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FLASH ECONOMICS
ECONOMIC RESEARCH

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Small-scale macroeconomics of the infrastructure market

Transportation systems for goods, passengers and energy (infrastructure in the broadest sense of the term) have developed rapidly over the last fifteen years. Globalization is one of the main reasons, while another is the urbanization of certain areas of the world. This dynamism is likely to persist in the near future and well beyond emerging economies. The need for new infrastructures in Europe has been put at between 1.5 to 2 trillions Euros by 2020.

Infrastructure development in Europe is certainly of particular importance:

- ***As economic growth falters, investment has a solid multiplier effect far beyond that of any other type of public expenditure.***
- ***Whereas structural reforms produce only minor effects, there is great correlation between the quality of infrastructures and the competitiveness of economies.***
- ***A thick infrastructure network constitutes an option to slow down the geographic concentration of industry and hence the desertification of certain areas.***

The vehicles traditionally used to finance infrastructure, however, are struggling to satisfy soaring needs. In the EU, spending on public investment will likely fall by approximately one point of GDP by 2014. Banks have substantially cut back their lending to the public sector and project financing. Disintermediated financing of infrastructure looks set to increase.

ECONOMIC RESEARCH
Authors:
Sylvain BROYER
Arnaud DUBIEF
Sylvia HUBAR

Rapid development of infrastructures, irrespective of the low-growth context

Transportation systems for goods, passengers and energy (infrastructure in the broadest sense of the term) have developed rapidly worldwide over the last fifteen years (**Chart 1**).

One of the main reasons for this is globalization. World trade has increased twice as fast as final demand since 1995 (**Chart 2**), mainly due to the stepping up of intermediary goods trade brought on by the worldwide splitting of production chains.

Massive investment in infrastructure is certainly ongoing worldwide, even in the more developed economies, which are involved in goods trade (**Chart 3**).

Another reason is the urbanization of certain areas of the world, especially the major emerging markets with the exception of Russia (**Chart 4**) and the Middle East with its economic strategy of sectoral diversification.

It is likely that dynamic development of infrastructures will persist in the near future well beyond the emerging economies:

- The European Union puts the need for new domestic infrastructures at between 1,500 and 2,000 billion euros by 2020.[1]
- The OECD predicts that the pace of development of transport infrastructures will be up to twice that of world GDP by 2030 (**Chart 5**).

Chart 1
World - development of global infrastructures (100=1990)

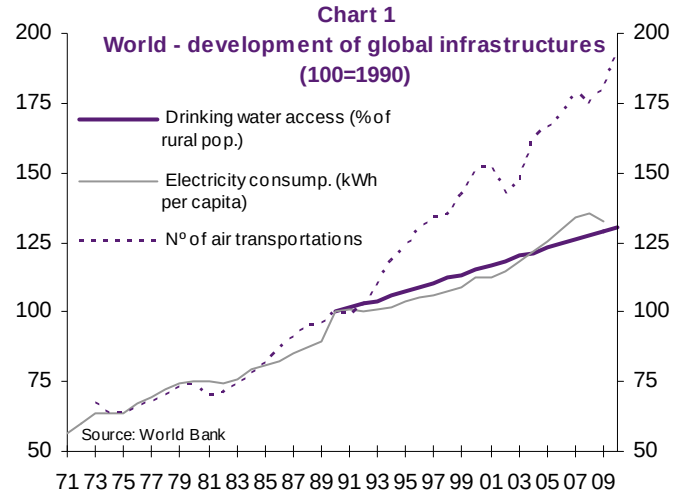


Chart 2
World: goods trade and end demand (vol., 100=1995)

