

5 Women and the growth of part-time employment

In the past decades employment growth was driven by strong labour force growth, which came to 1.4% a year between 1982 and 1996 compared with 0.5% in the European Union. This reflects relatively rapid population growth, as the birth rate in the Netherlands fell later than in other European countries, as well as a catching-up of the low female participation rate to European averages. In the period considered here, the Netherlands experienced the fastest rise in the employment rate of women of any OECD country. This is even the case when employment is expressed in full-time equivalent jobs (see Table 2).

Table 2 confirms the claim of the Netherlands to being the leading part-time economy in the world. Part-time employment ratios for women show that the Netherlands have overtaken the leading positions of the Scandinavian countries. The full-time employment ratio of women has hardly changed, however and still is the lowest of all countries shown in Table 2. Hence, if one measures the total input of paid labour by women in terms of full-time equivalents (counting part-time jobs as half-time jobs), we observe that the Netherlands remain at the bottom end of the table, preceding only Spain and Italy.

The strongest rise in labour force participation occurred among married women. Although the absolute number of married women in the working population at working age (15 to 64) decreased by around 100,000, the number of married women in the labour force increased by 800,000, and the participation rate of married women jumped from 15% in 1975 to 42% in 1994. Among unmarried women the rise was less pronounced, from 43 to 55%, contributing an extra 600,000 to the labour force. The proportion of women who expected their first child and had no paid employment dropped from 33 to 19% between 1980 and 1992. The share of women who did work but stopped fell from 55 to 35%. The share of women who continued with a reduced number of hours rose from 5 to 28% and the share of women who continued with unchanged hours increased from 6 to 19%. The increase in the labour participation of women with children has enhanced the need for, and created the extra income for, family-oriented services, jobs that are mostly taken up by women. Since these services are historically undeveloped in the public and communal sector in the Netherlands, part-time employment became the dominant coping strategy for mothers. In 1997 60% of all women expecting their first child and holding a full-time job shifted to part-time employment.

6 The part-time revolution

Between 1981 and 1996 the number of part-time jobs doubled and the share in total employment rose from 18 to 37%. Increasingly, (married) women with children chose to work part-time, in part as a job retention strategy. In the early 1980s employ-

ers had presented part-time work as an alternative for collective working time reduction. In the wake of the slump from 1981 to 1983, when they were faced with the necessity to reduce staff, many employers accepted women's request to retain part-time jobs as a welcome form of voluntary (part-time) unemployment. Moreover, to the degree that women had higher skills and more years of experience, employers were more reluctant to end employment contracts and more willing to accept requests to change full-time to part-time jobs. Part-time jobs, especially in the public sector (central and local government), in education and health as well as in financial services, more often concerned skilled jobs. If part-time jobs in these sectors and in positions higher up the job ladder had not been accepted, there would have been many shortages. Finally, the form of the collective working time reduction, mostly through extra days off, caused many mismatches between working hours and operating hours. Once the recession was over and firms wanted to expand production, they began to use part-time jobs as a means to achieve optimal levels of staffing. In the mid-1980s new part-time jobs (of 4 days or 32 hours per week) for young workers under the age of 25 were created in the public sector.

Part-time work in general is and has remained women's work (see Table 3). Of the 2.6 million people working part-time in 1997, 2 million were women. The 4.5 million full-time workers were divided between 3.5 million men (78%) and 1 million women (22%). One-third of all employed women works full-time; they tend to be younger, unmarried, or married without children. One-third works half-time (around 20 hours) or full-time jobs with reduced hours (around 30 hours), whereas the remaining one-third works in small or very small, in fact marginal, part-time jobs. Three-quarters of these marginal part-time jobs are found in only three sectors: personal services, in particular cleaning, hotel, restaurants and catering, and retailing (Salverda, 1998).

7 The normalisation of part-time employment

There is a well-established view of part-time jobs as substandard jobs (see the overview in Hakim, 1997, also Meulders et al., 1994). Explicitly or implicitly, full-time jobs are considered the norm by which to assess part-time jobs, and the welfare of workers is only evaluated by occupational status or earnings. Most commonly, the conclusion is drawn that part-time jobs are problematic because of inferior rights, entitlements, earnings or status, insufficient social security or pension coverage. In sum, part-time jobs are dismissed as secondary or marginal jobs. Against this view, Blossfeld and Hakim (1997), Hakim (1998), Plantenga (1996) and Tijdens (1998) develop an alternative view in which they differentiate between types of part-time jobs, take account of gender roles and positions in the household, and allow for different work orientations and preferences of men and women. A distinction is made between retention part-time jobs and marginal part-time jobs (see Tilly, 1991).

In the Netherlands the bulk of the part-time jobs are retention part-time jobs. They exist because women wanted to work less than full-time working hours. This aspect of voluntary part-time work is corroborated by all surveys that have been conducted on this issue (in particular the labour supply panels of the Organisation for Strategic

Labour Market Research, OSA, and the Labour Force Sample Surveys of the Central Bureau of Statistics, CBS). The rapid influx of (married) women in search of part-time employment and the strategy of employers to retain skilled female workers by allowing to split full-time into part-time jobs has prevented the marginalisation of part-time jobs in the Netherlands. This has forced trade unions, governments and eventually also the employers to improve the rights and conditions of part-time workers and make part-time employment increasingly attractive even for men.

Marginal part-time jobs are especially the domain of young people; one in four employed youth aged between 16 and 24 has a marginal part-time job. This is strongly related to the explosion of secondary jobs taken up by students, which in turn is related to the expansion of higher education and a decade of reduction of student grants. The difference to the situation in 1983, when 5% worked in marginal part-time jobs and 84% in full-time jobs is striking. We should add that at the time, 25% of the nonstudent working population under the age of 25 was unemployed, against 7% today.

It would be a misunderstanding to treat part-time employment as flexible or atypical employment, as is often done in the literature (see: Meulders et al., 1994). In the Netherlands most part-time workers are on permanent employment contracts, and as a rule, the number of hours worked by part-time workers are fixed. Hence, part-time workers do not face the uncertainty of continued or reduced earnings of temporary workers or workers with variable hour contracts. Part-time work is in no way comparable to short-time work or *Kurzarbeit* due to economic distress, as is the case in Germany (de Broeder, 1996). This does not mean that part-time employment does not also introduce an additional element of flexibility. For employers part-time jobs may fit a strategy of creating secondary workers as a buffer around the core, much the same as atypical employment. But more often the alternative view applies, namely that part-time jobs exist because women want to work part-time or as result of the employers' efforts to obtain optimal staffing, especially in industries where business hours are not the same as working hours (Tijdens, 1998).

8 The advantage of a disadvantage

The rapid increase in part-time employment and the entry of women into the labour force are two sides of the same story. Twenty-five years ago, the Netherlands had the lowest labour force participation rate of women within the OECD area. Women's work, for wages, was girls work. The overwhelming majority of families consisted of a full-time male breadwinner and a full-time housewife. Women tended to marry in their early twenties, and the average age at which they give birth to their first child was 23. According to the census of 1960 only 0.6% of all women with children under the age of four had paid employment. In services and in the public sector, employment contracts terminated at the day of marriage. Tax disincentives were considerable; married women's earnings were added to those of their husbands; in 1973 this became optional but the view that women's wages are supplementary was only fully removed in 1990 with the introduction of individual fiscal treatment.

Under the influence of longer and better education, birth control

and emancipation, married women have increasingly entered the labour market since the 1960s. The absence of day-care facilities and a communal or public infrastructure for family-oriented services in the Netherlands has made part-time work the dominant coping strategy for women. This has shaped women's preferences towards a middle position between work and the home. The preference for part-time jobs among mothers reflects the lack of childcare facilities and a strong caring norm with regard to children (Pott-Buter, 1993). Young children below the age of four are still mostly cared for at home. Most childcare is still arranged informally through family relations, neighbours, and friends. Day-care centres for young children were, and still are, in short supply, and their provision has historically been a matter for church-related welfare institutions targeted towards the poor. This is a characteristic heritage of the continental Christian Democratic welfare state (van Kersbergen, 1995) and is now being recognised as an obstacle to economic growth by the Central Planning Office, which recently has made the case for more public provision of day-care facilities (CPB, 1998).

A majority of Dutch women does indeed seem to fit the category of "adaptives" (Hakim, 1998), women who struggle to combine different life interests and are unprepared to sacrifice one for the other. They belong neither to the minority (in the recent past: majority) of women for whom motherhood is the only central life interest, nor to the minority of women who do not desire or have children and for whom a professional career is of overriding importance. There is nothing that suggests that part-time employment is a contingent phenomenon among women, except in the very youngest (student) age group. In 1994 51% of the active female population in the 15 to19 and 34% in the 20 to 24 age group worked part-time. However, this proportion rises to 70% and more in the 35+ age group. This clearly indicates that for women part-time work "is not a temporary phenomenon" but rather a common method "of combining paid and unpaid work" (Plantenga, 1996). As virtually all surveys show in this area, most married women in the Netherlands want to work part-time. Since the late 1980s there has been a consistent finding in survey research showing that the number of women wanting longer hours tends to be smaller than those wanting shorter hours (Kersten et al., 1990; OSA, 1993 and 1998). The 1996 labour force sample survey showed that 10% of all employees with a job of 12 hours per week or more wanted to work less, and 7 or 8% more hours. The preference for shorter hours is strongest among older workers and among women who work full-time, the preference for longer hours is found among young people and among women who work less than 2 days a week. Women who work between 17 and 25 hours per week are most content (CBS, 1996).

What about fathers? In the Netherlands one in six employed men works part-time, which again is higher than in all other industrial countries (see Table 2). Plantenga (1996) is unimpressed and shows that part-time work plays a rather different role in the career of men and women. For men, part-time work tends to remain an incidental and temporary phenomenon. It plays a large role, in particular, among young people. For instance, in 1994 45% of working men in the 15 to 19 age group and 16% in the 20 to 24 age group worked part-time.

These groups include students who accept odd jobs (from mail delivery to working as chauffeurs or waiters), especially since student loans and grants allow only a very tight budget. Part-time work among men in higher age groups hardly exists except for the group over men 55, 7 to 8% of whom work part-time, presumably in combination with early retirement or a partial disablement allowance.

However, some negotiation in professional and better-paid double earning families with young children may result in more men shifting to four-day working weeks. Our own research in 1990 and the most recent OSA panel results (Kersten et al., 1990; OSA, 1997) show the possible impact of such intra-household bargaining. In both surveys male and female adults, single and living together, with and without partners who worked, were asked to indicate working time preferences before and after a discussion with the partner. In both years the preference for a substantial part-time job (a three- or four-days working week) was intensified after discussion, among women but especially among men. The question remains why so few men act on their preferences or those of their wives. The Labour Force Sample Survey of 1996 found that men working full-time wanted to work shorter hours but did not ask their employers since they believed that it would be misunderstood as a sign that they lacked ambition.

9 Trade unions

With regard to part-time employment, Dutch trade unions initially shared the sceptical view of other European unions (Delsen, 1995). In 1981, the main union federation (FNV) published a position paper in which the inferiority of employment rights, wages, fringe benefits, and career prospects in part-time jobs and the lack of union membership among part-timers were highlighted. The FNV fully subscribed to the strategy of the *European Trade Union Confederation* (ETUC) to seek job sharing through a 10% collective reduction of the working week.

This position was modified in later years under the influence of women. This is remarkable, considering the fact that the number of women who are members of Dutch trade unions is rather small. In the 1960s women made up no more than 7% of total membership, and by 1985 the share of female members had risen to only 20%. But in some unions, especially in the public sector (local government, nursing, teaching), women had a much larger share and were very active in the union. Increasingly, women activists made it to the ranks of executive union officials and policy advisors. One of the effects was the campaign to improve the rights of part-timers, based on the view that part-time employment was the preferred form of employment of women with children. The upgrading of the rights, earnings, security and status of part-time employment should make these jobs more attractive for employed men as well. A right to switch from full-time to part-time jobs, and the removal of all remaining elements of discrimination on the basis of working hours, supports this strategy of the normalisation of part-time employment. Currently, the two main union federations, FNV and its Christian counterpart federation, are campaigning for part-time jobs for men.

Recent collective agreements acknowledge this development and try to improve on facilities and rights. In 1993 the Foundation of Labour published an important report titled "Considerations and

recommendations to promote part-time work and differentiation of working hours". Employers and unions jointly recommended that a request by an employee to adapt his or her working hours should be granted, unless this could not reasonably be expected on grounds of conflicting business interests (with the burden of proof on employers). This formula is now part of most collective agreements. In 1995 60% of all agreements contained a clause to this effect. An initiative bill to create a legal right to part-time work was narrowly defeated in Parliament, but currently three new proposals are under discussion.

10 Employers

I have already indicated that during the 1980s, employers increasingly adjusted to the change in labour supply caused by the entrance of women and their wish to work part-time when mothering a young child. In the early 1980s, the central employers' federations saw part-time jobs as an alternative for collective working time reduction and a tactical weapon against the union campaign. But increasingly employers preferred part-time employment for a more fundamental reason. It is the more flexible because individual and possibly reversible solution to the work-sharing problem: Part-time employment is assumed to allow for differentiation across groups of workers, depending on their value for the company or scarcity in the market, though increasingly employers have to adjust to the preferences of workers. Another advantage is that part-time employment aligns actual and contractual working hours more as part-time workers tend to be absent from work in their own time. The disadvantage of higher fixed labour costs and co-ordination costs tends to be recaptured through higher productivity per hour worked.

Under the impact of both union campaigns for shorter working hours (1982 to 1985 and 1994 to 1997), the growth of part-time employment accelerated. In the first round this was clearly due to the strategy of women not to give up their jobs, as they might have done in a tighter labour market, but to retain their jobs and shift to part-time employment instead of becoming unemployed or withdrawing from the labour market (with the risk of never getting back to a decently paid job). In the 1994 to 1997 bargaining round over working time, various pressures came together (Tijdens, 1998). In capital-intensive industries employers were interested in longer operating hours. Just-in-time production, the reduction of stocks and traffic congestion pushed toward broadening the daily range of normal working hours (beginning earlier or ending later) and a reduction of excess pay rates for evening or weekend hours. The concept of weekly average working hours has now made its full entrance. As a consequence, the likelihood of overtime with its higher pay rate is reduced, so that employers save costs. In exchange, workers gain shorter working weeks, or additional hourly pay. It has also become easier to respond to shifting workloads. In many services and in retailing, employers want a better match of consumer behaviour (few peak hours, often in the evening or during the weekend, and varying during the year) and working hours. Workers, on their part, seek more freedom in determining when to start or end the working day (and avoid peak traffic hours, or pick up their children from school). Married women are interested in part-time jobs and more control of when they work,

and both fathers and mothers want extra time off as well as more time control to handle emergencies at home. More workers want to vary working time during the year or during the life cycle, with extended breaks or the possibility to save time for early retirement. Union-conducted surveys of members show that there is considerable support for increased choice in collective agreements.

11 Governments

The Dutch government has generally supported the move towards the part-time economy by improving the rights and the quality of part-time jobs. Already in the early 1980s there were experiments based on subsidies to both employers and employees if they introduced and accepted part-time work. But these experiments had little effect and were deemed too expensive or cumbersome (Leijnse, 1985). A massive research programme on the possibilities and bottlenecks of part-time employment was launched in the mid-1980s. By that time, social security laws had been individualised, partly under influence of European legislation, and some thresholds unfavourable to part-time workers had been removed. In comparison to many other countries, the Dutch social security laws are rather friendly to part-time workers (SZW, 1995). The main principle of entry into the system is the employment contract, regardless of working time. Most employment contracts in the Netherlands are governed by collective agreement, applying to around 75% of all workers, including part-time workers, partly thanks to the extension of contracts to nonorganised employers (see Visser, 1998, for a description of the Dutch system of industrial relations and collective bargaining). Health insurance coverage is also relatively easy for part-time workers. Moreover, the National Old Age Pension Act provides every citizen with a flat-rate old age pension by the age of 65, irrespective of previous employment or earnings. Employees can top up their pensions through earnings-related company or sectoral pension funds, of which there are about 1,000 in the Netherlands. As from 1994 part-time workers with small jobs can no longer be excluded from participation in these pension funds. When the statutory minimum wage was introduced in 1969, jobs of less than one-third of the normal working week were not covered. In 1985 employers and unions published a joint recommendation to make the statutory wage applicable to all jobs. In 1993 the government changed the law accordingly. Finally, the new Working Time Act of 1996 includes a provision on the obligation of the employer to take into consideration the care duties of the employee.

12 Evaluation

According to some critics, structural effects, in particular the replacement of older workers by young people with higher skills, fewer rights, lower wages and more flexibility are the main story behind job growth *à la hollandaise*. They argue that the massive exit of older workers via the social security system (early retirement and disablement) during the 1980s and the creation of flexible, part-time and low-paid jobs helped to circumvent the usual "downward wage rigidity of those in employment" (Kloosterman and Elfring, 1990). Table 5 shows the number and share of workers at and just above the minimum wage in 1994, by the type of contract, hours of work, sector, gender and age group. From that information, the disadvantaged position of young

people and flexible workers (atypical employment) is manifest. However these groups do not stay disadvantaged, or else after ten years of wage moderation a much higher share of low paid workers in the 25 to 34 age group should have become apparent in Table 5.

Among adult workers, part-time employment is hardly a disadvantage. According to the newest CPB data, the actual hourly wage gap between full-time and part-time workers has narrowed to 7% in the private sector and is nearly absent in the public and subsidised sector where about half of all part-timers still work. Low pay is concentrated among young people, affects women more than men, and is found especially in private services, in particular in cleaning and retailing (Roorda and Vogels, 1997). It is in those two sectors that there is a contamination with other aspects of bad jobs: few employment rights, and low qualifications. A fairly large proportion of workers improve their employment position, but chances are poor for people without skills and for ethnic minorities (Salverda, 1998). Unions hardly reach out to these groups (Visser and van Rij, 1999).

13 Conclusion

The Netherlands is rapidly changing from a single earner (breadwinner) to a dual or one-and-a-half earner (part-time) economy. In 1975 about 85% of all married men between 15 and 64 were sole breadwinners. By 1994 this proportion had dropped to one-half. The one-and-a-half job model is still gaining ground. In "A Dutch Miracle" (Visser and Hemerijck, 1997) we call this development from the traditional breadwinner to a dual earner economy a fortuitous development, an example of luck or policies that are successful because time works for them, as Machiavelli once observed. The part-time revolution in the Netherlands was not planned, but happened, partly as a heritage of a past in which it had been the norm for married women and mothers to stay at home. Behavioural changes of these women provoked policy adjustments and learning by employers, trade unions and politicians. The Dutch miracle is an illustration of gender relations shaping a national pattern of employment relations and labour market developments (O'Reilly, 1996). The key point is that, determined by the massive entry of women into the labour market, part-time employment became a mass phenomenon, lost its marginal status and became attractive in its own right.

A part-time economy is less unjust than a society where there is a sharp division between full-time employment and full-time unemployment, especially when unemployment takes a structural and long-term form, as it does in many European countries. Moreover, dual or one-and-a-half earner households stand a better chance of preventing poverty, especially of children and older women, than single-earner households do (Esping-Andersen, 1990). My conclusion is that half a job is better than none. But then the question arises: is half a job worse than a full-time job?

Part-time employment is of course associated with disadvantages and inequality in the division of paid and unpaid labour as well as income between men and women. In most cases the one-and-a-half earner model means that the men work full-time, the women part-time. This shows up in different incomes. The available intra-household income statistics suggest that, on average, women earn 30 to 35% of the household income. Time

budget data show that there is no equal balance of paid and unpaid work between the sexes either. In two-earning households with young children, men tend to spend on average 10 hours, women 28 hours per week on household chores and child care, whereas men tend to spend 18 hours more on paid work.

Given this state of affairs, two radically different policy choices are possible (Plantenga, 1996). The first option is to push for reforms which allow more women to participate in the labour market on the same terms as men. According to Plantenga (1996) this means that "the same care-less participation behaviour enjoyed by men is also advocated for women without a clear answer how to tackle the work and responsibilities normally associated with women's lives". In the second option "the perspective is turned around. The stress is no longer on women to participate in the labour market in a male way, but rather that men should participate in the labour market in a female way, ergo, participating in care tasks" (idem). It would seem that Dutch women – and gradually also Dutch policy-makers – are pushing for the second option.

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Table 1

A summary of the Dutch labour market 1970 to 1996

	1970	1984	1996	1970 to 1984	1984 to 1996
				annual % change	
Participation rate (%)					
Total	57.3	54.6	63.5	− 0.2	+0.7
All 15 to 24	58.9	42.0	45.0	− 1.3	+0.3
Women 25 to 49	23.5	38.2	61.9	+ 1.1	+2.0
Men 25 to 49	96.9	92.2	93.2	− 0.4	+0.1
All 50 to 64	49.6	37.5	41.6	− 0.9	+0.3
Employment (all jobs)					
Jobs	5,469,000	5,718.000	6,982,000	+ 0.3	+1.8
Labour years	4,763,000	4,672.000	5,503,000	− 0.1	+1.5
Labour hours (x 1,000)	9,559,000	8,386.000	9,581,000	− 0.9	+1.2
Employment (only jobs of 12 hours and more)					
Industry and agriculture	2,183,000	1,560,.000	1,571,000	− 2.4	+0.1
Private services	1,704,000	1,810,000	2,493,000	+ 0.4	+3.0
Public and subsidised services	919,000	1,273,000	1,369,000	+ 2.4	+0.7
Unemployment					
Registered unemployed	44,000	591.000	440,000	+20.4	−2.4
Share long-time unemployed (%)	9	53	49	+ 3.1	−0.3
Vacancies	52,000	31.000	69,000	− 4.6	+6.9
Labour conditions					
Real wage rate (1970 = 100)	100	137	147	+ 2.3	+0.6
Low-paid jobs[1])	460,000	347,000	..	− 3.9	..
	..	415,000	524,000	..	+2.4

Source: Own calculations from CBS 1998 and SCP 1998.
[1]) Income lower than two third of median income.

