NATIXIS

FLASH ECONOMICS
ECONOMIC RESEARCH

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Are there fundamental reasons for the sluggish growth in the euro zone, or is it an economic policy problem?

Euro-zone growth has been weak since the creation of the euro and is still weakening. There are two possible explanations of this sluggish growth:

- ***it may be due to fundamental reasons: lack of technical progress, insufficient total factor productivity, innovation, education and labour force skills;***
- ***it may be due to economic policy errors: for example a tax system that hampers employment, chronic overvaluation of the euro, lack of fiscal policy coordination, loss of cost-competitiveness, detrimental wage policy, etc.***

We believe that:

- ***there is a major problem of productivity, technical progress, innovation, education and skills in the euro zone (which we will compare with the United States, the United Kingdom, Sweden and Japan);***
- ***the only major economic policy problem in the long term seems to be the excessive level of welfare contributions.***

ECONOMIC RESEARCH
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Structurally weak growth in the euro zone

Since its creation, the euro zone has suffered from sluggish growth, and the weakness of euro-zone growth is currently worsening **(Charts 1A** and **B).**

Chart 1A
GDP growth (Y/Y as %)

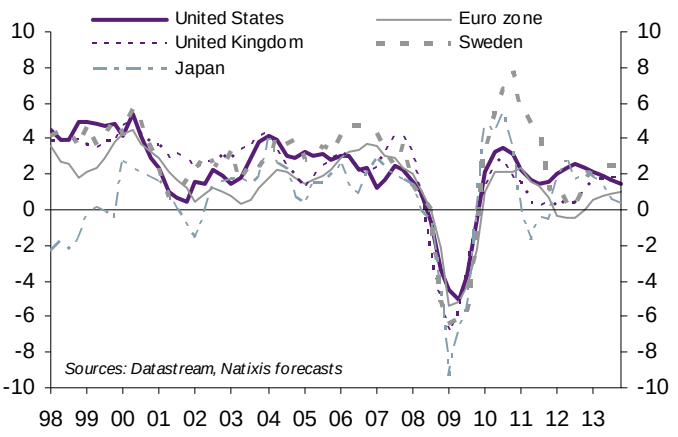
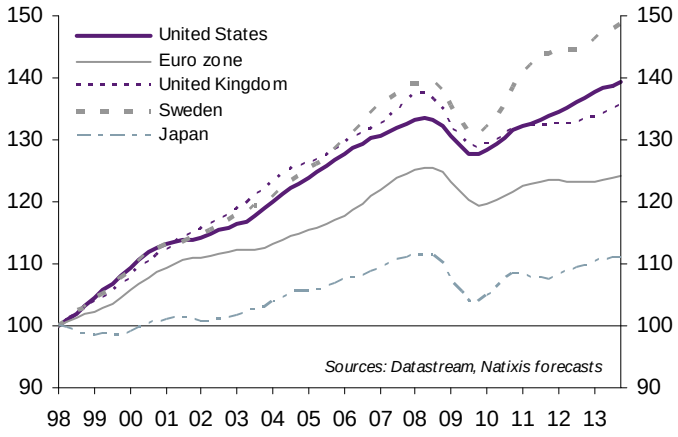


Chart 1B
Real GDP (1998:1 = 100)



Average growth in the euro zone from 1998 to 2012 was 1.6% per year, and GDP is unlikely to return to its early-2008 level by the end of 2013.

There are two types of possible explanations why a country has abnormally weak growth:

- **the weakness of growth is due to underlying, fundamental reasons:** lack of technical progress, insufficient innovation, education and skills;
- **it is due to ineffective economic policies:** unfavourable tax system, real overvaluation of the exchange rate, costs related to a lack of coordination, detrimental wage policy.

Are there fundamental causes behind the sluggish growth in the euro zone?

