# Jean-Claude Trichet: The need for structural reforms in Europe

Speech by Mr Jean-Claude Trichet, President of the European Central Bank, on the occasion of the Jean Monnet Lecture of the Lisbon Council's Board of Economists, Brussels, 4 June 2007.

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I would first like to thank the organisers for inviting me in the occasion of this Jean Monnet Lecture of the Lisbon Council's Board of Economists. It is both a privilege and a pleasure for me to be here today, to share with such a distinguished audience my views on the need to further structural reforms in Europe.

Opening a lecture series named Jean Monnet, is even more than that for me. Jean Monnet was at the very heart of the foundation of European Union. The reading of his Memoirs is profoundly inspiring. Today perhaps he would say again – I am only changing the tense of his verbs – : "Ceux qui ne voulaient rien entreprendre parce qu'ils n'étaient pas assurés que les choses iraient comme ils l'avaient arrêté par avance se condamnaient à l'immobilité. Personne ne pouvait dire la forme qu'aurait l'Europe où nous allions vivre demain car le changement qui naît du changement est imprévisible » ; « Those who did not want to start anything because they were not ensured that things would go exactly as they had planned were condemning themselves to remain immobile. Nobody could say what Europe would be tomorrow because future changes that are triggered by today's changes are unpredictable". The setting up of the single currency has been a remarkable success, acknowledged in Europe as well as across the entire world. However, to fully exploit the benefits of the euro, Europe needs to face important challenges that require major policy measures.

In 2006, real GDP in the euro area grew by 2.8%, which is the highest rate since 2000. Along with the recent economic recovery, hourly labour productivity growth has accelerated and employment growth remained positive. These positive developments are very encouraging, but this is no time for complacency. Europe still has some way to go, if it wants to cope with globalization and meet the challenges of rapid technological changes and ageing population. This is true at the level of Europe as a whole as well as at the level of each particular economy. Economic research has demonstrated the major role of structural reforms in explaining cross-country disparities in economic performance<sup>1</sup>. If all European countries summon up their strength and reinforce their push forward with structural reform, the improvement in economic activity presently observed in Europe will be broadened and made sustainable in the long run. This is why the ECB has always encouraged the implementation of structural reform within the Lisbon Strategy. Six years after the launch of the Lisbon Strategy in March 2000, the 2006 Implementation Reports of the euro area countries' National Reform Programmes for the period 2005-2008 confirm the awareness of governments to step up the pace of reform and the strong commitment by all countries to deliver effective measures. In March, the 2007 Spring European Council stressed the significant progress in implementing the renewed Lisbon Strategy for Growth and Jobs in most European countries. At the same time it also called on Member States and EU Institutions to reinforce their actions in particular to boost employment, strengthen the internal market, improve significantly competitiveness and create better framework conditions for research and innovation.

Against this background, I will first review the past economic growth performance of the euro area, focusing on some of the underlying factors of potential output growth, namely labour resource utilisation (or labour supply), hourly labour productivity and demographic trends, in particular in comparison to the US. Then I will elaborate on the reforms which I see as particularly essential in making Europe fit for the future.

#### The economic performance of the euro area since the mid-1990s.

When comparing the euro area's economic performance with that of the US, from the mid 1990's onward euro area output growth underperformed. Since 1996, the annual growth rate for the euro area

<sup>&</sup>lt;sup>1</sup> See the March 2007 ECB Monthly Bulletin Article "Output growth differentials in the euro area: Sources and implications" for a discussion and further references.

has averaged 2.1% per year<sup>2</sup> compared to 3.3% in the US. What are the fundamental causes of this unsatisfactory low trend growth in the euro area? The answers can be found by looking at the factors that determine potential or long-term economic growth, namely: the degree of labour utilisation, productivity growth and the demographic trends.<sup>3</sup>

