

Regional Airports and Local Development: are there any Pitfalls?

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Structure of Presentation

1. Introduction
2. Positive Effects of the Transports
3. Airports Performance and Regional Development
4. Air Transport Services and New Economy Activities
5. Conclusions

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Introduction

Transportation is well accepted as an important issue to any region economy, but even so little relevance is still given to its crucial role on the consumers, suppliers and manufacturers linkage into an efficient and sustainable development pattern.

This is mainly true from the aviation sector viewpoint. Usually, airlines publicize the importance of its own scheduled services at airports, but it is not usual to promote the public discussion about the benefits around all the aviation industry.

Regional airports, acting as gateways to the nations transportation systems, bring the air transportation benefits not only for the regions in particular but also for the countries in general. The airports, providing air access for those local companies that must meet supply, competition and expanding marketing areas requirements, stimulate the regional capacity for economic growth too.

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Introduction

Regional airports and related aviation (and nonaviation) business represent an important employment source, and the wages and salaries paid affect directly the local economy by providing more goods and services purchases; but the employee expenditures promote indirectly additional employment and purchase generation too. The airports stimulate the regional economy through the use of local regular services concerning passenger and cargo, catering and food, maintenance and equipment supply, and ground transportation; but the airports multiplier effect over the regional economy also affects retail shops, restaurants and hotels, the tourism industry and the generation of local taxes.

However, this multiplier effect despite having the immediate effect on economic growth requires other investments in complementary infrastructures for the sustainable development of those regions. Otherwise, some economic growth will occur but with a rather fragile support that will not produce an effective multiplier (or catalytic) effect.

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Positive Effects of the Transports

It is not easy to establish the true essence of the relationship between the infrastructures of transport and the regional development, mainly because we are facing two types of effects:

... non-spatial effects

(those occurring as an imposition in the economic activity, in general, by the investment in infrastructures);

... spatial effects

(those occurring as a consequence of different performances, in different places too, by the infrastructures themselves).

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Positive Effects of the Transports

Non-Spatial Effects

Investment and Productivity

The approach to the relationship between the infrastructures and the development on the basis of the analysis of the effects imposed for such investments in the economic activity is, perhaps, the most generalized and the most argued during the last years, mainly since the arguments presented about this matter by Aschauer;

Transport and Market Integration

For an evaluation of the global impact of the transport in the market integration, we assume that a reduction of the transport costs means, not only the incentive to the exportation - and, necessarily, the perspective of an increase of the income, but also the *threat* of an importation, competitively aggressive - imposing to the (local) industry a reorganization, an increase of efficiency, and a reduction of the production costs;

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Positive Effects of the Transports

Non-Spatial Effects

Transport and Endogenous Growth

Many of the authors who mention the endogenous growth admit that certain changes into this level can contribute for the growth of the economy, rather than a shock to the system which shifts the level upwards but ultimately leads to a return to an exogenously given underlying rate of growth.

Spatial Effects

Companies Competitiveness

Some authors argue that in the regional economic dynamics, transport infrastructure improvements can have different impacts in firms. First, existing firms might grow or decline; second, new firms may emerge; third, infrastructure improvements may influence the relocation decision of existing firms;

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APDR, Impacto dos Aeroportos no Desenvolvimento Regional – IST, 28.11.2008

Positive Effects of the Transports

Spatial Effects

Transport and Labour Market

Some authors underline that there are potentially important effects from transport improvements regarding the size of the regional labour market area and firm's access to specialised labour skills; an interaction that one can verify in two distinct levels: first, labour is a major input to all activities and is, in most cases, locationally specific in that it has to be physically present for the activity to take place. Secondly, transport affects labour both as an input to production (commuting), and as an input to other activities (social, leisure, etc.) which constitute the final demand for activities;

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Positive Effects of the Transports

Spatial Effects

Transport and Real Estate Market

The ascertainment of the impacts which a reduction of the costs of the transports, in general, and of the commuting movements, in particular, can entail, permits to evidence the complexity of the underlying phenomenons: any action in that direction origins a set of reactions; which, in turn, interact with the original actions generating new reactions; and thus successively - as in any dynamic system.

Thus one understand the answers given in this context – and almost in simultaneous, for the work and the housing markets, although dependents on the degree of slack in both of these markets which will determine whether prices change rapidly or slowly.

