United Airlines and the transformation of global aviation

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Radical consolidation since 2004: biggest changes in aviation history

Total Domestic USA	1991	1999	2005	2013
Concentration-top 4	67%	63%	58%	87%
# Competitors (>4%)	8	8	8	4

Total North Atlantic	1991	1999	2005	2013
Concentration-top 3	35%	47%	47%	97%
# Competitors (>2%)	15	11	9	3

Did consolidation improve industry economics?
Is the industry more efficient with fewer competitors?

Framework for understanding the biggest changes in aviation history

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- **Industry structure/competition and efficiency/profitability**
- **Economic drivers of different airline business models**
- **US airline profitability trends since deregulation**
- **Economics and historical performance of airline mergers**
- **Airline bankruptcy process and capital restructuring**
- **Global Alliances and Intercontinental competition**
- **Antitrust reviews of merger/antitrust immunity cases**
- **Consolidation of domestic US aviation; the US-AA case**
- **Long term outlook for industry growth**

My perspective on airline competition and industry structure

Airline Responses to Deregulation and Liberalization

- **Post-deregulation shakeout, 90s profit recovery**
- **European/Asian liberalization**

Consolidation via Alliance Antitrust Immunity

- **Developed original NW/KL alliance network**
- **Shut down multiple unprofitable alliances**

Bankruptcy Restructuring

- **PE, NW, HP, SR, SN, UA, US, HA, TZ, AA**

Industry consolidation in the last decade

- **Direct experience including cross-border mergers**
- **Congressional and DOT testimony**
- **recent Transportation Law Journal article on ATI**

Any industry analysis implies a model of airline competition and growth

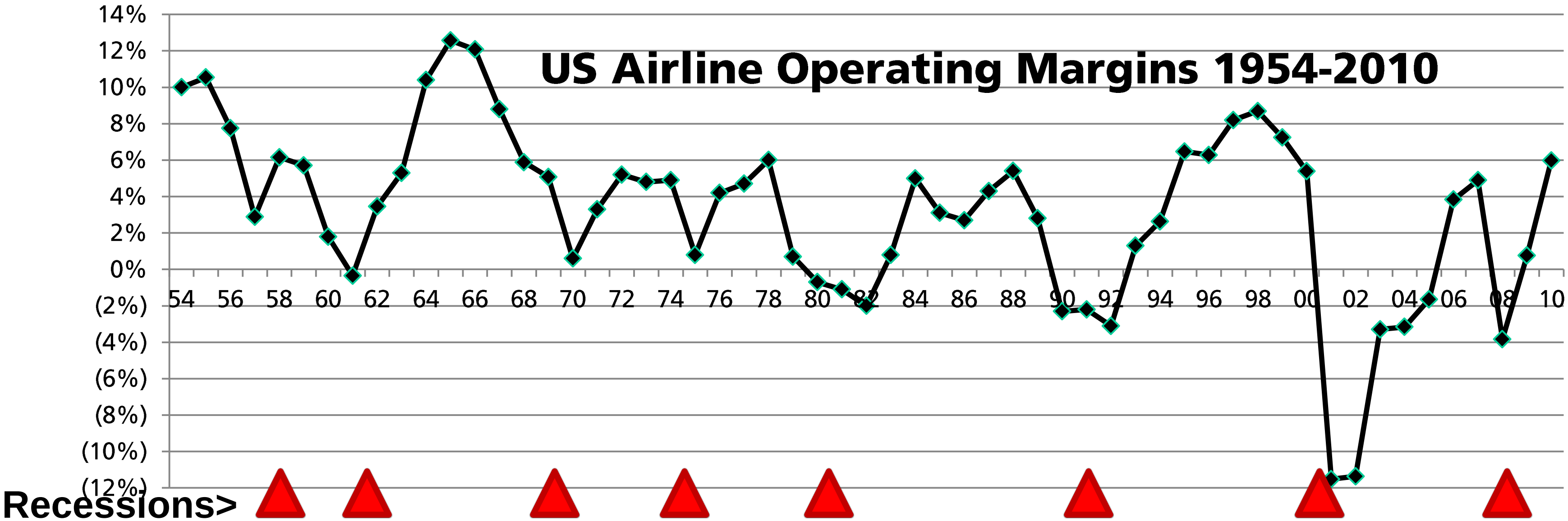
Narrow view— Airline financial/ competitive success requires:

- **Industry supply/demand balance**
- **Only serve markets where you have a sustainable competitive advantage**
- **Rigorous ROI justification for capital spending**

Longer view-- Profitable Industry growth requires:

- **Profitable industry growth requires continuous innovation, productivity gains**
- **Profitable industry growth requires continuously reallocating capital to more productive uses**

US airline profits historically weak, very sensitive to supply/demand shifts



Strong profits get undermined

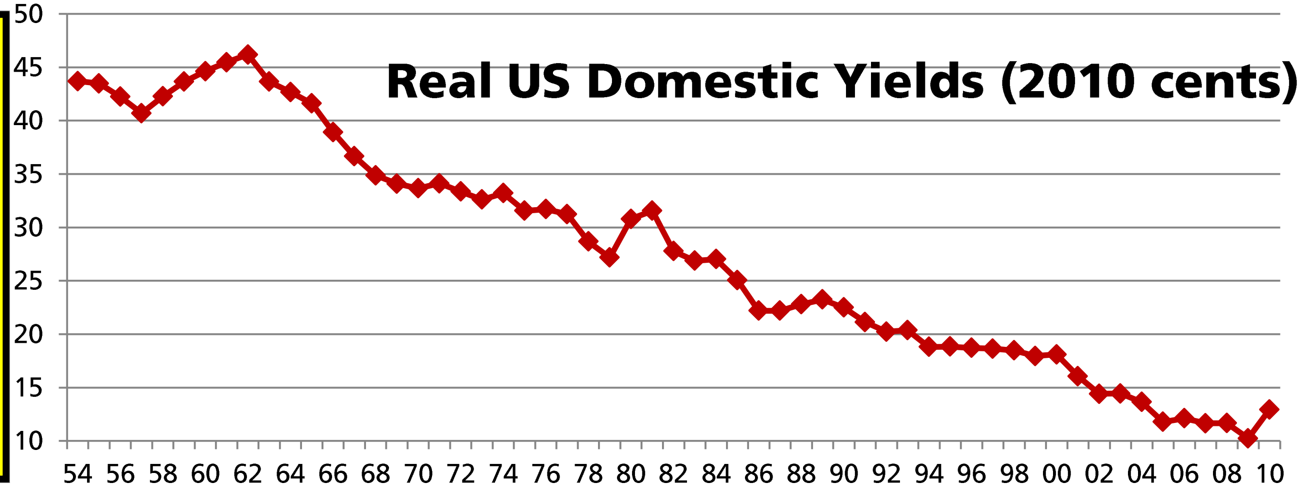
- **60s aircraft driven boom; went way too far**
- **90s capacity discipline abandoned (dot-com era)**