Table 2

Women (15 to 64) by status in the labour market, 1983 and 1996

	1983					1996					Change 1983−96		Labour years FTE	
	FT	PT	UE	NP	Tot	FT	PT	UE	NP	Tot	FT	PT	1983	1996
	share in %										%		*share in %*	
Netherlands	17.5	17.2	5.5	59.8	100	18.6	36.4	4.8	40.2	100	+1.4	+19.2	26.1	36.8
Sweden	40.8	34.7	2.8	21.7	100	43.1	27.5	5.7	23.7	100	+2.3	− 7.2	58.1	56.9
Finland	61.2	7.8	3.9	27.1	100	52.5	6.4	11.7	29.4	100	−8.7	− 1.4	65.1	55.7
Norway	31.6	38.5	3.4	26.5	100	37.4	31.5	3.4	27.7	100	+5.8	− 7.0	50.8	47.3
Denmark	37.0	28.5	7.6	27.2	100	44.4	23.4	6.2	26.0	100	+7.4	− 5.1	52.8	56.1
Austria	37.7	9.4	2.6	50.3	100	42.2	17.0	3.2	37.6	100	+4.5	+ 8.4	42.4	50.9
Germany (West)	33.5	14.3	4.7	47.5	100	35.9	18.4	6.1	39.6	100	+2.4	+ 4.1	40.6	45.1
Belgium	29.4	7.2	7.9	55.5	100	31.8	14.0	6.5	47.7	100	+2.4	+ 6.8	33.0	38.8
France	39.7	10.0	5.9	44.4	100	36.7	15.4	8.6	39.3	100	−3.0	+ 5.4	44.7	44.4
Italy	32.2	4.2	5.7	59.9	100	31.9	4.6	7.2	56.3	100	−0.3	+ 0.4	34.3	34.2
Spain	24.3	3.3	7.1	65.3	100	27.7	5.7	14.0	52.6	100	+2.4	+ 2.4	26.0	30.5
Portugal	47.4	4.9	7.5	40.2	100	51.1	7.6	5.4	35.9	100	+3.7	+ 2.7	49.8	54.9
Ireland	28.4	5.2	4.2	62.2	100	33.9	9.6	5.9	50.6	100	+5.5	+ 4.4	31.0	38.7
United Kingdom	32.5	22.8	7.2	37.5	100	36.7	27.4	4.3	31.6	100	+4.2	+ 4.6	43.9	50.4
United States	41.5	16.2	5.8	36.5	100	39.8	18.3	3.9	28.0	100	−1.7	+ 2.1	49.6	48.0

Source: Own calculations based on OECD data, published in Employment Outlook, Statistical Annex, various years.
FT = proportion of women between 15 and 64 years in full-time employment.
PT = proportion of women between 15 and 64 years in full-time employment (national definition).
UE = proportion of women between 15 and 64 years that is unemployed (standardised definition).
NP = proportion of women between 15 and 64 years that does not participate in the labour force.
FT+PT = employment/population ratio; FT+PT+UE = participation rate; NP = 100 − participation rate;
labour year or FTE = FT + $^1/_2$ PT, assuming that annual hours of average part-time job average half those of a full-time job.

Table 3

Employed persons 1988 to 1997, part-time and full-time

	1988		1997		Increase 1988 to 1997
	1,000	*share in %*	*1,000*	*share in %*	*%*
Total	6,010	100.0	7,194	100.0	+19.7
35 hours or more	4,124	68.6	4,549	63.2	+10.3
20 to 34 hours	892	14.8	1,396	19.4	+56.5
12 to 19 hours	362	6.0	455	6.3	+25.6
Less than 12 hours	632	10.5	794	11.0	+25.6
Men	3,775	100.0	4,195	100.0	+11.1
35 hours or more	3,225	85.4	3,535	84.3	+ 9.6
20 to 34 hours	270	7.2	344	8.2	+27.4
12 to 19 hours	69	1.8	72	1.7	+ 4.3
Less than 12 hours	211	5.6	244	5.8	+15.6
Women	2,235	100.0	3,000	100,0	+34.3
35 hours or more	899	40.2	1,014	33.8	+12.8
20 to 34 hours	622	27.8	1,052	35.1	+69.1
12 to 19 hours	292	13.1	384	12.8	+31.5
Less than 12 hours	421	18.8	550	18.3	+30.6

Source: Central Bureau of Statistics, labour accounts, own calculations.

Table 4

Employees (16 to 64) with and just above the (legal) minimum wage, 1994

	Less than minimum wage		Minimum wage plus 10%	
	1,000	*share in %*	*1,000*	*share in %*
Total	201	4	396	7
Men	83	3	157	5
Women	118	6	238	11
16 to 24	93	11	196	23
25 to 34	45	3	87	5
35 to 44	31	2	58	4
45 to 54	24	2	43	4
55 to 64	8	3	12	5
Full-time	64	2	130	4
Part-time	68	5	143	10
Flexible	69	17	123	30
Private sector	173	5	340	9
Government	7	1	14	2
Subsidised sector	21	3	42	5
Agriculture	3	4	6	7
Industry	20	2	44	3
Private services	150	7	291	13
Public and subsidised services	27	2	56	3

Source: CBS, annual survey of employment and wages.

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Comment on:

Labour market reform and employment:

The Irish experience

Introduction

During the 1990s, the Irish economy has recorded phenomenal growth. The economy is now about two thirds bigger than it was ten years ago. Rapid economic growth has transformed the economy from the sick man of Europe to "Europe's shining light" (as The Economist labelled it in 1997). Living standards have risen to close to the EU average.

Nowhere has the change been more dramatic than in the performance of the labour market. In the time available to me I wish first to summarise the key developments and then to try to interpret the record and see what lessons for the rest of Europe might be learned from the Irish experience.

The record

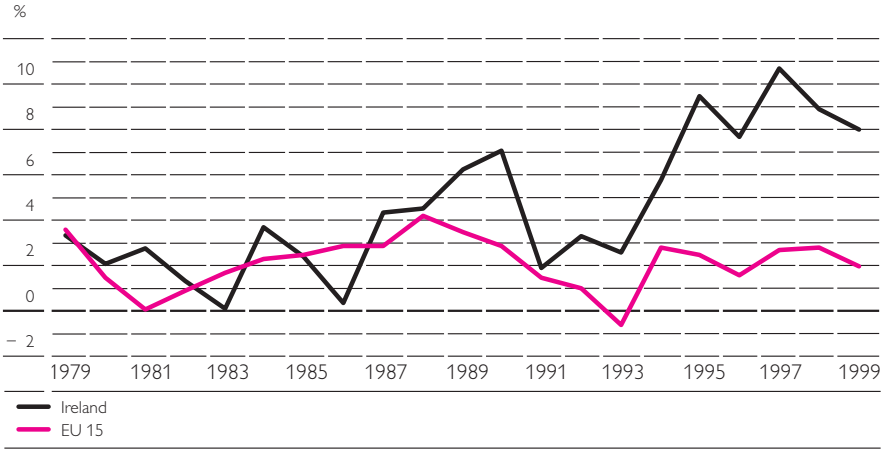
Graph 1 shows the rate of growth of the Irish economy over the last 20 years, with comparable figures for the EU as a whole. The lacklustre record of the earlier years contrasts sharply with the dramatic outperformance of the last 6 years. Since 1994 the economy has expanded at an annual average real rate of over 7%. The phrase "Celtic Tiger" was coined to refer to this phenomenon.

The growth of employment has been even more spectacular, averaging about 4% a year (Graph 2). The labour figures have increased by more than one third since the late 1980s. This rate of employment creation is surely a world record. Of course because employment has been growing so rapidly, the rate of growth of output per worker has been far less spectacular than that of total output. In fact, the annual average growth rates of GNP per person at work before and after 1994 are quite similar. Although the long-run rate of productivity growth has been satisfactory, it has not increased markedly since 1994. If attention had been focussed on output per worker, rather than total output, the phrase "Celtic Tiger" might never have become popular.

The historical decline of the Irish population and chronic high rates of unemployment and emigration made job creation a national priority. The exceptional growth of employment has therefore been widely welcomed. The expansion of job opportunities has been more than adequate to absorb the growth of the labour force and sharply reduce unemployment. Between

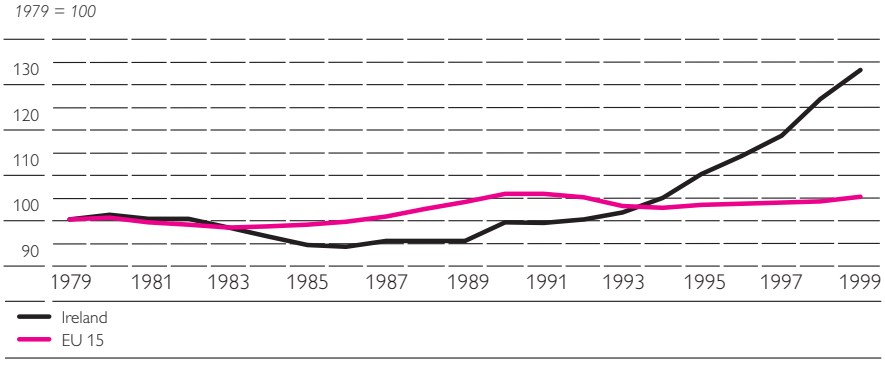
Graph 1

Growth of real GDP in Ireland and the EU 15



Graph 2

Level of employment in Ireland and the EU 15



Graph 3

Irish unemployment rates

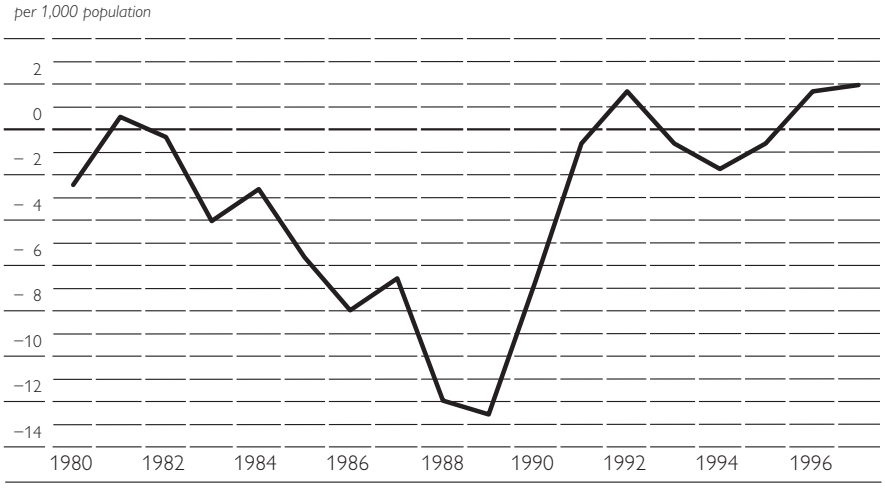
1993 and 1999 the overall unemployment rate fell from 16 to 6% (Graph 3). Ireland's rate of short-term unemployment is now below the comparable U.S. rate. The current tightness of the labour market has caused concern about the unemployment problem to be replaced by anxiety that labour shortages will choke off the boom.

The decline in unemployment has been rapid among groups where unemployment has traditionally been regarded as intractable, including young people and the long-term unemployed. Furthermore, unlike in the Netherlands, most of the growth of employment has been in full-time jobs. Apart from the continued decline in agricultural employment, most sectors have registered increases. Growth has been most spectacular in private sector service employment, but Ireland has been somewhat of an outlier in recording continued growth in manufacturing employment as the inflow of Foreign Direct Investment (FDI) expanded its export base.

In addition to the decline in unemployment, other labour market outcomes have registered dramatic

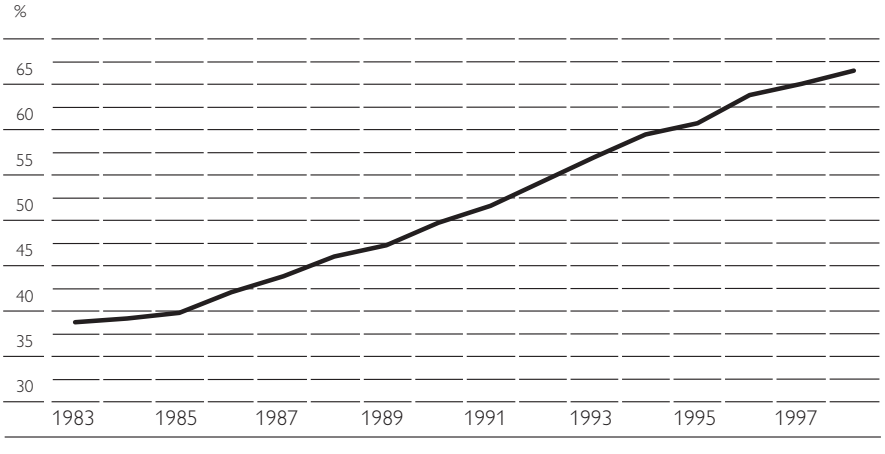
Graph 4

Net migration rate of Ireland



Graph 5

Labour force participation rate in Ireland
of women aged 25 to 44



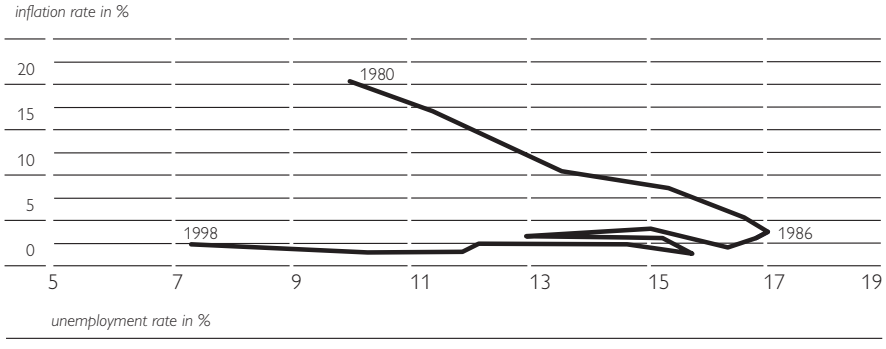
improvements – emigration has been replaced by significant net immigration, and women's labour force participation rates have risen to the European average (Graphs 4 and 5). In fact, about the only negative indicator is the fall in labour force participation rates among older males. This is partly a reflection of the special efforts that have been made to reduce long-term unemployment by encouraging early retirement, but in recent years this trend has levelled off.

So far the drop in unemployment has not led to a resurgence of wage or price inflation. The "Phillips curve" continues to move almost horizontally leftwards (Graph 6). As inflationary expectations declined, the Phillips curve shifted leftward and the inflation/unemployment trade-off improved dramatically.

However, a comment on the measurement of inflation is in order. While the behaviour of the widely used consumer price index gives no grounds for concern, asset price inflation – especially the behaviour of house prices – is a growing worry. This raises broad issues about how much attention policy-makers

Graph 6

The Irish Phillips curve



should pay to asset price inflation in determining monetary policy. But it is also pertinent to recall that monetary policy for Ireland has now been taken out of the hands of the national central bank and that we have to live with the "one-size-fits-all" euro area policy decided by the ECB's Governing Council in Frankfurt. If the economic conditions prevailing in the core economies of the euro zone were anything like those now in place in Ireland, the stance of ECB policy would be much more restrictive than it is. How long the Irish economy can continue to boom will be an interesting test as to whether it is really true that most expansions do not die of old age but are killed off prematurely by over-cautious central banks. This possibility is ruled out by Ireland's unusual situation as a booming member of currency union dominated by relatively stagnant economies.

Interpreting the record

The Irish experience raises a large question mark over our ability to measure the "natural" or "non-accelerating-inflation" unemployment rate (NAIRU) other than ex post. If asked to put a figure on the NAIRU in the early 1990s, Irish economists would have probably given an answer in double digits on the grounds that much of the rise in unemployment had become "structural". In fact, an influential study estimated an "equilibrium" unemployment rate of 13.1% for Ireland over the period 1980 to 1988 (Layard, Nickell and Jackman, 1991, Table 14). But as unemployment now heads below 6%, inflationary wage pressures have yet to become generalised. Although there have been significant changes in the functioning of the Irish labour market since the 1980s, it is difficult to believe that the "equilibrium" unemployment rate has been halved in such a short period of time. The more natural inference is surely that the demand for labour exercises a crucial influence on labour market outcomes.

In fact, it is a truism that the main reason for Ireland's success on the labour market front has been the phenomenal growth of the economy. Despite the openness of the labour market, a standard "Okun's law" approach does remarkably well in accounting for the fall in unemployment in terms of the growth of output (Walsh, 1999). It is obviously beyond the scope of these comments to try to account for this achievement.[1]) We have come to view Ireland as a booming region whose openness to flows of capital and labour has played an important part in allowing it to achieve exceptional output growth rates. But of course this raises the question why Ireland has become such a popular location

for economic activity. A by no means exhaustive list of contributory factors is presented in Table 1.[2])

Space does not permit a detailed commentary on this list, but it is interesting to note that the availability of an abundant supply of labour is included as a positive factor. At the height of the economic crisis of the 1980s, Ireland's "young and rapidly growing labour force" was often cited as an explanation for the severity of the unemployment problem, and the outflow of well-educated young people from the educational system fuelled a brain drain rather than growth of high-skill employment. But by the end of the 1990s, it had become part of the conventional wisdom to link the success of the Irish economy with its abundant supply of well-educated young people. Perhaps the key to understanding the different outcomes of the 1980s and the 1990s lies in the decline in the relative wages of skilled workers in response to the growth in their numbers (Barry, 1999).

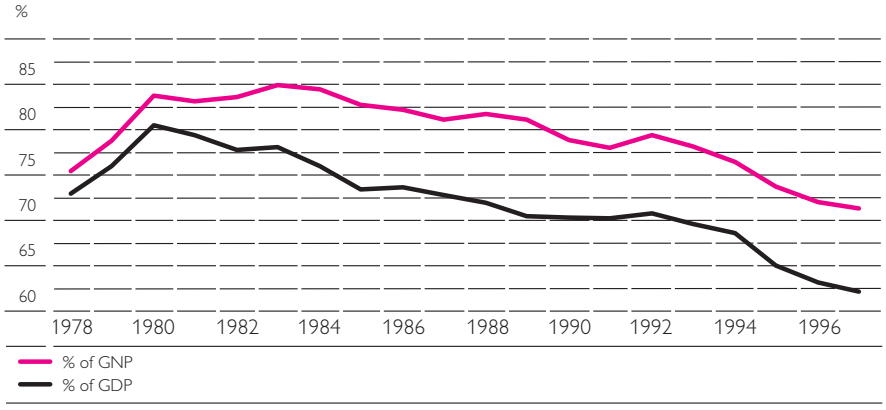
The contribution of corporatism to the success of the 1990s is also of great interest. It is widely believed in Ireland that the return to centralised wage bargaining in the late 1980s delivered moderate nominal wage increases and preserved the economy's competitive position in the face of declining unemployment.[3]) According to this view, wage moderation facilitated rapid employment growth. The resulting tax buoyancy permitted cuts in income tax rates that reinforced wage moderation and allowed real take-home pay to rise faster than employers' labour costs. This virtuous circle was crucial to the growth of employment. In recent years, cuts in income taxes have bestowed increases of 2 to 3% a year in workers' after-tax incomes over and above increases in pre-tax wage rates. Over the period 1980 to 1989 – when "free-for-all" wage bargaining prevailed – it was only possible to curb wage inflation by allowing unemployment to rise to record levels. The economy traced out a conventional downward-sloping Phillips curve. But after centralised wage bargaining was reintroduced, unemployment fell rapidly and wage inflation remained low.

It is somewhat sobering to note, however, that the contribution of this factor has been missed in recent attempts to compare internationally the rigidity/flexibility of labour markets (Table 2). This table provides little insight into the factors behind the growth of employment in Ireland. In fact, many of the scores awarded to Ireland appear to be misleading, such as the score on co-ordination of wage bargaining. It is also doubtful whether the measures of the generosity of the social welfare system capture the underlying reality, which was an incremental reform of the system over the period. The overall assessment of Ireland's situation, while on the positive side, gives little intimation of the economy's exceptional employment-creation achievement in the 1990s. This is a cautionary tale for those who like to use indices to summarise the comparative flexibility/rigidity of labour markets.

Two issues should be mentioned in conclusion. The growth of the Irish economy has been fuelled by a highly profitable manufacturing export boom in which Irish affiliates of MNCs have predominated. The combination of a surge in profits and wage moderation led to a decline in the share of national income received by labour (Graph 7). While the measurement of this ratio is beset with difficulties, especially in view of the importance of repatriated profits

Graph 7

Wage share in Ireland



in the Irish economy, the trend revealed in Graph 7 is hardly sustainable. The evolution of wage policies in the immediate future will be exceptionally interesting.