We should therefore look at **the euro zone's position,** compared with the other large OECD regions, with respect to:

- **labour productivity;**
- **total factor productivity;**
- **innovation drive;**
- **labour force skills.**

1. Labour productivity

Per capita productivity has hardly increased in the euro zone (Chart 2A), and the weakness of hourly productivity (less than 1% growth per year, **Chart 2B**) has been exacerbated by **the decline in the working time (Chart 2C).**

Chart 2A
Per capita productivity (1998:1 = 100)

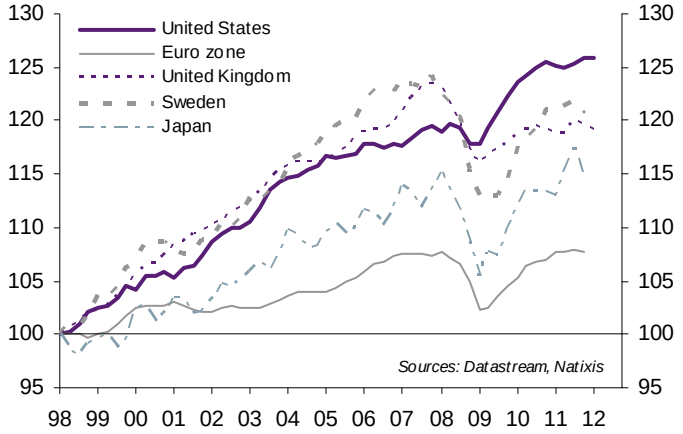


Chart 2B
Hourly productivity* (1998:1 = 100)

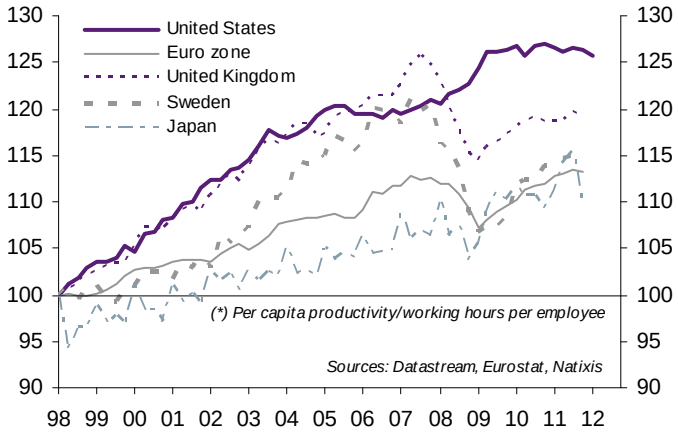
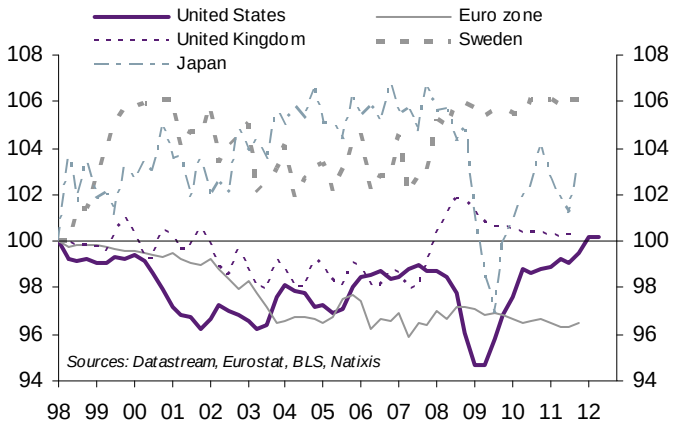


Chart 2C
Per capita working time (1998:1 = 100)



2. Total factor productivity

This is the overall productivity of capital and labour taken as a whole, and therefore technical progress.

Compared with labour productivity, overall productivity depends on **capital intensity:**

$$\text{Labour productivity} = \frac{\text{GDP}}{\text{Employment}} = \text{Total factor productivity} \times \left(\frac{\text{Capital}}{\text{Employment}}\right)^{\alpha}$$

where α is the weight of unearned income in GDP.

It is in the euro zone that total factor productivity is increasing the least (Chart 3A), and the increase in per capita capital is weak as well (Chart 3B); as we have seen above, per capita productivity is hardly increasing.