The euro area witnessed a considerable improvement in the employment situation<sup>4</sup>. The euro area overall employment rate significantly increased from 58% in 1996 to 64.4% in 2006<sup>5</sup>, accompanied by a decline in the annual average unemployment rate from 10.7% to 7.9%. Since the beginning of the EMU in 1999 the euro area has witnessed an increase of more than 12 million in the number of people employed. The rise in the overall employment rate in the euro area over the last ten years has been mainly due to an increase in the female and older workers employment rates, partly driven by the progress made by structural reforms in some European countries. This improvement in the employment situation is also reflected in the contribution of workers to economic growth. The degree of labour utilisation reflects the extent to which the labour force in an economy actually contributes to the production process and therefore has a direct influence on output growth. For the euro area, labour utilisation grew on annual average by 0.4% [percentage changes] between 1996 and 2006<sup>6</sup> [compared with 0.1% in the US] when defined as the total annual hours worked divided by the total population.<sup>7</sup>

Although this is a very encouraging fact, which shows that the positive employment effect we witnessed over the last ten years has significantly helped us to counteract the growth differential to the US, one has to remain aware of the inferior starting position of euro area countries. These improvements did not cancel out structural weaknesses of labour markets.

First of all, despite the important progress recorded, the overall employment rate in the euro area remains low by international standards [64.5% in the euro area compared with 72% in the US in 2006] and the unemployment rate is still clearly too high [7.9% compared with 4.6% in the US on annual average in 2006 and 7.1% to be compared to 4.5% in April this year]. Also to be noted in 2006, the number of annual hours worked in the euro area was 1604 compared to 1804<sup>8</sup> in the US. This clearly suggests that there is still considerable room for improvement as regards increasing the level of labour resource utilisation in Europe.

Second, while the prime-age male employment rate in the euro area is comparable to that observed in the United States, when we look at the youth, female and older worker employment rates, the disparities remain important. In 2006 the female employment rate was 56.5% in the euro area and 66% in the US, the older workers employment rate was 41.7% in the euro area and 61.8% in the US, the youth employment rate was 37.1% in the euro area and 54.2% in the US. These figures appear to be consistent with an "insider-outsider" characterisation of the European labour market, where structural impediments prevent those groups "at the margin" of the labour market from entering and participating in it.

Productivity is the other major factor determining growth. Over the last decade, the diverging trend in hourly labour productivity growth has indeed been the main reason explaining the growth differential between the euro area and the US. According to the last figures available, during the 1980's and the first half of the 1990s, hourly labour productivity in the euro area grew on average by 2.4%, then it decelerated to 1.3% on average between 1996 and 2006. By contrast, US hourly labour productivity growth rose from 1.3% to 2.1% over the same period.

<sup>&</sup>lt;sup>2</sup> European Commission – AMECO database.

<sup>&</sup>lt;sup>3</sup> Data from European Commission database AMECO. Hours worked data from the OECD.

<sup>&</sup>lt;sup>4</sup> See "Developments in the structural features of the euro area labour markets over the last decade" ECB Monthly Bulletin, January 2007.

<sup>&</sup>lt;sup>5</sup> Labour Force Statistics - Eurostat.

<sup>&</sup>lt;sup>6</sup> In the context of a growth accounting framework, these figures can be either interpreted as percentage changes or contribution to real GDP growth in percentage points.

<sup>&</sup>lt;sup>7</sup> The positive contribution of employment growth has partly been dampened by a fall in the average annual hours worked per person of 0.4% per annum over the same period compared with a fall of 0.2% in the US.

<sup>&</sup>lt;sup>8</sup> OECD Employment Outlook. Data for 2006 are partly estimates

Several causes have been mentioned to explain this downward trend in the euro area. Specific policies aiming at increasing employment particularly in the unskilled segment of the labour market may have contributed to the observed slowdown in labour productivity growth. However, this apparent trade-off between labour utilisation and productivity is likely to be a temporary phenomenon that should progressively fade, when the economy reaches a higher "equilibrium" labour/output ratio. In this respect, it is worth mentioning that the US managed at the same time to increase both labour input and labour productivity.

There is indeed another major reason that explains the big difference in the rate of labour productivity growth in Europe compared with the US, which in my view is a major policy issue, namely the fact that the European economy does not take advantage as does the US economy of all the opportunities offered in particular by the advances of science and technology including, but not exclusively, in the ICT sector. More generally, restructuring of the productive sector and re-engineering of the production processes appear to be more difficult in a relatively significantly less flexible economy like the European one, having a negative influence on total factor productivity.