A second question is whether any lessons for the larger economies of Europe may be drawn from the Irish success. It is clear that to some extent there has been an element of "beggar-my-neighbour" in the policies that have fuelled the Irish boom. It would not have been possible for all the countries of Europe to emulate the Irish success in attracting FDI from the United States. Nor could the decline in Ireland's real exchange rate be generalised. But other factors included in Table 1 could be imitated, such as the emphasis on investment in education and the reliance of expenditure cuts, rather than tax increases, in restoring order to the public finances. Most intriguing of all, of course, is whether other countries could learn from Ireland's successful experiment in centralised wage bargaining or whether this is a strategy that will only work in a small and homogeneous country.

Concluding remarks

The Irish experience highlights the importance of rapid growth in tackling the unemployment problem. Among the factors that contributed to achieving rapid growth is, paradoxically, the demographic momentum that in the past was blamed for high unemployment. The availability of a ready supply of a young, well-educated, English-speaking work force, at relatively low cost, is now credited with an important part in Ireland's recent transformation. Many would claim that it was second in importance only to the favourable tax treatment of manufacturing profits.

The broadest lesson to be learned from the Irish experience is that when the circumstances are favourable, it is possible to absorb a rapidly growing labour force into employment and make significant inroads on what was a problem of chronically high unemployment. To some degree, at least, the Irish experience is a beacon of hope for a continent plagued with unacceptable levels of unemployment.

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1 For some recent discussions of this topic, see Krugman (1997), Leddin and Walsh (1998), and Barry (1999).

2 No mention is made of "luck" – but undoubtedly Ireland enjoyed exceptional good fortune in that so many favourable internal and external factors came together at the same time. Did not Napoleon require his generals to be lucky as well as clever?

3 It is, of course, possible that the return to corporatism was due to the severity of the unemployment crisis of the late 1980s.

Table 1

The factors behind the Irish boom

1. Success in attracting Foreign Direct Investments
   due to
   Low corporation tax rate
   Ready supply of low-cost skilled labour
   Macroeconomic stabilisation in the 1980s and qualification for EMU in the 1990s
   Use of English language
   Reduced penalty of "peripherality" – GDP getting lighter
   Self-reinforcing success – cumulative nature of attraction to industries in same sector – external economies

2. Ready supply of low-cost skilled labour
   due to
   High level of investment in education
   Demographic impetus
   Large return flow of well-educated former emigrants
   Growing inflow of non-Irish workers
   General wage moderation plus decline in relative earnings of skilled workers

3. Favourable macroeconomic environment
   due to
   Correction in the 1980s, especially cuts in public expenditure
   Pragmatic exchange rate policy that averted overvaluation but preserved participation in the ERM of the European Monetary System
   Benefits of Maastricht convergence ahead of entry to EMU
   Countercyclical increase in EU aid at start of the 1990s

4. Wage moderation
   due to
   Corporatism – return to centralised wage bargaining in the late 1980s
   Use of reductions in income taxation to reinforce moderate wage claims

5. Good use of EU aid to reduce infrastructure deficits

Table 2

Measures of labour market flexibility around 1990

	OECD average	Ireland	Ireland better (+) or worse (–) than average
Employment protection index (20 = most rigid)	12.0	10.5	+
Labour standards index (10 = most strict)	4.0	4.0	0
Benefit replacement ratio (%)	37.0	56.7	–
Benefit duration (years)	4.0	2.3	+
Active labour market policies (spending relative to GDP)	9.1	12.3	+
Union density (%)	49.7	41.5	+
Union coverage index (scale increasing from 1 to 3)	3.0	2.6	+
Co-ordination: Union (scale increasing from 1 to 3)	1.0	1.9	?
Co-ordination: Employer (scale increasing from 1 to 3)	1.0	2.0	?
Payroll Tax Rate (%)	7.1	19.0	–
Labour cost/take-home pay tax wedge (%)	34.3	48.2	–

Note: The data relate to averages over the period 1989 to 1994. The OECD average relates to 20 countries.
Source: Nickell, 1997; OECD, 1994.

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Comment on:

Labour market reform and employment:

The experience of the United Kingdom

May I start by recalling that in the 1970s the then Labour Government did attempt very seriously a consensual tripartite approach to economic policy, involving consultation with the unions, with regard to all elements of economic and social policy together with an incomes policy to achieve wage restraint. But this policy was resisted, above all, by the union movement itself. The latter argued forcefully at that time for free collective bargaining unimpeded by any involvement of the government. The government's attempts to achieve wage moderation led to an unprecedented period of industrial unrest culminating in the "Winter of Discontent" in the winter of 1978 to 1979, which then led to the election of the Conservative government of Mrs Thatcher in May 1979. The co-operative approach in Britain was perceived to have failed; this gave birth to a new approach to industrial relations in the 1980s.

The reforms of the 1980s

The approach of the new Conservative government involved the abandonment of incomes policy, thereby giving to the unions what they had asked for: free collective bargaining, but in conjunction with a set of measures to codify and legally regulate the role of unions within society. The unions lost their special privileges and powers and in return were no longer expected to take on responsibilities such as controlling wage demands.

The sharp reduction in the influence and membership of unions during the 1980s arose from a combination of legal, political and economic factors. I think, in the long term, most important has been the new legal structure which provides a legal framework obliging employers to recognise properly constituted unions, removing from unions the power to require workers to belong to them (the "closed shop"), specifying the circumstances under which strikes may legally be called, for example the requirement of a ballot of union members, restrictions on secondary picketings so that unions are allowed only to mount pickets outside their own places of employment and not anywhere else, and so on.

While these legal reforms were introduced carefully and gradually, the Conservative government at the same time displayed a quite extraordinary degree of political commitment to reducing union power. This was demonstrated most visibly at the time of the 1984 miners' strike. The miners' strike could be seen as an attempt by a powerful union to show that, if it had enough support, it could take the law into its own hands. The strike was called without ballot, and therefore without legal authority, and many of the most dramatic confrontations arose from the attempts by the miners who were supporting the strike to prevent those who wished to go on working from doing so. The strike was broken up by massive policing, which was a very divisive and risky activity from a political perspective.

Behind all this, it was also the economic consequences of very high unemployment which weakened, perhaps decisively weakened, the support the unions had from their own members across the country as a whole. In sum, the reforms of the 1980s altered the balance of power within the industrial relations system in favour of employers and against the union movement.

The effects of the reforms

The path of unemployment for Britain looks not unlike that for the Netherlands which Professor Visser showed us a little while back. Unemployment shot up in the early 1980s, when 3 million people were unemployed and the unemployment rate was about 13%. It fell sharply at the end of the 1980s, rose again in the early 1990s, reached a peak in 1992 around 11%, but has since fallen to around 6% on the OECD standardised measure, or about 4.5% in terms of the official "claimant count" measure (the number of people out of work and in receipt of unemployment benefits). There is a big difference in the UK between these measures, because a substantial number of people who are searching for work are not entitled to benefits and are therefore not counted in the claimant measure. But, on any measure, the level of unemployment in the UK is around half the EU average and about half what it was in the early 1990s, when the European leaders committed themselves to a substantial cut in unemployment. Furthermore, this fall appears to be sustainable in the sense that wage pressures are dormant.

Is the reduction of unemployment the consequence of the weakening of the role of the unions? I think some people are doubtful about this, not least because it seems to have taken so long. If all these reforms were introduced in the 1980s, why is it not until the end of the 1990s that we have seen a sustained reduction in unemployment? I think the reduction in wage pressure must be linked to these changes. It seems unimaginable that in a situation where there are now quite severe labour shortages in some parts of the economy we would not have seen wage pressures, had we had the same type of union behaviour now as we saw in the 1970s.

I think the reason that it took so long is because actual unemployment is determined primarily by macroeconomic and monetary policies and not by structural policies. Whatever may be happening to the equilibrium rate of unemployment and the economy's potential level of output, what actually drives unemployment and output in the short run is macroeconomic policy. At the end of the 1980s, we had an excessively expansionary macroeconomic policy caused by the then government's policies to link the pound to the Deutsche mark. In the early 1990s, we had excessive deflation because of the decision to participate in the Exchange Rate Mechanism of, the European Monetary System. Since leaving, or crashing out of the Exchange Rate Mechanism in September 1992, the British economy has expanded steadily in a non-inflationary way, to bring output up to potential, and to bring unemployment down to its equilibrium rate from having been a long way above it. This is very much in accordance with the policies recommended, or at least permitted, in yesterday's paper by José Viñals, who argued that it was a legitimate role for monetary policy to bring output up to its potential and unemployment down to its equilibrium rate. To use monetary policy in this way of course was made possible only by the abandonment of the fixed exchange rate system. So I think we have the opposite experience from Ireland in that we found it necessary to employ independent monetary policy in order to secure the gains in output made possible by structural change.

Prospects

Will a new Labour government in Britain alter things? My view on that is that one should expect only marginal changes. I think that, while our new prime minister appears to be a politician of compromise and compassion, as leader of the opposition he was extremist in his purging of the unions from the Labour Party as Mrs Thatcher had been purging them from the national scene. Amongst the policy strategists in the Labour Party, the unions are regarded as an association of death and the view is that if the Labour Party is to gain power in elections, it has to completely sever its links with the unions. The unions have been consulted, of course, in the introduction of the minimum wage and the New Deal (employment policies for the young unemployed), and overall the new government has a much more worker-friendly approach. It has signed the Social Chapter of the Maastricht Treaty, which acknowledges and incorporates various union rights. Even though Britain has now signed the Social Chapter, the unions recognise how much things have changed, and the union movement remains very weak. It is consulted, I think, more out of courtesy than out of any attempt to rebuild a corporatist approach to wage setting within Britain.

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Comment on:

Labour market reform and employment:

The Austrian experience

Austria's labour market experience has been different from that of other EU countries often mentioned as positive examples. While the Netherlands, Ireland and Denmark reduced

their unemployment rather successfully, Austria was successful by never letting joblessness rise too high.

Today the rate of unemployment is half that of the EU-wide rate, and though there has been some manipulation with labour supply, as in the rate of employment also points to a comparatively good employment situation. The employment rate is nearly 10 percentage points above the EU average. The figures for youth unemployment and long-term unemployment are also well below the EU-wide numbers.

This does not imply that there is no cause for concern. First, the rate of unemployment is higher than it was during the last thirty years. A rate slightly below 5% (EU definition) is considered a high rate. Secondly, the employment rates for people above 55 are well below those of the EU, a fact which contributes to the problems of the pension systems. Thirdly, the probabilitity of re-employment is low for certain categories of unemployed persons. Fourthly, long-term unemployment, though still comparatively small, is slowly growing and is contributing to problems of poverty, as the social support system is not well-developed in Austria. Altogether it is fair to say that the employment situation in Austria is good, it can be improved.

We can therefore ask why the situation is so good in Austria; one could also ask what can policy contribute to improving the situation. There is a consensus in Austria that employment can be and should be an economic and social policy concern. There is a further political consensus, namely not interfering with the workings of the market system is not the right approach to improve the situation.

The full story of Austria's labour market experience has not been written yet, and though I am not in the situation to provide one, I would like to point to some of the contributing economic policy causes and to some problems. One should bear in mind that Austria is geographically situated between two regions with very good economic records, namely northern Italy and southern Germany, and that for the last ten years the breaking up of the former closed borders in the East have also contributed to the good employment situation.

I want to comment on four aspects of Austrian employment policy:

- macroeconomic policy
- labour market flexibility
- nonwage labour costs
- active labour market policy

Macroeconomic policies to sustain aggregate demand were very popular in the 1970s, but have been less important for the last 15 years. Fiscal policy was more often restrictive than expansionary, at least if one takes the primary deficit as a criterion. Years with high public sector deficits were not always years with low growth rates of GDP. There were three years in which above-average GDP growth rates went hand in hand with above-average public sector deficits (1983, 1987 and 1994). In four years (1984, 1985, 1992 and 1996) below-average growth rates accompanied below-average public sector deficits.

Monetary policy successfully linked the schilling to the Deutsche mark, and was therefore tied to that of the Deutsche Bundesbank. There was an Austrian speciality which I think was important for a positive labour market development.

Whereas some players in some European countries considered monetary policy a means to discipline labour markets participants, in particular the unions, in Austria the

unions were always considered partners by the monetary policy-makers. There-fore the unions accepted the policy of a fixed exchange rate, and they never aspired to make use of a possible trade-off between inflation and unemployment. Rising prices were seen as a threat to international competitiveness, and not as a sign of rising incomes and rising demand.

Therefore real wages always reacted strongly to changes in unemployment. One of the consequences was that unlike some other European countries, Austria never used monetary policy to dampen inflationary expectations. This becomes particularly obvious when rates of unemployment are linked over time by hysteresis. Thus Austria never had to accept a high rate of unemployment in order to achieve price stability.

Turning to *labour market flexibility*, labour markets in Austria are flexible if one takes gross job turnover and labour turnover as indicators of labour market flexibility. Taking account of new jobs in firms with increasing employment or new firms and job closures in firms with declining employment, the gross job turnover is about 13% per year. That is not very different from the rate in the U.S. However, in the U.S. wage differences are much higher than in Austria, and they have grown over the years. In Austria the wage structure has remained relatively stable. In the U.S. mobility between jobs often goes together with a declining wage, particularly if mobility is caused by job losses. In Austria this is not the case.

It is not clear what the causes for this stability are. The unions claim that this is due to what they call a joint wage policy. As an economist, I am not satisfied with that explanation, as it suggests that wages can be set by agreement without having external effects. However, it is true in Austria that though bargaining usually takes place at a highly centralised level, unions not only bargain for minimum wages, but have some control over the rate of change of wages above the minimum level. One has to look at the effects of uniform wages (or wage changes).

Uniform wages can contribute to labour market flexibility, as firms have to discharge labour in case of a negative asymmetric shock precisely because they cannot lower wages. While job security provisions reduce labour market flexibility, uniform wages increase flexibility. The higher job security provision in Austria compared to those in the U.S. therefore do not necessarily imply less mobility.

This type of labour market regime, one we can find in most countries in Europe and one characterized by employment protection and centralised wage bargaining, has implications for labour supply as well. Switching jobs even if a spell of unemployment lies between two jobs does not cause wages to decrease. The Austrian unemployment benefit system contributes to this result. As long as a person is entitled to his or her unemployment benefit, the benefit cannot be withdrawn for refusing to take a job with lower qualification than in the previous job.

In Austria as in most other countries *non-wage labour costs* are not only high, but they are rising. Though it is often seen a problem for international competitiveness, I consider it of minor importance, as statutory non-wage labour costs are only one factor. Countries with low statutory non-wage labour costs often have voluntary costs, which make up for most of the difference, as for example health insurance costs in the U.S, or private pension con-

tributions in the UK. But one cannot deny that there is a problem. Social expenditure is usually geared to wage-related contributions and therefore are part of wage costs. The gap between take-home pay and labour costs is high in Austria and contributes to labour market problems.

Austria has a long tradition dealing with the problems of non-wage labour costs. The recently expressed rejection of the lowering of the value added tax for certain labour-intensive services can be seen in this context. The proposal was rejected because the ensuing shortfall of tax receipts could perhaps have increased wage-related taxes and contributions.

Otherwise the awareness of the problem of high non-wage labour costs had few consequence. Quite the contrary, a business tax related to a value-added base, the Gewerbesteuer, was changed into a tax calculated on the base of labour income only. As this tax is very important for financing local expenditure, it will be very difficult to change it again. Family benefits are financed by a payroll tax of 4.5%. The fund for family-related benefits will accumulate a surplus, as the number of children will decrease in the next few years. This surplus could be used to lower the tax by $^1/_2$ percentage point or even 1 percentage point. However, this option is not being taken seriously, as currently all major political groups are proposing different ways to increase the expenditure related to families. Obviously spending for families is still very popular. The generally accepted idea for higher taxes on the use of natural resources to supplant wage-related taxes awaits a similar fate.

Active labour market policy used to be of minor importance in Austria. This is due to the fact that unemployment has always been low in Austria. Keeping employment high and preserving already existing jobs were given more weight. But it has become clear that it is no longer appropriate to neglect labour market policy. Not only is the number of unemployed persons too high for a policy of benign neglect, the idea that unprofitable jobs can easily be changed into productive ones within existing firms has lost ground.

Thus Austria is undergoing a paradigm shift in the area of active labour market policy. More money is being provided for active labour market policy and labour market-related programmes than ever before. There is no overall philosophy behind the programmes. They include training for the unemployed, subsidies to firms which give jobs to the long-term unemployed, support for short-term withdrawals from the labour market when related to training, subsidies to partial retirement when another person is given a job, special programmes for young persons who do not find an open position for an apprenticeship, paying for child care for persons taking a job, the introduction of experience-rated contributions to the pension systems in case of dismissal of older workers and the like.

It is too early to judge the success of Austria's new policy. However, the eclectic mixture of current active labour market programmes will never allow for a definite judgement. Austria will not set an example in the field of active labour market policy. This may be disadvantageous when it comes to discussing the merits of different policies academically. However, if the new policies work, and the mix has the desired effect, it will no longer matter what the causes for success were.

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Wage-setting behaviour in a Monetary Union – A role for the European social partnership?

The adoption of a single currency appears at first sight to have fundamental effects on the economic environment within which labour market decisions are made. No longer can governments attempt to counteract the unemployment consequences of excessive wage claims through accommodating monetary policy, because monetary policy is now outside the hands of national governments. Wage setters will now have to face the discipline of monetary policy set solely in accordance with inflation objectives, and without the capacity to respond to the needs of the labour market situation in individual countries.

But many would argue that such changes are more apparent than real. Several Member States of Economic and Monetary Union (EMU) have operated with fixed exchange rates for many years, as a result of national policy decisions to link to the Deutsche mark, or as part of various European attempts to achieve fixed rate systems in Europe, such as most recently the Exchange Rate Mechanism of the European Monetary System. And those countries which have not, have, in most cases, after the disastrous experiences of the 1970s, eschewed accommodating monetary policies in favour of domestic inflation targets. More fundamentally, it has generally been assumed that the scope for nominal variables, such as the exchange rate, to affect real outcomes, such as unemployment, is (at least in principle) limited to relatively small and short-term effects. Can we then assume that wage setters will simply adjust nominal wage claims to take account of the new monetary environment, while problems over the level of real wages, pay relativities and the like will be completely unaffected?

The single currency evidently prevents the use of exchange rate changes for dealing with two rather different types of economic imbalance. First, the experience of the European countries over the last 30 years or so suggests that, for whatever reasons, some have been more inflation prone than others. The first section of the paper discusses why this might have been and what the implications for the harmonisation of inflation rates required by the single currency are. Its conclusion is that the harmonisation of inflation rates will be a strain for some countries and may well be associated with relatively high unemployment for a period of years in the previously more inflation-prone countries.

The second section briefly addresses the familiar question of how a single currency system can cope with asymmetric shocks, that is changes in world trade or competitive conditions affecting different Member States differently. This question has been at the centre of academic discussion since the early work on optimal currency areas (Mundell, 1961), but typically on the assumption of some unexplained, and hence perhaps implausible, source of nominal wage rigidity. Unhappily, the attainment of low inflation throughout Europe has resuscitated the most basic of Keynesian problems, the resistance to cutting money wages even in the face of very high rates of unemployment. The single currency countries appear to be entering a monetary union with no mechanism for counteracting asymmetric shocks.

The third section looks at how wage guidelines might be set to facilitate differential growth and adjustment to shocks. The basic message is that guidelines need to be based on country-specific rather than European values of variables such as prices or productivity. Hence

the need is to avoid cross-country emulation in terms of wage increases. The final section is concerned with the impact of the single currency on the effectiveness of structural policies to reduce unemployment. The issue here is whether appropriate management of the demand side of the economy can ease either the economic or the political costs of structural reform, and whether then the single currency prevents the use of demand management policies for this purpose.

1 Can wage inflation be harmonised?

Historically, the EMU Member States have experienced significantly different inflation rates over the past 30 years or so, both during the fixed exchange rate period up to 1973 and to an even greater extent since the breakdown of the Bretton Woods system. Of present EMU Member States, inflation rates since 1965 have ranged from nearly 13% in Portugal, over 9% in Spain and over 8% in Italy to only 3.3% in Germany and just over 4% in Austria, the Netherlands and Luxembourg. Over the same period exchange rates against the Deutsche mark have depreciated considerably, so that the effects of these differential inflation rates on competitiveness have been very largely offset by exchange rate changes.

This raises the question whether it will be easy for countries with such different recent histories of inflation to live within the straitjacket of a single European currency. It should be stressed that a single currency does not mean that inflation rates will necessarily be the same in all Member States. The relative prices of different goods and services will be changing all the time, so that aggregate measures of the inflation rates of either output or consumer prices will be different in different countries according to the composition of GDP (or of consumer spending). But such inflation rate differentials are imposed by the structure of the economy and provide no opportunity for flexibility in policy. What are the economic costs, and benefits, for countries which have traditionally had moderately high rates of inflation, such as Spain or Italy, in adjusting to a regime of low inflation or stable prices? It is often assumed, both by central bankers and by economists, that inflation has significant costs but brings no benefits and that it can be controlled by monetary policy. But then one has to ask why so many countries have resorted to monetary policies permitting inflation during the past 30 years. Are there real benefits from inflation, for example as a form of taxation? Is it the product of design weaknesses in the political process from which no-one benefits and which could be cured by changes in political organisation? Or is it simply the result of past mistakes now too costly to rectify?