Chart 3A
Total factor productivity* (1998:1 = 100)

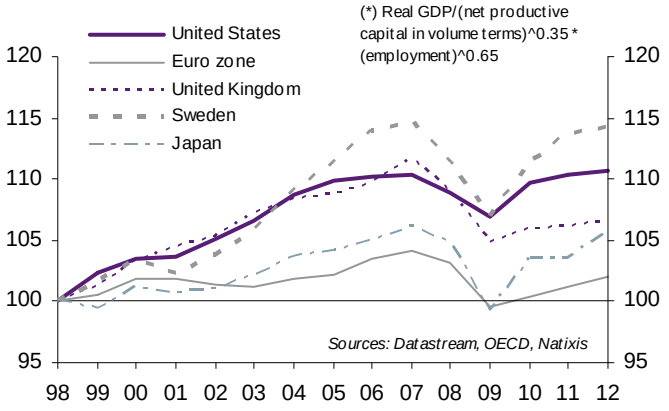
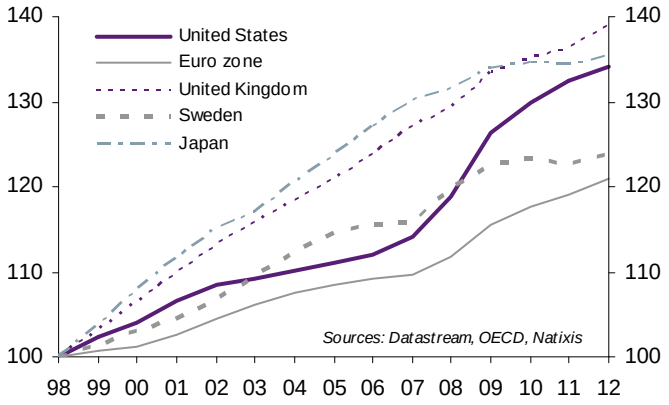


Chart 3B
Ratio between net productive capital in volume terms and total employment (1998:1 = 100)



3. Innovation and education drive

The innovation drive is weaker in the euro zone than in the United States, Sweden and Japan **(Tables 1A** and **B); spending on higher education** is smaller than in the United States, Sweden, the United Kingdom and Japan **(Table 1C).**

Table 1A
Total R&D expenditure (as % of nominal GDP)

Country	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
United States	2.58	2.63	2.69	2.71	2.60	2.60	2.53	2.56	2.60	2.66	2.79	2.78	-
Euro zone	1.72	1.77	1.79	1.82	1.84	1.84	1.84	1.84	1.87	1.88	1.94	2.07	2.06
United Kingdom	1.76	1.82	1.81	1.79	1.79	1.75	1.68	1.73	1.75	1.78	1.79	1.86	1.77
Sweden	3.54	3.61	3.89	4.17	4.01	3.80	3.58	3.56	3.68	3.40	3.70	3.61	3.42
Japan	3.00	3.02	3.04	3.12	3.17	3.20	3.17	3.32	3.40	3.44	3.45	3.44	-

Sources: OECD, Eurostat, Main Science and Technology Indicators 2011

Table 1B
Number of triadic patents (per million inhabitants)

Country	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
United States	54.13	58.36	55.48	54.09	55.69	51.97	51.90	51.77	50.82	48.17	45.83	44.75
Euro zone	38.12	40.51	39.90	40.60	39.36	37.88	38.89	38.72	40.68	40.25	39.40	38.74
United Kingdom	27.83	33.56	27.72	27.46	28.06	27.19	27.45	27.39	27.30	27.41	26.92	26.47
Sweden	102.33	107.86	67.80	66.33	73.93	75.02	77.89	91.96	104.01	104.39	102.55	99.35
Japan	86.75	95.33	116.09	107.51	109.57	104.75	107.63	108.53	107.71	108.74	107.86	104.62

Source: Main Science and Technology Indicators 2010

Table 1C
Expenditure on higher education per student (in equivalents of US dollars converted on the basis of PPP)