A number of international institutions and academics have highlighted the major role of innovation and ICT in the revival of labour productivity growth in the US.9 Over the last 10 years, total R&D investment in the euro area accounted for 1.8% of GDP and the ICT sector represented as much as 20% of this amount, while in the US, 2.6% of GDP was spent on R&D and the ICT sector represented as much as 30% of this total.<sup>10</sup> Similarly important seems to be the effect ICT diffusion has had on productivity in the US economy, particularly in some market service sectors intensively using ICT technology, although the exact contribution is obviously hard to quantify.<sup>11</sup> ICT investment, which can be used as a proxy of ICT diffusion, represented on average 4% of GDP in the US or 29% of total investment from 1996 to 2005 compared with only 2.3% of GDP or 16% of total investment in the euro area.<sup>12</sup> At the sectoral level, it appears that the gap in labour productivity growth between the euro area and the US has been mainly driven by the wholesale and retail trade sectors as well as the financial sectors. In the wholesale and retail trade sectors, hourly labour productivity significantly accelerated in the US from 0.7% to 2.6% over the periods 1980-1995 and 1996-2004, while at the same time it decelerated in the euro area from 2.3% to 0.1%. In the financial sectors, over the same periods, hourly labour productivity growth has also accelerated in the US and has been roughly 4 times higher than the growth rate observed in the euro area over the period 1996-2004. [In the financial sectors, over the periods 1980-1995 and 1996-2004 hourly labour productivity grew by 0.7% and 2.6% respectively in the US and in the euro area it grew by 0.1% to -0.6% respectively.<sup>1</sup>

The structural characteristics of the US economy – a more flexible labour market, a higher degree of competition in product markets and lower barriers to entry for new firms – were more conducive to exploiting the opportunities provided by new technologies, than the more rigid and less competitive structures of Europe.

Finally, let us not forget the demographic change occurring on both sides of the Atlantic. Indeed, Europe's long term growth performance has also been constrained by the low rate of increase of its population and the ageing of its society. Since the mid 1990's, population in the euro area has been growing at a rate of just 0.4% compared to 1.1% in the US. This aggregate result should however not

<sup>&</sup>lt;sup>9</sup> See Oliner and Sichel (2002), "Information technology and productivity: where are we now and where are we going?", Federal Reserve Board. See also Jorgenson, D., M.S. Ho and K. Stiroh (2002), "Information Technology, Education, and the Sources of Economic Growth across U.S. industries", mimeo. See Pilat, D., F. Lee and B. van Ark (2002), "Production and use of ICT: a sectoral perspective on productivity growth in the OECD area", OECD Economic Studies No 35. See Gomez-Salvador, Musso, Stocker and Turunen (2006), "Labour productivity developments in the euro area", ECB Occasional Paper series No 53.

<sup>&</sup>lt;sup>10</sup> European Commission.

<sup>&</sup>lt;sup>11</sup> It is important to mention a number of caveats related to the measurement of labour productivity in the service sectors. Indeed, data on hourly labour productivity and ICT, especially in the service sectors, are surrounded by considerable uncertainty and caution is therefore required when interpreting the results. In addition there are alternative explanations that may explain the labour productivity growth acceleration in the US in some services sectors such as higher entry rate, organisational changes and restructuring in the US, increasing efficiency and therefore accelerating TFP growth. See C. Denis, K.Mc Morrow, W. Roger and R. Veugelers "The Lisbon Strategy and the EU's Structural productivity problem" European Commission 2005.

<sup>&</sup>lt;sup>12</sup> OECD.

<sup>&</sup>lt;sup>13</sup> EUKLEMS database.

cover the important role immigration has had in supporting economic growth in some euro area countries. However, what is worrisome is that at the same time, the gap in population growth has been even larger with regard to growth in the working age population [the working age population grew on average by 0.3% in the euro area over the period 1996-2006 compared to 1.4% in the US], which manifests that Europe has a more acute problem of population ageing. I will deal with some of the policy implications of ageing later on in my presentation.