1.1 The causes of European inflation

Why have different European countries experienced different inflation rates over the past 30 years? This rather important question does not appear to have been systematically investigated, but there seems to be a number of general lines of approach. The most basic focuses on the role of inflation as a form of taxation. Though models of this type are normally thought to apply more to Latin America, or to economies in transition, than to EMU Member States, some aspects of this approach are relevant and discussed below. But within Europe, inflation is more often seen to emanate from the

labour market. It arises from the macroeconomic consequences of structural problems within the labour market.

Inflation as a form of taxation

The yield of the inflation tax is the stock of outside money (notes and coins) in an economy multiplied by its inflation rate. In practice, inflation generates tax revenue also from government savings accounts where the rate of interest is held below the inflation rate, from taxes on bank profits and from various other interactions between inflation and the tax system (e.g. the taxation of nominal interest income). In general, the potential yield from inflation tax will be higher the less developed the economy is (the fewer substitutes for cash, or for government savings accounts there are), and inflation may be a particularly useful form of tax revenue in economies whose tax-raising capacity is otherwise weak. The efficiency costs of inflation, which are primarily created by the inefficiency in using money as a standard of deferred payment if its value varies substantially and unpredictably over time, are on the other hand greater in economies with highly developed financial systems.

Thus, in economies with relatively undeveloped financial systems, and with weak tax-raising capacity, the "excess burden" of inflation as a form of taxation (that is the efficiency cost as a proportion of the tax yield) may be lower than the excess burden of income or consumption taxes. Inflation may then raise economic welfare by allowing the government to finance a given volume of expenditure in a relatively non-distortionary manner. Though such arguments are commonplace in relation to the experiences of developing and transition economies, they are less often heard in relation to EMU Member States. But it may be noted that European countries with higher inflation rates tend to be those with less developed financial sectors, and with weaker tax-raising capacity. The ending of inflation could therefore lead to fiscal stress in the previously high-inflation countries, such as Spain or Italy, where cutbacks in government spending or higher rates of taxation may involve greater economic or social costs than continuing inflation.

Structural unemployment and time consistency

The successful implementation of Keynesian policies of maintaining full employment in most European countries in the post-war period revived a concern which had first been articulated by Hicks at the end of the 1930s: If there was always full employment, what would limit the wage claims of the workers? As the powers of the unions increased in the 1950s and 1960s, these worries came increasingly to the fore, and most European countries introduced various attempts at incomes policies or wage restraints to control wage claims. In most countries these were unsuccessful, and the inflationary consequences of wage pressure forced currency devaluations, e.g. in France (1958) and in the UK (1967). The capacity of currency devaluations to resolve the problem assumed a fairly heavy dose of money illusion – for a while it would allow more rapid nominal wage inflation in the devaluing countries because of the competitive advantage they had achieved, but obviously could not of itself raise real wages.

By the late 1960s, following Friedman's recasting of unemployment theory around the concept of the "natural rate of unemployment" or its equivalent, the vertical long-run Phillips curve, it was recognised

that wage pressures emanating from the labour market could be accommodated only at the expense of accelerating inflation, and, as this was not an option, there was no alternative but to allow unemployment to rise to whatever level was needed to control wage inflation. This approach is embodied for example in the "Layard-Nickell model" (Layard et al., 1991). Despite its roots in cost-push theories, and stress on the importance of wage bargaining and labour market institutions, the model was fundamentally "classical" in the sense that the sustainable rate of unemployment could not be affected by monetary policy, and there was no long-run trade-off between unemployment and the inflation rate.

Of course, in important respects, the model was not classical, in particular there was no presumption that markets were competitive or that they would clear. Instead it was argued that equilibrium unemployment was substantially affected by economic institutions and policies, for example the role of unions in raising wages at the expense of employment, the impact of unemployment benefits on the intensity of job search and the reservation wage, or the impact of minimum wages, employment protection measures and taxes on labour on the costs of employing workers (Layard et al., 1991). Generally speaking, these factors will increase the equilibrium, but not the socially optimal, rate of unemployment. Unemployment thus can constitute a major social and economic cost, and governments can be expected to search for policies to reduce equilibrium unemployment. Examples of such policies include co-ordination of wage setting and active labour market policies.

One of the main empirical findings reported, for example, was that co-ordinated wage bargaining tended to be associated with lower equilibrium rates of unemployment. The suggested reason was that co-ordinated wage bargaining, through involving the unions in responsibility for economic management, and in encouraging them to look to the economy-wide consequences of their actions instead of concerning themselves only with narrowly defined sectoral interests, could have a major impact in moderating wage pressure and hence in allowing a lower rate of unemployment.

Within this framework, inflation would increase if there were positive demand shocks causing unemployment to fall below its equilibrium rate, but such shocks were treated as exogenous, and no attempt was made to explain why some countries experienced higher inflation rates than others. This linkage was drawn out as one implication of the time consistency models of Kydland and Prescott (1977) and Barro and Gordon (1983). They showed that, where the equilibrium unemployment rate exceeds the socially optimal rate, the government may be able to raise social welfare in the short run through bursts of unanticipated monetary expansion which buy temporary output gains. If wage setters are rational, they will assume that the government will succumb to this temptation and hence demand higher wages to compensate for the inflation which will result. It is then in the government's best interests to validate these wage increases rather than suffer even higher unemployment. The outcome is higher inflation with no gains in output or employment in the long run, or even in the short run if expectations are formed rationally.

This temptation is likely to be greater the higher the equilibrium rate of unemployment is because the

higher the rate of unemployment, the greater the payoff from reducing it in the short term is. Across countries there is a fairly pronounced tendency for high unemployment countries (such as Spain or Italy) also to suffer higher inflation, and for countries with low unemployment rates (such as the U.S., Germany or Japan) to have lower inflation rates.

However, the linkage between unemployment and inflation is not close, not least because some countries have taken macroeconomic policy decisions, most obviously on exchange rate policy, as in Austria or the Netherlands, which prevent them from indulging in monetary expansions whatever the possible social benefits. France has likewise been committed to a fixed exchange rate since 1983. Elsewhere, as in Germany, monetary policy has been outside the control of government because of the institution of an effectively independent central bank.

These considerations suggest that a "first best" policy would be to reform the institutions creating high equilibrium unemployment, which would not only be directly beneficial but remove the temptation to indulge in inflationary monetary policy. Arguably, low inflation in the United States is as much the consequence of its flexible labour market and low equilibrium unemployment rate as of the conduct of monetary policy by an independent central bank. If, however, monetary policy has to be conducted in an economy with a high equilibrium unemployment rate, the second best policy is to prevent the inflationary consequences of high unemployment through tying down monetary policy, for example through the institution of an independent central bank. And, according to the model, once established, the new regime will not be associated with any permanent increase in unemployment.

However, theory has less to say about the problems of adjustment to a regime of price stability. The Barro-Gordon model is cast in terms of rational expectations, and on this assumption the implication of the model is that the abandonment of national currencies, and their replacement by a single currency would, if that currency were managed with the single objective of maintaining price stability, have the effect of reducing inflation with no adverse effects on unemployment. Provided only that the ECB is seen to be as independent in practice as it was intended to be in principle, and as single-minded about its inflation target, there will be an immediate adjustment of expected inflation, and wage settlements will fall to validate the lower inflation rate with no increase in unemployment. However, there is no need to assume rational expectations, and in many areas of economics the evidence tends to favour adaptive, or learning, explanations of expectation formation rather than forecasting approaches. If expectations are adaptive, it will not be enough simply to announce the policies of the ECB, but instead expectations will only be affected by evidence that the new regime has delivered price stability.

1.2 A change in regime

Whatever the causes of inflation, the single currency clearly constitutes a change in regime for the Member States. Its closest parallels in this regard may be the Thatcher reforms in the UK in 1979, the adoption of the franc fort policy in France in 1983, the accession of the UK to the ERM in 1990, or the switch of policy in Sweden in the same year (see e.g. Weber, 1991). It seems fair

to conclude from these various experiments that substantial gains in terms of reducing inflation were quickly achieved, but at the expense of persistent high unemployment.

Rather similar conclusions have emerged from studies of central bank independence. It is true that countries with independent central banks tend to have lower inflation rates (see e.g. Alesina, 1988; Grilli et al., 1991; Cukierman et al., 1992), but there is no evidence that the costs of reducing inflation in terms of unemployment are any lower. On the contrary, empirical studies of the impact of central bank independence on the output costs of reducing inflation tend to show a perverse effect (Posen, 1998, or Bleaney, 1996). For example, Posen finds that the sacrifice ratio, the cost in terms of unemployment of a given decline in the inflation rate, is higher in countries where the central bank is independent. However, this evidence relates to all episodes of falling inflation and may in part reflect the possibility that inflation rates already tend to be lower in countries with independent central banks, making it more difficult for inflation to fall further in response to an adverse demand shock.

These experiences suggest two conclusions. First, that deflationary demand policies usually work quickly and effectively to reduce the rate of inflation. Second, and for whatever reasons, the forward-looking approach to inflation expectations built into Barro-Gordon style models of the positive theory of inflation does not accord with the evidence. Whether this is because people are not initially convinced that the new institutions will deliver what is promised of them, or whether there are deep inertial forces which take time to work through, is unclear. But evidence from earlier instances of changes in regime suggests that where countries have experienced high unemployment during the process of adjustment to the single currency, such unemployment is likely to persist rather than melt away in the new regime.

2 The problem of asymmetric shocks

The most intensively analysed problem of currency unions concerns the mechanisms for dealing with asymmetric shocks. This depends in the first instance on the nature of the shock. There has been much discussion of the problem of harmonising the business cycle across EMU Member States. If one country is booming while others are depressed, monetary policy will not be able to offset these differential demand conditions due to the "one size fits all" feature of the single currency. But over the longer term, if not during the accession, it seems plausible to think that the single currency will itself promote macroeconomic harmonisation, in part because it will reduce the incidence of policy shocks created by national governments and in part through greater economic harmonisation of Member States' economies.

For the longer term, structural shocks are a matter for greater concern. Suppose, for example, an industry located largely in one European country experiences a permanent decline in demand (e.g. due to intensified global competition). How is the economy to adjust to restore full employment? There are two possible types of mechanism: changes in relative prices, or factor, particularly labour, mobility. A change in relative prices means a reduction in unit costs in the country which improves its competitiveness and hence allows an expansion of

other sectors to absorb the displaced labour and thus restore full employment. This can be achieved by a general reduction in money wage rates in the country concerned relative to its competitors, or, for a country with an independent currency, by a depreciation of the exchange rate. Labour mobility means a reduction in the labour force in line with the fall in labour demand, which in the present context means international migration of labour.

The single currency obviously means that exchange rate depreciations are impossible and hence that adjustments must involve either changes in relative wages or labour mobility. Within existing single currency areas, i.e. nation states, it turns out that labour mobility is by far the most important adjustment mechanism. The evidence has been recently summarised by Obstfeld and Peri (1998). In the United States, labour is highly mobile, and as a result, the consequences of asymmetric shocks are quickly counteracted by movements of labour (Blanchard and Katz, 1992). The adjustment process involves no changes in relative wages or prices, because labour mobility is sufficiently rapid, so that the whole economy is effectively a single labour market. The federal budget does provide substantial flows of resources to regions suffering adverse shocks, but as the unemployment effects of shocks are quickly counteracted by migration and real income effects are minimal, fiscal transfers tend to be small and short-lived.

Within European countries, labour is much less mobile, with an order of magnitude estimate of around one third the rates found in America (OECD, 1990; De Grauwe and Vanhaverbeke, 1993; Eichengreen, 1993). Despite the lower labour mobility, wages and prices tend to be fairly uniform across regions, perhaps due to national norms in wage bargaining (Obstfeld and Peri, 1998), and the main mechanism of adjustment in the medium term remains labour migration (Decressin and Fatas, 1995; Jackman and Savouri, 1998). A combination of persistent structural trends in labour demand and slow migration have led to continuing imbalances, and national budgets have thus tended to have a substantial and long-lasting effect in (partially) ameliorating regional imbalances.

Across European countries, however, labour is in present conditions practically immobile. The proportion of European workers currently working in a European country other than their country of birth is around 3 to 5%. Fiscal transfers across European countries are quite small and largely insensitive to fluctuations in demand. Thus, the only mechanism of adjustment is through relative prices. In the past, this could have been achieved either through differential rates of nominal wage growth or through exchange rate adjustments. With a single currency, however, the only mechanism of adjustment to asymmetric shocks is through wage setting.

This raises the question whether changes in nominal exchange rates were in fact ever effective in altering relative prices. There have been many occasions when exchange rate devaluations seem to have been quickly eroded by domestic inflation and the competitive advantage soon lost. Much econometric work has also suggested that there seems to be relatively little nominal inertia, or money illusion, in European countries, from which it follows that nominal exchange rate adjustments had only short-lived and transitory real effects. Studies find that wages respond quite quickly to price

increases and prices respond quickly to wages. A nominal devaluation might then be expected to feed into higher prices and thus spark off a spiral of wage and price increases until the original competitive advantage is lost. But it should be noted that much of this evidence is based on periods when the inflation rate in many European countries was high and variable. When inflation is fluctuating, expectations about inflation are volatile, and large percentage point changes in the inflation rate can be achieved by demand policies, often without much effect on output or employment. By contrast, when inflation is low and has been stable for a period, demand policies tend to have a much bigger effect on output.

The most striking evidence in support of the idea that exchange rate changes can assist the adjustment of relative prices comes from the falling apart of the ERM in September 1992. As Gordon (1996) has shown, the five countries which left the ERM experienced nominal exchange rate depreciations averaging around 30% relative to those which stayed in, yet there was no rapid adjustment of domestic price levels to restore the former real alignments, and by and large, and especially in the case of the UK, the countries that left the ERM experienced faster growth and lower unemployment than those that stayed in.

Why should the experience of 1992 have been so different from that reported in earlier studies? The immediate cause appears to have been the very high unemployment rates, and hence the extent of excess capacity in European labour markets in 1992 (Pissarides, 1997). This allowed demand to grow in the devaluing countries without reigniting inflation. But what is remarkable is the fact that in these countries under the constraint of a fixed exchange rate neither the workings of the market nor other government policies were able to engineer an increase in demand. Despite high unemployment, wages and prices were not falling to anything like the extent required to achieve the competitive advantage that was so quickly obtained by a currency devaluation. Thus, in examining this episode, Jackman (1996) found that inflation was particularly insensitive to unemployment, when unemployment rates were high and when inflation rates were low, i.e. exactly the conditions that exist in much of Europe today. To put the point another way, if inflation rates are very low, the only way to revive a depressed market is through absolute cuts in money wages, which the evidence suggests are resisted. (For a recent review of theoretical arguments concerning resistance to money wage cuts, see Bewley, 1998). In such circumstances, it is difficult to avoid the conclusion that nominal exchange rate flexibility may assist the adjustment of relative prices.

3 Guidelines for wage setters

All this confirms what has been generally recognised for a long time, namely that within a single currency area more of the burden of adjustment to shocks needs to be borne by wages. And there can be two approaches. The first is to provide criteria for wage setters to guide them towards settlements which will achieve the necessary adjustments in relative wage levels. The second is to make wages themselves more responsive to market signals, so that there is a greater automatic reaction to imbalances.

Starting with the corporatist approach, the immediate question is

how exactly wage guidelines can be set which would maintain full employment in all the Member States. The average rate of increase of nominal wages across the euro area would, of course, need to be equal to the sum of the average rate of price inflation and the average growth rate of labour productivity. On the first, the ECB operates with an inflation ceiling rather than an inflation target, but given that the ceiling is so low (2%), wage setters can proceed with a fairly precise idea of the prospective rate of price inflation. At present, one might assume inflation at 1.0 to 1.5%. The average productivity growth rate in the EU has been somewhat over 2%, but this has been achieved at the expense of low and declining employment rates, so that it may overstate the growth of labour productivity at full employment. All this suggests that the average rate of wage increase in the euro area in present circumstances should be around 2.5%.

The more sensitive question is whether and on what basis different rates of wage increase should be set for different countries. For example, as noted in the previous section, one might assume for the medium term that labour markets within the euro area countries were segmented by nation state, in the sense that migration rates were high within countries but low between them. Then it would be appropriate to have common wage levels for workers of given skills across sectors within a country, but it would generally be sensible to have different wage levels (measured in terms of the common currency) between countries. The immediate concern might be that different countries in the euro area have significantly different capital/labour ratios, and consequently very different wage levels. Given the free movement of capital, one would then expect to see flows of capital into the low-capital, low-wage countries, which would then enjoy faster rates of growth of per capita output and of labour productivity during the convergence process. In this model, wages in each country should increase at the country-specific rate of growth of labour productivity, not at the European average. This will also lead to a convergence of wage levels across countries.

The simplest type of a two-sector model would have a second sector of non-traded goods, or labour services, where labour productivity did not benefit from capital accumulation. In such a model, with labour mobile between the two sectors within each country, wages would grow at a faster rate in both sectors in the countries experiencing the more rapid rate of productivity growth, and the relative price of the non-traded good would rise. Hence price inflation would be higher in the countries with more rapid productivity growth. In this model, wages in each country should increase by the sum of the average productivity growth rate and the country-specific inflation rate. For example, if productivity in the traded goods sector were to rise at a rate 5% faster in one country than in the rest of the euro area, then wages in that country would also need to rise 5% faster than elsewhere, and the price of the non-traded good would then rise by 5% also. If the traded goods sector made up, say, 60% of GDP, then average labour productivity would increase by 3% (0.6x5%+0.4x0%), while the average price would rise by 2% (0.6x0%+0.4x5%). The sum of average economy-wide productivity growth and average economy-wide inflation is equal to productivity growth in the traded goods sector, which determines by how much wages can rise.

It is to be noted that in these models neither productivity growth nor the inflation rate is the same across countries, but allowing wages to reflect these differences is not inefficient or inequitable but rather a means of reducing the big differences in levels of real wages that currently prevail across EMU Member States. The risk is that, on the one hand, considerations of comparability may generate a faster rate of wage convergence than justified by productivity, creating unemployment in the former low-wage countries, or on the other that wage emulation, that is the argument that workers in different EU countries should receive the same rate of wage increase, would prevent the warranted convergence of wage levels.

This general rule of guidelines related to country-specific prices and productivity also applies to a first approximation in the case of asymmetric demand shocks. Assume now there are two traded goods sectors in each country, but countries differ in industrial composition, so that one country specialises, say, in good A and another in good B. If there is now a once-and-for-all change in the relative price of the two goods, wages would need to increase by different amounts on average in the different countries, reflecting their different industrial structure. If labour were immobile across sectors as well as across countries, wages in each sector would need to adjust in equal proportion to the price change in that sector. Then wages in each country would on average change in the same proportion as prices (measured by the GDP deflator) in that country. If labour is mobile across sectors, then a common rate of wage increase equal to the average that would occur were labour immobile will be consistent with maintaining a given level of employment, provided the sectors have roughly the same demand elasticity. (There is no reason why they should, but equally no particular reason for expecting them to be different.)

These considerations suggest that there are no insuperable new difficulties for centralised wage setting resulting from the single currency. Paradoxically, the adoption of the single currency makes it more necessary for wage setting in each country to reflect conditions within that country rather than European conditions. Arguably, dealing with economy-wide problems has been the main success of centralised bargaining and if, under the single currency, wage setting has a larger role to play in dealing with such shocks, the benefits of national centralised bargaining may be particularly valuable in this context. Unfortunately, other problems remain. Unemployment in many European countries is structural in the sense that it is much more severe in particular regions, occupations, age groups, etc., and centralised wage setting does not seem as capable of counterbalancing these sectoral imbalances as it does in setting a general level of wages appropriate to the prevailing macroeconomic conditions.

4 Can market forces solve the problem?

There is a widespread, but not always clearly reasoned, view that participation in EMU must strengthen incentives for labour market reform. The argument is essentially that deprived of the opportunity to attempt to tackle unemployment by macroeconomic measures, there is no alternative but to undertake structural reform. The oddity in this view, as e.g. Calmfors (1998) has noted, is that by and large economists (and central bankers) do not

believe that demand measures could in any case reduce unemployment for any sustainable period, and hence the loss of macroeconomic policy would appear to be strictly irrelevant to the case for undertaking structural reform.

EMU
and the costs of structural reform

While macroeconomic policy may not be an alternative to structural reform, this is not to say that structural reform might not be affected by the macroeconomic policy regime. First, the costs of structural reform may be aggravated in the short run, unless the stance of macroeconomic policy is supportive. Let us imagine some measure which can achieve a permanent reduction in equilibrium unemployment, but at the expense of some continuing (but smaller) social costs (e.g. more restrictive administration of unemployment benefits). The political problem is that, while the social costs will appear immediately when the policy is introduced, the economic (and social) benefits of lower unemployment follow from a fall in the actual, not just the equilibrium, unemployment rate. Structural reforms improving the supply side of the economy need to be accompanied by demand side measures to provide jobs for the additional people now looking for work.

The attainment of a higher level of demand can, of course, be achieved via monetary expansion in an economy with its own currency and with a central bank with an inflation target. For example, the Bank of England has on several occasions made clear that it was prepared to maintain relatively expansionary monetary policy despite unusually low unemployment in the UK because of its belief that structural reforms in the labour market had reduced the equilibrium rate. Evidently, the freedom to set lower interest rates in an economy in the expectation that wage inflation would remain subdued because of structural reforms is only possible with a floating exchange rate, and hence would not be feasible in a monetary union.

