Background:

Investment in transport infrastructure has contributed to reducing the cost of trade and has stimulated globalisation. Further investment across the globe will be needed if trade is to continue to grow and benefit a broader range of countries. Transport policy must also adjust to the economic and structural changes that globalisation brings to domestic economies as this has a powerful impact on the pattern of demand for transport services.

Gateway ports and airports, and links allowing freight to move smoothly to hinterlands, play an increasingly important role in the economy and the significance of large urban areas as highly productive centres of economic activity is growing with globalisation. Global trade and travel have put some parts of the transport system, particularly in these urban areas, under severe strain and investment is a key part of the response.

The financial and economic crisis modifies the outlook for international transport and has had a major impact on the availability of finance for transport infrastructure investment. This has important implications for project appraisal and project financing. At the same time, policies to mitigate the current economic downturn include an emphasis on transport infrastructure spending, but how should this best be directed to assist and prepare for economic recovery?

This workshop examined these issues and the infrastructure planning and investment policies needed to ensure adequate performance and reliability of the transport network to support growth in a global economy.
The Panel:
These short conclusions were drafted by the Secretariat of the International Transport Forum in consultation with the Moderator. The Secretariat is very grateful for the rich input to the discussions from the panel of speakers listed below but takes full responsibility for the views expressed here.

- Moderator: Lord Macdonald of Tradeston, Chairman, Maquarie Capital Europe
- Matthew Arndt, Head of Road and Rail Division, European Investment Bank
- Alain Bonnafous, Laboratoire d’Economie des Transports, Lyon
- Robert Cochrane, Imperial College London
- Stefan Garber, Board Member, Deutsche Bahn AG, Germany
- Peter Mackie, University of Leeds
- Nicolas Rubio, Director, Business Development and Technical Department, Cintra
- KL Thapar, Asian Institute of Transport Development, India
- Caroline Visser, International Road Federation
- Waleed Youssef, CSO, TAV Airports Holding Inc, Turkey

Conclusions:
The economic crisis has reduced economic growth this year substantially below what would have been expected on recent trends (7 percentage points below in the UK for example). The economy will eventually bounce back but the debt overhang underlying the collapse of activity will take years to rebalance and the current correction is likely to be followed by a period of sluggish recovery before growth takes off again. The return to trend will probably take 5 years or more.

Transport demand and congestion levels are now more difficult to predict, particularly for freight which is more sensitive to changes in economic growth rates than passenger transport. Freight volumes have fallen more sharply than economic activity as a whole for a number of reasons. The building materials market has been severely affected by the mortgage crisis. Containers and general freight have been hit hard by destocking of warehouse inventories. Conversely, when recovery comes, new growth in freight volumes is likely to outstrip forecasts as has been the case in previous growth cycles.

Governments need to be prepared for this recovery as well as responding to the crisis in the short term.

We entered the crisis with a large funding gap for transport infrastructure projects assessed to be positive for increasing economic welfare. There is a particular backlog of maintenance projects that are particularly suited to contributing to government spending to stimulate the economy as they can be delivered relatively quickly.
**Bottlenecks** are another focus for investment, for example in DBs planning, and recent research, for example for the UK Treasury’s Eddington report, underlines the major benefits often associated with relatively modest investments to relieve bottlenecks compared to the very large projects that account for the major part of public transport infrastructure investment programs in most countries. Their modest scale also makes such bottleneck projects a better fit in stimulus packages than **mega projects**. Moreover, any risk of overinvestment in capacity because of the economic crisis is minimised by a focus on bottlenecks. Recession may have eased congestion on some bottlenecks but recovery when it comes is likely to put the same links under strain. Mega projects are much more likely to run demand risks.

The discussions focussed relatively little on short term stimulus spending because core transport infrastructure investment is for the long term. Going forward, the crisis will exacerbate the existing **funding gap**. The coming fiscal squeeze will make it harder for government to fund infrastructure investment. The financial crisis reduces the private funding available in the short term but governments can act to make better use of private investment.

**Top quality economic appraisal** is more important than ever. The shortage of finance implies that the hurdle rate of return for selecting projects under appraisal needs to rise. This will have the advantage of weeding out projects and retaining only those with the highest returns. With the low rates applied over recent years too many projects to fund passed the test, leaving it to more arbitrary political decision as to which projects to fund. Research for the Forum (Bonnafous 2009) suggests that ranking projects by internal rate of return rather than simply socio-economic return when planning for a program of investments results in higher welfare gains, and the effect is amplified in times of financial and economic crisis.

The crisis makes private capital more expensive and this increases the importance of getting the design of public private partnerships right. Above all governments must ensure that there are powerful **incentives for efficiency in PPPs** through the way that risks are assigned. The worst failures of PPPs have occurred where finance consortia were undercapitalised, were not required to produce parent company guarantees and were allowed to subcontract construction work in house rather than through competition. No purely private investment would accept these flaws. When equity is risked it brings rationality and efficiency to PPPs.

At the same time, governments may be in a better position to take demand side risk, if forecasts of GDP underpinning projects prove inaccurate, than private partners. Transparent arrangements for taking **demand risk**, for example by contracting for capacity rather than remunerating investments according to traffic levels, can facilitate private investment. Fundamentally, effort has to be directed at demonstrating GDP and traffic forecasts are realistic, and arrangements for re-financing projects in case of shortfalls in demand need to be written into contracts rather than decided ad hoc if things go wrong.
PPPs must show value for money. For this the advantages that PPPs can provide by assembling effective consortia for financing and project management need to outweigh the risk premium demanded by private capital.

PPPs have a relatively short history. In the UK, which has made greatest use of this approach to date, 640 projects have been financed amounting to 64 billion pounds sterling of investment in the last decade. Some potential sources of funding have yet to be attracted significantly to transport infrastructure PPPs, particularly pension funds and insurance funds where interest in relatively low risk long term returns coincide with the characteristics of transport infrastructure investments. Sovereign wealth funds are another potential source for more investment in infrastructure and China, India, Malaysia and a number of other rapidly growing economies hold large foreign reserves part of which might be recycled in infrastructure funds. Road user charging has brought private capital into the sector and looking forward we can expect increasing interest in toll roads.

The crisis has resulted in a scarcity of equity as well as debt. Capital markets are currently not available for funding infrastructure and the only source of funds are banks. A much smaller number of banks than usual answer calls to syndicate finance for PPPs this year (typically 10 rather than a more usual 30). The British government has stepped in to facilitate syndication in key projects through the Treasury’s Infrastructure Finance Unit, acting in effect as a bank. One of the key features of this intervention is its exit strategy, so that the State will not be competing with the banks when the crisis eases. Some other governments have responded to the crisis by imposing a regulatory limit on the exposure of banks to lending to individual project developers regardless of the quality of investments. A more targeted approach might manage risk and avoid exacerbating the credit crunch. The European Investment Bank is responding to the crisis by increasing the volume of senior loans and participations for infrastructure investment and has created with the European Commission a loan guarantee system covering traffic related risk for selected strategic international projects.

Privatisation is another route to bringing private equity to transport infrastructure investment. Around a trillion dollars of transport sector assets have been privatised over recent decades. There is a potential for many more privatisations, of airports for example.

Liberalisation more generally has generated economic growth. Protectionism in response to the economic crisis would suppress recovery with a severe effect on transport activity. Conversely, further liberalisation (more open skies agreements, freeing of road and maritime cabotage, etc.) would provide a durable stimulus to the economy.