3 big collapses: overcapacity, ignore cycles

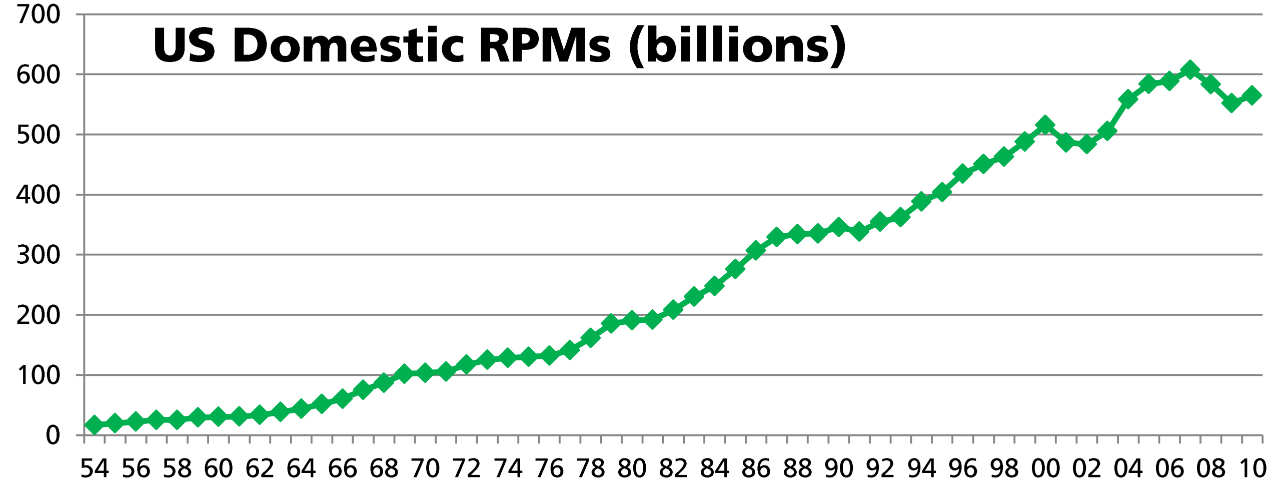
- **80s: deregulation entry boom hits recession**
- **90s: hub boom/national expansion hits recession**
- **00: post dot-com boom recession**

Innovation→Productivity→Lower fares→ Demand growth→Scale→Entry/growth

Innovation→
Lower Fares
60s/70s—aircraft technology
80s/90s—network/ business models/ IT systems



Fares stopped falling 10 years ago
90s—artificial (dot-com)growth
00s—stable/rising fares stifle growth



Industry structure & competition driven by political/regulatory rules

SIX MAJOR CATEGORIES	
SAFETY REGULATION	Airline/Aircraft Operating authority, Maintenance oversight, Pilot and Mechanic licensing/training
CORPORATE LAW	Taxation, Financial Reporting, Corporate Governance
BANKRUPTCY LAW	Asset/Debt Restructuring, Creditor/Debtor rights
LABOR LAW	Collective Bargaining, Pension Rules
CONSUMER/COMPETITION LAW	Antitrust, Advertising Rules, Consumer Protection
ECONOMIC REGULATION	Entry/Fitness requirements, Route Authorities, Pricing Regulations, Airport Slot/GDS rules

1944 Chicago Convention
All aviation companies/rules tied strictly to nationality

postwar CAB/ IATA Cartel → ***1978-1990s liberalization*** → ***industry consolidation***

Powerful incumbents can block challenges

Loosened entry, pricing rules to weaken power of incumbents

"Liberal" industry structure can also drive growth, improved capital allocation

Innovation and Productivity
Information technology
Aircraft technology
Airline Business Models
Supply Chain Efficiency

Lower Fares
customer value

Structural Growth

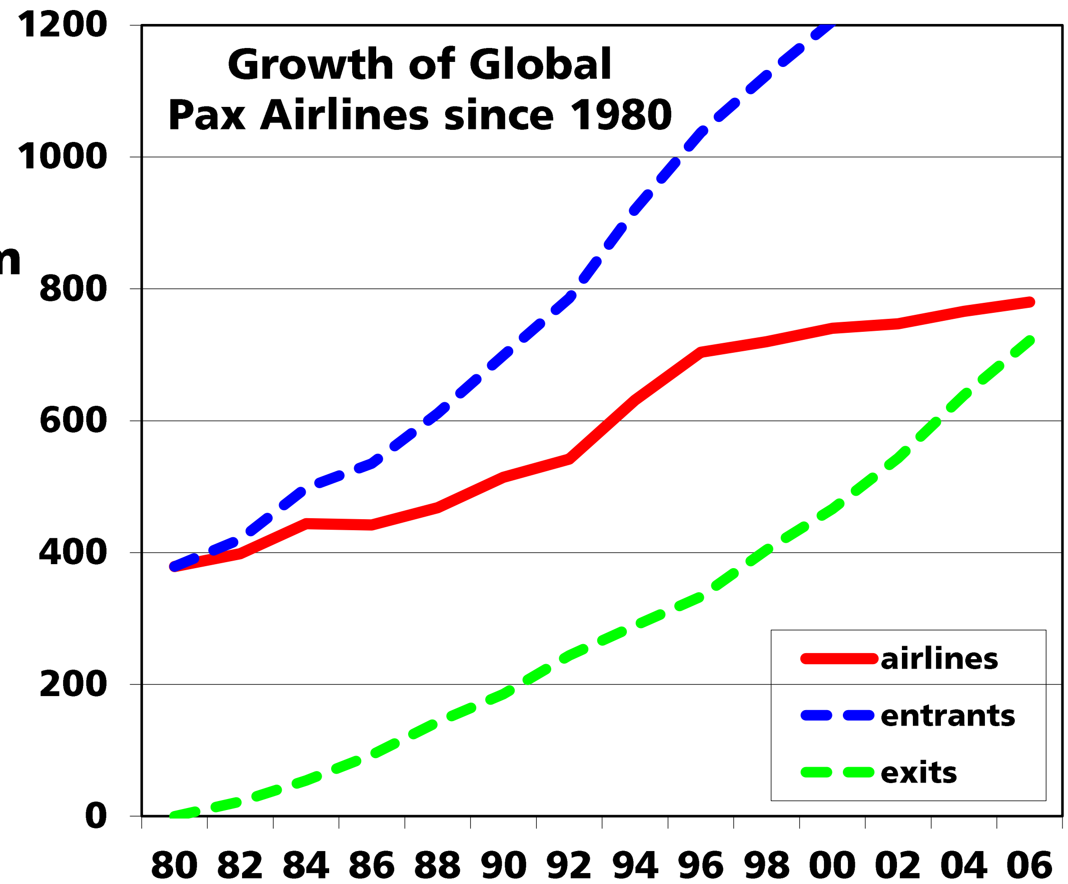
Pressure to continuously improve capital allocation

HIGHLY LIBERAL MARKET COMPETITION/REGULATION	
Pricing/market entry freedom	No labor market distortions
Independent capital markets	Limited ownership barriers
No artificial competitive barriers	Efficient bankruptcy process
Open corporate control market	No political barriers to exit

REQUIRES PUBLIC POLICY FOCUSED ON	
	Let Markets pick winners, how many airlines (not governments)
	Maximum Gains Economy-Wide (not individual companies)
	Maximum Benefits for overall (not specific) Consumers/Investors

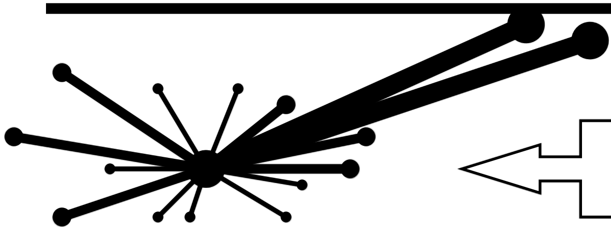
"Creative destruction" requires conflict between industry, individual stakeholders

