EU CARTEL PENALTIES: SEVERITY AND RECOVERY: with international comparisons

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1. DATA

- The following charts illustrate the global size and economic impacts of the modern international cartel movement and the enforcement responses of the world’s antitrust authorities.
- The sample is a reasonably complete list of all contemporary private international cartels discovered by jurisdictions. There are 1,057 such cartels investigated or penalized, January 1990 to August 2015.
- All monetary data are in nominal U.S. dollars.
2. DETECTION RATES

• International cartels are now being assaulted on all fronts

• Numbers of North American investigations seem to have peaked during 1995-2005, but are rising elsewhere.

• U.S. & EC shares of discoveries are dropping

• Increased detection rates are probably due to more agencies and better policies.

• But the total number of cartels (including hidden ones) could be rising or falling.
Annual Rate of Cartel Detections,
All Antitrust Authorities 1990-2015
Rates of Discovery of **Global** Cartels Rising Faster

“Global” cartels affected prices in two or more continents

<table>
<thead>
<tr>
<th>Period</th>
<th>Cartels/year</th>
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</thead>
<tbody>
<tr>
<td>1991-94</td>
<td>1.4</td>
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<tr>
<td>1995-99</td>
<td>6.4</td>
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<tr>
<td>2000-04</td>
<td>7.2</td>
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<tr>
<td>2005-09</td>
<td>8.0</td>
</tr>
<tr>
<td>2010-15</td>
<td>12.0</td>
</tr>
</tbody>
</table>

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Cumulative Number of Antitrust Jurisdictions Prosecuting International Cartels Is Climbing
3. CORPORATE PENALTIES OVERVIEW

• Cartel fines and private settlements as of 2015 are $153 billion; one-third is damages recoveries.
• The historical leader in fines – the DOJ – has been overtaken by other authorities.
• Every recent President outdoes his predecessor – and himself! (2\textsuperscript{nd} term higher than 1st)
• EC fines exceeded the DOJ’s after 1999.
• About 5400 companies penalized monetarily
International **Cartel Fines** Announced, WORLD, Annually 1990- August 2015

Total $102 billion

Calendar Year First Member of Cartel Is Fined
Intl. Cartel Fines Imposed by NCAs
(EU’s National Authorities) 1989-Aug.2015

Total $21.7 billion

Year of Decision

$ billions

August 2015
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1990-1999: 96% of Fines Imposed by EU and US Authorities

- European Commission
- EU NCAs
- DOJ fines
- Asia, Africa, Latin Am. etc.
2010-15: **NCAs’** & **ROW’s** Shares of Fines Grow, **EU’s** & **DOJ’s** Shrinks

- **European Commission**
- **EU NCAs**
- **DOJ fines**
- **Asia, Africa, Latin Am. etc.**
Corporate Penalties Mostly Imposed by EU & US Authorities

- EU (EC & NCAs): $54.2 billion
- US & Canada: $27.2 billion
- Asia: $5.6 billion
- Africa: $1.6 billion
- Other Europe: $1.2 billion
- Lat. America: $3.8 billion
- Oceana: $0.1 billion

Note: European international cartelists account for 55% of the total.
Corporate Penalties Are Mostly Imposed on EU & U.S. Companies

- W. Europe: $71.1 Billion
- US & Canada: $48.5 Billion
- Asia: $26.3 Billion
- Africa: $1.4 Billion
- Other Europe: $0.7 Billion
- Lat. America: $2.1 Billion
- Oceana: $0.4 Billion

Location of headquarters of company or its ultimate parent group.
Number of Corporate Cartelists Penalized, Proportions by Regions

July 2015
Number of International Cartels Fined by U.S., 1990- August 2015

Total 190

Calendar Year First Cartelist Guilty

- Vitamins
- 36 Auto Parts 2012-2014

Amnesty Program

August 2015  J M Connor, Purdue U.
Number of Cartels Fined by EC Is Similar to U.S., 1990-Aug. 2015

Total 181

Year of Decision

Number of Decisions


8 vitamins

Leniency Program

August 2015
Announced Cartel Fines, 1990-2014, U.S. GOVT., Annual Average, by President

Total $28 billion

Calendar Year First Member of Cartel Is Fined

Bush1  Clinton1  Clinton2  Bush2-1  Bush2-2  Obama1  Obama2
4. PRIVATE RECOVERIES from Cartels

- Private suits recovered $51.5 billion for plaintiffs 1990-2015, one-third of penalties.
- 90% of settlements adjudicated in U.S.
- Amounts show time trend peaked 2008, and share of all penalties falling US & worldwide.
- All US criminal convictions have follow-on suits, but only half of all US suits are follow-on.
Value of Private Recoveries in the US Rising Unevenly

Year First Company Settles (Zero Years Omitted)
Trend Line of US Private Recoveries Shows Downturn after 2008

R² = 0.1397

August 2015

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U.S. Private Actions on International Cartels (1990-2010)
U.S. Private Actions on International Cartels (1990-2010)

Follow-on US Fines

Follow-on non-US Fines

Non-Follow-on

Amounts
Counting Private Settlements, after 1997

US Total Sanctions Exceed EU’s

Cumulative $billion

US Total  $72 billion
EU Total  $55 billion

Year Cartel Sanctioned

August 2015
5. SEVERITY OF PENALTIES

• SEVERITY = PENALTIES/AFFECTED SALES

• Getting properly defined sales from public sources is often problematic, but better than nothing.

