



Competitive Rail Access Issues Canada Transportation Act Review Panel

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**Opinions presented are those of the author alone, and
should not be attributed to the World Bank or its Directors**



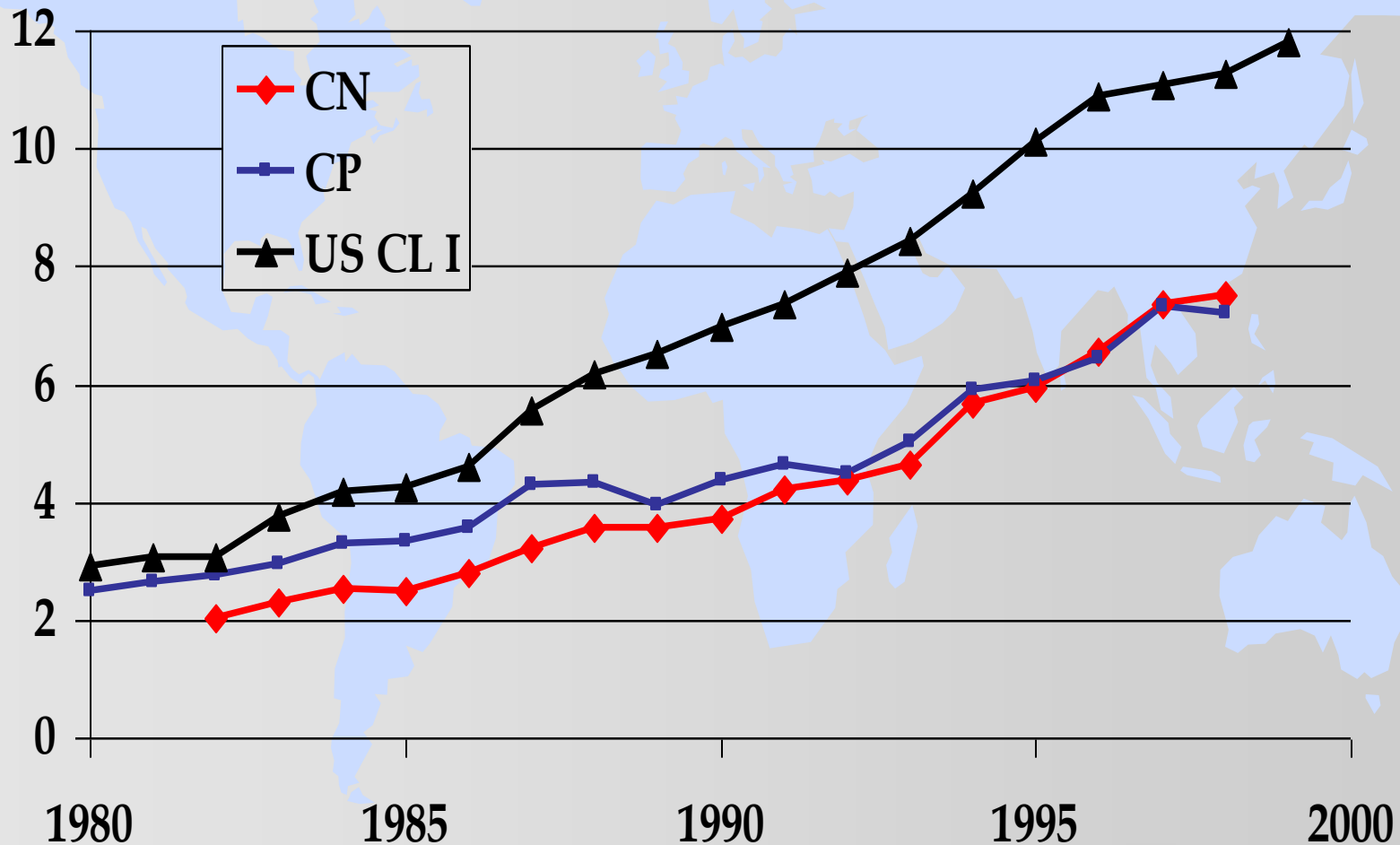
Clarifying the Problem

- **Are Canadian Railroads Efficient?**
- **Is There Actual Abuse of Market Power?**
 - **Total earnings too high?**
 - **Commodity, area or shipper discrimination?**
- **Any Potential Abuse of Market Power?**
- **Are There Objections to Appropriate Differential (Ramsey) Pricing?**
- **New Rail Business Models Needed?**