- **Profitable industry growth required failure of hundreds of companies; painful reallocations of capital assets and jobs from weak to strong**
- **Fundamental conflict between incumbent interests and new entrants**
- **Biggest industry problem throughout history: "Barriers to exit"—protections for weak managers, unproductive assets, vested interests**

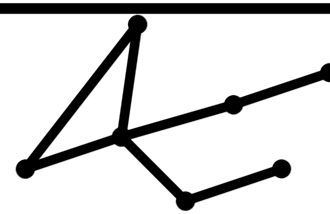


Excludes third level airlines with less than 10 aircraft

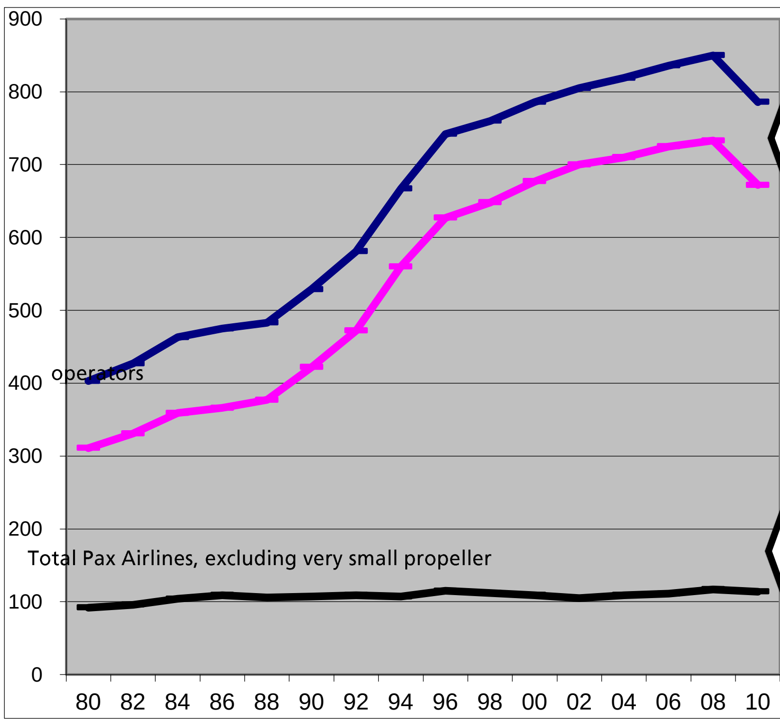
Intercon/Shorthaul: different businesses, different drivers, different competition



proven airline business models



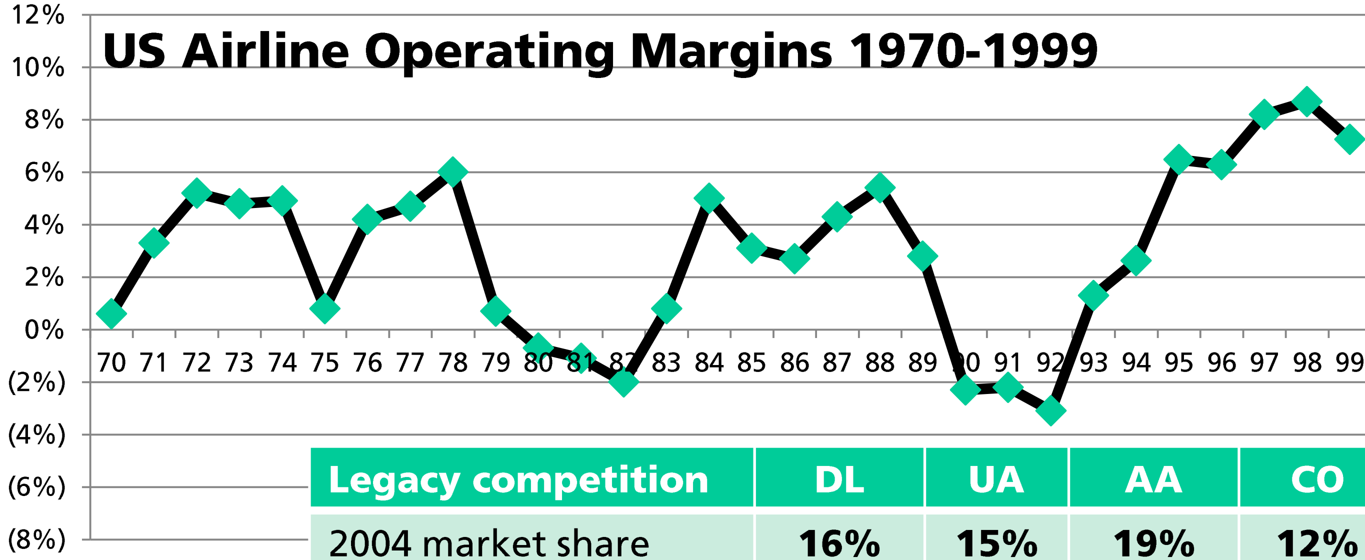
Intercontinental Megahubs		USA Domestic (mix big hubs/LCC)		Most non-US LCC shorthaul (no hubs)	Ultra-LCC+ charters



shorthaul sector—
(domestic/regional airlines)
Vibrant, dynamic--accounts for 100% of industry-wide competitive growth

***Intercontinental sector**:*
zero growth in 30 years due to huge entry barriers (both political, economic)

US Aviation in the 90s—strongly profitable, highly competitive



Legacy competition	DL	UA	AA	CO	NW	US+HP
2004 market share	**16%**	**15%**	**19%**	**12%**	**10%**	**10%**
Strong Megahubs	ATL	ORD	DFW MIA	EWR IAH	MSP DTW	PHL CLT
International--Strong	Atl	Atl	Lat	Atl	Atl	
--Middling		Pac	Atl		Pac	Atl

Deregulation had:

- **Intensified price/ network competition**
- **Spurred management innovations**
- **Significantly increased capital market discipline**
- **Generated a stronger industry structure**

Some early 80s mergers worked but all later “scope/scale synergies” failed

80: Pan Am/National	**Synergy/Scope**	**FAILURE**—largely liquidated
82: Texas Intl/Continental	Hub consol (IAH)	**FAILURE**—quickly bankrupt
85: Southwest/Muse	Bankruptcy	Profitable—cheap acquisition
85: People Exp/Frontier	**Synergy/Scope**	**FAILURE**—soon bankrupt
86: TWA/Ozark	Hub consol (STL)	Profitable—Created viable hub
86: Northwest/Republic	Hub consol (MSP)	Profitable—Created viable hub
86: American/Aircal	**Synergy/Scope**	**FAILURE**—totally liquidated
87: Continental/PE/NY/FL	**Synergy/Scope**	**FAILURE**—soon bankrupt
87: Delta/Western	**Synergy/Scope**	**FAILURE**—largely liquidated
87: Continental/Eastern	**Synergy/Scope**	**FAILURE**—soon bankrupt
88: USAir/PSA	**Synergy/Scope**	**FAILURE**—largely liquidated
88: USAir/Piedmont	**Synergy/Scope**	**FAILURE**—soon bankrupt

Initial 80s mergers attempted to “fix” CAB-imposed network limitations
--only worked when merger created a viable hub (STL/MSP)

Every merger based on expanded scope/scale failed
--given failures, only one Scale/Scope merger attempted in two decades after 1988

