

MNA Knowledge Notes

Lessons from Analytic & Advisory Activities



By Charles Schlumberger

Background. Recent sector work on Air Transport in Yemen¹ found the Yemeni air transport sector to be relatively small compared to that of other countries of similar size, population, and GDP. In 2007, the total air traffic was 1.8 million passengers, 76% being international travelers and 24% domestic travelers. Yemen counts three airports open to international services among a total of 18 civil airports; however, Sana'a is the only airport with significant traffic (80% of total passengers). The national legacy carrier, Yemenia, has operated all domestic and international routes since 1962. A second carrier, Felix, was established by private investors in 2008 with the objective to take over Yemenia's domestic network.

Despite its limited size, the sector has some significant strengths. The Government of Yemen (GoY) has clearly recognized that air transport is essential for the development of the country. It has created the Civil Aviation and Meteorological Authority of Yemen (CAMA) whose regulations and operations comply with international standards. It also has supported Yemenia to become an airline which links Yemen well with most of its economic partners and is respected for its safety performance. In addition, the GoY has endorsed the Arab League Open-Skies Agreement and supported the creation of the private domestic carrier Felix: both have been positive steps towards

more competition in the sector. Finally, air transport infrastructure has been continuously developed in the recent years and can generally be considered adequate for existing and near future air traffic. As a result, international air traffic to and from Yemen has been growing steadily over the past years, particularly within the Persian Gulf region. Nevertheless, the sector faces several major issues that are bound to reduce its efficiency and contribution to the country's economic development if no actions are taken. These issues and proposed solutions are briefly described below.

Main Sector Issues

Financial Policy. *The financial situation of the sector is unclear and there is insufficient available information regarding the overall use of funds.* The annual revenue of CAMA was estimated by the Bank to be around US \$67 million. However, there is no publicly available statement detailing the sources and the allocations of this income. This lack of information makes effective decision making by the Government difficult and it weakens accountability mechanisms. In this context, also, it is possible that some activities end up being subsidized although there is no official policy to that effect. For instance, Yemenia has large sums of unpaid airport fees, which may in fact represent an indirect compensation for the airline's recent losses.

The Government's involvement in investment funding is heavy. The Treasury directly funded 40% (US \$25 million) of the total investments planned in the sector in 2008, while most of the rest was financed by loans from third parties like the Arab Fund for Economic and Social Development. Thus, the sector relies heavily on financing from public sources while most of the funding could come from the sector itself. However, there is no explicit tariff policy aimed

¹ The note summarizes the main findings of the [Yemen Air Transport Sector Strategy Note](#), dated September 2010, which represents one part of a broader transport sector assessment for Yemen. The main report was prepared by Charles E. Schlumberger, Principal Air Transport Specialist at the World Bank, under the guidance of Jean-Charles Crochet, Senior Transport Economist and Task Team Leader, following missions to Yemen in 2008 and 2009. Vincent Vesin, Transport Specialist, participated in the finalization of the report.

at cost recovery and making the sector financially self-sufficient.

Infrastructure Development. *There is no overall strategy for infrastructure development in the air transport sector and the existing evaluation of future passenger traffic is not well grounded.* Current planning is based on a projection that nationwide passengers will double by 2017 for all airports but these projections have not been supported by detailed future demand analysis. The projected figures still represent a relatively small market, for which most of the existing airport infrastructure would be adequate or need relatively minor investments for enhancement. It is also unclear whether development should concentrate on the three main airports. In addition, the ongoing investment program for secondary airports does not appear to be based on a precise plan.

As a consequence, many investment projects seem premature or unsuited to the country's needs and resources. The GoY has started the construction of a second airport in Sana'a for an estimated total of US \$460 million to accommodate more aircrafts and passengers than the existing terminal. A similar situation in Guatemala actually suggests that the same objective could have been achieved by enhancing the existing terminal for a much smaller investment (US \$80 million in that example). Furthermore, substantial investments have been planned in 2008 for five airports with no scheduled traffic. Several airports with low traffic have also been recently equipped with costly VHF Omni-Directional Radio Range - Distance Measuring Equipment (VOR/DME) installations, while cheaper alternative technologies might have provided just the same service.

Airline Development. *Yemenia's development strategy is risky and mobilizes public funds.* Despite its current financial difficulties, Yemenia has embarked on an aggressive move to gain market share in international services and to transform Sana'a into a major hub between Europe, Africa and Asia. This involves important investments in the long-run, such as the replacement of half of the fleet with the purchase of six new Airbus A350, and the construction of hotels for anticipated new traffic. Shareholders have apparently agreed to

increase Yemenia's capital from US \$80 to \$400 million with public involvement to finance these investments and to absorb past losses. This strategy is high risk because of the high degree of competition by regional airlines and the limited size and possible volatility of some of the targeted markets.

Felix's successful development is uncertain. Several operational and administrative challenges need to be solved, such as setting-up a performing reservation system. Moreover, the current fare structure requires that some seats be sold at the highest price for flights to be profitable: this might be a major challenge as domestically purchased tickets are traditionally on lower tariffs. In the long term, the foreign majority ownership may also prevent Felix from obtaining international traffic rights.

Competition Policy. *The competition policy on the domestic market is ambiguous*². Yemenia's investment of 25% in Felix's capital was done by ceding all its domestic traffic rights to Felix. Shareholders of Felix can therefore lay claim to the exclusiveness to operate domestically and prevent other potential operators from receiving domestic traffic rights.

Institutional Structure and Capacity. *Ministry of Transportation's (MoT) institutional capacity is limited and its role needs clarification.* Although MoT is responsible for defining the sector's policies and priorities and providing oversight, it does not have the capability to do so as its staffing and operating budget are extremely limited. It also seems that the delineation between MoT's and CAMA's responsibilities is often unclear.