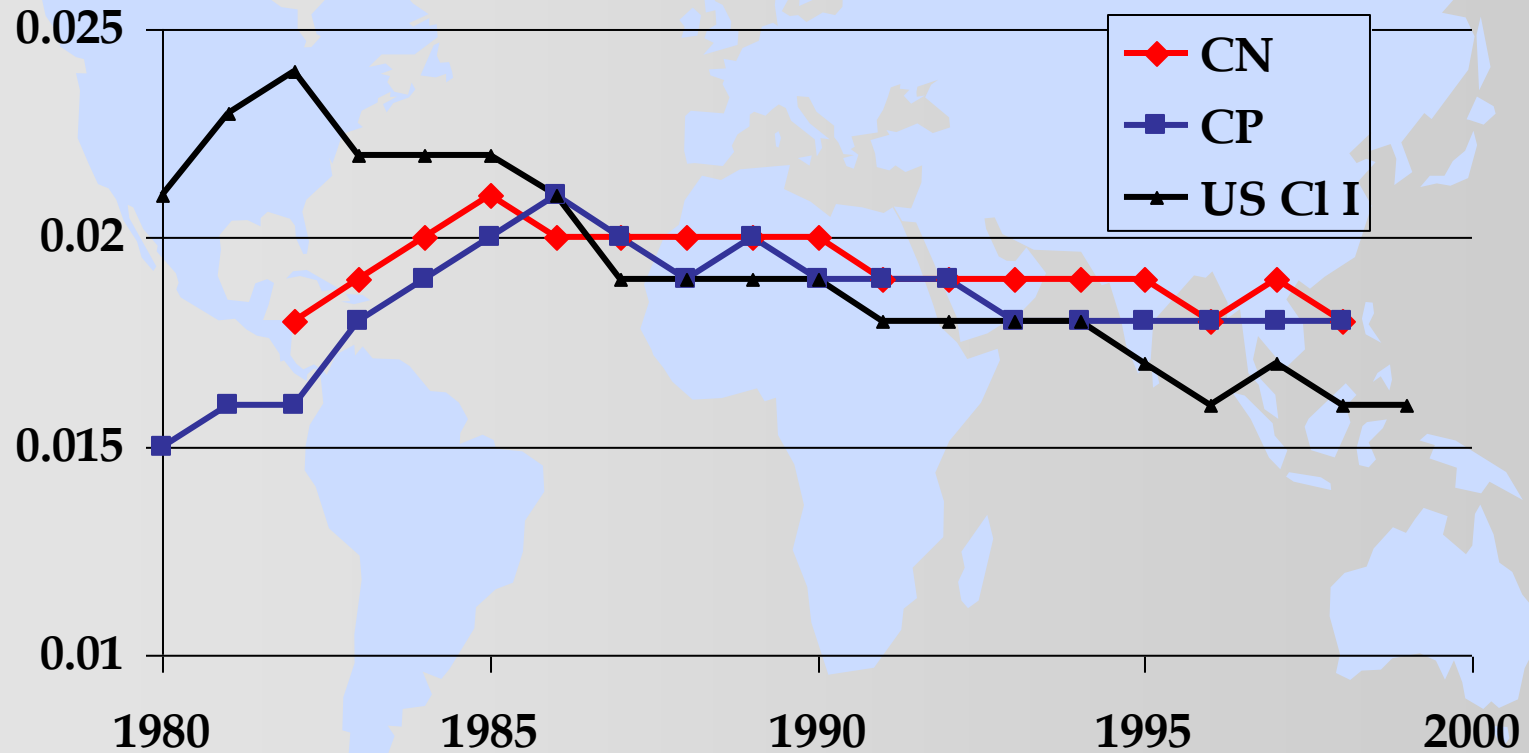
Efficiency: Output/Employee CN, CP and US Class I

(million T-Km per employee)



Abuse of Market Power? Revenue (PPP\$)/Ton-Km

(US \$ at .67 C\$/US\$ and 1.2 PPP adjustment)