Original mid-90s Collusive Alliances: real consumer benefits in competitive markets

original Collusive Alliances KL-NW (92), SR-SN-DL (95) and UA-LH-SK (97)

- ***Measurable Consumer Benefits***: Thousands of markets got online service, discount fares for the first time
- ***Driven by Network Economics***: Alliance connections totally displaced traditional interline connections—not pursued outside North Atlantic where comparable network opportunities did not exist
- The North Atlantic remained robustly competitive

	1991	**1993**	**1995**	**1997**	**1999**	**2001**
Concentration-total North Atlantic market (55 million annual pax)						
top 3 share	**35%**	**42%**	**42%**	**45%**	**47%**	**47%**
number of US-EU competitors with minimum departure share of 2%						
	15	**15**	**13**	**13**	**11**	**11**

but these network/consumer gains fully exhausted by 1999

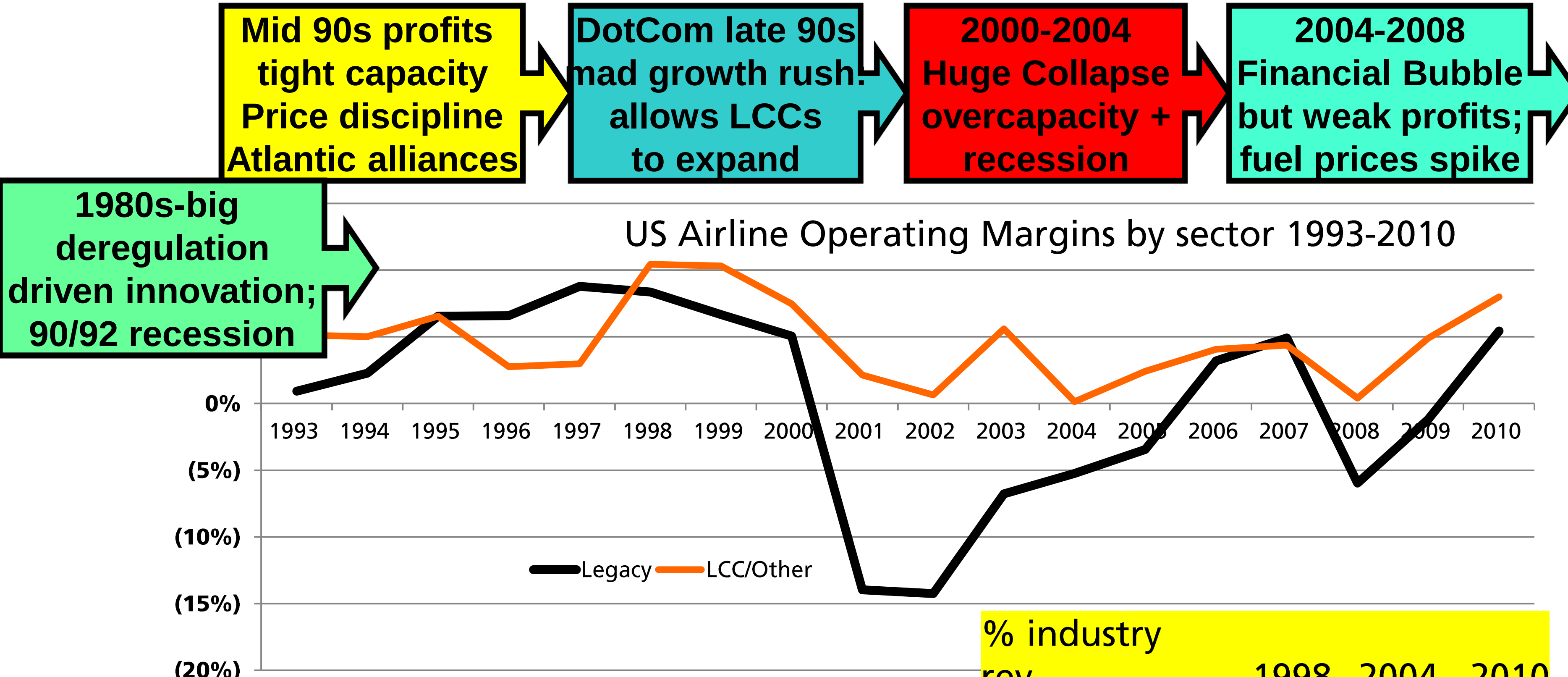
Control battles, bankruptcy key to capital market discipline in the 90s

- **Fair success rate when larger incumbents challenged/replaced**

	Major Capital reallocation	**Major Mgmt/Control change**
82: Texas Intl/Continental	☑ Hub consol (IAH)	✖−FAIL−**quickly went bankrupt**
83: 1st CO bankruptcy	☑ major cost restructuring	✖−FAIL−**No mgmt change**
85: TWA-Icahn takeover	☑ Led to OZ merger	✖−FAIL−**Weak mgmt, no new capital, no improvements after OZ**
87: Texas Air (CO)-Eastern	✖−FAIL−**Little integration**	✖−FAIL−**Weak mgmt**
89: NWA-Wings takeover (92 virtual bankruptcy)	☑ After initial missteps led to major network restructuring	☑ Major change (but new mgmt entrenched; bankrupt in 2003)
90: 2nd CO bankruptcy	☑ After initial missteps led to major network restructuring	☑ Eliminated failed management
91: AWA bankruptcy	☑ major restructuring	☑ Major change
92: TWA bankruptcy	✖−FAIL−**didn't fix capital**	☑ Major change
94: United ESOP	✖−FAIL−**ended Allegis but didn't improve United**	✖−FAIL−M**gmt not improved**
85/91: Pan Am liquidation	☑ Assets more productive	**N/A**

- **Nearly 100% failure rate when big incumbents buy smaller competitors**
  - DL/WA, US/PS, AA/OC/TW, CO/PE/FL

Profitable mid-90s US industry equation destroyed by Legacy mismanagement



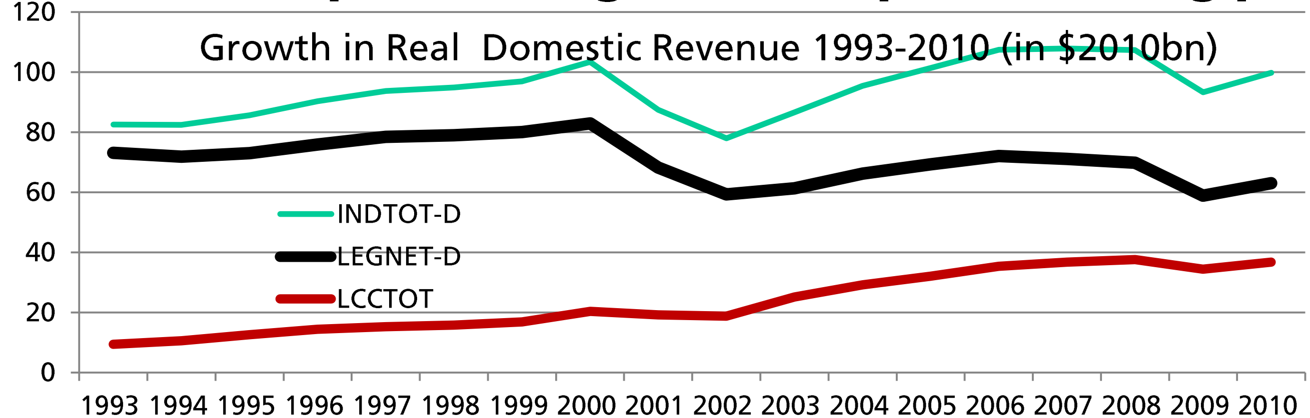
% industry rev	1998	2004	2010
Legacy	86%	75%	72%
Regionals	3%	10%	9%
LCC/Other	11%	15%	19%