### The need for further structural reforms in Europe

Overall, this brief assessment of the underlying causes of Europe's relatively disappointing longer-term growth performance provides a mixed picture of the European economy. Of course, I focused on a specific set of supply-side determinants of economic growth. Economic growth is also influenced by other factors, including the macroeconomic policy framework. The lack of sufficient structural reform in Europe is however, in my view, a major cause of the difference in the growth potential in Europe compared with the US and with some other advanced industrialized economies. All in all, it appears that the overriding policy concern for Europe is how to simultaneously achieve solid employment and productivity growth. I should stress that the implementation of the reforms on the Lisbon agenda, by easing labour and product market rigidities, by permitting the full completion of the single market, by enhancing education training and research and development and therefore by improving productivity growth will also improve the effectiveness of monetary policy by facilitating price stability.

I will now turn to those structural reforms identified in the Lisbon agenda that have the potential to increase both euro area labour productivity growth and labour utilisation, and therefore the long-term growth potential of the European economy.

It is clear that such major structural reforms are not easy to achieve, but pursuing resolutely such reforms is especially needed in the current environment, where the European economy is facing a number of important challenges, including rapid technological change, ageing populations as well as accelerating globalisation.

For instance, ageing will not only put pressure on public finances by driving up ageing-related expenditure, but will also bring down the potential growth rate of Europe if no reforms take place. According to the European Commission's and ECB projections, the impact of ageing populations alone could reduce on average potential output growth in Europe by nearly half by 2040, if structural reforms are not carried out.<sup>14</sup>

All in all, these challenges will require continuity in the policy of reforms to increase the output growth and adjustment capacity of the economy of the euro area in general and the flexibility of all its markets. There is a unique opportunity for European governments to take advantage of the present favourable growth developments to push ahead with the structural reforms that have been already agreed upon but are still far from being achieved. Without aiming to be exhaustive, I should like to highlight some of the key priorities for reform in four main areas, namely:

- Getting more people into work,
- Increasing competition,
- Unlocking business potential,
- And finally, supporting an innovative environment.

## Getting more people into work

First of all, well-functioning labour markets are extremely important in fostering higher economic growth. The differences in labour market developments, especially with regard to the level of labour utilisation, between the US and Europe has prompted some economists to suggest the existence of a

<sup>&</sup>lt;sup>14</sup> See "The economic costs of non-Lisbon: A survey of the literature on the economic impact of Lisbon-type reforms" by Directorate-General for Economic and Financial Affairs, European Commission Occasional papers No 16, March 2005 EC. See "Demographic change in the euro area: projections and consequences" ECB Monthly Bulletin October 2006.

"European model" and a "US model", related to the trade-off between labour and leisure.<sup>15</sup> One view is that the lower levels of GDP per capita in Europe reflect a European preference for more leisure time. However, we should bear in mind that lower participation rates are not necessarily associated solely with personal preferences, but are also triggered by the legal and regulatory environment, tax systems and social institutions. Benefit systems that are too generous discourage job searching, early retirement schemes encourage early withdrawal from the labour market and marginal tax rates that are too high discourage labour market entry and have a downward effect on average hours worked. Necessary measures to increase labour utilisation or labour supply include the reform of tax and benefit systems to address these problems and increase incentives to work. Measures aimed at reconciling motherhood with professional life, such as the provision of childcare, should also raise participation rates. Furthermore, the use of flexible forms of work such as part-time and temporary work may also provide further working incentives.<sup>16</sup>

High unemployment rates in the euro area and in particular unacceptable high youth unemployment rates clearly suggest the need to spur not only labour supply but also labour demand. In this context, there is a need to reduce labour market rigidities restricting wage differentiation and flexibility. Adjustments should be made to employment legislation where it impedes the hiring of younger and older workers in particular.