Country	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
United States	19,220	20,358	22,234	20,545	24,074	22,476	24,370	25,109	27,010	29,910
Euro zone	8,524	9,085	9,214	9,657	10,413	10,484	10,799	11,449	12,253	13,509
United Kingdom	9,554	9,657	10,753	11,822	11,866	11,484	13,506	15,447	15,463	15,310
Sweden	14,222	15,097	15,188	15,715	16,073	16,218	15,946	16,991	18,361	20,014
Japan	10,278	10,914	11,164	11,716	11,556	12,193	12,326	13,418	14,201	14,890

Sources: OECD, Education at a Glance 2011

4. Labour force skills

The average labour force skills are markedly lower than in the United States, the United Kingdom, Sweden and Japan (Table 2).

Table 2
Structure of the labour force by level of education

as %	United States			Euro zone			United Kingdom		
	Lower secondary education	Higher secondary and post-secondary non-tertiary education	Tertiary	Lower secondary education	Higher secondary and post-secondary non-tertiary education	Tertiary	Lower secondary education	Higher secondary and post-secondary non-tertiary education	Tertiary
1999	13	51	36	43	38	19	38	37	25
2000	13	51	36	41	39	20	37	37	26
2001	12	50	37	40	40	20	37	37	26
2002	13	49	38	39	40	21	36	37	27
2003	12	49	38	38	41	21	35	37	28
2004	12	49	39	37	41	22	34	37	29
2005	12	49	39	36	41	23	33	37	30
2006	12	48	39	35	42	23	32	38	31
2007	12	48	40	34	42	24	32	37	32
2008	11	48	41	33	43	24	30	37	33
2009	11	47	41	33	42	25	26	37	37

as %	Sweden			Japan		
	Lower secondary education	Higher secondary and post-secondary non-tertiary education	Tertiary	Lower secondary education	Higher secondary and post-secondary non-tertiary education	Tertiary
1999	23	48	29	19	49	32
2000	22	47	30	17	49	34
2001	19	49	32	17	49	34
2002	18	49	33	-	63	37
2003	18	49	33	-	63	37
2004	17	48	35	-	61	39
2005	16	54	30	-	60	40
2006	16	54	31	-	60	40
2007	15	53	31	-	59	41
2008	15	53	32	-	57	43
2009	14	53	33	-	56	44

Source: Education at a Glance 2011 (OECD)

All in all, does the euro zone show a "fundamental" deficiency in terms of growth? The answer is clearly yes:

- **shortfall in productivity;**
- **lack of technical progress;**
- **insufficient innovation;**
- **shortfall in education and skills**

compared with the other OECD countries.

Economic policy errors

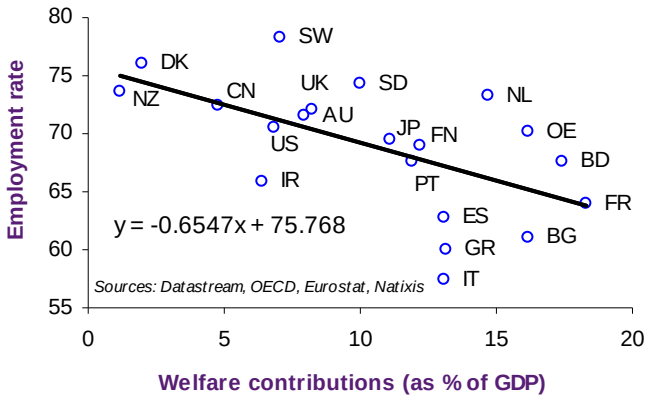
The permanently sluggish growth may also be due to **economic policy errors:**

- a tax system that hampers growth;
- real overvaluation and lack of competitiveness;
- detrimental income sharing policy, in either direction;
- fiscal policy coordination problems;

1. Tax system

The facts seem to show **that a high weight of welfare contributions paid by companies reduces the employment rate** and increases structural unemployment **(Chart 4).**