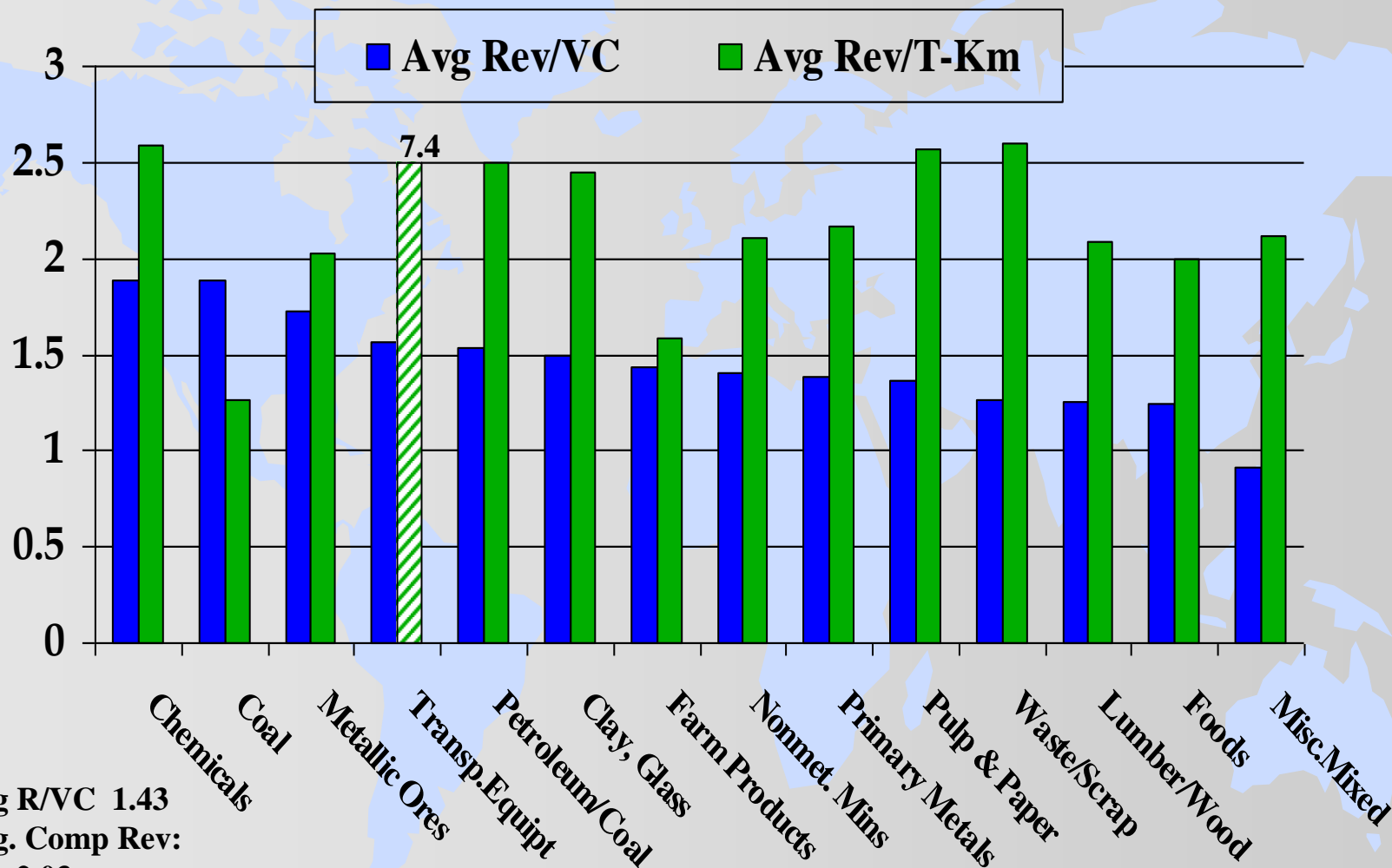


Note: Actual Revenue/Actual Ton-Km



Differential (Ramsey) Pricing in Action in the U.S: Revenue/Variable Cost Ratio and Average Revenue/Ton-Km

(Two Digit STCC Commodity)

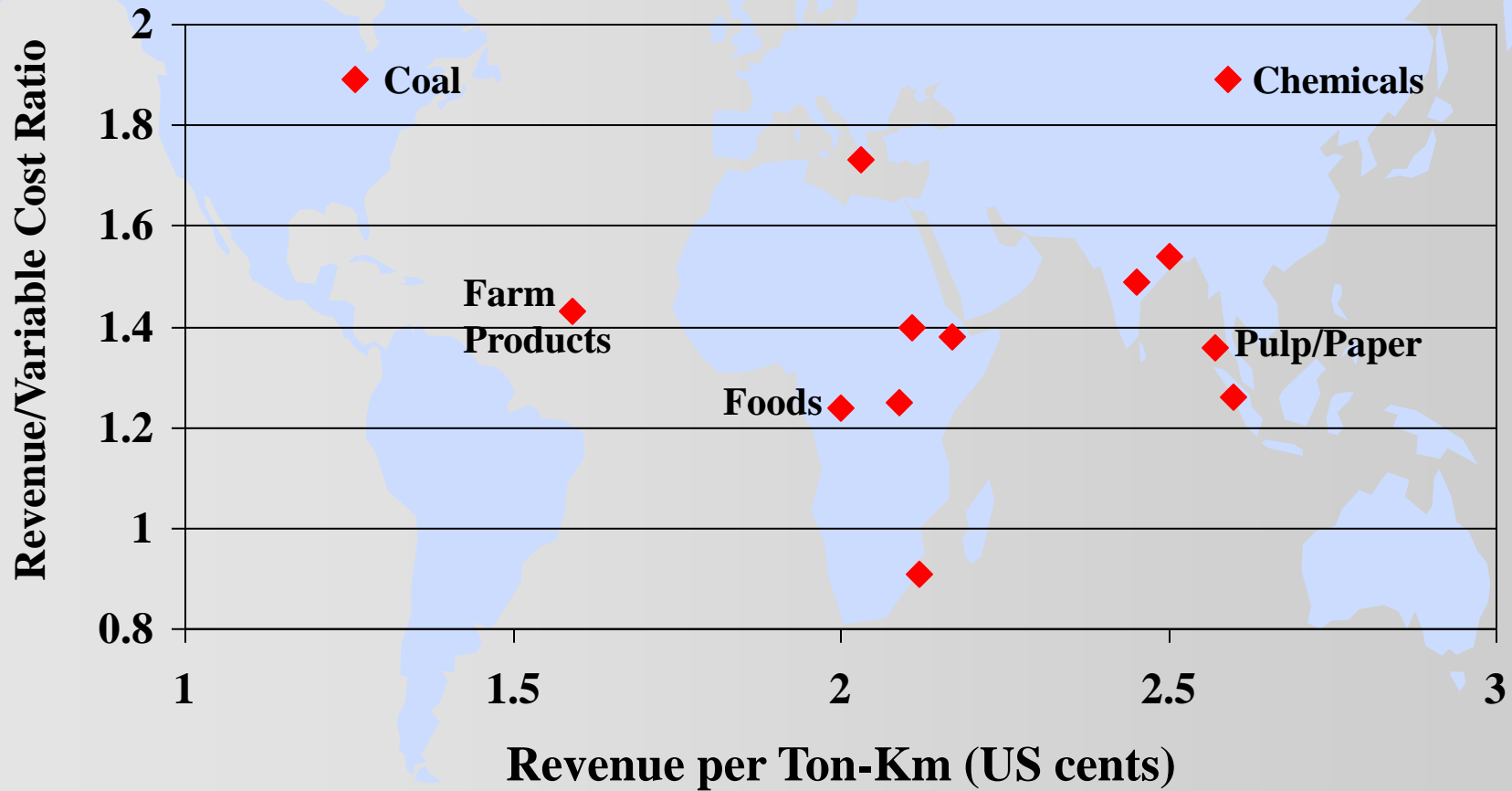


Avg R/VC 1.43
Avg. Comp Rev:
US: 2.03
Canada: 1.73

US Class I's in 1997 based on waybill revenues which do not include impact of contract discounts