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APDR, Impacto dos Aeroportos no Desenvolvimento Regional – IST, 28.11.2008

Airports Performance and Regional Development

It is easy to understand the positive impact of the aerial infrastructures on a certain region, either for the jobs that may create directly, or for the development of complementary activities acting itself as catalysts of the economic growth. These are the so called multiplying effects. The aerial infrastructures located in inner regions, for example, carry out an important role as *interfaces* of linkage with the most developed metropolitan areas.

One of the most relevant issues of the air operations in peripheral regions is strongly linked with the development of the tourism. We live in a Europe free of (almost) all borders and in a World each more *globalized*, where a touristic destination which offers good conditions of access – such those allowed by the aerial mode, it is clearly in advantage relatively to those which do not have such a privilege.

But, beyond all, those accesses approach the *peripheries* with the *centres*.

Regional Airports and Local Development: are there any Pitfalls?

APDR, Impacto dos Aeroportos no Desenvolvimento Regional – IST, 28.11.2008

Airports Performance and Regional Development

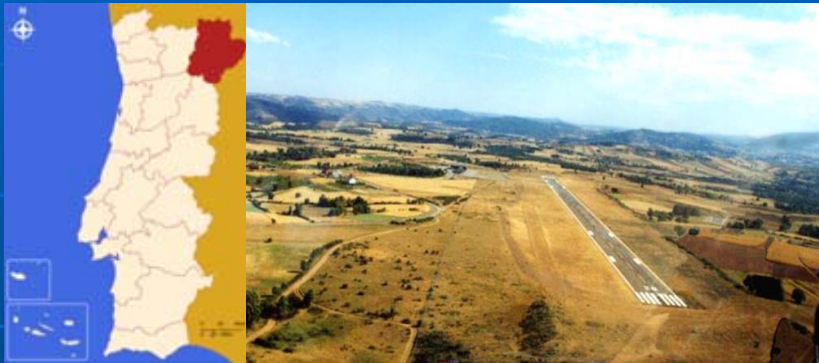
This means, in the Portuguese context, an approach between the Interior and the Coast, contributing significantly for the reduction of the regional asymmetries. The opening of some university hospital centres, as well as several high level teaching and research institutions, underline the need of an easy and fast mode of displacement of material and human resources of high added value to/from regions of the Interior - a challenge which the aerial mode may answer efficiently.

However, it is not easy to balance incomes and expenditures of exploration of an aerodrome located in the Interior of the country, mainly when the enterprise dynamics are weak, the air operations are limited by technical problems, and the public interest does not prevail on the politics of the user-payer.

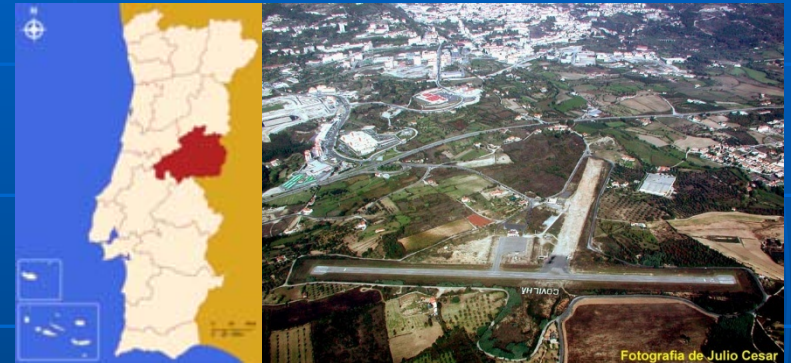
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APDR, Impacto dos Aeroportos no Desenvolvimento Regional – IST, 28.11.2008

Airports Performance and Regional Development



Municipal Aerodrome of Bragança



Municipal Aerodrome of Covilhã



Municipal Aerodrome of Évora

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APDR, Impacto dos Aeroportos no Desenvolvimento Regional – IST, 28.11.2008

Airports Performance and Regional Development

The Principal Network of Portuguese Airports consists of those international aeronautical infrastructures which most contribute to air transport figures.

