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TURKISH AVIATION ACADEMY

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Aircraft Finance

Module 14

Istanbul Technical University
Air Transportation Management, M.Sc. Program
Air Law, Regulation and Compliance Management
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Outline

- Sources of aircraft financing
 - Equity financing
 - Debt financing
 - Lease financing
 - Innovative sources of financing
- Securing interest in aircraft
- Aircraft financing and international law
- Government role in aircraft financing

Sources of Aircraft Financing

U.S. Airline Industry

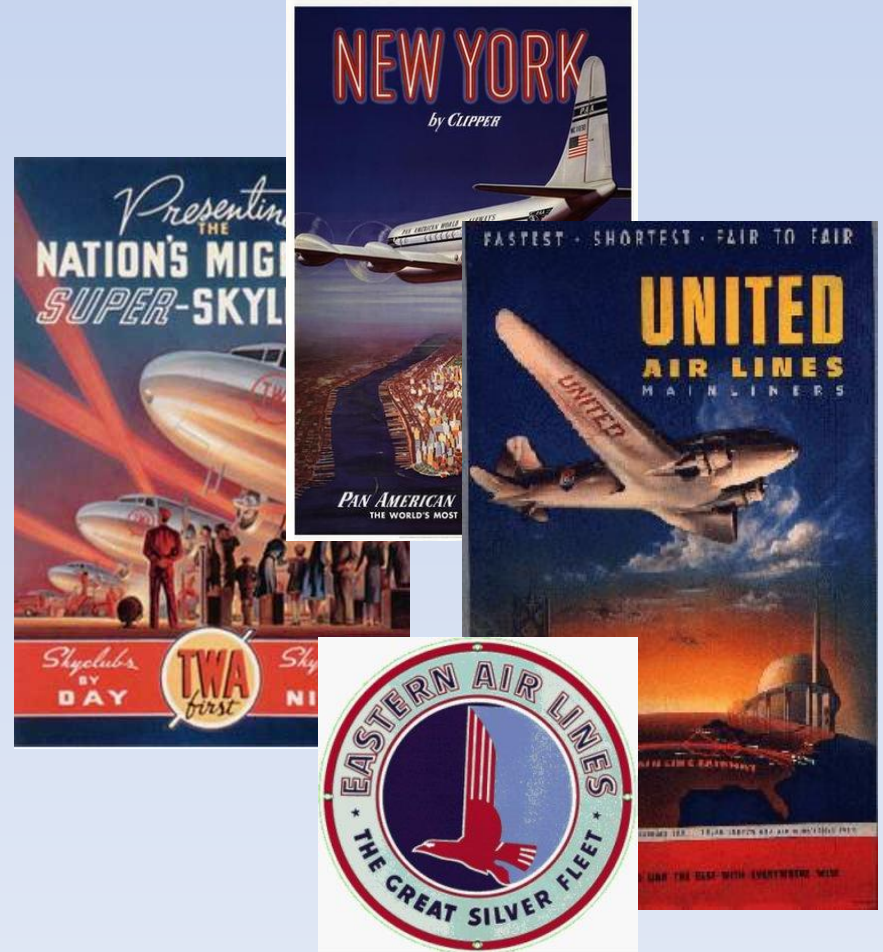
Financial Woes

- 2000 – U.S. profit \$2.5 billion
- 2001 - U.S. losses \$8.3 billion
- 2002 - U.S. losses \$11.4 billion
- 2003 - U.S. losses \$1.7 billion
- 2004 - U.S. losses \$9.1billion
- 2005 - U.S. losses \$27.2 billion
- 2006 - U.S. profit \$18.2 billion
- 2007 - U.S. profit \$7.7 billion
- 2008 - U.S. losses \$23.8 billion
- 2009 - U.S. losses \$2.6 billion
- 2010 – U.S. profit \$3.7 billion
- 2011 – U.S. profit of \$1.4 billion
- 2012 – U.S. profit of \$0.4 billion
- 2013 – U.S. profit of \$12.8 billion
- 2014 – U.S. est. profit of \$8.6 billion



... progressively worse since deregulation

- Pre-deregulation – no airline bankruptcies
- 1981-82 – two major airline bankruptcies; one liquidation
- 1990-94 – five major airline bankruptcies; two liquidations
- 2001-06 – seven major airline bankruptcies; no liquidations; half of US fleet capacity in bankruptcy.



How can aircraft be financed?