The dual function of CAMA makes oversight of the sector difficult. CAMA assures the regulatory definition and supervision of the sector in terms of safety and security, operates all airports of the country, provides air traffic control services, and maintains the meteorological services in Yemen. Regulatory and operational

² The Government has also given special attention to attracting new airlines and investors to Aden airport but these efforts have not been met with success so far.

responsibilities are therefore in the same hands, which potentially constrains the efficiency of policy making and supervision in the sector.

Adequate data are not available on almost every aspect of the sector. The lack of sufficient, accurate and reliable data, for example in terms of traffic and finance, prevents any in-depth analysis of the sector and its development needs.

Private companies have not invested yet in air transport infrastructure nor are involved in airport operations. As of the preparation of this report, there were no public-private partnerships yet in Yemen for the finance and operation of airport infrastructure, which deprived the sector of possible additional funding, capacity and expertise. The Government had recently taken steps, however, to contract out the management of Sana'a and Aden airports to a specialized international firm and it was expected that a contract would soon be in place

Recommended Strategies

Some weaknesses of the air transport sector in Yemen are structural, such as the relatively low volume of traffic, which is obviously related to the country's low GDP and is an obstacle to achieve economies of scale. Nonetheless, many of the issues described above can be addressed. For this purpose, the following strategies are recommended.

Financial Policy. *Make transparency of the sector's finances a rule (essential, short-term).* CAMA's sources and allocations of income should be discussed under the authority of the MoT, audited, and made public. Two issues should be especially addressed: the possible cross subsidy of unprofitable airports by the revenues of the air traffic control system (ATC), and the apparently low rate of effective recovery of airport fees as well as ATC charges. Transparency is an indispensable condition for the sector to be efficient and sustainable on the long-run.

Target self-financing for air transport infrastructure (long-term). As a principle, the sector should generate enough revenue to finance its own infrastructure and other capital needs. This principle should be used to set the tariffs, fees

and taxes in the sector. In particular, an increase in airport tariffs for domestic flights should be investigated as such tariffs seem quite low.

Infrastructure Development. *Establish a strategy and prepare a master plan for civil aviation (essential, short-term).* One of the top priorities in the sector is to define an overall long-term strategy associated with a comprehensive master plan. This work should review and assess infrastructure needs and outline the financial requirements for development, based on realistic passenger and cargo forecasts and economic criteria. This master plan, which should also address the sector's governance structure, legal framework, and potential for private investment should become the basis for discussions among all stakeholders before its implementation is approved.

Build on already existing infrastructure and consider less costly technological alternatives (short-term). Even if air traffic doubles within ten years, given its current low level, future air traffic demand can for the most part be managed by enhancing and enlarging current facilities. This is especially valid for the three main airports of Sana'a, Aden and Al-Mukhalla. For ATC improvement, Global Positioning System (GPS) technology should be seriously considered since it is very much (possibly eight times) cheaper than the currently preferred VOR/DME.

Airline Development. *Revise Yemenia's network and fleet development plan (essential, short-term).* The current global economic downturn calls for an urgent fresh look at Yemenia's strategy. The national carrier's current strategic directions, its profitability and cash flow, as well as its financial commitments for fleet renewal need to be revisited in detail, discussed, and agreed upon with all shareholders. Yemenia should consider developing its medium-haul network rather than its long-haul network, since the competition on long-haul routes is already very tough between the big carriers of the Persian Gulf (Emirates, Etihad, Qatar Airways, Gulf Air). Moreover, Yemenia will need profitable regional routes to redeploy its four medium-range B737 after Felix takes over all domestic

flights, and to pay for the high ownership cost of the new A350s.

Continue to support Felix after its launch. (short-term). To ensure profitability on its domestic network by selling high fares to passengers in connection with international flights, Felix needs to become an IATA member or to enter into an operational agreement with Yemenia quickly. Then, Felix's possibility to obtain international traffic rights despite its foreign majority ownership should be clarified, as Felix's aircrafts will be more fuel efficient on regional routes.

Competition Policy. *Clarify competition policy on domestic market to allow entrance of new carriers (longterm).* The move towards a liberalized air transport should go on. Felix, therefore, should not have exclusive domestic traffic rights.

Institutional Structure and Capacity. *Strengthen the role of MoT (long-term).* The priority for MoT should be to develop a long-term strategy for the sector and to prepare a civil aviation master plan. Therefore, it needs reinforced human and material resources, as well as a clear definition of its mission. In other countries, MoT usually performs the following role for the sector: prepare a long-term strategy, develop and supervise master plans, prepare legislation, direct the civil aviation authority, the airports, and the ATC, support the Ministry of Foreign Affairs in international negotiations, and foster private sector investment.

Separate regulatory and operational functions in the institutional organization. (long-term). International experience suggests having separate organizations, to define air transport regulations and to supervise airports on one hand, and to apply these regulations and to manage airports on the other hand. The way CAMA works should therefore be revised to avoid possible conflicts of interest.

Develop statistical capacity (short-term). Collecting and analyzing adequate data on the sector is

important to understand and manage its issues; this will request training and funding of staff, equipment, and studies.

Consider public-private partnerships to enhance private involvement in air transport sector (long-term). Given the limited public resources of the country, the use of public private partnerships could strengthen the sector's attractiveness for private investors, and bring more financing, capacity and expertise to the development of the sector. The Government has rightly initiated PPP arrangements for the management of Sana'a and Aden airports.

Annex material of particular interest:

The league of Arab States Open Skies Agreement: Background. (See Annex 1 of the [Strategy Note](#))

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