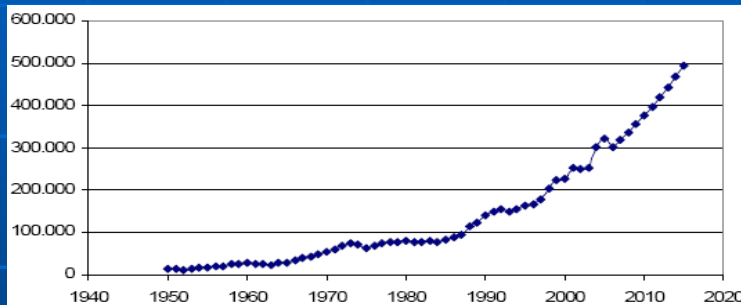
To characterize the air transport in Portugal we analyzed data gathered by INAC, ANA, ANAM and NAV in Lisbon, Faro, Oporto, Ponta Delgada, Santa Maria, Horta, Flores, Funchal, Porto Santo, Cascais, Bragança, Corvo, Graciosa, São Jorge and Pico.

Year	Aircraft Movements	Passengers	Cargo (tons)	Mail (tons)
2006	300.676	24.631.699	128.488	18.218
2007	317.772	25.631.993	133.075	18.583
2008	335.839	26.632.288	137.711	18.949
2009	354.934	27.632.583	142.396	19.314
2010	375.115	28.632.877	147.131	19.680
2011	396.443	29.633.172	151.915	20.046
2012	418.984	30.633.466	156.748	20.411
2013	442.807	31.633.761	161.630	20.777
2014	467.983	32.634.056	166.561	21.143
2015	494.592	33.634.350	171.542	21.508

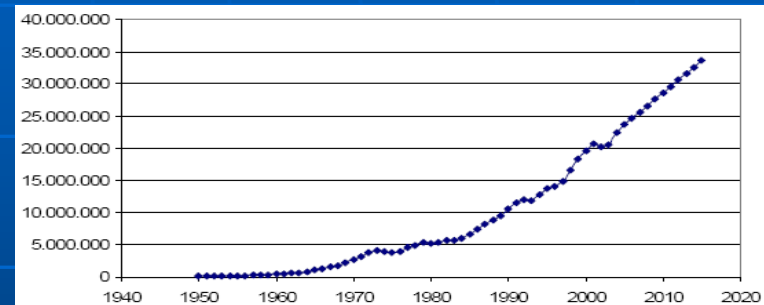
Regional Airports and Local Development: are there any Pitfalls?

APDR, Impacto dos Aeroportos no Desenvolvimento Regional – IST, 28.11.2008

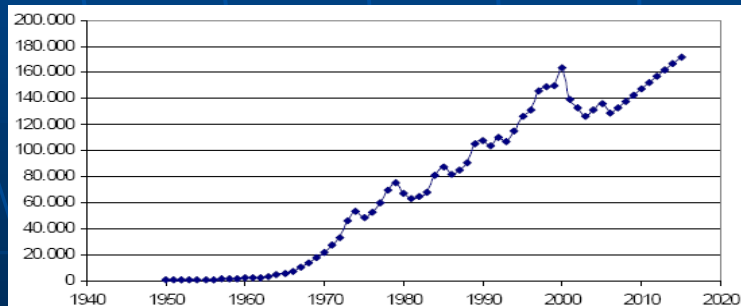
Airports Performance and Regional Development



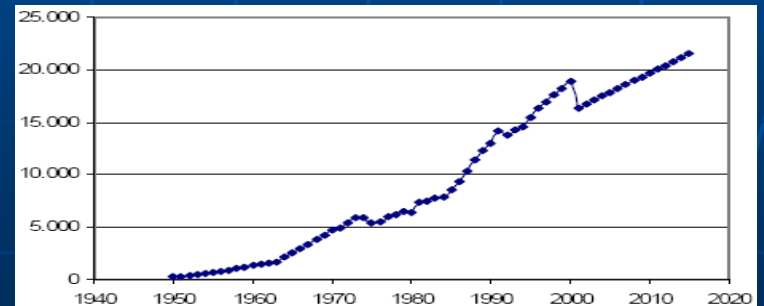
Total of Aircraft Movements, 1950-2015



Total of Passengers, 1950-2015



Total (Tons) of Cargo, 1950-2015



Total (Tons) of Mail, 1950-2015

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Air Transport Services and New Economy Activities

Perhaps a good criterion for measuring the success of an air transport system should be the ability to use air travel as a competitive advantage in a global economy.