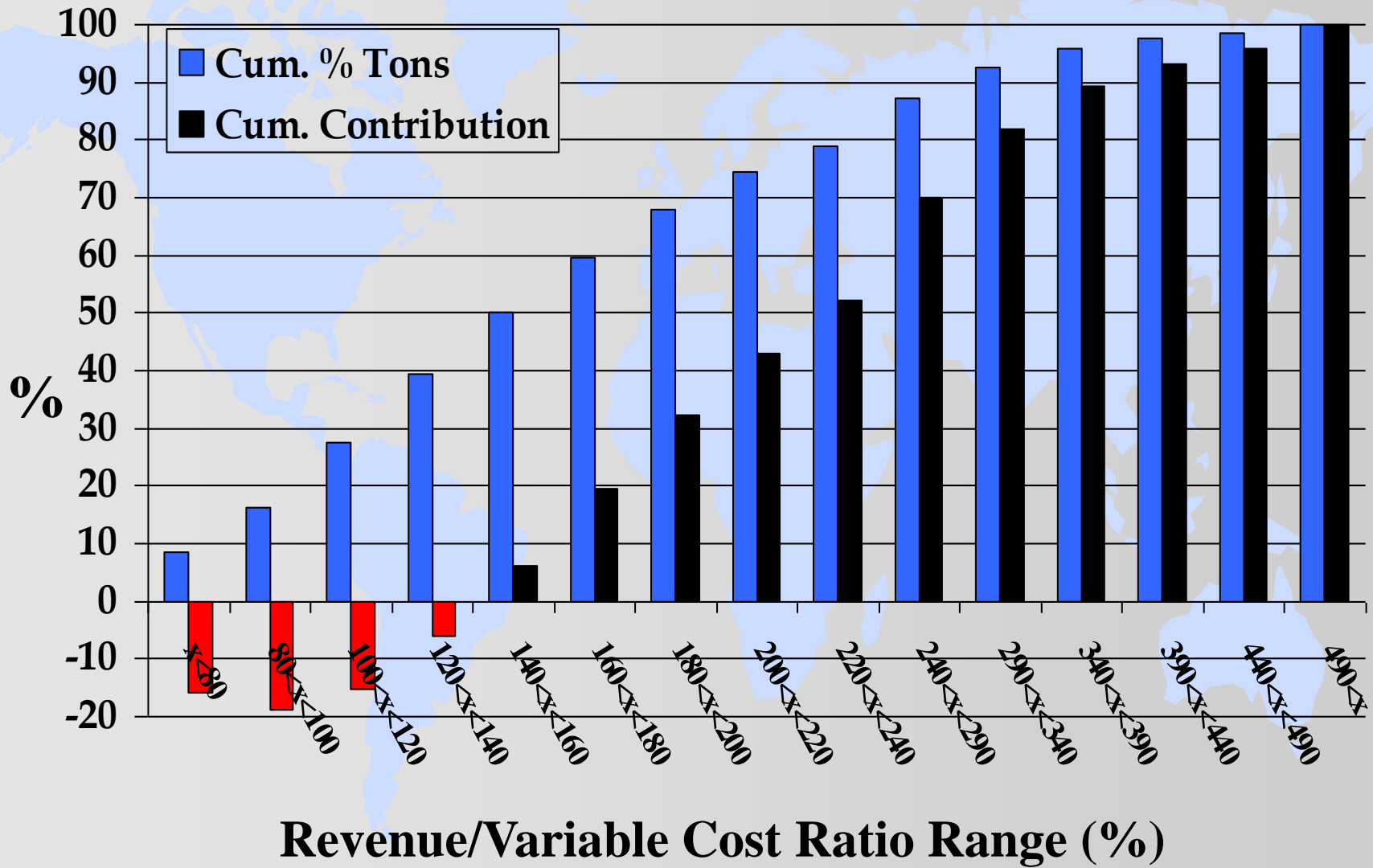


Revenue/Variable Cost Ratio versus Revenue/Ton-km (US Class I, 1997)