Clearly the single currency rules out different interest rates in different Member States, so that under EMU we must consider first the scope for co-ordinated structural reform and the implications for monetary policy within the euro area, and second the possibilities for countries undertaking reforms to find some non-monetary means of expanding demand. On the first, the different institutional arrangements in the different countries, the political and practical difficulties of achieving structural reforms, and the differences in the degrees of political enthusiasm (indeed, outright political opposition in some countries) towards structural reforms all would seem to rule out co-ordinated policies in this area. The ECB can, of course, monitor labour market developments and be ready to adopt a more expansionary policy stance if structural conditions permit, but it will as always have to take account of conditions in the euro area as a whole and cannot respond to developments in individual countries.

Thus, an individual country undertaking structural reforms will have to rely largely on national policies to generate the additional jobs required. These could take the form either of policies designed to improve competitiveness through reductions in unit labour costs, either through reductions in nominal wages or by increasing productivity, or of non-monetary measures to boost demand. Enhanced competition within the single market will

increase the capacity of a firm to expand sales if it can reduce costs. Thus, for example, by holding down the (nominal) value of the minimum unemployment benefit, or the minimum wage, a country may be able to pull down the overall level of its wage costs and hence improve its competitiveness within the euro area. Similarly, measures reducing union power may allow employers to introduce changes in work practices which raise productivity and hence lower unit labour costs. Relaxations in employment protection legislation may allow employers to remove unsuitable or unproductive employees more easily and replace them by more productive workers. Cuts in some taxes may lower costs, particularly in the short run. It has been argued that some of the smaller European countries (e.g. the Netherlands or Ireland) have succeeded in reducing unemployment through such an approach.

Second, structural reforms can be accompanied by fiscal rather than monetary measures. However, unless the intention is to sustain demand by a permanent fiscal deficit, fiscal expansion may simply delay the necessary adjustments in costs and prices. The equilibrating adjustment to a supply side expansion must include an improvement in competitiveness, achieved either through a reduction in the nominal exchange rate or a fall in relative unit labour costs. Even without the discipline of the Stability Pact, it would generally be inappropriate for countries to incur permanent fiscal deficits to accompany supply side reforms.

EMU and the benefits of structural reform

If structural labour market reforms can reduce equilibrium unemployment, is there any reason why the benefits of such policies might depend on the monetary policy regime? The arguments here seem more speculative. One is that – under EMU – countries might expect to experience more instability in their unemployment rates, because monetary policy can no longer be used to stabilise demand within each economy. If the costs of unemployment increase sharply with the unemployment rate, as implied in the Barro-Gordon type of model of inflationary bias, the costs of this instability will be particularly high for countries which already have high structural unemployment rates. Such countries will have a stronger incentive to introduce structural reforms as the only means now available to them of reducing the risk of periods of very high unemployment (Calmfors et al., 1997).

Some evidence

It may be objected that countries which had floating exchange rates when they introduced structural reforms typically accompanied them by restrictive rather than expansionary monetary policy, as was the case in the UK under Mrs Thatcher. While some have argued that this is simply evidence of macroeconomic policy mistakes (e.g. Minford, 1994, was perhaps the first to argue that monetary policy in the UK was excessively deflationary in the 1980s and early 1990s), there are also reasons to think one might expect restrictive aggregate policies at a time of supply side reform.

One line of argument (Jackman, 1998) is that the consequence of interventionary policies is to build up a distorted structure of employment, e.g. by protecting industrial sectors which are not commercially viable, so that structural reform entails a reallocation of labour across sectors. This reallocation is likely to

be accompanied by higher structural unemployment, if only because job destruction in the sectors no longer propped up by intervention policies can proceed more rapidly than job creation in new sectors. It is unlikely that such unemployment can be tackled by monetary policy, given that the constraint is on the speed of job creation on the supply side. Thus restructuring may generally be associated with reduced overall activity and hence will need to be accompanied by measures restraining demand. However, there seems to be no reason to make matters worse by creating additional unemployment through excessive disinflation during these episodes.

A different view of why governments may have introduced restrictive demand policies alongside structural reforms is that the former has benefits, namely a substantial and sustained reduction in the inflation rate, which are quickly and conspicuously achieved, while its costs, in the form of a legacy of persistent high unemployment, last for many years afterwards. By contrast, the costs of structural reforms are immediate, while the benefits are slower to emerge. Hence introducing the two policies together allows the government to point to some immediate gains, which can give some credibility to its claims that other reforms may produce benefits also. If this is the case, however, the pre-attainment of price stability as a condition of entry to the single currency deprives governments of the opportunity to use this particular stratagem as a means of making more palatable the introduction of structural reforms. This implies that the political economy of introducing structural reforms is now much more hazardous.

5 Conclusions

The single currency is (obviously) not the cause of high unemployment in Europe, nor does it prevent the adoption of structural policies necessary to achieve a permanent and sustainable reduction in unemployment rates. Nonetheless, in the short run it has likely raised unemployment by increasing the pressure on countries to lower their inflation rates, and in the medium term it is likely to increase structural imbalances by throwing more of the adjustment process onto changes in nominal wages. Structural policies to reduce unemployment should in principle be accompanied by demand-side policies to increase the number of jobs, but the most effective policy of this type, a reduction in relative wages, may be less easy to achieve in conditions of low inflation and downward rigidity of nominal wage rates. EMU is not the problem, but its existence will tend to impede, rather than assist, the structural changes necessary to address the problem of high unemployment in Europe.

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*) The views expressed in this comment do not necessarily reflect the opinions of the Commission.

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Comment on:

Wage-setting in a Monetary Union –

A role for the European social partnership?

The paper by Richard Jackman provides a fairly comprehensive analysis of the problems confronting wage-setting behaviour in the context of the single currency. It also offers an assessment of policy options to improve the employment record in a sustainable way. The paper is perhaps a bit short on the question in the subtitle, i.e. the role of the European social partners, which may reflect the fact that Richard is from a country where nowadays a social partner is quite often only understood to be a person you go dancing with.

I will organise my comments around two major topics addressed in the paper. First, the problem of wage-setting mechanisms in EMU in general, and more specifically, the question of co-ordination and the role of wage guidelines. Second, EMU and its relevance – or irrelevance – for structural reforms improving the supply side of the euro area economies.

Let me take up the second point at the beginning, since it has dominated our discussions this morning. Clearly, euro area labour markets overall have performed very poorly over the past 25 years. The precipitous deterioration in labour market conditions is manifest not only in a strong trend increase in the unemployment rate to an area-wide level still in the double-digit range; but also net job creation in the private sector has been virtually nonexistent, and the employment rate has further declined to below 60% from an already relatively low level. Obviously, the general picture masks important differences between individual countries in the euro area as suggested by the considerable dispersion of country level unemployment and employment rates. However, from a bird's eye perspective there can be little doubt that EMU has entered its third stage in a situation, where labour market mechanisms still need to be improved significantly in order to expand employment opportunities and to reduce structural unemployment. Thus, given the seriousness of the labour market problems, attaining an appropriate degree of labour market flexibility is desirable and necessary irrespective of EMU.

The question then is whether EMU in itself can be expected to change the behaviour of economic agents and economic policies in a way conducive to better functioning markets, in particular for labour. Jackman's paper carries a dose of pessimism in that respect concluding that "EMU is not the problem, but its existence will tend to impede, rather than assist, the structural changes necessary to address the problem of high unemployment in Europe". Now I would like to argue that the picture is perhaps less bleak than suggested by our main speaker.

Basically, Jackman has put forward the view that the incentives to undertaking structural reforms at a national level will tend to be diminished in EMU. A single country, even if it is "big", cannot expect a rewarding monetary response to structural improvements; thus, the demand expansion, which is necessary at the end of the day to generate additional jobs, could reasonably only be expected by way of improved competitiveness via lower unit labour costs, but this is difficult to achieve in conditions of low inflation and downward rigidity of nominal wages. As a result, countries might adopt a "wait-and-see strategy to let the others go first".

While there is certainly an element of truth in this line of argument, it probably underestimates the pressures for and the gains to be reaped from comprehensive structural reforms, even when carried out at an individual country level and without the helpful effects of supporting expansionary demand policies. Reforms, such as a reduction in the tax burden on labour, in particular for low-skilled, low-paid workers, or a removal of barriers for job creation in the services sector, just to name two areas, can be beneficial in themselves without relying on accompanying additional demand stimulus. Another example would be more flexible work arrangements in some countries, both with respect to the gestation of contract types and

flexible working time arrangements. In this case an additional effect may apparently come from improved competitiveness, but on a European level this clearly raises a co-ordination question.

Jackman is apparently quite sceptical about the scope for and the likelihood of success of co-ordinated structural reform in the euro area. I tend to agree that one probably has to pitch the optimism of our will against the pessimism of the intellect in that context (Antonio Gramsci), but, nonetheless, it should be recognised that at least the institutional preconditions and mechanisms appear to be in place at the European level. Mr. Larsson has already forcefully put forward the case for the co-ordinated employment strategy this morning, so let me just recall once more that the commitment to structural reform in the framework of the so-called Cardiff process and the Luxembourg process was again reconfirmed at the Cologne summit last week. Furthermore, and perhaps more important on the move from declarations to actions, a new round of National Action Plans is currently under way, hopefully associated with a renewed reform stimulus.

Let me now briefly turn to wage-setting mechanisms. Indeed, in the analysis of the impact of EMU on labour markets and unemployment, bargaining structures and the flexibility of wages as an adjustment mechanism to country-specific shocks have received most attention.

With respect to bargaining mechanisms, the crucial question can be phrased in economic jargon in the following way: How does the reaction function of the ECB in the new monetary regime and their perceived threat point affect the wage bargaining curve and, thus, the natural rate of unemployment? A common answer to that question is that there should be little change for the countries in the Deutsche-mark-bloc periphery, such as Austria and the Netherlands; there should be some stability gains in the more inflation prone countries as trade unions internalise that the exchange rate option is no longer available, whereas for Germany, there is some risk of a worse outcome under the new regime. In terms of the Calmfors-Drifill hypothesis, Germany's trade unions are big enough to have some monopoly power, but not centralised and encompassing enough to fully internalise the impact of their demands on the whole economy. Given that German unions now face a different threat point – with the reaction of the ECB to German wage agreements probably less tough than the response from the Bundesbank – performance may well deteriorate in the sense of an unfavourable shift of the wage-bargaining curve in Germany.

It is probably too early to evaluate whether recent wage developments in the euro area fit into the straitjacket of this line of argument. The empirical observations from the past two or three quarters, however, at least do not seem to contradict the theoretical predictions, with wage moderation having come to a halt in Germany, while wage growth in the rest of the euro area has remained fairly moderate, in particular when the different cyclical conditions are taken into account.

Let me now touch briefly on the co-ordination question in that respect at the European level. The core and central instrument of economic policy co-ordination in the European Union is the set of Broad Economic Policy Guidelines (BEPGs). Clearly, given the overall

importance of wage developments for price stability and job creation, and given the negative externalities that may arise from inappropriate wagesetting, the Commission's recommendations have repeatedly called for wage developments to contribute to an employment-friendly policy mix by following a few general principles. These principles are indeed phrased in fairly general terms, such as consistency with price stability; and the need to leave room for differentiated wage developments according to productivity differentials across qualifications, sectors and regions in order to allow for catching-up effects, as has been nicely explained in Richard's paper.

Before I elaborate a little bit on the crucial real wage equal to productivity growth guideline, I would just like to argue that the scope for BEPGs regarding wage developments is necessarily limited in several respects. Obviously, they have to respect the autonomy of the social partners; then there is the delicate problem of representation at the European level, in particular for the employers' organisations; and, of course, all this reflects the quite different systems of wage bargaining in different countries at different levels.

By the way, it is not at all clear how to aggregate over these differences, which makes it actually quite difficult to arrive at general conclusions for the euro area as a whole. For example, non-linearities in individual country Phillips curves may imply that the euro-area-wide NAIRU is different from the employment-weighted average of the country-specific NAIRUs. Thus, the total may well be more or less than the sum of its components, which is perhaps a little hard to swallow, but preliminary work seems to indicate that effects of this sort could indeed be of relevance.

Now to the real wage growth equal to labour productivity growth guideline implying essentially constant real unit labour cost. Of course, we all know that things might be considerably more difficult. Take, for example, the case of CES-CRS-type production technology. Then, in equilibrium, when factors are paid for in line with their respective marginal products, there is a monotonous relationship between the wage share and the capital/output ratio. When labour and capital are substitutes, with an elasticity of substitution bigger than one, then a higher capital/output ratio implies, in equilibrium, a lower wage share and vice versa.

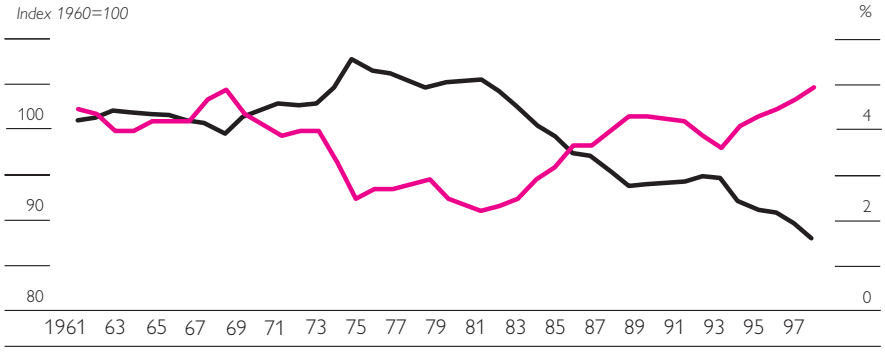
As trained economists, we can easily add further complications, e.g. by introducing non-neutral or skill-biased technical progress and different categories of workers. In the latter case, to give you another example, it can be shown that the equilibrium wage share depends, inter alia, on the wage premium that skilled labour enjoys over unskilled labour.

Anyway, observed productivity increases cannot necessarily be set equal to the viable room for real wage increases. Apparent productivity is endogenous and may reflect the shedding of labour and induced capital/labour substitution from relative factor price movements. Indeed, empirical evidence does suggest that this mechanism was in effect in Europe over the past 30 years. A rough estimate would be that of an average 2% annual growth in observed labour productivity about one quarter, that is one half of a percentage point, was due to induced capital/labour substitution, which is a wasteful process during periods of high unemployment.

With wage moderation almost all over the place in recent years, this

Graph 1

Real unit labour cost and net capital profitability rate of EU 11



process has been halted and partly started to be reversed. However, when we try to evaluate where we stand now, it has to be kept in mind that this process works very slowly; as the lags involved are very long, it takes time. Just to give you a figure, a recent BIS working paper estimates that the gap between the actual and the desired capital/labour ratio is closed by less than 10% per year in most economies.

Graph 1 shows the evolution of real unit labour cost and capital profitability over the past 35 years. The patterns are quite well known: broadly speaking excessive wage increases and a deterioration of profitability in the 1970s, a gradual correction over the 1980s and, in recent years, a restoration of profitability to rates comparable to those in the early 1970s.

Against this background, do we only need to be patient and wait until this translates into more jobs and a fall in unemployment? The sobering answer, I am afraid, is probably no. While I am confident that we should see some improvement from the restoration of profitability, we have also to bear in mind that, roughly speaking, we may be in a situation where real wages are in line with the marginal productivity of labour – but at current employment levels, with unemployment still in the double-digit range. Whether wages and, in particular, wage structures are compatible with the virtual marginal productivity of labour at full employment is a different question. With about one half of unemployment in Europe being of long-term nature, I suspect that there might still be a considerable gap out there.

However, the burden of closing the gap should not only have to be shouldered by wage adjustments, although some further wage moderation and wage cost differentiation may be inevitable. Other, complementary, options include policies to raise labour productivity at the margin by training and retraining, by preventive action to avoid human capital depreciation, and by various types of infrastructure investments. Additionally, a lower tax burden on labour, in particular, for low-skill, low-paid workers could go some way to improve the employment prospects for these groups of workers while preserving their net take-home pay. Here again, support from the social partners will be essential in calling for a strengthening of the social dialogue at all the appropriate levels.

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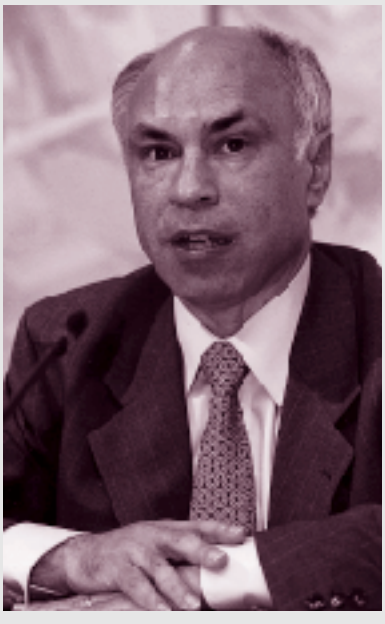

Hermann Remsperger

The role of monetary policy in the macro policy mix

Broadly defined topics have both advantages and drawbacks. On the one hand, they mean that the speaker has greater room for manoeuvre. On the other hand, he is then spoilt for choice between the different aspects of his topic. In order to minimise the complexity of my topic, I should like to focus on the policy mix in the euro area. In addition, the main thrust of my remarks is to be directed towards discussion of the role of monetary policy.

In the euro area, monetary policy is centralised, but the other fields of economic policy are not. They remain national responsibilities. Hence the topic "The policy mix in European Monetary Union (EMU)" has two fundamental dimensions. In the first dimension, attention is focused on one policy area in each of the EMU Member States. In the second dimension, attention is concentrated on the mutual relationships of the individual policy areas, i. e. on the "assignment of responsibilities". The two dimensions are frequently combined under the heading of "co-ordination". Then a distinction should, however, be drawn between co-ordination across countries for any given policy area and co-ordination across policies.

I have no wish to bore you with a flood of definitions. Even so, I think it makes sense to distinguish between explicit and implicit co-ordination.[1]) Any form of commitment by separate agents to undertake joint decisions should be called explicit co-ordination. If this co-ordination moves in the direction of a single policy decided by a single institution, co-ordination becomes relatively strong. But there are also less ambitious forms of explicit co-ordination. One form of co-ordination consists in the setting of joint rules by which the decision-making bodies have to abide. A rather looser form of co-ordination occurs when the decision makers exchange information in a kind of dialogue. Such a dialogue can, after all, also result in "co-ordinated" decisions.

"Implicit co-ordination" relates to the assignment of the individual policy areas. If the objectives and instruments are each clearly assigned to the individual policy areas, the overall outcome of the policy mix is implicitly co-ordinated as well.

My proposition is that, under the terms of the Treaty of Maastricht, the policy mix in EMU amounts at bottom to the model of implicit co-ordination, and thus to a division of labour in the field of economic policy. This gives rise to a number of questions of principle. I should like to address two of them in more detail today, namely: First, is such implicit co-ordination, and especially of the monetary policy assignment, justified? And second, does implicit co-ordination at the European level necessitate cross-border co-ordination of fiscal and wage policies?

1 The role of monetary policy

Let me begin with the assignment for monetary policy. The Treaty of Maastricht sets a clear objective for the European System of Central Banks (ESCB): "The primary objective of the ESCB shall be to maintain price stability" (Article 105.1). As part of its "stability-oriented monetary policy strategy", the Eurosystem has defined price stability as a "rise in the Harmonised Index of Consumer Prices (HICP) of less than 2%". In this context, "price stability must be maintained over the medium term".[2]) At the same time, the Maastricht Treaty provides that monetary policy "shall support the general economic policies in the Community" as far as is possible "without prejudice to the objective of price stability".

Alongside the specification of the objective of price stability, the formulation and announcement of the stability-oriented monetary policy strategy of the Eurosystem constitutes a further key element of implicit co-ordination. In strategic terms, though not in tactical terms, monetary policy is calculable. The other economic policy-makers know that the ECB's policy is geared to two pillars: in the first place, to the reference value for the money supply and, secondly, to the broadly-based assessment of the prospects for future price developments. The second pillar takes due account not only of the money stock but also of other indicators. In this context, I would like to emphasise that the euro exchange rate is one of the indicators for the inflation outlook of the ECB.

The inclusion of the strategic response function of the central bank may contribute to a fiscal and wage policy stance that is consistent with stability. Implicit co-ordination is bolstered by an intensive exchange of information between the ECB, the European Council and the European Commission (Article 109b of the Treaty).[3]) Moreover, the ECB is required to draw up an Annual Report every year and to present and explain it to different European bodies. In addition, there are numerous other channels through which information can be disseminated by the Eurosystem, not least the press conferences held by the ECB President. Altogether, the exchange of information not only ensures that the agents in other economic policy areas can assess monetary policy more effectively, but the Eurosystem likewise obtains information on planned activities in other policy areas.

The assignment for European monetary policy has repeatedly been criticised in the past. However, not all critics have adopted the same position. Some have objected that European monetary policy is acting too much in the tradition of the allegedly overly stability-oriented Bundesbank, others have deplored a supposedly too pronounced orientation towards short-term business activity. Only a short time after the launch of Monetary Union, there was talk of a "paradigm change" compared with the earlier Bundesbank policies.