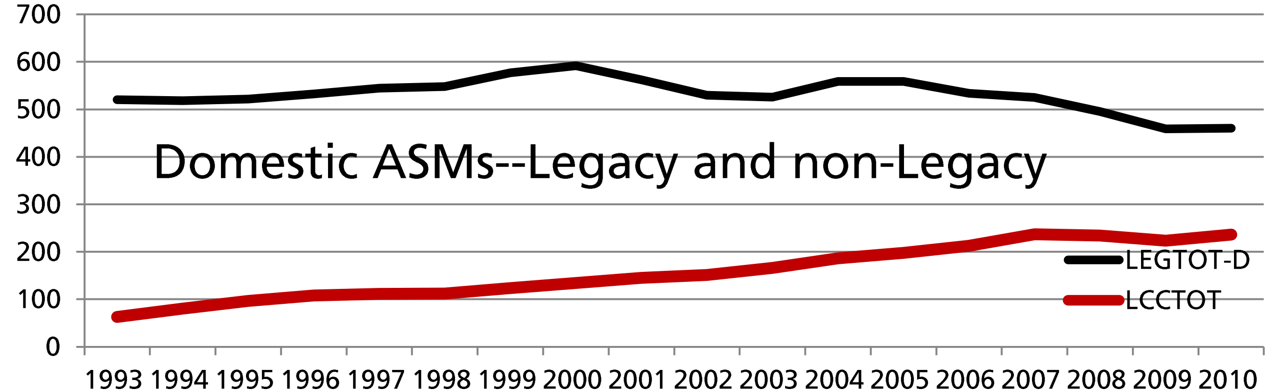
- **Dot-com bust biggest in airline history**
- **$36 billion in Legacy losses 2001-2009**
- **Huge Legacy market share losses to LCCs**

Source: DOT Form 41 data

Legacy collapse—ignored supply/demand, competitive advantage, need for ROC

- **Legacy revenue base way down, but no capacity cuts until 2007**
- **Legacies assumed profitable growth despite declining productivity**

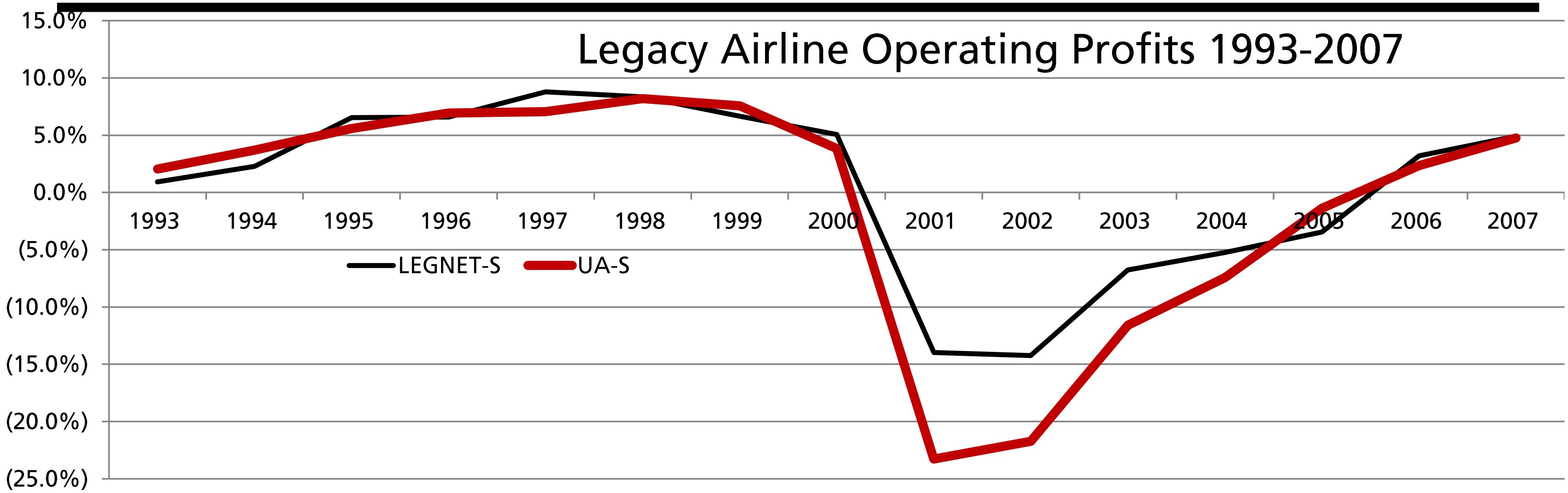




Overcapacity—fleet hasn't recovered cost of capital since the 90s --problem is too many planes/ASMs—not too many airlines

Source: BLS CPI deflator applied to DOT Form 41 data

United's 2002 collapse: obvious problems readily addressed in bankruptcy



- **UAL hugely valuable--absolutely no risk of liquidation**
  - Strongest network in industry, huge customer base and brand
- **Liquidity, balance sheet problems due to unprofitable expansion**
- **Short term (self-inflicted) damages from failed ESOP**
  - Chapter 11 ideal for asset restructuring, contract concessions
- **Poor management, network/financial underperformance**
  - Continental merger plan addressed management, fleet and network
  - Creditor interest in competing reorganization plan

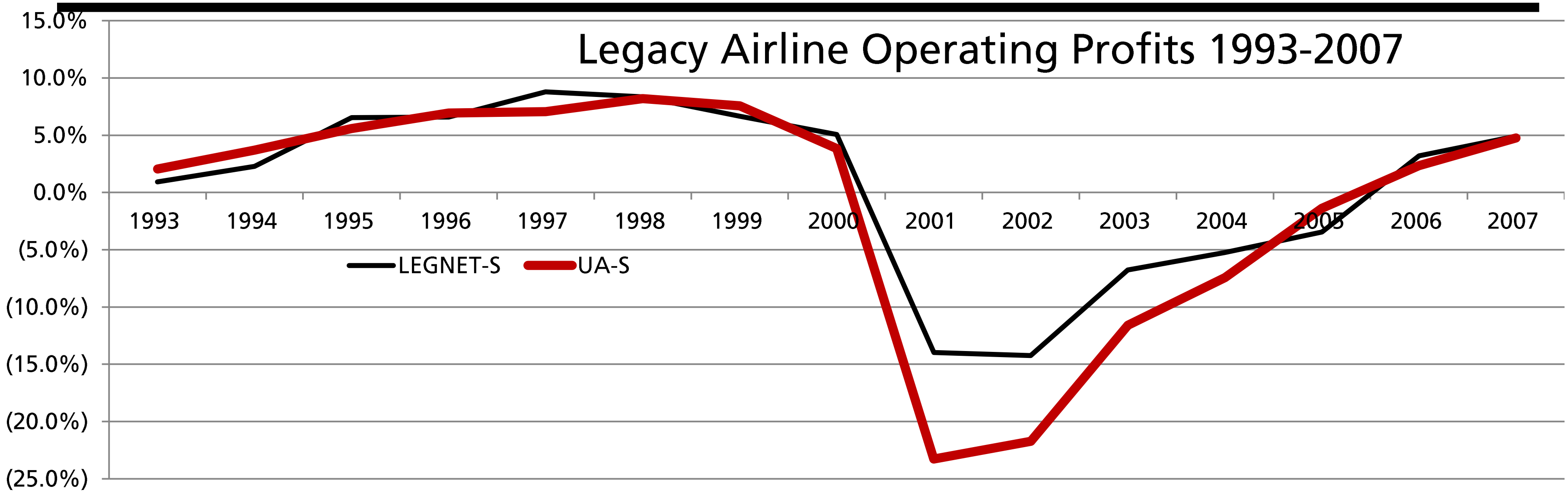
United spent over 3 years in bankruptcy avoiding solutions for these problems