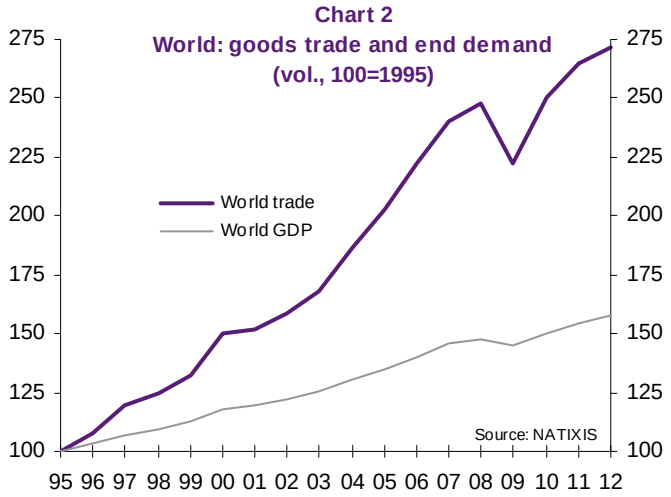


Chart 3
Cargo handled at Hamburg Port and German GDP (volume, 1995=100)

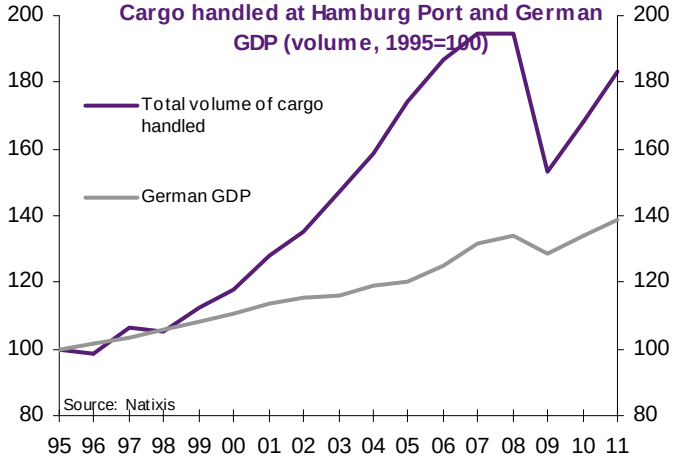
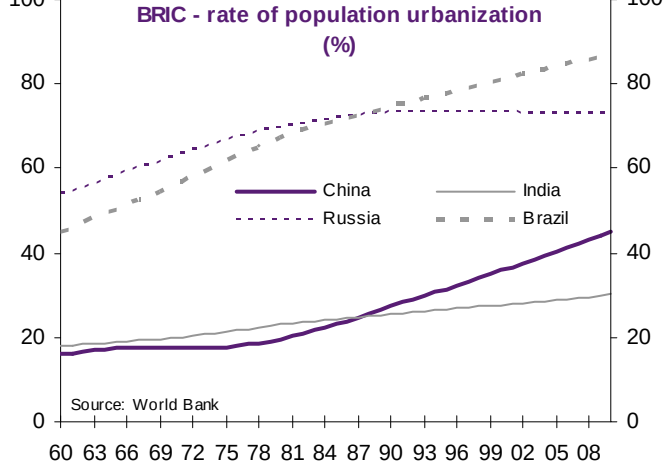
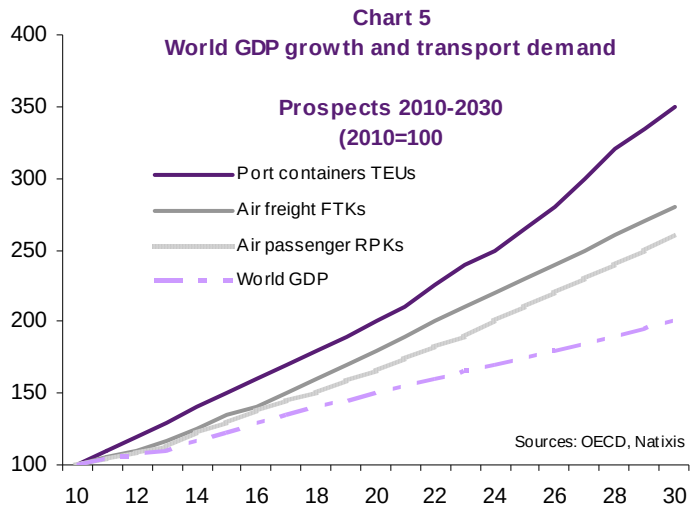