I would like to address the critics calling for a stronger orientation of monetary policy towards business activity. Three lines of argument are discernible here:

A first group of advocates of a monetary policy geared to business activity regards the risks for the prevailing price stability as being negligible. That group would now like to make monetary policy responsible for fostering growth and employment as well.

A second group of critics is arguing on the basis of economic shocks. Monetary policy should respond to demand shocks. They believe that the objective of price stability should be met by the central bank only in the medium or long term.[4]) The currently discernible weakness of economic activity in the euro area serves the advocates of this approach as evidence of the existence of such a demand shock. In their view, it makes an expansionary monetary policy response imperative.

A third group, finally, prefers quite a different assignment for monetary policy. While price stability should be reached primarily by means of a productivity-oriented wage policy, monetary policy should actively encourage growth and employment. Hence this approach reflects the strongest form of orientation towards economic activity.[5])

Unlike the two first-mentioned approaches, it postulates not just temporary, but rather permanent responsibility of monetary policy for business-cycle policy.

To evaluate these alternative assignments for monetary policy, one might initially try to devise a welfare-theory approach. The best assignment would distinguish itself by maximising social welfare. However, since such an abstract concept cannot help very much in the practical debate, one might ask, instead,

to what extent monetary policy-makers are actually able to perform the role which they have been assigned. At the same time, it is essential for monetary policy-makers to have an incentive for playing their role as envisaged (the criterion of incentive compatibility). Thus, it is a question of both the "ability" and the "volition" of those responsible for monetary policy decisions.

The decision-makers are being confronted in European monetary policy with two complex problems. Besides the problems which beset monetary policy quite generally, there are some problems which are due specifically to EMU. The advent of a completely new monetary regime necessarily increases insecurity. Furthermore, the monetary policy-makers are obliged to operate in a monetary area which is far from homogeneous.

I am convinced that it would overburden monetary policy if responsibility for business-cycle policy and employment policy were assigned to it as well. It is, for instance, to be doubted whether monetary policy is able to lastingly raise employment. Not only monetarists refer in this context to the "natural rate of unemployment", i.e. the unemployment rate that reflects the structural characteristics of the goods and labour markets.[6]) In the long run, unemployment tends towards that rate. Its reduction cannot be sustained by "flashes in the pan" kindled by monetary policy. Besides, there would then be a risk of accelerating inflation rates.

It is, of course, difficult to quantify the "natural rate of unemployment". But there is a general consensus that a large part of the unemployment currently prevailing in Europe is structural in origin.[7]) Overall, the scope for monetary policy to impact unemployment is therefore very limited. To reduce unemployment, primarily structural policy decisions by the individual Member States of Monetary Union are needed. They will have to ensure, not least, that their labour markets become more flexible.

Another argument against active business-cycle management by monetary policy concerns the long and variable time lags involved. They prevent any fine tuning of real business activity by means of monetary policy. On the other hand, monetary policy does have appropriate instruments for influencing price movements over the medium or long term. One of the few facts which are uncontested among economists is the perception that inflation is a monetary phenomenon.

Monetary policy affects prices by no means only through the money stock and aggregate demand but also via the expectations of economic agents. A major advantage of a monetary policy credibly committed

to the objective of price stability over an active monetary policy is that the central bank can take advantage of that transmission channel relatively easily. If monetary policy embodies the stability objective credibly, it simultaneously fosters wage settlements that are in line with stability. In this way, it creates a good basis for its own success.

In my view, it would be a grave error if the central bank were to be made responsible for employment policy as part of a schematic two-tier approach: first the attainment of price stability, then an orientation towards employment. For one thing, that would disregard the economic management problems deriving from the time lags involved in monetary policy. For another, it would very much stand in the way of the central bank in gaining a reputation.

Thus, of the recent theoretical debate on the problem of the time inconsistency of monetary policy is largely based on the initial hypothesis that the central bank should pursue a (particularly ambitious) output or employment objective in addition to the goal of price stability. Without such an orientation towards two objectives, the credibility problem is less serious. It must therefore be in the best interests of a stability-oriented central bank not to have excessive demands made on it.

The orientation towards the objective of price stability meets with widespread approval, particularly among representatives of central banks. Price stability does a great deal to help monetary policy-makers to gain a high reputation.[8]) An economic policy strategy that disregards this incentive pattern and, instead, commits monetary policy to rapidly effective employment successes is likely to give rise to substantial problems. In order to ensure that short-termism does not spread to monetary policy, the Treaty of Maastricht provides for the independence of the European Central Bank and of all national central banks. This crucial institutional regulation ensures a continuous monetary policy geared to the objective of price stability.[9])

Yet, the commitment to price stability and the independence of the ECB do not imply that the Eurosystem's monetary policy is wholly irrelevant to business activity. A medium-term-oriented monetary policy, such as has been pursued by the Bundesbank in the past, and has been incorporated, in the form of a reference value for monetary growth, in the "two-pillar strategy" of the Eurosystem, is also apt to smooth out economic activity. As part of a monetary strategy designed to achieve continuity, interest rate movements "breathe" in line with business activity; in a sense, they thus act as a "built-in stabiliser".

Central bankers may feel gratified about an increase in employment, especially if it is the fruit of a consistent stabilisation policy. In the process, however, they must not forget the limits set to the potential impact of monetary policy. This is why Mervyn King, alluding to a phrase coined by Alan Blinder, wrote that central bankers "need soft hearts and hard heads".[10])

Now that I have drawn attention to the general problems associated with economic management by means of monetary policy, I should like to address the specific difficulties posed by the environment of Monetary Union.[11]) In particular, those uncertainties are to be considered which are connected with the transition to Stage Three of Monetary Union. The change of regime may engender severe alterations in the behaviour of economic agents in the participating states. This applies not only to the financial sector, in which

Monetary Union has its most immediate impact, but also to the other sectors of the economy.

It is to be expected that competition will intensify on the goods and factor markets upon the disappearance of currency barriers in the euro area. Consumers and investors may well behave differently. For instance, foreign trade among the participating states might increase. Or goods are bought which have become less costly owing to stronger competition. Overall, it can be assumed that the patterns familiar from the past will change. A monetary policy that, in an aggressively active economic management, relied on the old patterns might well exacerbate, rather than mitigate, cyclical fluctuations.

The uncertainty surrounding the effects of the single European monetary policy on the real economy will actually be increased by possible differences in Member States' national transmission mechanisms. It cannot, however, be said with sufficient certainty how significant these differences are for practical monetary policy. Although the divergent financing patterns, wage-bargaining systems and labour and goods-market regulations in the Member States provide grounds for supposing that a single central bank rate will have differing effects,[12]) on closer inspection it transpires that the direction and scale of the deviations between the individual countries depend, among other things, on the concrete method of empirical analysis used.[13])

Moreover, it cannot be conclusive inferred from the differences that they are statistically significant. If the criterion of statistical significance is taken into account, the differences ascertained may be modified.[14]) The extent to which the existing differences will diminish in the near future is likewise disputed. On the one hand, a higher degree of specialisation and diversification is expected in the euro area on account of the ongoing economic integration. That would tend to have structures fan out more. On the other hand, a greater convergence of economic structures is expected owing to the single monetary policy and increased harmonisation of the other economic policies.[15]) Altogether, however, the uncertainties surrounding both the national effects of the Eurosystem's monetary policy measures and the persistence of such differences stand in the way of an aggressively active monetary policy, especially one oriented towards the short term.

However, it is now being claimed that not only the monetary policy of the Bundesbank but also the policy of the ECB could be explained more effectively by the "Taylor rule" than by any medium-term-oriented monetary strategy. I do not share this view. The monetary policy strategy of the Eurosystem is based just as little on the Taylor interest rate as was the former strategy of the Bundesbank.

The Taylor rule makes the short-term interest rate dependent on current inflationary and cyclical developments. An orientation towards the Taylor interest rate would have implied greater interest-rate movements than the Bundesbank actually allowed on the basis of its concept.

Only in the longer term are the behaviour of the day-to-day money market rate and the behaviour of the Taylor interest rate quite similar. At first glance, this largely parallel movement appears to be very surprising since the output gap did not play an explicit role in Bundesbank policy. It is less surprising, however, when the similarities between the Taylor rule and monetary targeting

are taken into consideration. The potential-oriented monetary targeting policy, too, has an automatic anticyclical component. Furthermore, monetary targeting likewise reacts to deviations of the inflation rate from "normative inflation".

In the Eurosystem, consideration is given to the fact that the monetary policy environment cannot be characterised solely by current price movements and the output gap. Instead, the broadly-defined money supply, as well as a number of other monetary, financial and real economic indicators, contain information on the future trend in inflation. Ignoring these would not be appropriate for a central bank oriented towards the objective of price stability.

So far, I have tried to make clear that the concentration of monetary policy in Monetary Union on the objective of price stability is appropriate. That objective is to be attained by a central decision-making body, the ECB Governing Council. Thus no problem of co-ordinating independent national monetary policies in EMU arisis.

Instead of a close interlocking of various policy areas, the Maastricht Treaty envisages an unequivocal goal for monetary policy, in the shape of price stability. In the sense of "implicit co-ordination" in the policy mix, it is also desirable to assign clear fields of responsibility to fiscal and wage policy. The main tasks of fiscal policy lie primarily in the provision of services which cannot be supplied at all, or adequately, via the market, and in the adjustment of the income distribution resulting from the market process.[16]) Correspondingly, the key responsibility for employment should be assigned to wage policy. This (neo-classical) assignment is consistent with the practical possibilities of the various policy areas at the national and European level, and also takes due account of the incentive patterns of decision makers.

At the same time, it must be borne in mind that the Treaty of Maastricht envisages the cross-border co-ordination of economic policy. The Treaty states that the Member States are to regard their economic policies as a matter of common concern.[17]) But the single European monetary policy remains unaffected by this co-ordination precept.

The object of such economic policy co-ordination is the monitoring of economic developments and economic policies in the Member States. That includes, besides the surveillance of budget policies, especially the observation of structural policy measures in the goods, services and labour markets, of cost and price movements, and the promotion of tax reforms.

If one enquires rather more carefully into the relationship between the single monetary policy and the other policy areas in European Monetary Union, it must be said, to begin with, that politicians are prohibited from issuing instructions to the ECB and the national central banks. Similarly, the ECB and national central banks are prohibited from requesting instructions from politicians. Thus, according to the Maastricht Treaty "co-ordination from above" is not permissible in the Eurosystem. Since the Eurosystem is responsible for ensuring price stabi-

lity, this responsibility must not be jeopardised by any co-ordination, no matter of what kind.

Against this background, I should now like to address the second question of principle which I raised at the beginning of this paper: Does implicit co-ordination between monetary, fiscal and wage policies at the European level necessitate cross-border co-ordination in fiscal and wage policies?

2 The role of fiscal policy

In the recent debate, the necessity for greater convergence of fiscal policy within the euro area has usually been justified by reference to business cycle policy. In this context, it is argued that the greater likelihood of spillover effects in the event of purely national stabilisation policies makes convergence essential.[18]) The single internal market and the single currency facilitate imports and exports, so that domestically-oriented stimuli on the part of individual Member States spill-over to their respective neighbours.

However, if the focus of fiscal policy action is held to be less in the stabilisation function, but primarily in the allocative and distributional function, stabilisation-policy spill-over effects carry less weight as arguments in favour of co-ordination. In line with the principle of subsidiarity, which argues in favour of the decentralised provision of the vast bulk of public spending, the balance then swings against marked co-ordination (and centralisation) in the field of fiscal policy.

Even so, in the sphere of fiscal policy there is one perfect example of cross-border co-ordination by means of joint rules. The Stability and Growth Pact defines a code of good practices for national budget policies. In this connection, attention should be paid not only to the fiscally relevant variables of a maximum debt level of 60% of GDP and a deficit limit of 3% of GDP, which became known as the "Maastricht criteria", but also to the "obligation" to reach a budget position which is almost in balance or even in surplus in the medium term. Meeting this target will enable all Member States to cope with normal cyclical fluctuations and to keep the public sector deficit at or below the level of the reference value of 3%.

Although the Stability and Growth Pact can be substantiated by reference to the spillover effects of national fiscal policies, when the Stability and Growth Pact was drawn up the primary intention was not to concentrate forces in order to perform a joint stabilisation task. The aim was, rather, to protect both the single monetary policy and the fiscal policies of Member States of the European Union from the unsound budgetary policies of some Member States. As it could not be taken for granted that the financial markets, as the sole disciplining factor, would ensure fiscal stability, the countries concerned agreed on a minimum standard of fiscal discipline, in the form of the Stability and Growth Pact.[19]) To that end, the Member States must present medium-term "stability or convergence programmes" once a year. If it transpires after a few months that such a programme is based more on hopes than on realistic assumptions, it comes as no surprise if the markets respond with jitters and disappointment.

3 The role of wage policy

The starting point of my observations on the role of wage policy in the policy mix of EMU is once again the model of implicit co-ordination. According to this model, wage policy is assigned to the objective of

employment. The key question is whether such an assignment calls for cross-border co-ordination of wage policy.

Concern about a pan-European wage-cutting race is one argument used in favour of a close interlinking of national wage policies. What is feared in this case is that the level of wages will be used as a factor to create jobs in the domestic market to the detriment of other Member States, in the style of "beggar-thy-neighbour" policies. The upshot of such a "disastrous wage-cutting race" could only be a general process of deflation.[20]) To prevent such a development, the parties to pay settlements should be committed to wage rises that are oriented towards the growth of productivity.[21]) Wage policy would then be co-ordinated by means of a "joint rule", i.e. by orientation towards the growth of productivity.

However, some weighty objections can be raised against these ideas. For instance, orientation towards productivity growth as a guideline for wage policy appears to me to make little sense at times of heavy unemployment. In the first place, it is reasonable to expect that, with the relative cheapening of the production factor labour, substitution processes in favour of higher employment are triggered.[22]) Secondly, in the event of heavy unemployment it is essential for wage rises to lag behind the growth of productivity, if only because the statistically recorded average productivity of labour may increase as a result of a reduction in the labour input.

The notion of a distribution of given jobs among all EMU countries – such as ultimately underlies the argument of wage-cutting competition – disregards the supply-side potential improvements in momentum on the labour and goods markets. EMU-wide wage restraint aimed at making more output profitable on the cost side need not by any means be a zero-sum game in which one country loses precisely the number of jobs that another gains.[23])

Some authors believe that centralised, corporatist wage-bargaining systems are likely to exert favourable employment effects. Such hopes are based largely on the assumption that, in the context of centralised wage negotiations, the parties to wage settlements will take due account of the effects of wage rises on prices and employment, which, it is thought, is not true in the case of industry-specific wage negotiations, on account of a free-rider attitude in stabilisation and employment policy.[24])

But the institutional regulations affecting the labour market – and thus the structure of the wage-bargaining systems as well – differ considerably among the individual EMU Member States. Unlike the small, comparatively homogeneous countries Austria or the Netherlands, which are often cited as examples of a successful corporatist approach, the euro area is a large economic zone of pronounced structural diversity. In addition, it is likely to be particularly difficult to implement a common European policy in those countries in which the responsibility for wage bargaining is highly decentralised, e.g. located at enterprise level. In macroeconomic terms, however, that is not a drawback.

In my opinion, the road to more employment leads less via centralised wage negotiations at the European level than via structural changes on the labour markets. Programmes of wide-ranging structural reforms have been elaborated by the OECD, among others.[25]) What has been lacking so far is the political will to

implement such reforms. Hence the main significance of the European employment pact lies in enhancing the will to implement reforms and to initiate structural changes.

Another factor mitigating co-ordination in wage policy is that, owing to Monetary Union, monetary policy can definitively no longer function as a national "shock absorber". Moreover, in most Member States fiscal policy can likewise perform this function only to a very limited extent at present. Since the budget deficits and/or debt levels in most Member States are still pretty high, the relevant provisions of the Stability and Growth Pact curb the scope of fiscal policy. That is another reason why a distinctly higher degree of flexibility is needed on the labour markets. Otherwise, adverse economic shocks will be reflected directly in higher unemployment figures.

Notwithstanding the calls for greater co-ordination, in actual fact competition among the regions should be used as a co-ordination mechanism. Issing formulated this finding as follows: "Precisely *because* monetary policy can no longer respond to national conditions the exact opposite of greater centralisation and harmonisation may be required in other areas. Talk of uniform European wage-setting or of an ambitious social union is going in the wrong direction; different productivity and real economic conditions across the euro area must be taken into account more than ever."[26])

4 Concluding remarks

The single European monetary policy is currently being accompanied both by a fiscal policy which has largely remained a national responsibility and by a wage policy which is co-ordinated, at most, at national level. In my view, however, this policy mix should not be deplored, as there is anyway little to be said for more far-reaching co-ordination across policies at the European level. Any co-ordination extending beyond implicit co-ordination would pose two problems:

- First, there would be a danger of economic policy engendering destabilisation, rather than economic stability, owing to a one-sided orientation towards a policy of short-term stabilisation of business activity. What I said about monetary policy showed how difficult a short-term-oriented policy is in the presence of long and variable timelags. This problem would certainly not be mitigated by going beyond implicit co-ordination of the various policy areas.
- Second, ex ante co-ordination across policies would also involve the risk of responsibilities becoming blurred and incentive patterns being destroyed. Any attempt to orient *all* policy areas towards *all* objectives may well lead to a situation in which ultimately *no* area seriously tries to reach even *one* objective. A strategy of "relying on someone else" may perhaps promise an easier life, and a policy of "drawing attention to the failure of someone else" longer political survival, but without an unequivocal objective, there can ultimately be no clear accountability. This moral hazard problem may not only result in a threat to price stability, but also be counterproductive in terms of employment policy.

The reservations about explicit ex ante co-ordination in European economic policy do not imply that policy should entirely forego any form of co-ordination. Elements of implicit co-ordination and macro-

economic dialogue are already evident at the European level.

For instance, a certain co-ordination of the single monetary policy with national fiscal policies occurs under the Stability and Growth Pact. Compliance with the fiscal standards laid down in the Pact relieves the Eurosystem of political pressure to facilitate the financing of massive budget deficits by means of durably low interest rates. In that way, the Stability and Growth Pact helps to ensure that the Eurosystem can always exhibit the "staying power" in its stabilisation policy efforts that is required for successful monetary policy.

It is the mandate of monetary policy to maintain price stability in the euro area. This clearly defined objective takes due account of the opportunities presented by, and limits set to, monetary policy. In terms of reputation, this is at the same time in line with the incentives afforded to central bankers. Finally, the clear assignment of functions facilitates accountability.

Fiscal policy should, first and foremost, perform its allocation and distribution function; wage policy should be assigned the primary employment-policy responsibility. Instead of the vague assignment of functions and the blurring of areas of responsibility associated with explicit or ex ante co-ordination, this clear-cut separation of responsibilities promises effective implicit co-ordination.

If one wonders, in conclusion, whether there is no room left at all in this approach for the stabilisation of demand, I should like to point, first, to the automatic stabilisation effected by a monetary policy geared to the medium term. Moreover, it is in the best interests of monetary policy if the public budgets, too, have smoothing effects on business activity. That, however, will not really be possible again until the structural budget deficits have been reduced. Provided fiscal accounts are balanced in normal times, the full endogenous reaction of national fiscal structures to downturns should not be hampered by the Stability and Growth Pact, even during severe recessions. By contrast, starting from deficits of around 2% of GDP – about the euro area's 1998 average – would imply either systematically stifling the operation of automatic

stabilisers in the event of recessions or moving into excessive deficits with a high probability. At all events, growing structural deficits do not help to smooth the movement of incomes across the various phases of a business cycle.

In recent decades, fiscal structures have become encrusted. They must now be broken open again. There is a need for speedy action. The adjustment of the deficits is an indispensable element in such structural reforms, which should tackle the expenditure side of public budgets. Delays or dilutions are unacceptable. They will be penalised by the markets. After all, it should not be forgotten that the ratio of public spending to the gross domestic product in the euro area is still over 51%!