1. *Equity financing.*

- An airline issues shares or stocks to raise capital.

2. *Debt financing.*

- An airline takes a loan evidenced by a bond, debenture or note.

3. *Lease financing.*

- An airline (lessee) obtains the right to use the equipment of an owner (lessor) for payment over an agreed period of time.

4. *Internal financing.*

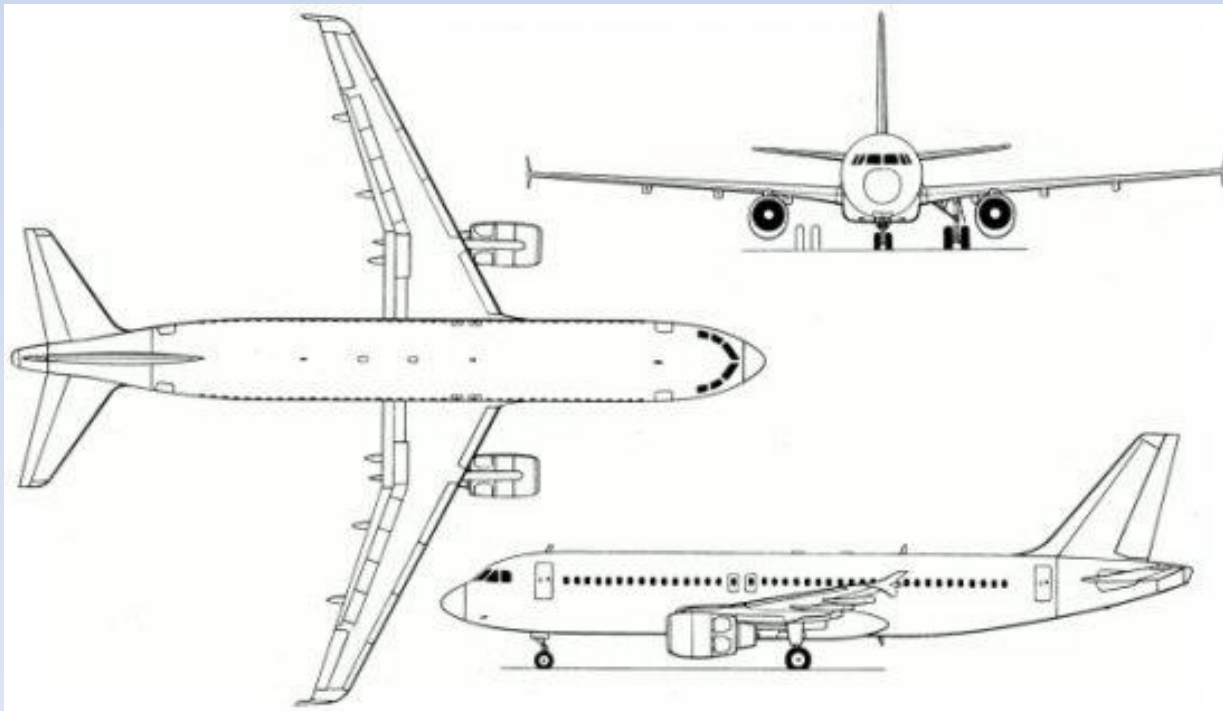
- Financing equipment purchases from self-generated funds

5. *External third-party financing.*

- Financing provided by third parties
- (e.g. aircraft manufacturers, engine manufacturers)

Financing the purchase of A320

Aircraft type: A320-200
Capacity: 150 passengers
Price: \$94 million USD



Equity Financing

What is equity financing?

An airline issues shares to raise capital

- Common shares – full voting shares with no restrictions.
 - Shareholders are owners
 - Right to vote, receive dividends, receive the value of liquidated assets
- Preferred shares – a special class of shares with preferential rights.
 - Payment of dividends prior to other shareholders; repayment of liquidated value prior to other shareholders
 - Trade off between voting rights and better privileges

Recent trends in equity financing

- Privatisation
 - Privatisation has been major user of equity markets
 - Previously, only US had major private airlines and hence few countries had developed airline equity markets and support institutions
- Initial Public Offering
 - Launch of new air carriers, IPO of government airline
 - Often, new carriers launched by private placement, with subsequent IPO
- Airline stocks are viewed as “traders”
 - Considered trading stocks, not long-term investments

Debt Financing

What is debt financing?