On one hand, air transport is an important issue for the success of tourism in a lot of regions, mainly for two reasons: changes in technology affect both size and speed of aircrafts, and the real cost of travel fell through low cost packages and tourist discounts.

On the other hand, air transport is also an important input for the development of non-leisure-based industries all over the world, mainly for those which promote interpersonal linkages.

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APDR, Impacto dos Aeroportos no Desenvolvimento Regional – IST, 28.11.2008

Air Transport Services and New Economy Activities

Air transport is commonly used by all categories of business, but it became particularly important for those categories engaged in the so called *new economy activities*, e.g., business categories requiring for those companies involved easy inter-personal contacts only possible with high-quality transport services. Thus, some authors listed 125 *new activities* in the following 11 groups:

IT Software, IT Services, Telecom Services, Advanced Materials, Aerospace, Biotechnology, Energy and Environment, Electronics, Transportation, Management and Services, and Technology Industrial Manufacturing.

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Air Transport Services and New Economy Activities

The impact evaluation of these *new* services over the territories is not an easy task, mainly for two reasons: services themselves may interact in several combinations, and territories themselves may react in several ways too accordingly to its own endogenous characteristics.

Some authors consider these (new) spatial and non-spatial impacts in terms of four mainly effects:

(...)

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Air Transport Services and New Economy Activities

Primary effects: these are the direct and immediate benefits to a region for the creation of new services and / or the expansion of others still existing. They may include the need for some physical improvements over the local air infrastructure but they may bring some local benefits too on account of the wages and incomes the workers and companies consequently spend in the region. Although these are gains to the local economy, they are of short term and usually limited in their order of magnitude;

Secondary effects: these are the longer term effects. Usually they are linked with the local economic benefits of the air service operations mainly due to the employment involved directly with handling the aircraft, passengers and cargo. There are also very important indirect secondary effects over the local economy concerning the on-going income flow of air service operations in terms of employment and income in general and taxation revenue for local authorities in particular. The secondary effects size over the territories depends upon airport operations volume and nature;

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Air Transport Services and New Economy Activities

Tertiary effects: these are the effects over the local economy resultant of air transport services at the disposal of both, individuals and companies. Usually, the development of business activities require the use of transportation in general, but those engaged with the *new economy* are surely involved with the air mode in particular, because they need easy inter-personal contacts only possible with high-quality transport services. Usually, these companies sets act as the basis for local economic development, mainly for two reasons: they present a considerable geographical mobility, and they belong to an important growth sector;

Perpetuity effects: as Aschauer underlines there are empirical evidences that infrastructure investment reflects itself into the regional economy, by raising the activity level and stimulating the productivity, thus acting as a catalyst for higher economic growth in the appraisal area. Also some growth theories, like the endogenous one, sustain that the regional economic growth, once started, becomes self-sustaining and may inclusively accelerate. Thus, so the air transport services development acting as a kick-start mechanism may set in progress larger and longer term crossed regional economic development processes of wide scope and density, leading no doubt to profitable scale economies.

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Conclusions

For a long time that attention is paid to the economic impact of transport systems over the regional development, air infrastructures in particular. In general, the regional impacts generated by the existence of an infrastructure, such as an airport, will be greater the more services it offers and the wider the range of destinations it allows. However, this relationship may be non-linear, mainly because from a commercial point of view airlines will provide prior flights to the most attractive destinations than to the ones less important.

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Conclusions

The size and the endogenous characteristics are important too, as new economy activities will be attracted easier to larger regions with a significant population amount and an important market area than to smaller ones sparsely populated and with a weak entrepreneurship dynamic. Indeed, those territories not only offer a wider potentially suitable labor market but also provide a larger one for goods and services produced. So within limits, air transport stimulates further growth in the economy but it is also fostered by the dimension of the hinterland itself, which adds to airport management a requirement of strategic marketing.

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APDR, Impacto dos Aeroportos no Desenvolvimento Regional – IST, 28.11.2008

Conclusions

In addition, more recent studies open the door for the analysis of different infrastructure effects depending on the stage of development of the country or region. That is the concept of effect of complementary infrastructure that in fact opens the door to the assessment of pitfalls resulting from local development impacts, as well as to the discussion over appraisal methods.

This discussion is very recent and despite had been hosted by international forum like OECD it should indeed be object of further research.

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