The experience of European countries which have undertaken some courageous and successful reforms show that it pays off. In particular Denmark, Ireland and the Netherlands – which, by the way, are all three, de jure or de facto for Denmark, in the euro area – have achieved success in reducing unemployment and stimulating job creation, despite significantly different economic conditions.<sup>17</sup> In 2006 the unemployment rate in these countries stood below 4.5%, while their overall employment rate was above or close to the US level, namely 72 %. To achieve such remarkable success, these countries reformed their tax and benefit systems by reducing for example tax wedges on labour income and by carrying out a stricter enforcement of job search rules and a better surveillance of eligibility. They also increased, when and where needed, the flexibility of their labour market.

#### Increasing competition

What all these countries also have in common is a significant reduction of product market regulation. This leads to the second prerequisite for higher medium to long-term growth: increasing competition towards establishing efficient and well-functioning product markets.

Most studies point to the potential that improving competition has to increase employment in the medium and long run, and to boost productivity trends by improving production efficiency and by enhancing the incentive to invest and innovate. The links between competition and productivity growth are now both theoretically and empirically well-established. The ECB and the Eurosystem as well as the Commission have been working in this domain of research.<sup>18</sup>

In the EU, some progress has been made in this regard. For example, several network industries, like telecommunications, are now fully or largely open to competition and the hourly labour productivity in this particular sector significantly accelerated from 4.9% to 8.4% over the periods 1980-1995 and 1996-2004 [By comparison in the US, hourly labour productivity grew by 3.4% and 4.4% over the same periods in the telecommunication sectors].

A lot remains however to be done: the extension and deepening of the EU internal market remains a priority. It is essential to ensure full implementation of Community directives, where greater efforts

<sup>&</sup>lt;sup>15</sup> See Blanchard, O. (2004): "The economic future of Europe", The Journal of Economic Perspectives, vol. 18, pp. 3-26; and also Gordon, R. J. (2004): "Two centuries of economic growth: Europe chasing the American frontier", CEPR Discussion Paper, No. 4415.

<sup>&</sup>lt;sup>16</sup> See, for example, Genre, V., R. Gomez-Salvador and A. Lamo (2005): "European Women: Why do(n't) they work", ECB Working Paper Series, No 454, March 2005.

<sup>&</sup>lt;sup>17</sup> See Anthony Annett (2006) "Lessons from successful labour market reformers in Europe" IMF euro area policies: selected issues, August 2006.

<sup>&</sup>lt;sup>18</sup> See the ECB Occasional Paper Series No 44 "Competition, productivity and prices in the euro area services sector", by the Task Force of the Monetary Policy Committee of the ESCB, April 2006.

need to be made, for example on the effective opening of energy markets. More should also be done to improve access to public procurement contracts or to ensure effective competition in services.

Let me now focus more specifically on the financial sectors. Financial integration is indeed, of key importance for the ECB, given the relevance for the conduct of the single monetary policy. Despite significant progress in recent years, financial services integration appears not yet to have reached its potential and competition seems insufficient in some areas, leaving European consumers unable to take full advantage of the benefits of the EMU and the Single Market.<sup>19</sup> This seems also to have constrained the economic performance and the development of these sectors in the euro area as illustrated by their disappointing labour productivity growth performance.

More generally speaking, evidence indicates that the reallocation of capital from declining industries to industries with high investment opportunities and high productivity is faster in countries with developed financial markets.<sup>20</sup> For these countries, investment is also more responsive to technical innovation.<sup>21</sup> These findings suggest that countries with more liquid capital markets and a developed banking system are growing faster on average. Some authors have calculated that if the average size of capital markets in the EU was bigger – in the US for instance this size is around 450% of GDP instead of 220% in the EU (based on an overall indicator measuring total financing in the economy by aggregating bank credit to the private sector, stock market capitalisation and the outstanding amount of domestic debt securities issued by the private sector) – then annual GDP per capita growth in the EU could be positively influenced.<sup>22</sup>

At this stage of my presentation, I would like to stress that the euro area countries will be the more equipped for the increased globalised economy the more they are able to exploit the benefits of EMU and the EU internal market. In this regard, existing impediments to the internal market for goods and services need to be removed and financial integration further fostered. Further efforts in the fields of product market deregulation and liberalisation are required to raise product market competition – at the EU and national level. This would enable more efficient production structures associated with a more competitive price setting.