Chart 4
Employment rate and welfare contributions
(average 2002 - 2011)



For the euro zone as a whole (Charts 5A and **B), welfare contributions** are indeed **higher, the employment rate is lower and the average unemployment rate is higher** than in the United States, the United Kingdom, Sweden and Japan **(Charts 5A** and **B).**

Chart 5A
Employment rate and welfare contributions
(average 2002 - 2011)

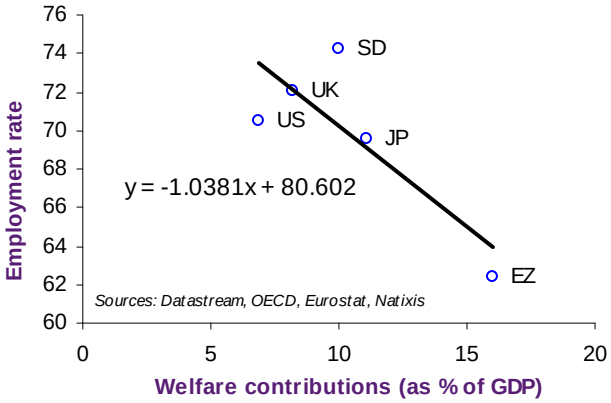
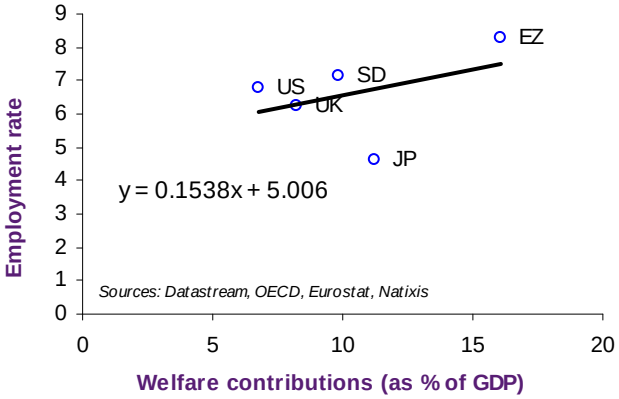


Chart 5B
Unemployment rate and welfare contributions
(average 2002 - 2012)



2. Real exchange rate

A constant overvaluation of the exchange rate can obviously weaken an economy, in particular by discouraging business investments. The euro zone's **position in terms of competitiveness (Charts 6A** and **B) and productive investment (Chart 6C) is at an average level.**

Chart 6A
Euro zone: Real trade-weighted exchange rate*
(deflated by costs, 1998:1 = 100)

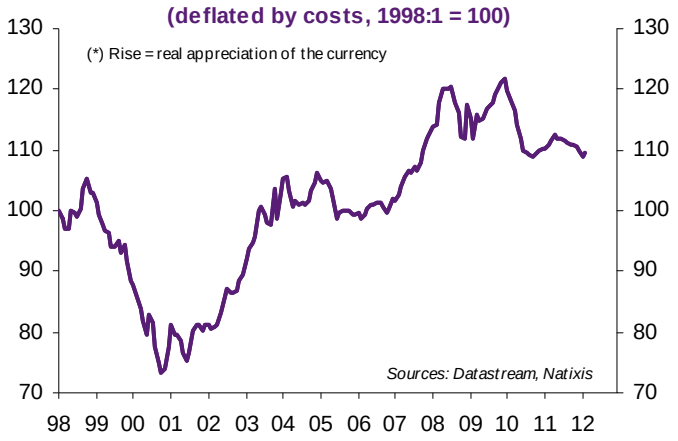


Chart 6B
Unit wage costs* (euro zone = 100)