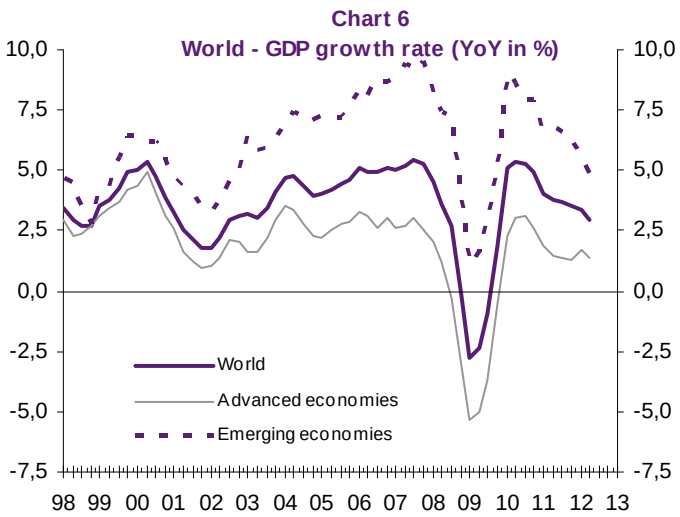
Chart 4
BRIC - rate of population urbanization (%)

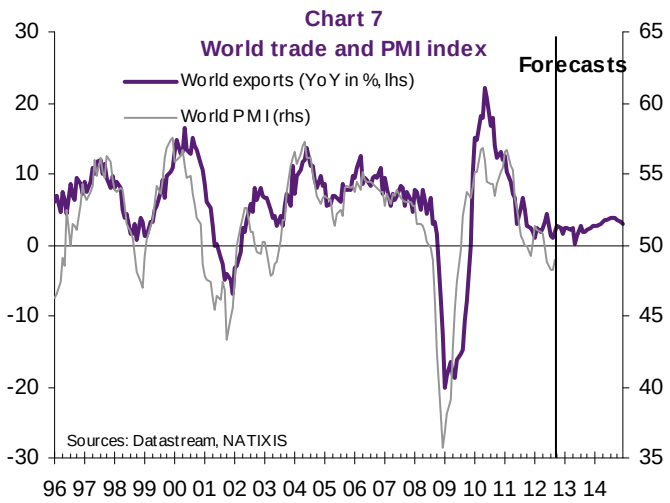


[1] European Commission – October 2011 – "A growth package for integrated European Infrastructures".



Official forecasts provide a pleasant contrast to the current panorama of poor economic growth (**Chart 6**) and the future panorama (**Chart 7**).





Advantages of investment in infrastructure: the case of Europe

Infrastructure development in Europe is certainly of particular importance, and EU Commissioner Kallas recently called for the signature of a declaration in support of the "Connecting Europe Facility".[2]

- As economic growth falters (**Chart 8**), investment has a solid multiplier effect far beyond that of any other type of public expenditure. IMF estimates for the G20 meeting of March 13-14 2009 taking decisions on a coordinated stimulus of the worldwide economy produced a 1.8 multiplier for capital expenditure, against 1.0 for other public expenditure. Moreover, most European relaunch plans were devised on the basis of this type of spending (**Table 1**).

- Since structural reforms (deregulation of the goods market and the job market) deployed by Europe's peripheral nations have produced only minor effects, a major correlation has been observed between the quality of infrastructures and the competitiveness of economies (**Chart 9**).

- A thick infrastructure network, therefore, constitutes an option to slow down the geographic concentration of industry and hence the desertification of certain areas within the last ten years (**Charts 10a-b**).