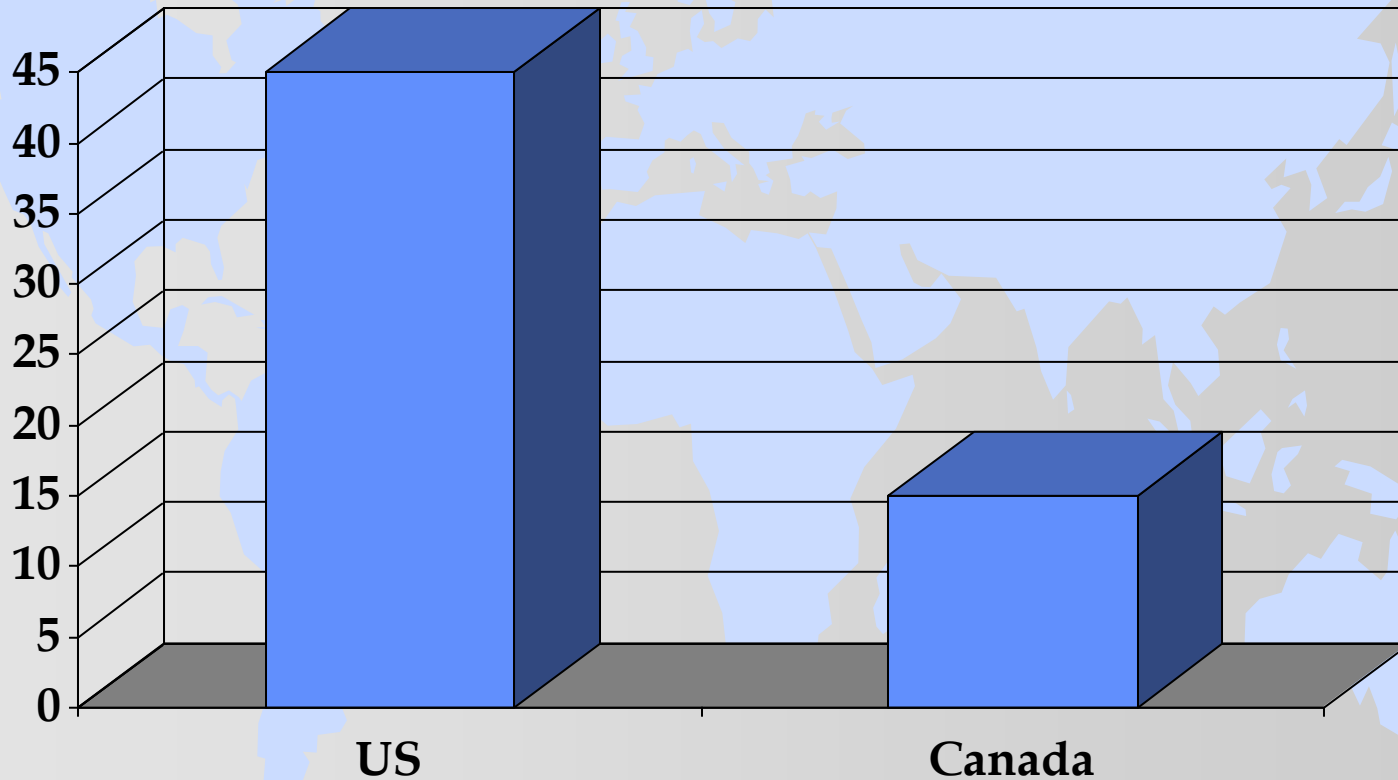
The Importance of Differential (Ramsey) Pricing: US Class I Freight in 1997

("Contribution" = Revenue - Variable Cost)



Differences in Productivity and Prices: Why?

Coal as Percent of Total Tons of Rail Freight



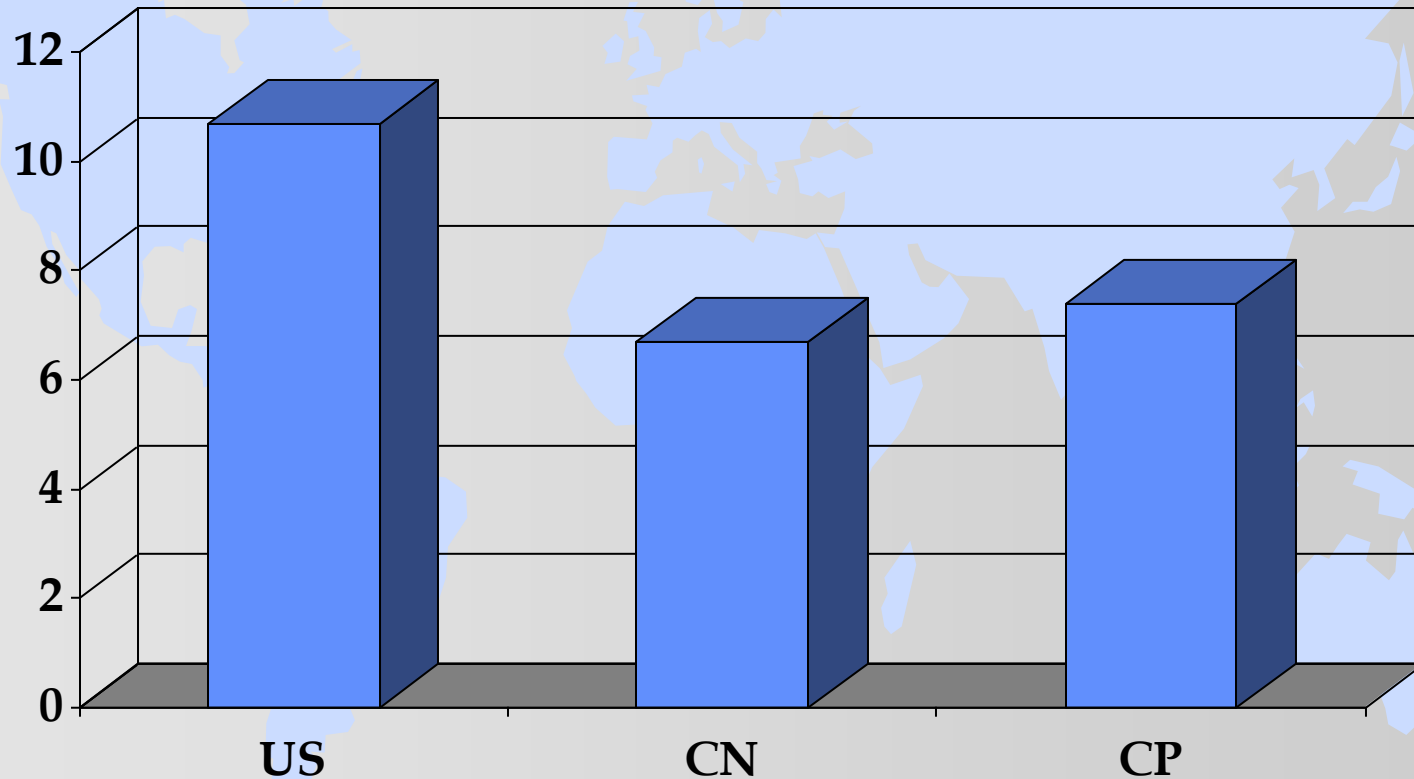
Between 1980 and 1998, Coal as percent of US tons increased from 30 percent to 45 percent



Differences in Productivity: Why?