An airline takes a loan to raise capital

- Banks, insurance companies, super-annuity funds
- Loans in the form of a bond or debenture
 - Typically provides a fixed rate of return
 - Repayable at a fixed time
- Unsecured bonds
 - no obligation to provide a collateral
- Secured bonds
 - obligation to repay is secured by an instrument that gives the creditor an interest in the asset (aircraft) in the event of default

Trends in debt financing

- Diversification in the type of financing
 - fewer banks operate as primary lenders
 - export credit agencies and enhanced equipment trust certificates remain popular financing instruments
- Airlines use various assets as bond collateral
 - aircraft is most common
 - also airport slots, airport gates and route rights
 - In 2012, the holding company of BA and Iberia considered issuing £250 million in bonds on the LSE with 31 slots at Heathrow as collateral

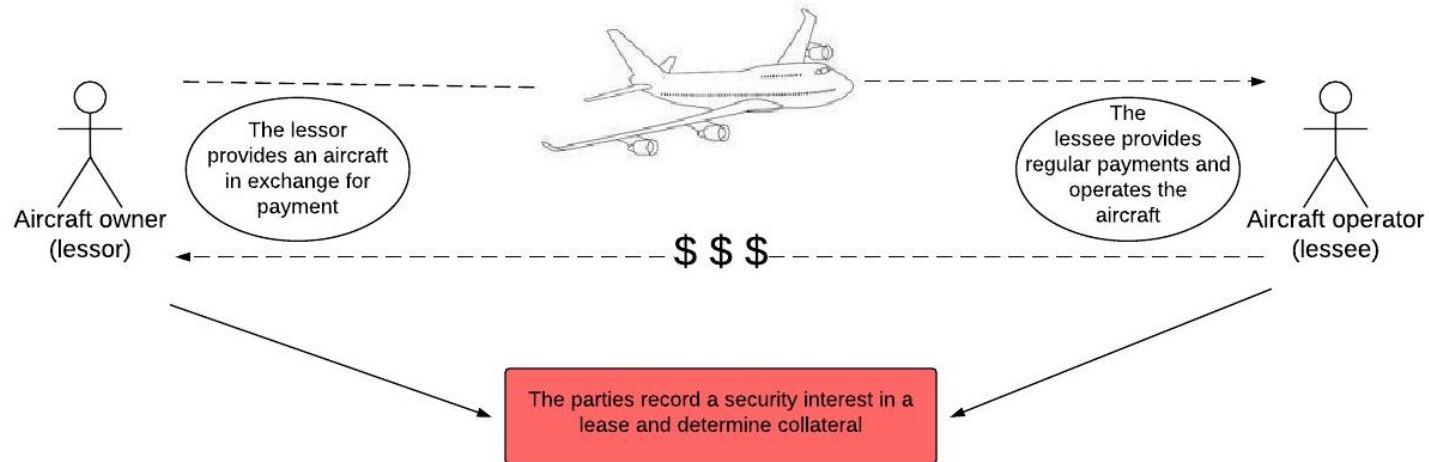
Lease financing

What is a lease?

- Article 1(q) of the Cape Town Convention defines a lease as:

“an agreement by which one person (the lessor) grants a right to possession of control of an object (with or without an option to purchase) to another person (the lessee) in return for a rental or other payment.”

What is a lease?