[2] http://ec.europa.eu/commission_2010-2014/kallas/connecting-europe-facility/index_en.htm

Chart 8
GDP growth (YoY in %)

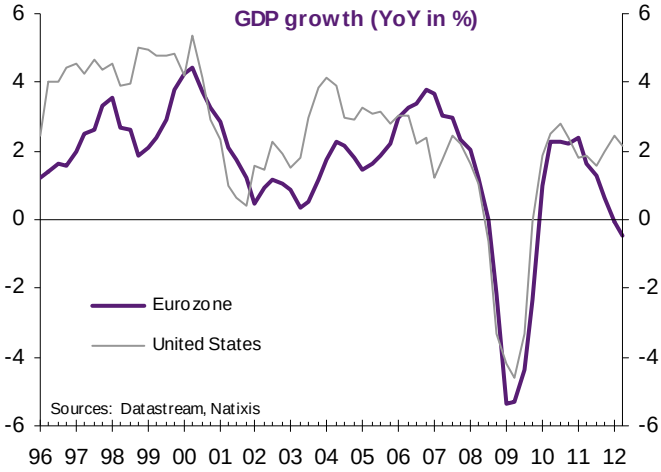


Chart 9
WEF indexes of competitiveness and quality of infrastructures

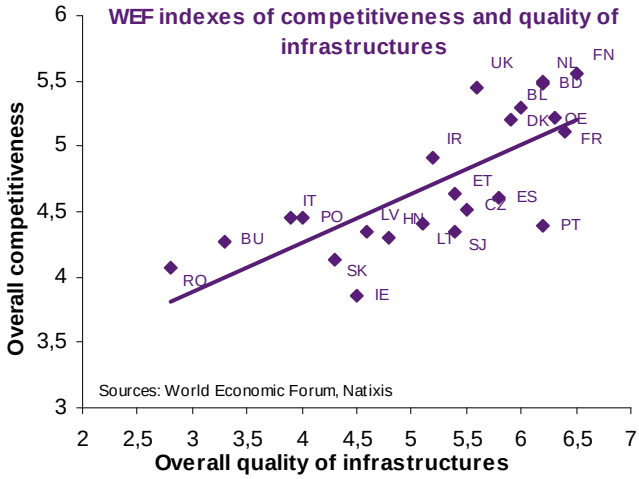


Table 1 - European relaunch plans for 2009, by main types of demand and amounts deployed (% GDP)

	Germany	France	UK	Italy	Spain	Netherlands	Total
Residential construction	0,1	0,1	0,1	0,0	0,0		0,1
Public infrastructure	0,2	0,5	0,1	0,1	0,7	0,4	0,3
Productive investment	0,8	0,5	0,0	0,1	0,6	0,4	0,4
Consumption of durables	0,1	0,1	0,9		0,2	0,3	0,2
Consumption of non-durables	0,0	0,1		0,2	0,1	0,0	0,1
Public consumption	0,1		0,1		0,1		0,0
Total	**1,3**	**1,3**	**1,2**	**0,4**	**1,7**	**1,0**	**1,1**

Source: Natixis

Chart 10a
Job concentrations in manufacturing of European machinery and equipment 1998