Traffic Density on US Class I and Canadian Railways

(million Ton-Km/Km of Line in 1997)



Some Options For Change

- **Private Sector Focus Assumed**
- **More or Better Regulation**
 - Clearer arbitration (FOA or Commercial) guidelines
 - Definition of undue discrimination by area, commodity, shipper, with legal remedies
 - Legal remedies (anti-monopoly) outside regulation
- **More Regulated Competition**
 - Expanded (designed and controlled) access -- dominant and tenant users
 - Larger interswitching limits (30 Km to --)?
 - Workable and Expanded CLR/CAR
- **Open Access, and No User Controls Infrastructure**

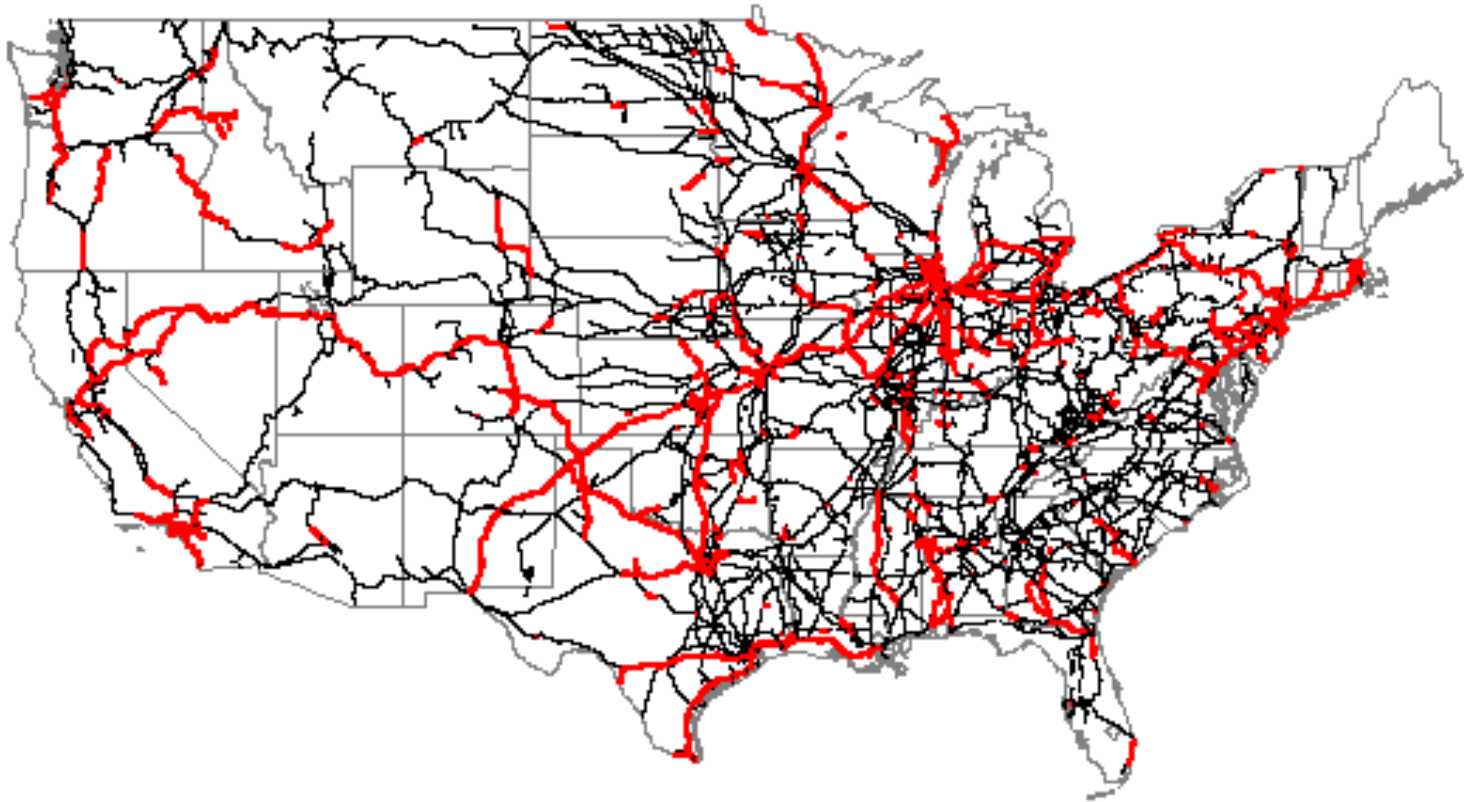


U.S. Experience

- **Staggers Act**
- **Regulation uses defined (complex) standards, based on calculation of costs (variable and stand alone)**
- **Controlled access (voluntary and imposed) is common -- “bottleneck” rates, trackage rights, haulage agreements and joint terminals**
- **Conrail split-up created joint NS/CSX operating areas**
- **Measures work, but effectiveness can be limited by host/guest relationship and complexity in development and implementation**
- **Degree of competition and future industry structure at issue**



Competition on the Same Tracks: Multiple Use U.S. Freight Tracks (Excluding Amtrak)