Tilton—total warfare to keep exclusive management control	▪ **$1 billion for lawyers/consultants** ▪ **Senior management team stayed in place** ▪ **Claimed UA would liquidate if Tilton lost exclusive control of reorganization process**
Court—blocked competitive bids, basic creditor rights	▪ **Blocked CO merger; Creditor economic rights effectively transferred to Tilton**
PBGC wouldn't fight pension termination	▪ **After extensive lobbying from Tilton** ▪ **Huge taxpayer liability**
Indefensible plan but Pilots, Boeing blocked other creditors	▪ **Tilton plan assumed suspension of laws of supply/demand, permanently cheaper fuel but maintained unprofitable flying and included new aircraft order**
Surrendered huge value to JPMorgan	▪ **Future value of frequent flyer credit card used for financing to protect Tilton control**

Transforming industry competition—step 1--United's bankruptcy

	Historic	21st Century
Chapter 11 process objective	Redeploy capital, change strategy/management in order *to* ***maximize creditor recovery***	Block competing bids and challenges to existing business practices in order to **protect incumbent owners/managers**
Capital market discipline	Bankruptcy focus on **new sources of at-risk capital, competitive bidding**	Creditor access to competing independent bids preempted by **short term financing**
Reorganization planning focus	Reorganization plans must identify and address causes of collapse, **demonstrate greater productivity and returns on investment**	Same operations, competitive approach as before—**zero-sum wealth transfer from labor/suppliers to company owners**
Justification for major creditor cramdowns	Only when absolutely **required for successful reorganization**	Wherever **managers assert it is necessary**

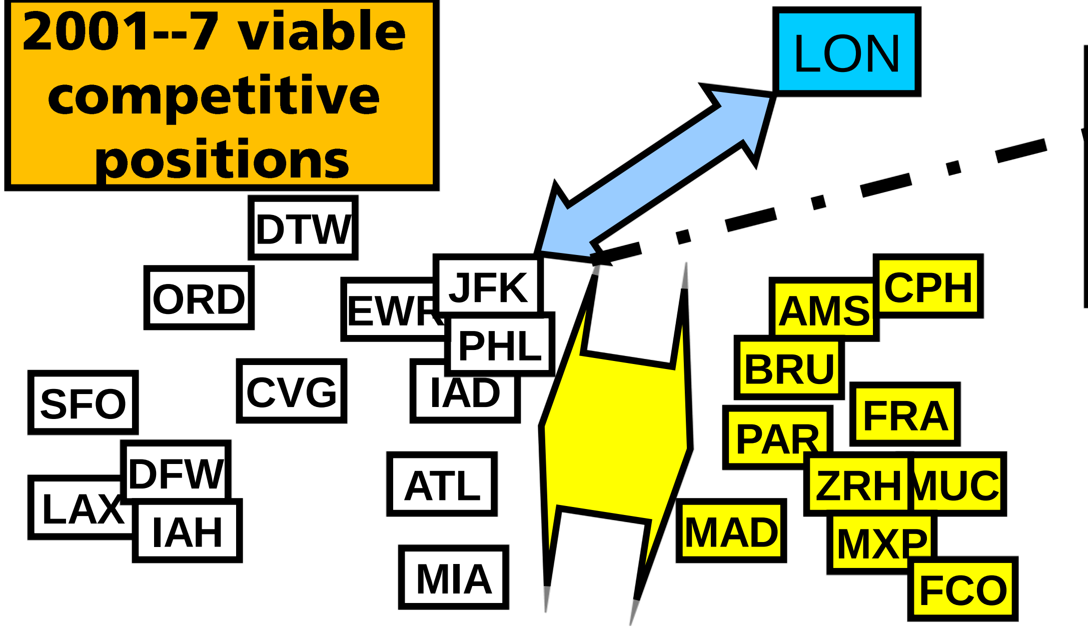
United's weak reorganization plan depressed industry earnings for years



- **United's draconian labor cuts did not produce promised profits**
- **Excess capacity depressed RASM, profits industry wide**
  - Greatly worsened excess supply of high-cost regional jets
  - Weak industry profits despite huge financial bubble
- **But United's plan served as template for all following bankruptcies including Delta, Northwest, USAirways and American**
  - Incumbent management protected, little change to business practices
  - Labor cramdowns far greater than required for successful reorganization

In late 90s, North Atlantic was both highly profitable and strongly competitive

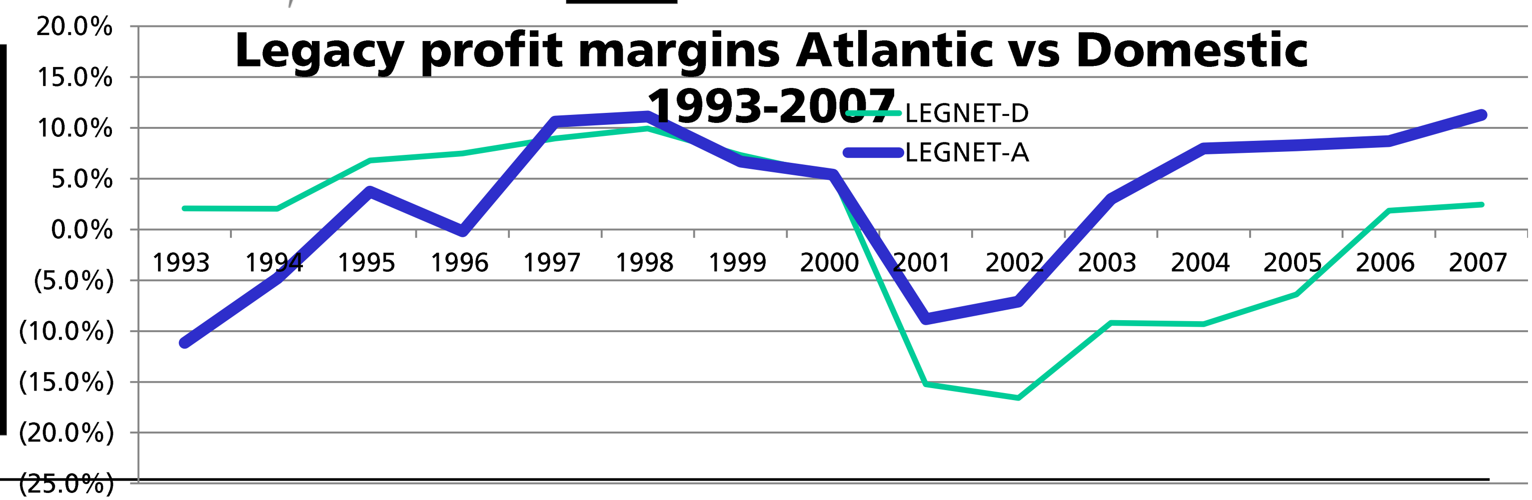
2001--7 viable competitive positions



4 Hub-to-Hub positions with Collusive alliances
--NW/KL(AMS)—DL/AF(CDG)
--UA/LH(FRA)—AA/SR(ZRH)

3 non-alliance positions with Megahubs in largest markets
--CO @EWR, --BA @LHR US@PHL