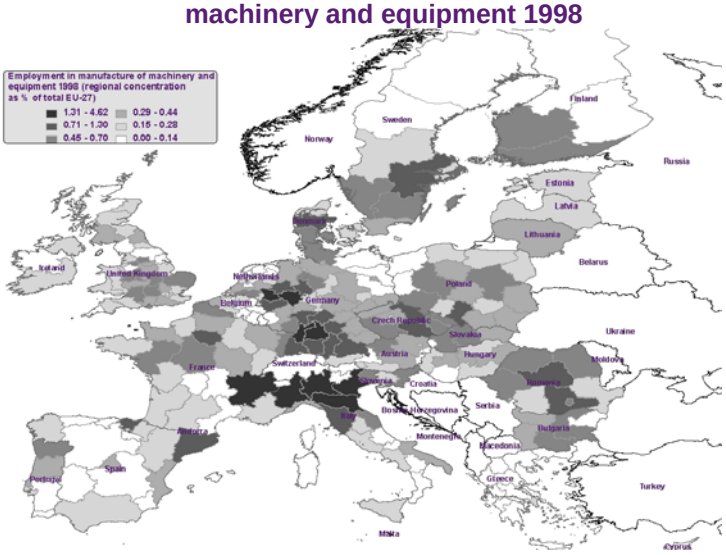
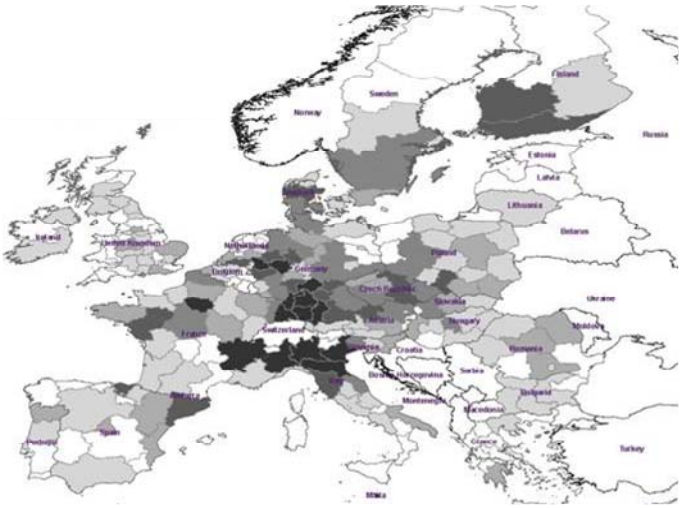


Chart 10b
Job concentrations in manufacturing of European machinery and equipment 2009

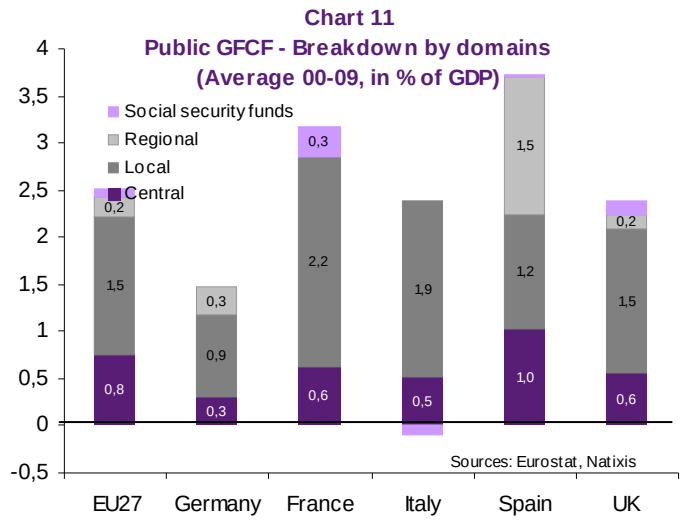


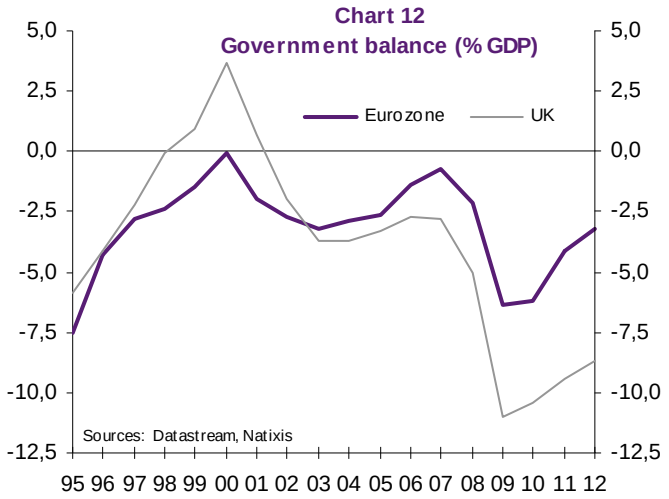
The vehicles traditionally used to finance infrastructure are struggling to satisfy soaring needs