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1 *Cf. Artis, Winkler (1998).*
2 *ECB, 1999, p. 51.*
3 *Article 105.4 of the Maastricht Treaty explicitly provides for a right of the ECB to be consulted on all acts within its field of competence.*
4 *By stressing the long-term orientation of the objective, Fischer (1996), for instance, sees scope for pursuing a short-term, anticyclical monetary policy: "Long-run price stability should be the primary goal of the central bank . . ." And ". . . emphasising the long-run . . . allows . . . a little leeway for short-term countercyclical policy." Fischer (1996, pp. 28 and 29). Bofinger (1999, p. 7ff.) likewise emphasises the active role of monetary policy in the event of demand shocks.*
5 *The approach is based mainly on work by Flassbeck, H. (see, for instance, Flassbeck, 1998, p. 278ff.; Flassbeck et al., 1992, p. 222ff.; Flassbeck and Spiecker, 1998, p. 52ff.).*
6 *Cf. Friedman, 1968, p. 8.*
7 *Cf. e.g. OECD, 1998, p. 172ff. or IMF, 1997, p. 39ff. For Germany, cf. e.g. Council of Economic Experts, 1998, para. 422ff. and Dohse et al., 1998, p. 109ff. Regarding the Phillips curve trade-off, Weber (1994, p. 91ff.) comes to the conclusion for the G 7-countries (other than Italy) that they all exhibit long-term vertical Phillips curves.*
8 *Fischer (1996, p. 23ff.) draws attention to opinion polls according to which the citizens of most European countries, at least in the early to mid-1990s, still felt inflation to be a major problem. Correspondingly, fighting inflation contributes to the accumulation of a reputation.*
9 *It is in this sense that Alesina and Gatti (1995, p. 198ff.) see the justification of central bank independence. In their view, only such independence can effectively prevent monetary policy from being the cause of politically-induced business cycles.*
10 *King, 1999, p. 93.*
11 *On the difficulties at the start of Stage Three, see e.g. ECB, 1999, p. 49f.*
12 *Regarding this supposition see e.g. Hughes-Hallett et al. (1999, p. 6f.). The historical differences in financing patterns are described, for instance, by Borio (1995, p. 77). For example, in Germany, France and the Netherlands in 1993 over 80% of the credit extended was medium-to long-term. In Italy, by contrast, 51% of the credit was extended at short term.*
13 *In the literature, differences in national transmission mechanisms are analysed as part of major macroeconomic models (especially those of central banks), structural VAR models and small macroeconomic models that can be reduced to a central estimating equation. Regarding the macroeconomic models of the various central banks, see e.g. BIS (1995). Hughes-Hallett et al. (1999) and Hughes-Hallett and Piscitelli (1999) use, as an alternative, specific multi-country models. Structural VAR models are used by Gerlach and Smets (1995), Ramaswamy and Sloek (1997), Ehrmann (1998) and Holstein (1999). Simple "single-equation systems" are used by Dornbusch et al. (1998), Brookes and Massone (1998) and Britton and Whitley (1997). For a survey of the literature, see Kieler and Saarenheimo (1998) or Baumgartner and Url (1999).*
14 *This is the conclusion reached by Kieler and Saarenheimo (1998, p. 23ff.) for the countries Germany, France and the UK. The International Monetary Fund arrives at the following assessment: "The evidence indicates that there have been differences in the response of activity to monetary policy across the EU countries, but they are not so significant as to suggest that substantial problems would arise in the operation of a common monetary policy." (IMF, 1997, p. 55f.).*
15 *While Hughes-Hallett et al. (1999, p. 6ff.) postulate strongly diverging structures on the basis of the theorem of "comparative advantages", Frankel and Rose (1998, p. 1009ff.) advocate the opposite view. And that seems understandable, particularly with regard to the differences in financing patterns. For instance, in the course of the decline in inflation in Italy, the above-mentioned 51% share of short-term credit has probably decreased in the past few years. As the single monetary policy also applies to Italy, an even greater harmonisation of financing patterns is to be expected in the future. In proportion as the pressure in Monetary Union to effect consistent structural reforms in the Member States increases, wage-bargaining and market flexibilities may also converge as additional causes of the differing transmission of monetary policy stimuli.*
16 *Cf. Council of Economic Experts, 1974, para. 397.*
17 *Article 102a of the Maastricht Treaty provides for the gearing of the economic policies of Member States to the objectives of the Community, as defined in Article 2 of the Treaty. In the words of the Amsterdam Treaty, these objectives are "a harmonious, balanced and sustained development of economic activities, a high level of employment and of social protection, the equality of men and women, sustained, non-inflationary growth, a high degree of competitiveness and of convergence of economic performance, the raising of the standard of living and quality of life, and economic and social cohesion and solidarity among member states".*
18 *For this view, see e.g. Flassbeck (1998a, p. 557), who demands an institutionally-based co-ordination of fiscal policies.*
19 *Further arguments in favour of the Stability and Growth Pact are spelled out by Eichengreen and Wyplosz (1998, p. 71ff.). Among other things, they regard the Stability and Growth Pact as the first step towards an (in their eyes desirable) ex ante mutual co-ordination of national fiscal policies and of fiscal policy with monetary policy (p. 77f.).*

20 *Cf. Horn et al., 1997, p. 99ff. or Horn and Zwiener, 1998, p. 551ff.*
21 *Cf. Horn and Zwiener, 1998, p. 554. For concrete nominal wage settlements, the following formula should be used: "nominal wage rise = productivity growth + target inflation rate of the Eurosystem". That would not only prevent the "disastrous wage-cutting race" but also protect the monetary policy of the Eurosystem from inflationary pressures due to wage policy. This, in turn, would create employment-policy scope for monetary policy.*
22 *At all events, this seems to be the case for Germany (cf. e.g. Lapp and Lehment, 1997, p. 67ff. or Rottmann and Ruschinski, 1998, p. 10). The fact that wage restraint in Germany was unable to fulfil all the employment-policy expectations pinned on it may owe something to very vigorous job shedding on account of the unavoidable consolidation of the public sector budgets, the adjustment of the economic structure in the new Laender and the tailing-off of the construction boom.*
23 *In the simulation account of Horn and Zwiener (1998, p. 555ff.), co-ordinated cuts in nominal wages in all EMU countries exert distinctly favourable employment and growth effects.*
24 *Cf. in particular Calmfors and Driffill (1988).*
25 *Cf. e.g. the job studies of the OECD.*
26 *Issing, 1999, p. 10.*

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*) The views expressed in this speech represent those of the author and should not be attributed to the IMF.

Flemming Larsen

Global economic and financial developments in the 1990s and implications for monetary policy

When Mr. Mussa asked me just a few days ago to replace him at this conference, I immediately jumped at the opportunity to visit Vienna once again. Then he told me that he had not yet prepared his speech, which I thought I could just take over. His topic was to have been on the challenges of restoring high employment conditions in Europe.

I am very pleased now that I did not in fact choose that topic because it has been discussed extensively this morning. This is unquestionably the most important policy issue Europe is facing, but I think it has been covered very well.

Instead, I will discuss global economic and financial trends in the 1990s and implications for monetary policy. This is the bland version of my title (appropriately bland as suits an international civil servant). Somewhat bolder titles could have been: Does the restoration of global price stability suggest that exchange rate stability is becoming easier to achieve in the future? Or: Is the euro weak and is that a problem? Or: Is there any link between high unemployment in Europe and the Asian crisis? As I will try to convince you, there may well be such a link, and it is different from that most people have in mind.

When working on my presentation on my way to Vienna, I was getting worried that my views may be a bit too audacious in such a forum, an audience of central bankers. But after listening to Professor Streissler's excellent presentation yesterday, I no longer think that my views are all that audacious. In fact, I believe that I have found a soulmate in Professor Streissler. I am grateful that he has prepared the ground for some of the things I am going to say. I am also particularly happy to note, as Mr. Streissler pointed out, that some of these views are in fact related to the thinking of famous Austrian economists like Hayek. That there is some sort of connection with the Austrian school makes it even more appropriate to present those views here in Vienna.

First, a few words about the emerging market crisis of the past couple of years. The 1990s have, as you know, been marked by a great deal of volatility in global financial markets, most recently in the form of the emerging market crises of 1997 to 1999 that engulfed first Southeast Asia and subsequently Russia and much of Latin America. As a result of these crises, together with the severe recession in Japan, world economic growth slowed markedly in 1998 and is expected to remain quite subdued this year. But the crises have eased considerably in recent months.

There are now signs of a turnaround in the Asian crisis-afflicted economies. This has justified upward revisions to our growth projections for these countries in recent months as their recovery profiles increasingly display the V-shaped pattern that we have often observed elsewhere after sharp output contractions. For Brazil, there are also encouraging signs of an early turnaround in confidence. In Russia, economic activity has been less seriously affected than had been expected in the wake of last August's crisis, and the commitment by the new government to sustain the reform process suggests that the worst may also be over there, even though there is still a great deal of uncertainty about the outlook for Russia.

So, does this now imply that the global crisis is over and that world growth will quickly return to the $3^1/_4$% to 4% trend growth rate that we have observed during the past quarter century? Maybe. The recoveries in the emerging market

countries recently in crises may well surprise. Although there is always a danger of policy setbacks, market disappointments, and renewed contagion, financial markets may soon come to the view that these crises have actually contributed to enhancing the long-term prospects of emerging market countries through the reforms and stronger institutions that are now being put in place. Moreover, the most recent data for the euro area and Japan suggest that the sluggishness in these economies and especially in Japan may also be coming to an end.

Overall, it is now apparent that our global growth forecast for 1999, which was estimated at $2^1/_4$% as recently as at the time of the Interim Committee meeting at the end of April, may be too pessimistic. I expect our next projections to show a somewhat higher growth rate for 1999.

However, significant downside risks still attach to the global outlook for next year and for 2001. The greatest uncertainties now seem to emanate from the industrial world. Indeed, a key concern stems from the unbalanced pattern of growth that we have seen recently among the three large currency areas. The strong U.S. economy has played a critical role in avoiding a more serious global economic downturn in the past couple of years, but continued above-potential growth carries the risk that the eventual slowdown could be more sudden and pronounced than most forecasters and financial markets expect at present.

If the U.S. economy were to slow significantly, there would be reason for concern about the ability of other countries to provide sufficient support for global activity. This applies especially to Japan, where the recession seems to be bottoming out but where it is not yet clear that conditions for a self-sustaining strong recovery are in place despite considerable fiscal and monetary policy support.

In the euro area, growth has been quite weak recently, especially in Germany and Italy, and it still remains to be seen whether the easing by the ECB will be sufficient to restore the momentum of recovery in domestic demand in Europe.

Of course, cyclical divergences between the major countries can in principle be worked off gradually. And it is perfectly reasonable to think that a soft landing is possible for the United States and that recoveries in Europe and Japan will compensate for a period of consolidation in the United States. But it is almost equally reasonable to expect a less benign adjustment process, one that could involve a harder landing for the United States and a situation where the negative forces would again exert themselves in Japan and Europe.

I suspect that many of you will agree that both the generously valued U.S. stock market and the present constellation of exchange rates among the major currencies – seen together with the widening of current account imbalances in recent years – contain the potential for significant and disorderly corrections in financial markets. It is this risk that warrants a cautionary distinction between the emerging market crisis, where the worst indeed seems to be over, and the overall health of the world economy, where it is still too early to know how the present global imbalances will be resolved.

The 1990s have seen great achievements for global policymakers, but also a number of new challenges associated with significant changes in the working of the global economy and in the nature of inter-

national economic and financial linkages. Among the achievements the reestablishment of broad price stability in the industrial countries stands out as a particularly remarkable accomplishment, and there has also been impressive progress in fiscal consolidation in many countries. But as we have seen, however necessary these two conditions are for safeguarding reasonably robust and stable economic growth, they are clearly not sufficient. Eliminating fiscal and monetary policy shortcomings addresses the source of some macroeconomic disturbances but certainly not all. Indeed, it is now generally accepted that the private sector's decisions – even when they are taken in the context of well functioning and undistorted markets – can result in booms and busts.

What I would like to focus on here are the policy complications that arise because of several closely interrelated features of the global economy that are either new or at least appear to have become more dominant in the 1990s. These features or developments are all associated with the process of globalization.

First, economic linkages across countries and regions in the world economy seem to have changed quite significantly. There is a great deal of empirical evidence on the transmission of economic disturbances through trade flows and commodity prices, consistent with the historical pattern of a positive correlation between the business cycles of the industrial countries and those of the developing countries or emerging markets. But in the 1990s, private capital flows have increasingly dominated international linkages to such a degree that business cycles have become desynchronized. In the early 1990s, for example, most of the major industrial countries experienced economic slowdowns, first in the United States with a mild and brief recession and in Japan in the wake of the bursting of its asset price bubble, and then in much of Europe in connection with the tensions and pressures that also led to the ERM crisis. During those years the emerging market countries did not seem to be negatively affected by the weakness in the industrial world. If anything, they seem to have been receiving further impetus to their economic expansions, an impetus that eventually contained the seeds of the Asian crisis.

During the Asian crisis, we have now observed another example of unexpected linkages. As demand and imports in the crisis countries collapsed, their external deficits swung sharply into surplus, a swing of about USD 130 billion in a little more than one year. This obviously had a negative impact on exports and industrial production in the United States, Europe and Japan. In Europe and Japan this did have the expected negative impact on growth, but not in the United States. In the U.S. it now looks as if the Asian crisis had been a fortuitous event that may well have helped prolong an already very long economic expansion.

There are several reasons for considering that the emerging market crisis was fortuitous for the United States. First, because the redirection of capital flows added liquidity to the U.S. bond and stock markets. Second, because declining import prices stimulated real incomes and lowered inflation. This not only permitted the Fed to keep interest rates steady at a late stage in the cycle, it eventually allowed the Fed to ease interest rates by 75 basis points last fall in the face of widespread fears of a credit crunch following Russia's default and the near-

collapse of the hedge fund LTCM. Throughout the Asian crisis episode the U.S. economy continuously outperformed even the most optimistic forecasts. I find it hard to avoid the conclusion that the U.S. economy may have been stimulated by the Asian crisis, at least in the near term.

The *second* change that has occurred in the 1990s, which helps to explain the seemingly inverse linkages, has been the marked increase in cross-border private capital flows. In particular, the increase in private flows to emerging market countries in the 1990s clearly marked a break with the relatively moderate levels of such flows observed in the 1980s.

What explains this increase? Financial market liberalization, removal of capital controls, the search for high yields, and the desire for portfolio diversification probably all played a role, but there have also been some less benign reasons, including underestimation of risk and moral hazard effects resulting from various explicit and implicit government guarantees (not only in the capital importing countries).

While these factors help explain the massive rise in *gross* capital flows, we also need to recognize that the large *net* capital flows into emerging market countries would not have been possible in the early 1990s without the large and growing external surpluses of Japan and what is now the euroarea during this period. For example, the lacklustre performance at home and the low cost of funds provided strong incentives for European and Japanese banks to try their luck abroad.

The *third* feature of the global economy that seems to have become more pronounced or more dominant in the 1990s is the sensitivity of exchange rates to cyclical developments. The cyclical sensitivity of exchange rates has been observed for some time for the G7 and now the G3 currencies, where it is apparent that countries with a strong economic performance tend to experience exchange rate appreciation because they offer the best prospects for international investors. Over the cycle, however, as cyclical divergences narrow or even reverse, the same forces may tend to produce relatively large realignments in exchange rates. One would like to think of such movements as essen-

tially stabilizing, provided of course they are not excessive relative to the cyclical divergences.

Beyond the G3 currencies the 1990s have also witnessed a general and very pronounced further shift towards greater flexibility in exchange rate regimes among the emerging market countries. Whether it is in response to financial crises, contagion, or spillovers through trade and commodity prices, the increasingly flexible exchange rates among emerging market countries have frequently depreciated significantly in response to adverse developments. This has helped moderate cyclical slowdowns in many cases, often without triggering sustained increases in inflation.

The *fourth* development that is striking in the 1990s has been the general reduction in inflation worldwide. Not only has inflation come down to the lowest levels in 40 years, as I mentioned earlier, but it has come down more or less simulta-

neously across the industrial countries, and increasingly also in the emerging market countries. As the average inflation rate has come down, divergences across countries have also diminished.

Why is that the case? Is that because central bankers are breathing the same air and subscribe to the same anti-inflation policy paradigm? Yes, that is probably part of the explanation, but I also believe that there are global forces at work in the form of increased competition, deregulation, very low transport costs, and the information revolution that have all contributed to the decline in inflation expectations and easing of inflationary pressures worldwide. The fact that world inflation is generally subdued unquestionably helps individual countries in their efforts to reduce inflation.

These developments, which I consider to be some of the salient features of global economic trends in the 1990s, have some important implications for policy spillovers, especially for the international transmission of monetary policy. One key lesson is that the integration of capital markets implies that monetary conditions in a given country can be affected quite substantially by developments elsewhere.

Let me offer a couple of examples that relate to the earlier interpretation of developments in the 1990s. In the first part of the 1990s, emerging Asia clearly appeared to be stimulated by the progressive easing of monetary conditions in Japan and Europe during this period. This does not imply, of course, that the easing of monetary policy in Japan and Europe was a mistake. The problem was that the spillovers through capital markets were not taken sufficiently into account in the setting of policies in the emerging market countries. With the benefit of hindsight, it is now clear that the response should have been a tightening of monetary conditions and fiscal policies in these countries and perhaps an appreciation of these countries' currencies in order to reduce excess demand pressures and the risk of overheating. That did not happen, so their monetary and financial conditions became much too loose. The consequences for asset markets, external positions, and banking system fragilities are now well known.

Has something similar been happening in the case of the United States during the past couple of years? As I argued, I believe the United States have been stimulated by the reorientation of capital flows away from emerging market countries and from the continued weak economic conditions in Japan and to some extent in Europe. As a result of these capital inflows and the terms of trade gain associated with falling import prices, it can be argued that overall financial conditions in the United States became easier than intended and possibly too expansionary, inadvertently contributing to the continued run-up in asset prices, particularly on the stock market. It is impossible to know with absolute certainty whether the generously valued stock market in the United States constitutes an asset price bubble. But I am struck by the growing concern among many economists around the world that this may well be the case and that the current U.S. expansion may eventually end in tears, as has happened in so many other countries in the wake of strong upturns that eventually proved unsustainable.

Are we destined to experience such forces and potential macroeconomic instability also in the future? I do not know the answer, but it is

better to be prepared. We cannot expect to eliminate the macroeconomic disturbances that provoke large shifts in cyclical positions, in capital flows, and in exchange rates, but we should at least avoid adding to those disturbances through policy errors. This is where economic policies, and especially monetary policies, which are our primary cyclical stabilizer, are facing considerable challenges. These challenges arise from the possibility or maybe even the likelihood that traditional inflation indicators, i. e. measures of inflation in goods and services prices, may not provide sufficiently unambiguous signals at very low inflation rates to allow policymakers to rely primarily or exclusively on them in gauging the extent of potential pressures that may be developing in the economy, as an economic expansion matures.

Many economists argue that monetary policy should aim at stabilizing inflation as traditionally measured, for example, by consumer price developments. However, there is a good deal of evidence that overheating can manifest itself even under conditions of price stability as conventionally defined and that it may show up in balance sheets, in asset prices, or in the form of financial fragilities. I also believe that there is a basis at least for the hypothesis that the forces of globalization in both goods markets and financial markets are contributing to dampening pressures on goods and services prices, while at the same time increasing the risk that potential inflationary pressures show up in asset markets instead. This is consistent with the view of some economists that the risk of asset market bubbles may be greater at low rates of inflation in goods and services prices. The question then arises whether the focus of monetary policy should be expanded to help stabilize asset markets.

Let me stress immediately that I share the concern of those who argue that monetary policy should not attempt to target asset prices. However, this does not imply that monetary policy should not pay attention to the consequences of asset price developments.

These issues have become more pressing in light of the integration of capital markets, which may be contributing to cyclical divergences across countries. I have already mentioned several aspects of the processes that may contribute to cyclical divergences. For example, experience from the 1990s has shown that international capital flows tend to benefit the most dynamic countries and regions. At the same time, global competitive forces help keep goods prices inflation relatively low in countries with strong economic expansions. The tendency for the capital inflows to lead to exchange rate appreciation is also a factor that helps keep our traditional measures of inflation in check, thereby muting or delaying the signals of inflationary pressures that we are accustomed to monitoring. As a result, there is a risk that we may continue to experience macroeconomic instability with boom and bust cycles as seen in the past, even in the absence of strong inflation signals from our traditional indicators. To reduce this risk, I believe that monetary authorities need to pay more attention to asset markets and to unsustainable balance sheet developments. The implication is that interest rates will probably still need to vary a great deal over the business cycle, even if inflation is relatively low.

Let me come back to the questions I raised in the alternative titles of my presentation. First, *greater exchange rate stability: can we*

expect that to follow from price stability? No. Because of cyclical divergences across countries, differences in monetary stances, and associated shifts in capital flows, we probably have to envisage continued significant volatility in the exchange rates of key currencies. Many countries would probably not be comfortable with that degree of volatility, particularly smaller open economies. I would not be surprised if we saw more interest in a return to fixity in the form of currency unions as we have seen here in Europe, in the form of dollarization, which is being discussed extensively now in Latin America, or in the form of currency boards that have withstood the pressures associated with the recent crises.

The second question concerns the euro. *Is the euro weak and should this be a cause for concern?* If one takes a longer-term perspective and looks at the past value of the euro by using a synthetic measure of the real effective exchange rate based on the exchange rates of the participating currencies, then it is apparent that the current value of the euro is not particularly weak. It is well within the trading band that has been experienced over the past 10 or 12 years. The fact that the value of the euro is towards the weaker end of this trading band seems to be consistent with the differences in cyclical positions, especially relative to the United States. Putting things in perspective gives one a quite different picture than assessing the euro on the basis of the bilateral exchange rate vis-à-vis the dollar since the beginning of 1999.

The third question is: *Is there a link between Europe's unemployment problems and the Asian crisis?* I think there is a link, and I would tend to concur with Professor Streissler, who argued convincingly that there was a link between the weak economic performance of Europe and Japan in the 1990s and the asset bubbles we have seen in Asia, and which we may now be experiencing in the United States. There does indeed seem to be a good deal of evidence and support for the notion that the expansionary policies in Europe and Japan are spilling over to the rest of the world, and while there may be a liquidity trap in Japan, there was no such problem elsewhere in Asia in the buildup to the recent crises, and there is certainly no liquidity trap problem today in the United States. But this does not imply that policies are too expansionary in Japan and Europe. The problem is rather that economic policies in the United States may not have allowed sufficiently – as was the case previously in Asia – for the expansionary impulses coming from capital inflows and from the external environment. Another problem is that the European and Japanese economies are not reacting sufficiently vigorously to the appropriately stimulatory macroeconomic policies. It is in this way that there seems to be a link between Europe's labor market problems and the structural weaknesses in Japan on the one hand, and the large and potentially destabilizing capital flows we have experienced in the 1990s, on the other.