North Atlantic already strongly Profitable



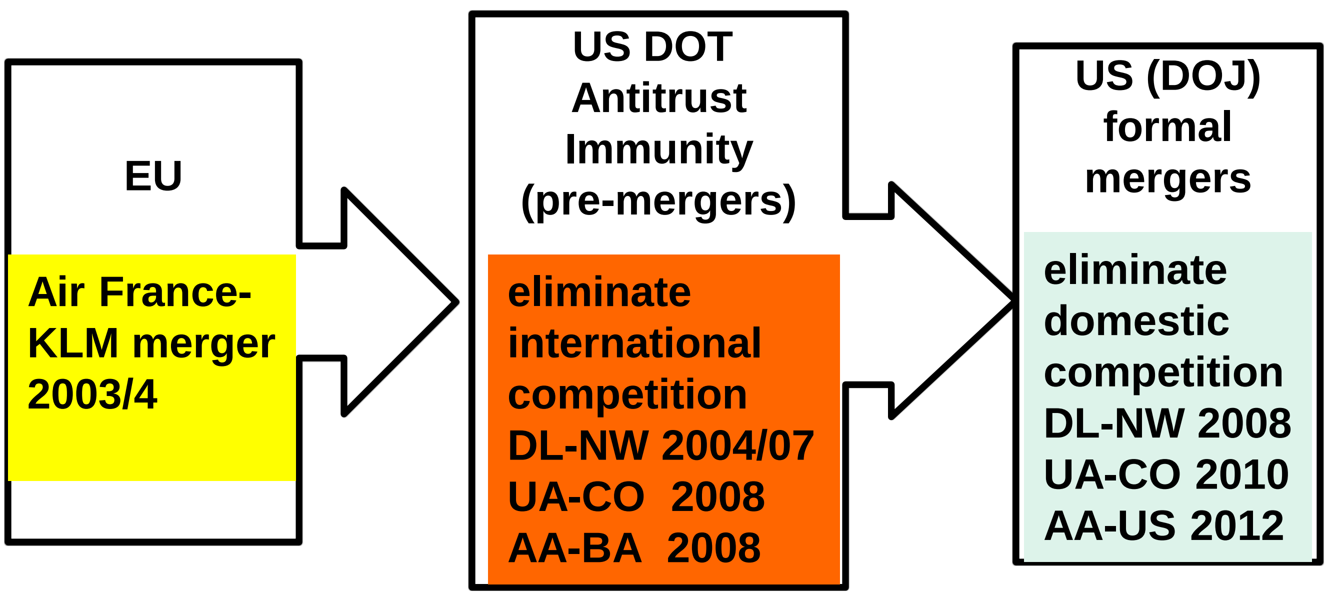
"Industry Consolidation" misinformation PR campaign led by United's Glenn Tilton

Inevitable trend towards industry consolidation	Industry growing for decades "Trend" just biggest Atlantic carriers
Industry consolidation driven by market forces	All from government actions; Capital markets not interested
Consolidation OK—lots of competition remains	<u>shorthaul</u> competitive; Intercon always stagnant/getting and worse
Consolidation justified by big scale/scope synergies	No previous merger found synergies; United isn't too small to compete
ATI always drives lower consumer fares	No verifiable evidence of <u>any</u> consumer benefits since 1999
Alliances create FF and other consumer benefits	Branded alliance benefits falsely attributed to Collusive Alliances

There has been no independent (regulatory, media, academic) scrutiny of these "Industry Consolidation" claims

North Atlantic Cartel triggered in Europe; United led charge in North America

- **2002--EU aviation policy shifted from liberal competition to governmentally managed LH/AF duopoly**
- **2004 AF/KL merger eliminated meaningful price competition in EU-intercontinental markets**
- **United led PR drive and orchestrated sequence of DOT Antitrust Immunity cases and follow on US mergers**



All recent Star/Skyteam/Oneworld ATI depended on DOT's disregard for the law

- **DOT disobeyed Clayton Act requirement for market power test**
  - No analysis of any pricing data, entry barrier or market contestability evidence
- **DOT ignored legal requirement for objective evidence—DOJ said DOT merely "copy/pasted" Star applicants unsubstantiated claims**
- **Willful DOT regulatory fraud to justify "public benefits"—rule that eliminating competition automatically cuts consumer fares 15-25%**
  - "Double Marginalization" rule—sole basis for every Star/Skyteam/Oneworld ATI grant—fabrication of a United consultant hired by Glenn Tilton
  - Falsely claims connecting fares fall $200-300 every time ATI granted (regardless of market condition)—no actual evidence of ATI consumer benefits since 1999
  - DOT falsely claimed UA consultant paper was settled view of economics profession, thus "rule" allows DOT to ignore any contradictory empirical evidence on prices
- **Newest DOT regulatory fraud—"metal neutrality" designed to extend collusion to large overlapping nonstop O&Ds**
  - Rule created by same UA consultant who fabricated "Double Marginalization"

Huge risk to consumers once Cartel, 95%+ concentration in place

concentration: Healthy, Profitable Competition, even with Alliances → Rapidly Increasing Concentration after 2004 → **Permanent Cartel** with huge entry barriers