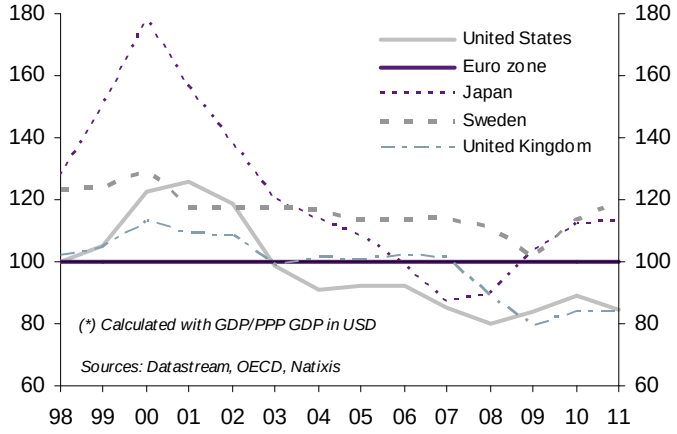
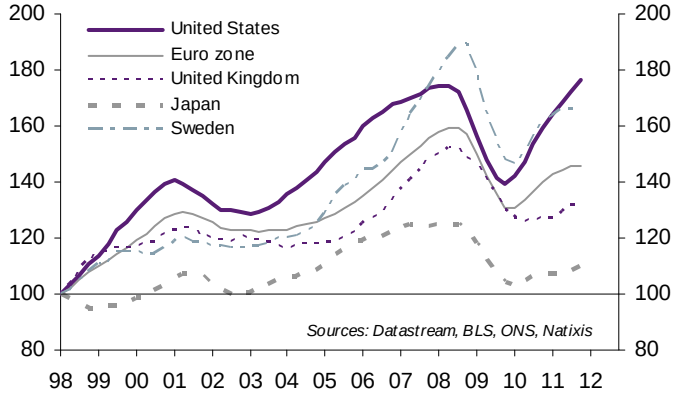


Chart 6C
Productive investment
(in volume terms, 1998:1 = 100)



3. Income sharing

Income sharing that is unfavourable for employees for too long may weaken growth due to weak investment caused by weak demand prospects. **Income sharing that is favourable for employees for too long** may reduce companies' ability to invest and therefore long-term growth. Is there an **abnormal and excessive distortion of income sharing in the euro zone?**

The answer is no: in the long run, the real wage and productivity have been rising in lockstep **(Chart 7A)**, as **in the United Kingdom and Sweden (Charts 7D** and **E);** there is a significant distortion of income sharing in favour of companies **in the United States and Japan (Charts 7B** and **C).**

Chart 7A
Euro zone: Per capita real wage and productivity (1998:1 = 100)

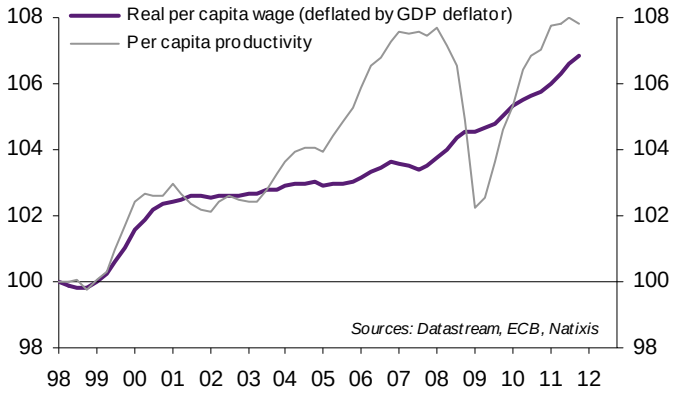


Chart 7B
United States: Per capita real wage and productivity (1998:1 = 100)

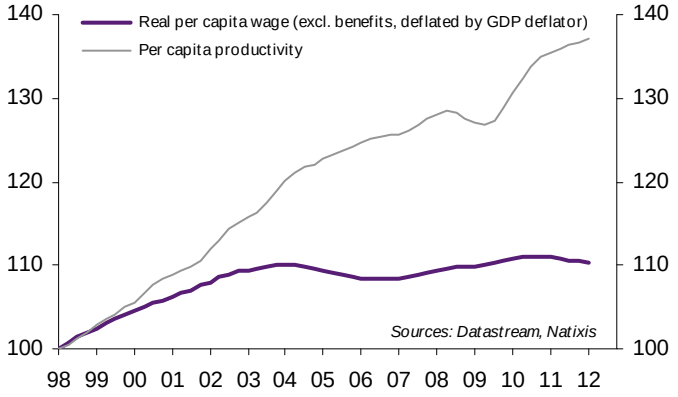


Chart 7C
Japan: Per capita real wage and productivity (1998:1 = 100)