In this context, the adoption of the Services Directive by the European Parliament in February 2006 constitutes a step forward in the right direction. But let me also stress that the mere adoption of Internal Market directives does not automatically produce benefits. Once adopted, directives must be transposed into national law and enforced in order to produce benefits and Member States have the primary responsibility for these tasks.

#### Unlocking of business potential

A third prerequisite for higher growth in the euro area is the unlocking of business potential by creating an entrepreneurial-friendly economic environment. Europe needs more new and thriving firms willing to reap the benefits of opening markets and to embark on creative or innovative ventures for commercial exploitation on a larger scale. It is increasingly new and smaller firms, rather than large ones, that are the major providers of new jobs.<sup>23</sup> The contribution from firm dynamic processes to aggregate labour productivity growth and innovation also plays a major role, in particular in high-tech industries. All in all, an entrepreneurial-friendly economic environment would imply less red tape for small and medium-sized enterprises to help them develop at home and across borders, as well as positive action to ease access to the finance they need. As regards risk capital markets, venture capital financing is also crucial. Without these funds, many new and innovative companies will simply not emerge. Europe is significantly lagging behind in this field, as venture capital financing in Europe remains only a fraction of what it is in the US relative to the size of their economies. According to the

<sup>&</sup>lt;sup>19</sup> See "Financial integration in Europe" (2007).

<sup>&</sup>lt;sup>20</sup> See P. Hartmann, F. Heider, E. Papaioannou and M. Lo Duca (2007), "The role of financial markets and innovation for productivity and growth in Europe", ECB Occasional Paper forthcoming.

<sup>&</sup>lt;sup>21</sup> See A. Ciccone and E. Papaioannou (2006), "Finance, capital and growth", paper presented at the ECB-CFS network conference on "Financial System Modernisation and Economic Growth in Europe", Berlin (http://www.eu-financialsystem.org/Berlin2006\_programhtm.html).

<sup>&</sup>lt;sup>22</sup> See G. Favara (2006), "An empirical reassessment of the relationship between finance and growth", mimeo.

<sup>&</sup>lt;sup>23</sup> See the European Commission's Green Paper entitled "Entrepreneurship in Europe", 21.01.2003.

European Innovation Scoreboard 2006, the innovation gap of Europe with the US is significantly explained by the superior US performance in early-stage venture capital availability.

The decisive importance of having an entrepreneurial-friendly economic environment is increasingly appreciated by European governments, and several initiatives at national or EU level have started to implement actions for "better regulation". The call by the European Council for the establishment of "one-stop-shop" arrangements in each Member State by the end of 2007, which would enable a company to be set up in one week was a symbolic but important orientation.

#### Supporting an innovative environment

Fourth, to fully exploit productivity potential, the labour and product market reforms I just mentioned need to be accompanied by policies that help innovation and technological change. This includes. inter alia, measures to support innovation through higher investment in research and development (R&D). The immense importance of this issue, and the great opportunities provided by investment in research, are also increasingly appreciated by European governments and firms. A large majority of Member States now have specific strategies in place for stimulating both the quantity and quality of R&D activity. [Without aiming to be exhaustive, I should like to mention "The pact for Research" in France, the Science Budget 2004 in the Netherlands, The Strategy for science, technology and innovation 2006-2013 in Ireland and the "Ingenio 2010" in Spain]. Nevertheless, the European Commission's 2006 Annual Progress Report on Growth and Jobs shows that while many Member States expect to increase their R&D spending, Europe will fall short of the 2010 overall EU target of achieving 3% of GDP. The efforts of European countries to increase R&D investment are still insufficient and Member States should make a stronger commitment to R&D and innovation. Particular attention should be paid to increase public R&D spending efficiency by facilitating for instance the cooperation between the public and private sector. As regards private R&D investment, more attractive conditions for technology-intensive markets should be created. This includes for instance a better use of public procurement, a more innovation-friendly regulation and stepping up the provision of targeted fiscal incentives to the private sector. The European Commission estimated that an increase in the share of R&D expenditures in GDP from 1.9% in 2004 to 3% by 2010 would result in an increase of 1.7% in the level of GDP by 2010. It goes without saying that it is not only a quantitative issue and that at the same time the efficiency of research an development in terms of industrialisation is crucial. In the longer term, GDP could be up by 4.2% in 2015 and 7.0% in 2020, equivalent to a growth surplus of nearly 0.5% per year.<sup>24</sup> To make these measures most effective, they need to be accompanied by efforts to improve the labour force's level of education and expertise.