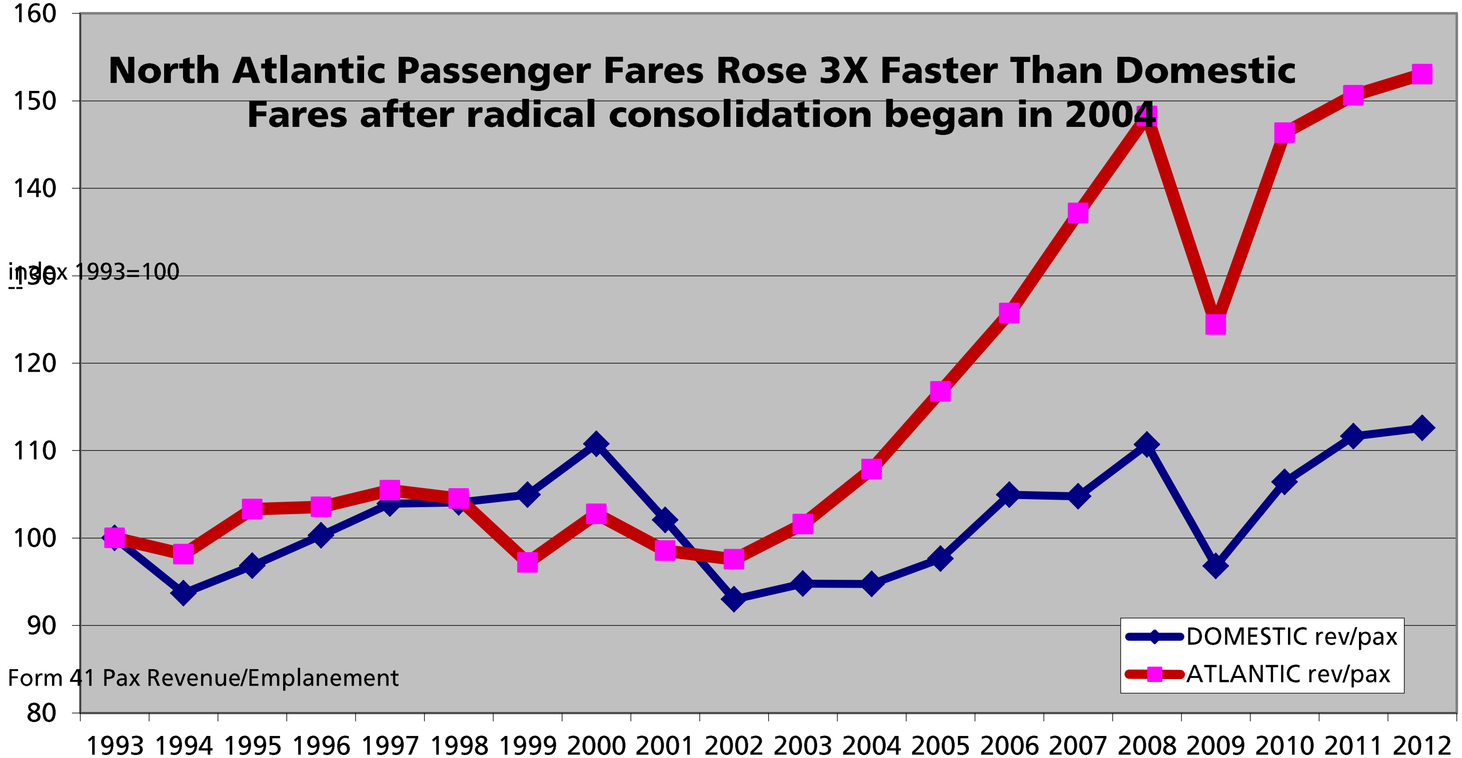
	1995	1997	1999	2001	2003	2005	2007	2009
Concentration levels of US-Continental Europe market (40 million annual pax)								
top 3 share	47%	55%	56%	**61%**	**67%**	**85%**	**88%**	**97%**
Concentration levels of total North Atlantic market (55 million annual pax)								
top 3 share	42%	45%	47%	47%	**54%**	**68%**	**66%**	**97%**
number of total North Atlantic competitors with minimum departure share of 2%								
	13	**13**	**11**	**11**	**9**	**7**	**6**	**3**

Risks to Consumers: very low → **Serious** → **HUGE**

Cartel with 95% share

- **Power to drive prices up across the entire North Atlantic**
- **Oligopoly power to make capacity/service cuts**
  - cuts airline costs; consumers won't have a choice
- **Market "Uncontestable"—zero potential that future new entry could discipline anti-competitive Cartel abuse**
- **Price gouging, oligopoly schedules, creates large pool of artificial, anti-competitive profits for Cartel members**

Post-2004 Consolidation created huge anti-competitive market power



North Atlantic	1991	2001	2011
Concentration-top 3	51%	47%	98%
# Competitors (>2%)	15	11	3

Goal is Cartelization of Intercontinental aviation worldwide

Pacific:
Sham US-Japan "Open Skies"

- **Unlike original 90s "Open Skies" designed to massively reduce competition, facilitate subsidies, slot rules and other distortions**

Delta	Air France
Northwest	KLM
United	Lufthansa
Continental	British Air
USAirways	Iberia
American	Brussels
TWA	Air Canada
Finnair	Aer Lingus
Austrian	Virgin
SAS	TAP
Alitalia	CSA
Swiss	Turkish
LOT	BMI

26 trans-Atlantic carriers

LH-led Collusive Alliance

AF-led Collusive Alliance

BA-led Collusive Alliance

26 trans-Pacific carriers

Delta	Singapore
Northwest	Thai
United	Malaysian
Continental	JAL
American	ANA
Hawaiian	Korean
Cathay Pac	Asiana
Air China	China
China East	EVA
China South	Qantas
Hainan	Air NZ
Air Canada	V Australia
Philippines	Air Pacific

worldwide:
artificial market power is key

- **Cartel using its control of longhaul access to the huge EU/US markets**

Transforming industry competition—step 2—Intercontinental Cartelization

	1980s/90s	21st Century
Who determines number of Intercontinental airlines?	*Winners/losers should be determined by **consumers, investors***	Competition should be **governmentally managed**
Level of competition vs consolidation	Maximization of **consumer welfare**	Protection of **large, politically organized incumbents**
Key drivers of competitive success	**Efficiency, service quality, network**	**Rent extraction tied to control of alliance franchise; political influence**
Purpose of "Open Skies"	Opening longhaul markets to **new competitive entry**	**Massive reductions in competition**

Transforming industry competition—step 3—Cartelizing US Aviation

Atlantic ATI meant only 3 of 6 Legacy carriers could survive; huge anti-competitive destruction of competition & corporate value

- **Legacy network airlines can't survive without North Atlantic; DOT ATI rulings gave huge franchise value for 3 companies; totally destroyed the long-term value of the other 3**
- **NW forced to sell itself to DL at near-liquidation value**
- **CO could not survive, but had leverage for better merger terms**
- **AA bankruptcy plan assumed cheap US acquisition**
- **Legacy precedent led to elimination of LCC competition (WN/FL)**

Big efficiency reduction—capital assets moved to less efficient uses

- **"Market forces" did not drive changes—totally due to powerful incumbents petitioning government for reduced competition**

Few anti-competitive pricing impacts until permanent oligopoly secure

- **"TBTF" airlines—huge barriers to exit, no possibility of new entry**

AMR’s bankruptcy Nov 2011-Aug 2013

- **2011 AMR Bankruptcy plan identical to 2002 UAL approach**
  - Labor exclusively to blame; labor cramdowns drove all P&L improvements
  - Assumed exclusive control of reorganization process
  - Absolute protection for incumbent managers, existing strategies
  - Massive new fleet investment despite losses, industry supply/demand issues
  - Intention to acquire US post-bankruptcy
- **AMR plan collapsed almost immediately; US merger plan in place in March 2012**
  - Suggests UAL Tilton plan would have also collapsed if challenged
  - Bankruptcy process took another 16 months
- **US-led merger finalizes Cartel, but better outlook than AA-led**
  - Stronger focus on supply/demand, competitive advantage, capital allocation
- **Process illustrates critical flaw in industry Cartelization process**

Counter-revolution vs liberal competition--biggest change in aviation history

- **Not just radical consolidation—complete reversal of economic thinking behind deregulation**

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- **Critical role of United Airlines and Glenn Tilton**
  - **Managing laws/regulations as a political process**
  - **Attacking entire legal framework (antitrust, bankruptcy, labor law) purporting to represent the "public" interest**
  - **Focus on wealth transfer and rent extraction**
  - **Undermine external discipline of capital markets**

Counter-revolution against the drivers of capital allocation and growth

Innovation and Productivity
Info technology
Aircraft technology
Airline Business Models
Supply Chain Efficiency

Lower Fares
customer value

Structural Growth

~~Pressure to continuously improve capital allocation~~

HIGHLY LIBERAL MARKET COMPETITION	
Pricing/market entry freedom	No labor market distortions
Independent capital markets	~~Limited ownership barriers~~
~~No artificial competitive barriers~~	~~Efficient bankruptcy process~~
~~Open corporate control market~~	~~No political barriers to exit~~

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	aximum Gains Economy-Wide (not individual companies)
	aximum Benefits for overall (not specific) Consumers/Investors