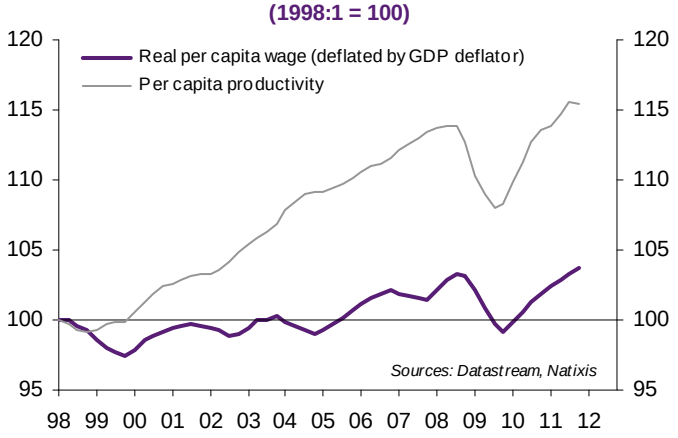


Chart 7D
United Kingdom: Per capita real wage and productivity (1998:1 = 100)

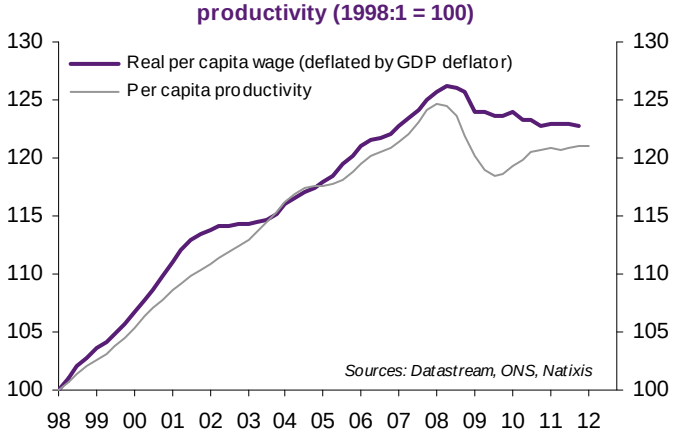
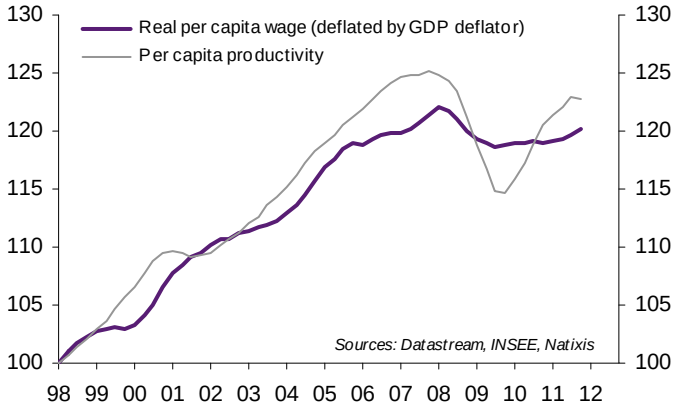


Chart 7E
Sweden: Per capita productivity and real wage (1998:1 = 100)



4. Fiscal policy coordination

Euro-zone countries' fiscal policies are not coordinated, insofar as **if a country has to conduct a restrictive fiscal policy, there is no arrangement that would lead another country to conduct an expansionary fiscal policy, as would be the case in a federal union.**

We can see this configuration today: the restrictive fiscal policies of the countries that have to stabilise their public debt ratio (Spain, Italy, Portugal, Greece, Ireland, France, Netherlands) are not offset by an expansionary fiscal policy in the countries that would have the means to conduct such a policy (Germany in particular, **Charts 8A** and **B**).