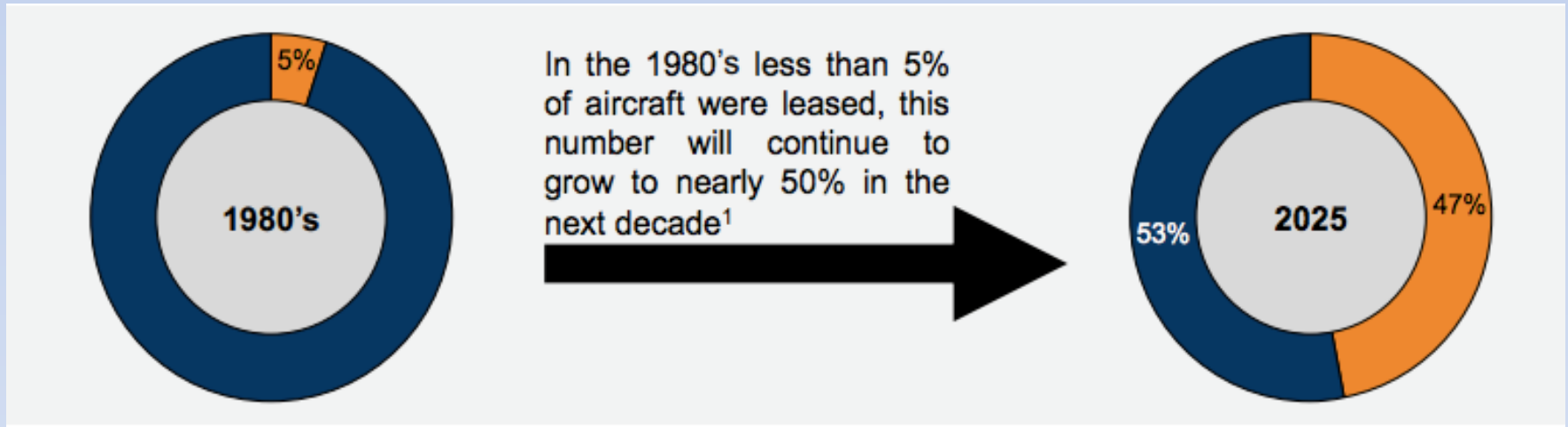
Types of lease

- Operating lease
 - The asset is not fully amortized over the lease term
 - The lessee does not acquire title to the asset
 - Annual lease payment appears as expense item on income statement (tax advantages)
- Capital lease (“sales-type” or “finance” lease)
 - The asset is fully amortized over a fixed lease term
 - Lease payments cover capital costs + lessor’s profit
 - The lessee may acquire asset at the end of the term (purchase option)

Advantages and disadvantages

- Advantages of leasing
 - The lessor retains title to the aircraft
 - The provides protection of lessor against insolvent debtors
 - The lessee benefits from tax incentives
 - Leasing can lower equipment costs compared to other sources
- Problems with leasing
 - Owning is cheaper than leasing in the long term
 - Double sales tax
 - (e.g., sale-and-leaseback in certain provinces in Canada)