Indeed, greater efforts to tackle Europe's and Japan's long-standing structural deficiencies may well be an essential part of what is needed to make the world economy less unstable.

Gertrude Tumpel-Gugerell

Vize-Gouverneurin, Oesterreichische Nationalbank

Gertrude Tumpel-Gugerell

Final statement and closing of the conference

Ladies and gentlemen,

We have come almost to the end of our conference. I am sure you share my impression that we had two days of an intellectually inspiring discussion on a burning issue. Let me briefly summarize some of the highlights.

1. There was agreement that short-term real effects of monetary policy exist. There is a quite broad consensus that money is neutral in the long run, that monetary policy can stimulate output only temporarily.
2. Whether central banks should exploit the short-term Phillips curve is controversial. Central bankers have to be thoroughly aware of time inconsistency problems. But I think that with the Maastricht Treaty and the stipulated independence, we have credibly committed ourselves to the primary goal of price stability. This should allow some flexibility in monetary policy, which is also important in the light of macroeconomic shocks.
3. We also have discussed the problems of implementing monetary policy when inflation is very low. Problems such as the zero bound on nominal interest rates are serious. Therefore, when setting inflation objectives, the authorities must consider all these factors, whose empirical magnitude may vary from country to country.
4. Our discussion has made clear that monocausal explanations of the unemployment problem in Europe are somewhat counter-productive. However, the contribution of monetary policy to reducing predominantly structural unemployment in Europe can only be minor, it can only mitigate the burden of cyclical unemployment. Here, the limits of monetary policy become obvious.
5. We have heard that the wage bargaining process is of crucial importance for a high degree of wage flexibility. I support the idea of an institutionalised dialogue of all policymakers, including monetary policymakers, and I am sure that the recently agreed Employment Pact is the right step in the right direction.

Let me thank all the speakers, the discussants and the audience for their contributions, which have made this conference a success. I am sure that our efforts have not been an end in themselves, but rather the starting point for further analytical work and policy considerations. ❧

Franz-Weninger-Stipendien

Überreichung der Franz-Weninger-Stipendien der Oesterreichischen Nationalbank

Gouverneur Dr. Liebscher und Vize-Gouverneurin Dr. Tumpel-Gugerell überreichten am 11. Juni 1999 im Rahmen der Volkswirtschaftlichen Tagung der Oesterreichischen Nationalbank die Franz-Weninger-Stipendien an vier Preisträger. Das Franz-Weninger-Stipendium wird von der OeNB für hervorragende Diplomarbeiten und Dissertationen auf dem Gebiet der Geldtheorie und Geldpolitik vergeben und erinnert mit seinem Namen an den vor drei Jahren tödlich verunglückten Leiter der Abteilung für Volkswirtschaftliche Analysen. Die Stipendien werden vom Direktorium der Oesterreichischen Nationalbank auf Vorschlag einer Fachjury vergeben.

Diesmal wurden die Franz-Weninger-Stipendien den im Folgenden genannten Personen für Diplomarbeiten mit den jeweils angeführten Titeln zuerkannt:

- **Herrn Mag. Mario Altan** für die Arbeit „Auswirkungen der Europäischen Währungsunion auf die Seignorageeinnahmen der Teilnehmerstaaten“
- **Frau Dipl.-Ing. Violetta Frithum** für die Arbeit „Die Geldnachfrage in Theorie und Empirie“
- **Herrn Matthias Mihurko** für die Arbeit „Der Informationsgehalt der Zinsstruktur für Wirtschaftswachstum und Inflation“
- **Frau Dipl.-Ing. Doris Prammer** für die Arbeit „Geldpolitische Strategien der Europäischen Zentralbank“

Die Vortragenden

Johnny Åkerholm,
born in 1948 in Koivulahti, Finland. Obtained a master's of political (1971) and economic (1972) sciences and a licientiate (1993) from the University of Helsinki. Held numerous positions in the Bank of Finland, where he started to work as an economist in the Economics department in 1971 to 1975. From 1975 to 1978 he worked as an economist in the OECD Secretariat in Paris, came back to the Bank of Finland 1978, where he stayed up to 1995 and was head of several departments, finally of the Economics department. In 1995 he joined to the Finish Ministry of Finance and is Under-Secretary of State for Economic Affairs. He is a member and Vice chairman of the Economic and Financial Comittee of the European Community and publishes articles on policy-related issues in international and Finish publications and journals.

Michael Artis,
born in 1938, graduated from Oxford University (Magdalen College) in 1959 and then became a Research Associate at the Oxford University, Institute for Economics and Statistics (1959 to 1963). After being Lecturer at the Universities of Flinders and Adelaide in Australia (1964 to 1967) and Research Associate at the National Institute of Economic and Social Research in London, he was elected to the Chair in Applied Economics at Swansea University College in 1972. He came to the European University Institute in San Domenico di Fiesole (Italy) from the University of Manchester where he was appointed Professor of Economics in 1976. He has held fellowships from the Nuffield Foundation and from the Economic and Social Research Council as well as the Bank of England, the University of Otago, N.Z. and the University of Indiana.

He has published extensively in learned journals and books and is currently Associate Editor of The Manchester School and The Open Economies Review. He was elected Fellow of the British Academy in 1988 and is a Research Fellow of the Centre for Economic Policy Research. His main research areas are macroeconomics and international monetary economics, in particular European monetary integration.

The first joint chair at the Robert Schuman Centre (RSC), held with the Economics Department is occupied by him.

Age F. P. Bakker,
born in 1950, is Deputy Executive Director of De Nederlandsche Bank and Professor of Monetary and Banking Issues at the Vrije Universiteit of Amsterdam.

He holds a Ph. D. from the University of Amsterdam on a disertation on the liberalisation of capital movements in Europe, which was published in 1996. Previously he has held various positions at De Nederlandsche Bank (since 1976) and at the International Monetary Fund (1979 to 1981). He is a Crown-appointed member of the Social and Economic Council in the Netherlands, member of the Monetary Policy Committee of the European System of Central Banks, and member of a number of policy commmittees within the framework of the Group of Ten and the OECD. He has been active in preparations for the introduction of the euro in the Dutch financial system.

His publications cover a range of subjects in the areas of European monetary co-operation, the international monetary system and the functioning of financial markets.

Georg Fischer,
born in Vienna, Austria in 1952. 1977 Diploma in Economics at the University of Vienna, from 1982 to 1983 Department of Economics of Warwick, UK, 1984 fellowship at the Swedish Centre of Working Life. He started his professional career 1980 as administrator in the Ministry of Labour and Social Affairs in Vienna, became 1985 Head of the Research Unit in this Ministry. From 1990 to 1992 he was Head of the Central and Eastern Europe Team at the OECD in Paris and between 1993 and 1996 Advisor to the Minister at the Ministry of Finance in Vienna. From 1996 on he has been Head of Employment Policy Unit in the Directorate General for Employment, Industrial Relations and Social Affairs at the European Commission in Brussels.

Richard Jackman,
born in 1945. Graduate student, Churchill College in Cambrigde. From 1968 to 1984 lecturer, from 1984 to 1987 senior lecturer and from 1987 on reader in economics at the London School of Economics. In 1987 he was Visiting Professor in Economics at the University of Iowa, U.S.A., from 1992 to 1993 consultant on the Economic Development Institute of the World Bank in Washington, U.S.A., 1993 to 1994 consultant for the International Labour Office, advised 1994 to 1995 the Parliamentary Committee on the Labour Market Policy in Sweden, the Banque de France on unemployment and the World Bank on its structu-ral adjustment loan to Bulgaria. He has published many books (The Unemployment Crisis, 1994, is the most recent one) and short articles in numerous professional journals and peridodicals and was co-editor of "Economica" (1976 to 1981).

Karen H. Johnson,
is Director of the Division of International Finance at the Board of Governors of the Federal Reserve System. She was awarded a Bachelor of Arts degree in Economics (summa cum laude) from Radcliffe College in 1967. She then attended the Massachusetts Institute of Technology, where she earned a Ph. D. in economics in 1973. She joined the faculty of the Economics Department of Stanford University, where she taught for six years. In 1979, she moved to Washington, D.C. to work as an economist in the Division of International Finance at the Federal Reserve Board. She became Chief of the World Payments and Economic Activity Section in 1984, working primarily on macroeconomic developments in other industrial countries. She subsequently became Assistant Director (1985) and Associate Director (1997) of the Division of International Finance, where her duties expanded to include analysis of the external transactions of the United States. She was appointed Director of the Division of International Finance in October 1998. In that position, she is responsible for analysis of developments in international capital and financial markets, of macroeconomic and policy issues in foreign countries and of the external transactions of the United States and for oversight of research on topics in international trade and finance.

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geboren 1947 in Wien. Studium der Betriebs- und Wirtschaftsinformatik an der Technischen Universität und an der Universität Wien; 1967 Mitarbeiter des Instituts für Automation und wissenschaftliche Unternehmensberatung. 1969 Eintritt in die OMV Aktiengesellschaft als Mitarbeiter in einer Stabsstelle der

Generaldirektion, Technische Direktion Gewinnung; 1980 bis 1990 mehrere leitende Funktionen in der OMV und schließlich 1990 Berufung in den Vorstand mit dem Verantwortungsbereich Finanzen, Controlling, Rechnungswesen und Unternehmenseinkauf; 1991 Erweiterung der Vorstandsverantwortung um den Unternehmensbereich Chemie. April 1992 Ernennung zum Bundesminister für öffentliche Wirtschaft und Verkehr; Jänner 1996 Ernennung zum Bundesminister für Finanzen; seit 28. Jänner 1997 Bundeskanzler der Republik Österreich.

Flemming Larsen,

is Deputy Director of Research at the International Monetary Fund, Washington, D.C. Since 1992, he has had the senior responsibility for the IMF's World Economic Outlook, the Fund's flagship publication and one of the most authoritative surveys of global economic trends and policy issues. In addition, he directs an extensive program of research on global economic, monetary, and financial questions. In 1990 to 1992 (on leave from the IMF) he was Division Chief in the European Commission, with responsibility for international monetary affairs. Before joining the IMF in 1985, he was Director of Forecasting at Wharton Econometrics in Philadelphia, and Senior Economist at the OECD in Paris. He holds degrees from the University of Aarhus, Denmark, and the College of Europe in Bruges.

Allan Larsson,

is Swedish and studied economics at the Universities of Lund and Stockholm, then began working in the areas of media and social policy, including work as the Research Secretary for the Swedish Metal Workers' Union, and as a journalist for Stockholm newspapers. In 1967, he joined the Prime Minister's Office as a political advisor, then entered TV journalism. After heading research for the Swedish Metal Workers' Union, he was Under-Secretary of State at the Ministry of Labour and Employment, later becoming Advisor to the Metal Workers' Union and union consultant for the Swedish Steel Corporation. He was Director General of the national Labour Market Board, from 1983 to 1989, and, later, of the Working Life Fund. Other assignments during that period include those of Chairman of the Swedish ILO Committee, and Chairman of the Board of Swedish State Railways and the Swedish Institute. He then became Minister of Finance, from 1990 to 1991, and subsequently sat as a member of Parliament, from 1991 to 1995, during which time he chaired the European Employment Initiative, from 1993 to 1994, and was a board member of the Swedish Central Bank: He headed the Transition Team for the new Government in late 1994. He joined the European Commission as the Director General for Employment and Social Affairs in May 1995, from which position his task continues to be helping to develop a strong and structured European dimension to the challenges of modernisation of employment and social policy in the Union.

Klaus Liebscher,

geboren 1939 in Wien. Matura am Bundesrealgymnasium Salzburg; Jusstudium an der Universität Wien; 1968 Eintritt in die Raiffeisen Zentralbank Österreich AG; 1971 Prokura, Leitung der Abteilung Anlageberatung; 1974 Direktor-Stellvertreter, Leitung Hauptabteilung Wertpapiere; 1977 Direktor; 1980 stellvertretendes Vorstandsmitglied,

zuständig für Wertpapiere, Ausland und Devisenhandel; 1982 ordentliches Vorstandsmitglied; 1987 stellvertretender Generaldirektor, stellvertretender Vorstandsvorsitzender mit der Zuständigkeit Treasury, Marketing und Strategie; 1988 bis 1995 Generaldirektor und Vorsitzender des Vorstandes der Raiffeisen Zentralbank Österreich AG; 1990 bis 1995 Präsident der Wiener Börsekammer; 1995 Präsident der Oesterreichischen Nationalbank; seit September 1998 Gouverneur der Oesterreichischen Nationalbank. Träger des Großen Silbernen Ehrenzeichens für Verdienste um die Republik Österreich.

Ewald Nowotny,

geboren am 28. Juni 1944 in Wien. Studierte an der Universität Wien, am Institut für Höhere Studien in Wien und an der Universität Straßburg. Habilitation aus Volkswirtschaftstheorie und -politik an der Universität Linz. War Universitätsassistent, ACLS-Fellow an der Harvard University, USA, hatte Professuren an der Technischen Hochschule Darmstadt, Universität Linz und ist seit 1982 Univ.-Prof. für Wirtschaftspolitik, Lehrkanzel für Geld- und Finanzpolitik, an der Wirtschaftsuniversität Wien. Seit 1. September 1999 ist er Vizepräsident der Europäischen Investitionsbank in Luxemburg. Seine wirtschaftlichen und politischen Aktivitäten umfassen unter anderem die Tätigkeit eines Aufsichtsrats in der Wiener Städtischen Versicherung und der ESG Linz. Er war von 1978 bis 1999 Abgeordneter zum Nationalrat, in dieser Funktion von 1985 bis 1999 Vorsitzender des Finanzausschusses des Nationalrats und Mitglied des EU-Unterausschusses. Er ist Vizepräsident der Österreichischen Nationalökonomischen Gesellschaft und Member of the Board of Governors, Technion, in Haifa. Die Publikationsliste umfasst 14 Bücher (unter anderem der öffentliche Sektor – Einführung in die Finanzwissenschaft, 3. Auflage), rund 60 Artikel und Beiträge in diversen Journalen, Zeitschriften und Sammelwerken. Bei einigen Zeitschriften (unter anderem Empirica) fungiert er auch als Mitherausgeber.

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born 1950 in Soisy, France. Obtained a higher degree in law from the University of Paris (1972) and a diploma from the Institute of Political Science. He started his professional career 1976 at the French treasury, held numerous positions in the French treasury from 1980 to 1995 and became chief of the staff of the Minister for Economic Affairs and Finance in 1993 and Director of the Ministry for Economic Affairs, Finance and Industry in 1997. During that time he was a member of the European Monetary Committee, alternate Governor of the International Monetary Fund and of the World Bank, an alternate member of the G 7 and G 10 and chairman of the Paris Club. Since 1 June 1998 he has been Vice-President of the European Central Bank. Is author of "Banks, the rules of the game" and of various articles.

Karl Pichelmann,

geboren 1956 in Wien. Magisterium und Doktorat für Wirtschaftswissenschaften an der Universität Wien, seit 1997 Universitätsdozent. 1979 bis 1981 Post-Graduate Kurs an der Abteilung für Ökonomie des Instituts für Höhere Studien (IHS). Von 1981 bis 1998 Mitarbeiter am IHS in Wien, seit 1998 wissenschaftlicher Berater bei der Europäischen Kommission, DG II. Autor zahlreicher Publikationen und Analysen (Schwerpunkt Arbeitsmarkt) in

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Giovanni Ravasio,

born in 1939, Diploma, Human Sciences, Collège St. Pierre, Uccle and Bachelor's degree in economic science, Université Libre de Bruxelles (ULB). From 1960 to 1963 he was Research Assistant at the Economic Department of ULB and from 1963 to 1965 Secretary to Economic Cycles Studies Group. Since 1965 he has been an official of the European Commission and has held various positions in different Directorate-Generals. From 1982 to 1986 he was Director (Directorate for economic structure and Community interventions) in DG II, from 1986 to 1987 Director in charge of general co-ordination at DG XIX, from 1987 to 1989 Director General of DG XX, 1989 Director General of DG XXII and since 1990 he has been Director General of DG II.

Hermann Remsperger,

geboren 1949 in Flörsheim-Weilbach am Main. 1968 Abitur, 1973 Diplom für Volkswirte an der Johann Goethe-Universität in Frankfurt am Main. Von 1973 bis 1978 wissenschaftlicher Assistent an der Frankfurter Universität, 1978 Promotion, seit 1979 Lehrbeauftragter und ab 1990 Honorarprofessor an dieser Universität. Zwischen 1978 und 1984 Mitarbeiter der BHF-Bank, von 1984 bis 1998 Leiter der Volkswirtschaftlichen Abteilung der BHF-Bank. Seit 1998 Mitglied des Direktoriums der Deutschen Bundesbank. Ferner ist er Mitglied im Forschungsbeirat des Center for Financial Studies und Mitglied im Vorstand der Akademie für Welthandel. Zahlreiche Veröffentlichungen über geld-, währungs- und finanzpolitische Themen.

Peter Rosner,

geboren 1948 in Wien. Studierte Mathematik an der Technischen Universität Wien und Volkswirtschaft an der Universität Wien. Arbeitete nach Studienabschluss zuerst am Institut für Ökonometrie der Technischen Universität Wien und ab 1978 am Institut für Volkswirtschaftstheorie und -politik der Universität Wien. Doktorat 1980, Habilitation 1988. Zahlreiche Publikationen zu verschiedenen Fragen der Wirtschaftspolitik und Wirtschaftsgeschichte. Gastprofessor am Institut für Höhere Studien in Wien und an der Zentraleuropäischen Universität Budapest. Derzeitiger Forschungsschwerpunkt: Sozialpolitik und Geschichte der ökonomischen Theorie.

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geboren 1950 in Wien. Studium an der Wirtschaftsuniversität Wien, Promotion. 1976 in die OMV eingetreten; ab 1985 im Bereich Planung und Kontrolle für die Strategie der OMV-Gruppe; ab 1989 direkt an den Generaldirektor berichtend für Unternehmensentwicklung zuständig. In dieser Funktion war er auch für die Reorganisation der OMV-Gruppe nach Geschäftsbereichen mitverantwortlich. 1990 Übenahme des Geschäftsbereichs Mineralölproduktenvertrieb, zunächst als Prokurist, ab 1991 als Direktor. 1992 Berufung in den Vorstand und stellvertretender Generaldirektor der OMV; bis 1996 verantwortlich für Finanzen, Controlling und Chemie; ab 1996 für Chemie, Exploration und Produktion sowie Erdgasgeschäft. Seit 28. Jänner 1997 Staatssekretär im Bundesministerium für Finanzen, zuständig für Wirtschafts- und Währungsunion, Kapitalmarkt und Öffentlicher Dienst.

Erich W. Streissler,
wurde 1933 in Wien geboren. Promovierte 1955 zum Dr. jur. (Wien), wurde 1956 akademisch geprüfter Statistiker und studierte Mathematik, Geschichte und Psychologie. Nach zahlreichen Auslandsaufenthalten in England, Spanien und Frankreich wurde er 1959 Universitätsdozent für Volkswirtschaftslehre in Wien und 1962 Ordentlicher Universiätsprofessor für Statistik und Ökonometrie an der Universität Freiburg/Br. In Freiburg war er zweimal Dekan und folgte 1968 einem Ruf als Ordentlicher Universitätsprofessor für Volkswirtschaftslehre, Ökonometrie und Wirtschaftsgeschichte an die Universität Wien, wo er 1973 bis 1974 Dekan der Rechts- und Staatswissenschaftlichen Fakultät war. Wiederholt war er Gast an der Universität Oxford, unter anderem in New College, Balliol College und Exeter College. 1993 war er Distinguished Visiting Professor an der Stanford University in Kalifornien. Er ist Mitglied der Bayerischen, Ungarischen und Österreichischen Akademie der Wissenschaften und der Academia Europea (Salzburg), Vizepräsident des Österreichischen Instituts für Wirtschaftsforschung, seit 1991 Börserat, seit 1993 Aufsichtsrat der Bundesfinanzierungsagentur in Österreich. 1990 bis 1991 war er Präsident der Confederation of European Economic Associations und ist seit 1992 Schatzmeister der International Economic Association. Seine Hauptarbeitsgebiete sind Wachstumstheorie und Geldtheorie, ökonomische Theoriegeschichte und ökonomische Systemtheorie.

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Gertrude Tumpel-Gugerell,
geboren 1952 in Killing, Niederösterreich. 1971 bis 1975 Studium der Volkswirtschaftslehre an der Universität Wien, Mag. rer. soc. oec.; 1981 Promotion. 1975 bis 1979 Referentin für Konjunktur- und Geldpolitik in der Volkswirtschaftlichen Abteilung der Oesterreichischen Nationalbank; 1980 Ausbildung in Finanzanalyse und -politik beim Internationalen Währungsfonds, Washington D.C.; 1981 bis 1984 wirtschaftspolitische Beraterin des Bundesministers für Finanzen; 1985 bis 1986 stellvertretende Leiterin der Volkswirtschaftlichen Abteilung der OeNB; 1986 bis 1992 Leiterin der Innenrevision der OeNB; 1992 bis 1997 Bereichsdirektorin für Unternehmensplanung und -steuerung in der OeNB; seit 1996 mit der Koordinierung der Vorbereitung der OeNB auf die Währungs-

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Jürgen von Hagen,

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