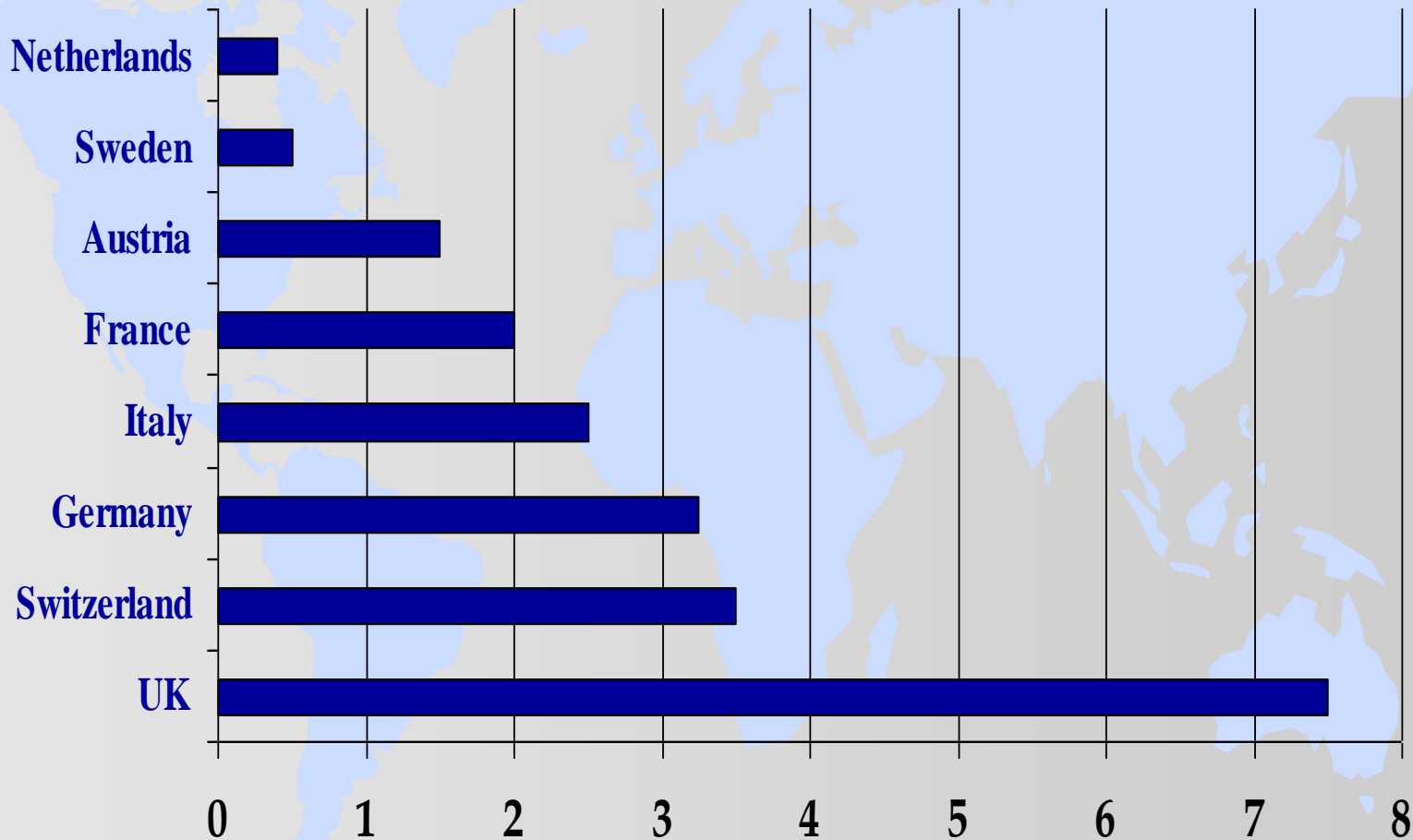
European Union Experience

- Objectives: eliminate national barriers; focus, control subsidies; equal access for passengers and freight
- Order 91/440 requires **accounting** separation of infrastructure costs, non-discriminatory access (equal price) for domestic and licensed international operators. Limits subsidies to infrastructure and local passengers
- Most railways fought change. Governments (except UK and Sweden) have not pushed -- and railways are declining
- Conflicting national approaches: structure, level of charges
- Commission moving to expand access, strengthen separation and control subsidies. Also setting up access regulator
- **BUT:** EU railways and EU objectives very different from US and Canada -- 50 percent versus one percent passenger, high road fuel tax