Trends in leasing

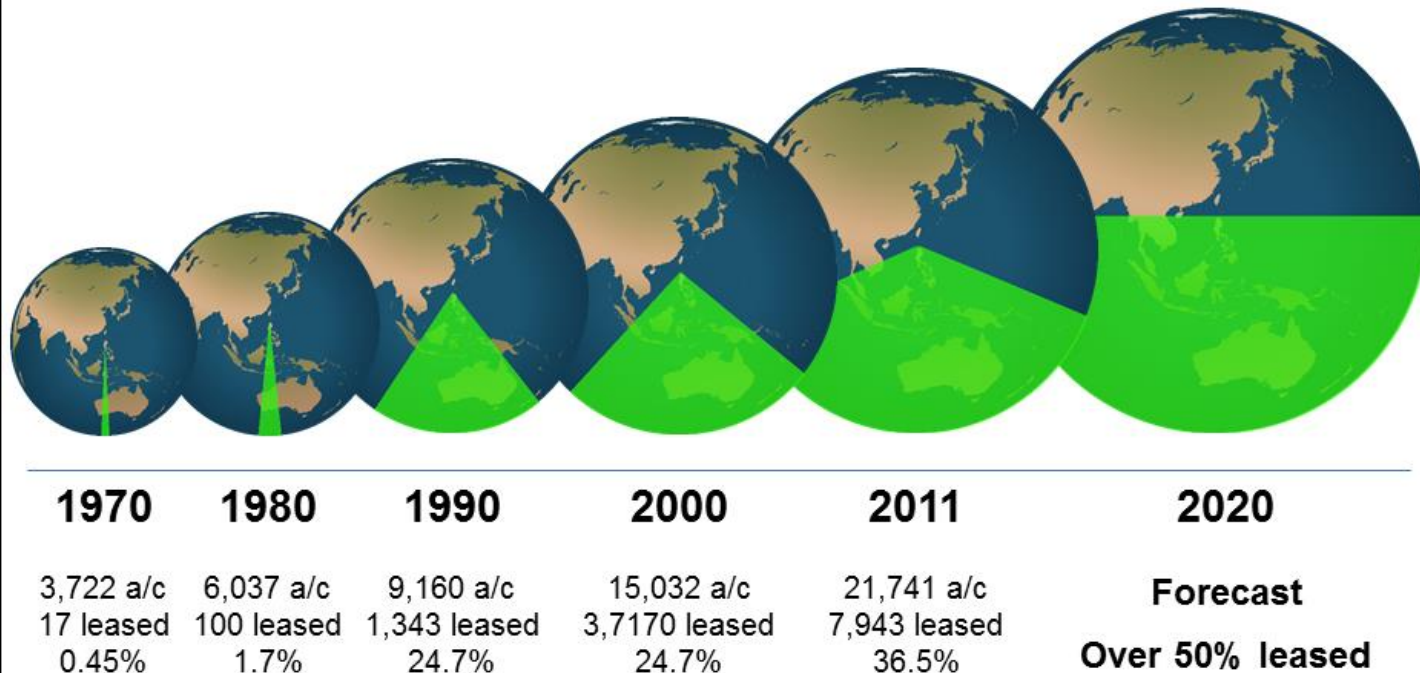


Source: SGI Aviation (2014)

Airlines increasingly rely on leases as leasing affords increased protection against unpredictable economic cycles

Trends in leasing

The Growth of Aircraft Leasing



Source: Boeing

Innovative Sources of Financing

Third-party financing

- Aircraft manufacturers sometimes participate in financing the purchase of aircraft
 - Boeing and Airbus provided \$13 billion of “committed financing” through lease transactions to American Airlines while it was in bankruptcy

Joint financing

- Alliances enable airlines to coordinate or integrate aircraft purchasing activities
 - The Star alliance sourcing committee
 - The Star alliance framework agreement incorporates a volume-based principle to aggregate purchases with the preferred supplier
 - Star clause allows other members to benefit from similar terms and conditions

Equipment Trust Certificates

- Enhanced equipment trust certificates (EETC)
 - an airline may issue bonds to pay for the acquisition of aircraft
 - a special purpose vehicle (SPV) is a company set up to raise cash and purchase aircraft
 - the airline makes lease payments to SPV which are remitted to the bond holders in the form of interest payments

Countertrade

- Countertrade is a financial tool used in circumstances where a sale of an aircraft cannot take place due to the lack of cash or credit in the importing country
 - two basic forms are barter and counterpurchase
 - buy-back agreements
 - offsets

Securing Interest in Aircraft

Aircraft nationality

- Recall that under the Chicago Convention
 - Each aircraft has unique nationality
 - The state of nationality is the state of registry (Article 17)
 - An aircraft can be registered in one state only, but the state of registry may be changed (Article 18)
 - Aircraft registration is made pursuant to local laws of the state of registry (Article 19)

Registration of aircraft

- Primary purpose of registers is to enable identification of aircraft required by the Chicago Convention
- Aircraft registration systems are established to protect interests in aircraft against competing claims
 - Centralized systems in some countries
 - U.K. Aircraft Mortgage Register
 - U.S. Federal Aviation Administration Register
 - Decentralized systems in other
 - Canada's provinces and territories have registration rules

Security interest

- A security interest is any interest in property, acquired by contract for the purpose of securing payment or performance of an obligation or indemnifying against loss or liability

Government Role in Aircraft Financing

State aid

- Governments provide public subsidies to large civil aircraft manufacturers
 - in the form of tax relief, loans, grants, lower regulatory controls
 - WTO dispute concerning alleged subsidies to Boeing by the US and Airbus by the EU
- Export credit agencies provide indirect funding to commercial airlines
 - in the form of loan guarantees to foreign-based purchasers
 - loan guarantees protect financial institutions from the risk of loan default

The Boeing-Airbus Dispute



Since 2004, Airbus and Boeing have been in a dispute before WTO alleging unlawful subsidies in an amount of \$23.7 billion and \$200 billion for Boeing and Airbus respectively.

OECD 2011 Understanding

- The OECD issued a non-binding set of guidelines with respect to state aid for regional and large aircraft
 - calls to drop export credit support
 - over 30% of Airbus and Boeing orders are supported by export credits
 - eliminates distinction between regional and large aircraft
- The 2011 Understanding does not apply to aircraft financed before 2013 and raises questions of enforcement and legality.

Aircraft Financing and International Law

What are the main issues?

- Aircraft are highly mobile assets
 - Users of aircraft wish to have operational freedom
 - Financiers of aircraft wish to preserve aircraft in good condition and access it if default occurs
- Different jurisdictions apply different laws
 - Local regulations on registering security interest vary widely; no two systems are alike

What international laws apply?

- There is no comprehensive system of international substantive property law to govern the purchase and financing of aircraft
 - It is important that the owner is able to gain legal and physical control over aircraft
- However, several rules and principles emerged under international treaties