Chart 8A
Fiscal deficit (as % of nominal GDP)

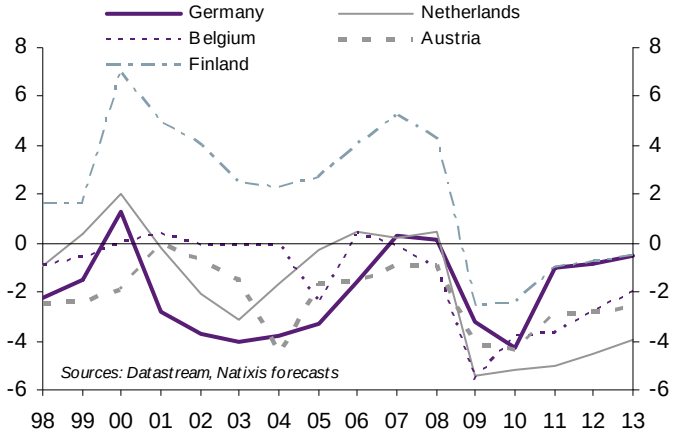
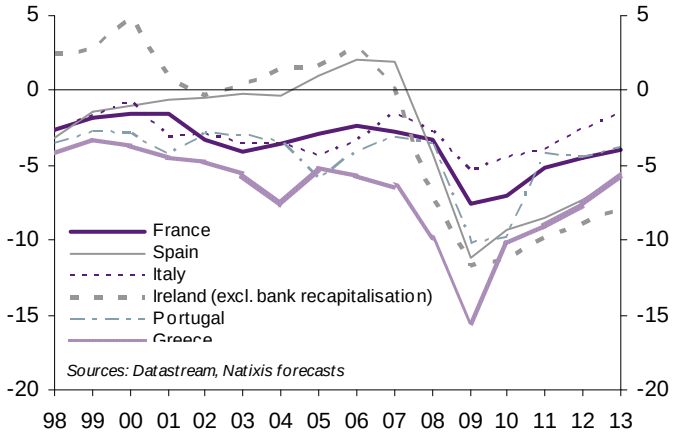


Chart 8B
Fiscal deficit (as % of nominal GDP)

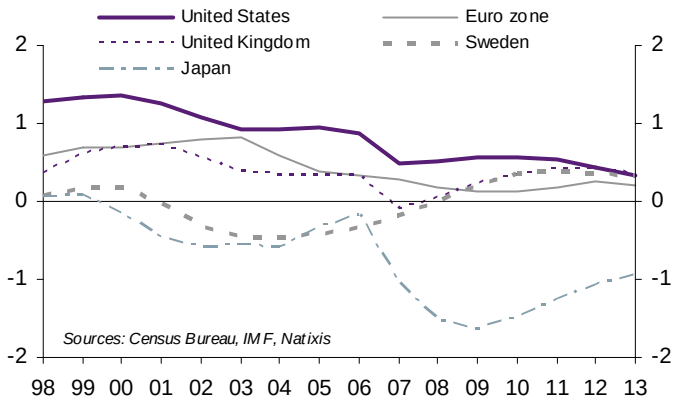


But this configuration has only been seen since 2007 and above all since 2011.

Conclusion: What are the main explanations of the sluggish growth in the euro zone?

Until now, we have not discussed **population growth. Labour force growth (Chart 9)** has remained slightly positive in the euro zone.

Chart 9
Growth in population aged 20 to 60
(as % per year)



This leaves us with two main explanations for the sluggish growth in the euro zone:

- **lack of technical progress, and a shortfall in innovation, education and skills;**
- **economic policy errors.**

As we have seen above, we believe that:

- **there is a major problem of technical progress, innovation, education and skills in the euro zone;**
- **the only major economic policy problem in the long term seems to be the excessive level of welfare contributions on wages.**

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