Variations in Approach

EU Infrastructure Access Prices in Euros/Train-Km



UK and Swedish Experience

● UK -- 1994

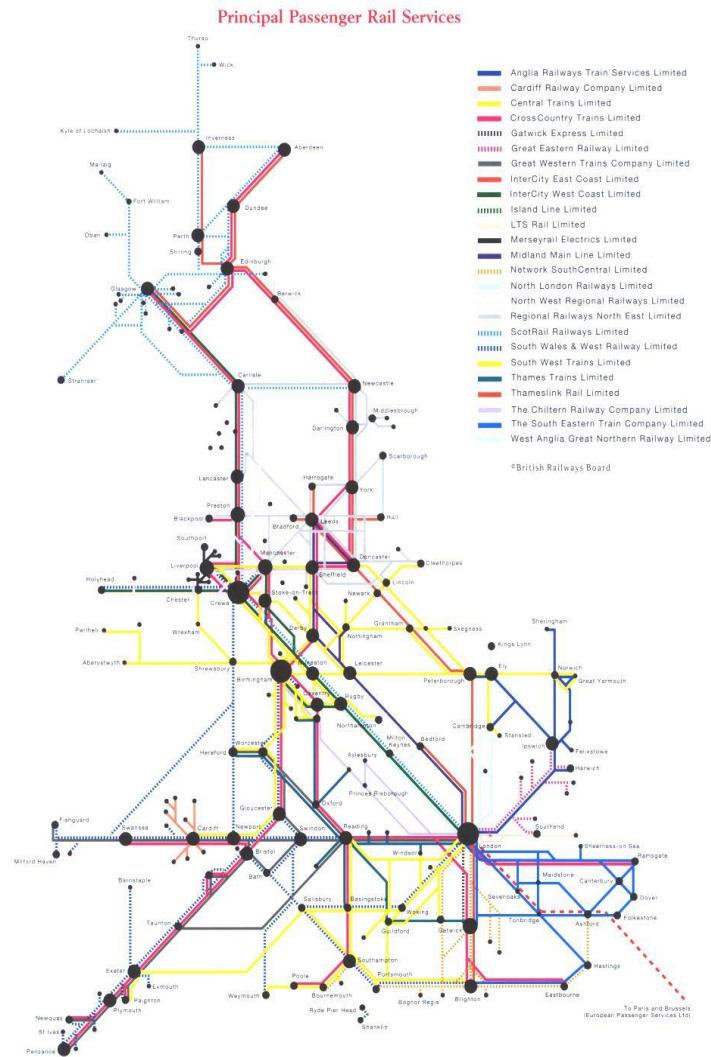
- Total separation, controlled (“franchised”) access for passengers, open access for freight
- Total privatization: Government offered (25) passenger franchises competitively (+ and -), sold freight operator. **Sold** infrastructure (Railtrack)
- **It works:** operating results positive, access regime has bugs on pricing (full recovery, fixed versus variable), system too complex, negative press -- but better than BR was in every respect

● Sweden -- 1988

- Total separation, infrastructure (Banverket) Government Agency with low access charges, operator (SJ) Government “enterprise”
- Subsequent creation of various suburban and freight operators
- **It works:** generally positive results. Discussion of further private roles



UK Passenger Franchises: Controlled Competition



Note: This schematic map should be taken as a guide only and does not portray the complexity of the networks in the major conurbations.



Structure and Ownership

Private Involvement

Structural Change

	Public Ownership	Partnerships: Concessions or Franchises Awarded	Private Ownership
Integral	China, Russia and India ministries), MAV, SRT, MZ, others, (SOE's)	Argentina (13), Brazil (9), Mexico (5), Peru (3), Guatemala, Bolivia (2), Panama, Cote d'Ivoire/Burkina Faso, Cameroon, Congo (Brazzaville), Malawi, Madagascar, Jordan	New Zealand, Ferronor (Chile), CVRD (Brazil), A&B (Chile)
Dominant Integral Separated Minority Operators	Amtrak, VIA, Japan Freight CN	Mexico City suburban, CONCOR (India)	US Class I, CN and CP East/West/Central Japan Railways
Separation	E.U. and Chile Passenger, Banverket	Swedish suburban, FEPASA (Chile), LHS line (Poland)	U.K. franchises and EWS, Polish and Romanian freight



Expanded Regulated or Open Access

- **Could**
 - Promote equal access and competition
 - Attack existing (or potential) concentration
 - Reduce or refocus Ramsey pricing
 - Clarify or focus government role (finance to ensure balance in rail versus road, urban passenger corridors)
 - Change railroad business model
- **May Not**
 - Reduce overall costs (adds complexity) or tariffs significantly
 - Enhance infrastructure financing generated
 - Solve the guest operator problem
 - Keep low density facilities in service
- **Has Risks of Design, Transition and Implementation**
- **Mixtures Are Possible**



How *Might* **Open** Access Work?

(As of now, there is **NO** open access anywhere!)

- **Separate Infrastructure from operators** (no host/guest arrangement)
- **Keep infrastructure and operators private** -- simple divestiture or stock distribution could effect separation
- **Business of infrastructure is to sell access** -- their only product
- **Ramsey pricing for infrastructure still needed, and regulation** would be required -- but less would be regulated, and priced very differently, than today
- **Operators could be totally unregulated, or could be franchised**
- **Though business models might change (specialized operators, regional operators, etc), it is not clear how rates would change, if at all. In particular, some might go down -- but others up**



Expanded Access Issues

- **Setting, and Regulating, Access Terms Including Prices and Priorities**
- **Covering Infrastructure Costs -- Who, and What Percentage?**
- **Ownership of Infrastructure versus Ownership of Operator(s)**
- **Design of Franchises/Territories Defines Degree of Competition -- Continuum from Dominance to Competition**
- **Wheel/Rail Interface Issues and Coordination Problems**



Evaluating the Options: Analysis To Support Action

- **Can Likely Impacts of Options be Measured Well Enough?**
- **With appropriate consideration of confidentiality, better public access to:**
- **Network Model to Define Traffic Flows**
- **Waybill Data and Costing Models to Measure Pricing Impacts and Improve Regulation and/or Arbitration**
- **Use Above to Assess Impact of Changes in Regulation or Access Regime Options**



Potential Next Steps

- **Be Sure of Problem Definition**
- **Improve Available Information and Tools**
- **Explore Regulatory Change First
(Interswitching and CLR's)**
- **Define and Measure Impacts of Expanded
Access Options (the Full Spectrum)**