The impact of education on growth may be related to innovation, as well as the adoption of new technologies. Policies aimed at improving human capital are usually considered to be of the utmost importance in this field.<sup>25</sup> One possible explanation, commonly mentioned in the literature, is that the diffusion of innovation and new technology is associated with learning costs that decrease over time, as a function of the increasing number of users. More wide-spread knowledge about how to exploit new technology is therefore speeding up the rate of diffusion.

All in all, meeting the challenges of technological progress and ensuring the labour force's employability and flexibility, requires that human capital is continuously adjusted to labour market needs through improved education and training, as well as lifelong learning.

The last decades have already brought about an enormous increase in the level of educational attainment, the so-called "catching-up effect in education". In the euro area, according to OECD data for 2004, an average of 74% of those aged from 25 to 34 had attained at least upper secondary education, compared to only 45% of persons aged from 55 to 64.<sup>26</sup>

However, so far investment in human capital in Europe is still clearly inadequate for a "knowledgeintensive" economy. In 2003, the US annual expenditure on higher education institutions represented

<sup>&</sup>lt;sup>24</sup> European Commission, 2004, "A 3% R&D effort in Europe in 2010: an analysis of the consequences", study prepared by the Research Directorate General of the European Commission.

<sup>&</sup>lt;sup>25</sup> Stiroh, K.J. (2000), "What drives productivity growth?", Federal Reserve Bank of New York.

<sup>&</sup>lt;sup>26</sup> Unweighted average. OECD Education at a Glance 2006.

2.9% of GDP, while in the euro area it only represented 1.2%.<sup>27</sup> The gap is mainly a result of greater private funding. European universities should be allowed and encouraged for instance to seek complementary private sources of funding and legal, and other barriers to public-private partnerships between universities and businesses should be removed. A better and more effective education system, as estimated by some research of the European Commission, might add as much as 0.3 to 0.5 percentage points to the annual EU GDP growth rate.<sup>28</sup>

Before concluding, there is one more policy issue I would like to mention: fiscal policy challenges and more specifically the quality of public finances. Indeed, a lot of structural measures, I mentioned have fiscal implications. It is therefore essential, in the context of indispensable sound fiscal policies fully in line with the Stability and Growth Pact, to reduce public spending inefficiency in order to facilitate the reorientation of public expenditure towards productivity-enhancing physical and human capital accumulation. In this domain we should also never forget that the countries of the European Union as well as the countries of the euro area have today a level of public spending as a proportion of GDP which is largely superior to the level of all major global industrialized competitors. This is hampering our growth and job creation in the present highly competitive global economy.

## Conclusion

Europe is in the process of reforming its economy so as to adapt to the challenges of globalisation, technological change and ageing. Significant progress has already been achieved as reflected by the significant rise in employment growth.

Monetary Union has been effective – and hugely successful – in supporting growth through a credible monetary policy achieving price stability in the medium-run, lowering of financing costs for a number of euro area countries through a reduction of risk premia and in giving impetus to further resolute European integration, particularly in financial markets, and further reduction to the barriers to competition. That said, we have the tool in our hands to address more fully the challenges I mentioned: the Lisbon strategy, as refocused and reaffirmed by the European Council. The challenges ahead of us are a reminder that European integration is a dynamic process and that it will bring about deeper structural transformations. As a matter of fact, the historical process of European integration is moving steadily forward and will require our utmost effort and commitment for years to come. I am thoroughly optimistic for the future of Europe.

Thank you very much for your attention.

<sup>&</sup>lt;sup>27</sup> OECD Education at a Glance 2006.

<sup>&</sup>lt;sup>28</sup> European Commission, 2003, "Chapter 3 – Education, training and growth", in: The EU Economy: 2003 Review.