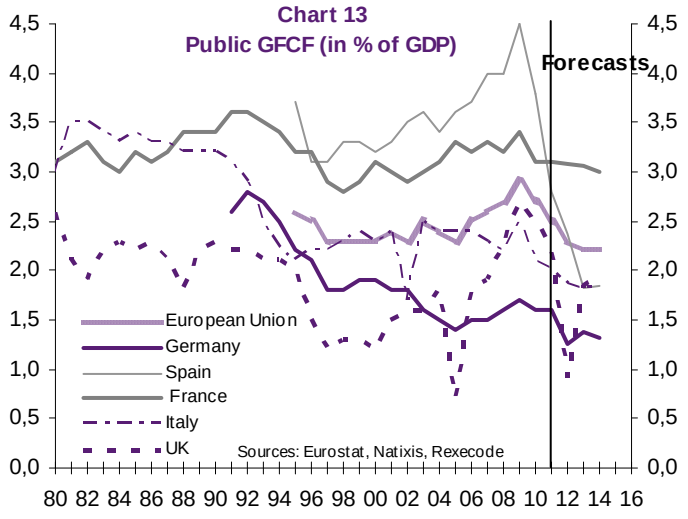
The vehicles traditionally used to finance infrastructure are public bodies and banks, particularly in the form of lending to the public sector or as project financing. In Europe, approximately two thirds of public financing concern local authorities (**Chart 11**).

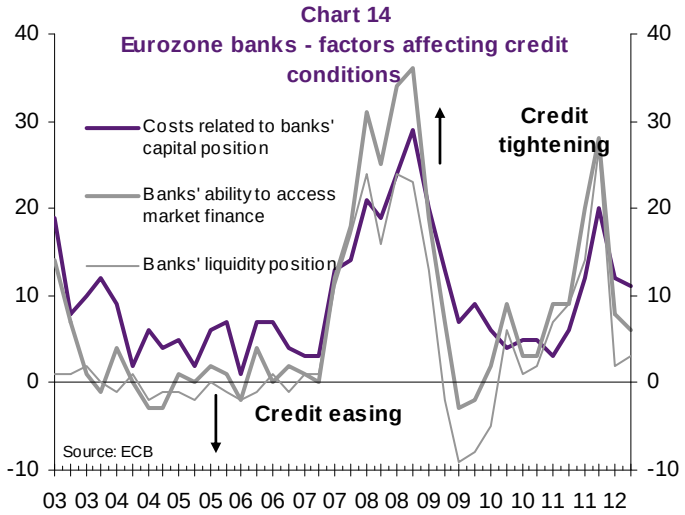
- Budget consolidation as a consequence of public deficits (**Chart 12**) prevents governments from satisfying a growing need for infrastructures. Public investment expenditure is low, and we believe it may even fall by one point of GDP by 2014 in the European Union (**Chart 13**).

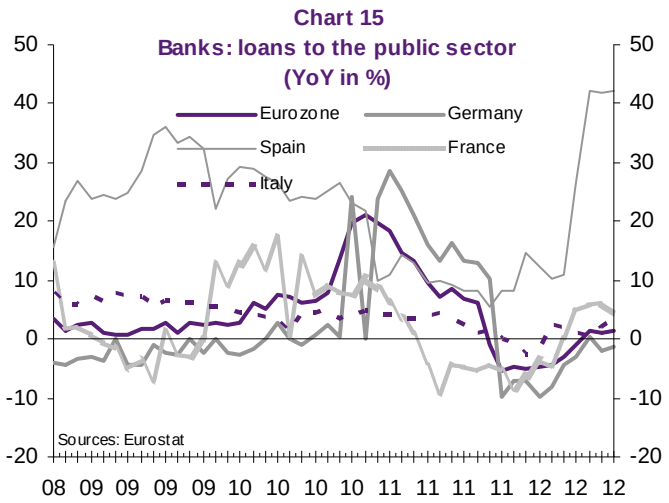
- Banks have tightened their lending conditions as a result of financial crisis (**Chart 14**), and credit for the public sector is showing zero growth (**Chart 15**). The exception in Spain is a temporary situation, due to the creation of two finance funds by public authorities with which Spanish banks are associated through syndicated credit facilities.











Summary: Disintermediated financing of infrastructure looks set to increase

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