• EC Decisions often reveal EEA affected sales for one year, which can be adjusted for collusive period. Sometimes suppressed for confidentiality.

• Final EC Decisions using 2006 Guidelines usually allow reverse-engineered sales if one of three pieces of information is not suppressed.

• Ratios are highly skewed
Mean Severity of Penalties on International Cartels, 1990-2015
Mean **Severity of EC Cartel Penalties**

Year Cartel Decision

<table>
<thead>
<tr>
<th>Year</th>
<th>Average Penalty Severity %</th>
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<tbody>
<tr>
<td>1990-94</td>
<td>16</td>
</tr>
<tr>
<td>1995-99</td>
<td>12</td>
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<td>2000-2004</td>
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<td>2005-2009</td>
<td>12</td>
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<tr>
<td>2010-15</td>
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</tbody>
</table>

Mean 12.4%
Mean of Annual Average Severities of EC Cartel Fines, by Commissioner

- Monti
- Kroes
- Almunia

Average Penalty Severity %

Year of Cartel Decision
Mean & Median Severities of Cartel Fines, by Commissioner, 2006 Guidelines Only

Average Penalty Severity %

Year of Cartel Decision

Kroes

Almunia
Mean Severity of U.S. Cartel Fines

Mean 16.4%
Mean **Severity** of All U.S. Cartel Penalties

<table>
<thead>
<tr>
<th>Year First Cartelist Convicted</th>
<th>Average Penalty Severity %</th>
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<tbody>
<tr>
<td>1990-94</td>
<td>5</td>
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<tr>
<td>1995-99</td>
<td>42</td>
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<td>2000-2004</td>
<td>25</td>
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<td>2005-2009</td>
<td>40</td>
</tr>
<tr>
<td>2010-15</td>
<td>15</td>
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</tbody>
</table>

Mean 27.9%

Will Rise

Vitamins
6. DAMAGES & RECOVERY

- Customer damages = Overcharge + Deadweight loss
- DWL data rare; approx. 3% to 20% of overcharges
- EU cartel overcharges projected to be $1.25 trillion, from discovered cartels only
- No region has median Recovery Ratio > 100%.
- The highest ratio in the world is 90% for U.S. public and private sanctions combined 1990-2015.
- U.S. fine severity **falling** because (1) Affected Sales exploding & (2) Structural shift towards high-profit sectors
Median Percentage Overcharges Varies by Industry Type
Median Average **Overcharges** by Geographic Location of Pricing

Feb 2015
Median Average **Overcharges** from Antitrust Authorities’ Decisions

- Single Nations, W. Europe
- USA and Canada
- Asia and Oceania
- Africa, Lat. America, E. Europe
- European Commission
- All Authorities

Percent
Trend in Affected Sales/Cartel: Convicted Cartels in the US

R² = 0.4577

Year First Company Fined (Zero Years Omitted)

$ billion

Municipal Derivatives

Copper

Vitamins

Expon. ($ billion)
Trend in EU Annual Affected Sales/Cartel, EC-Convicted Cartels

R² = 0.4489

Year Fines Imposed

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US Median **Overcharges, Severity, and Recovery Ratio**

Note: A 100% ratio means full disgorgement of profits.

Note: A 100% ratio means full disgorgement of profits.
Changes in US **Recovery**  
(Total Penalties/Damages Ratio)  

Note: Penalties from all jurisdictions
Changes in EU Recovery
(Applying 2006 Fining Guidelines only)
Projected Total Damages by Region of Jurisdiction

World $2.6 trillion

- EU
- USA
- Canada
- ROW

Feb 15, 2015

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7. CARTEL RECIDIVISM RAMPANT

- From a global perspective, my research shows more than 600 corporate serial price fixers (but few convicted individuals, if any)
- Scores of same market/same nation cases
- Many are sequential, but overlapping in time (may not meet the start/stop/start criterion for strict legal recidivism)
- Some are cross-jurisdictional violations
- 70+ companies with 10+ violations 1990-2015
TOP CARTEL RECIDIVISTS of 51 in U.S.

• Hitachi/DKB Group: Optical Disc Drives, LCD Panels, 4 Auto Parts

• Mitsubishi Group: Carbon Fiber, Fax Paper, Auto Shipping, Graphite Electrodes

• Mitsui Group: Carbon Fiber, Fax Paper, Auto Shipping, Intl Freight

• Bayer: Citric acid, Rubber Chemicals, NBR, Polyols

• BASF: Lysine, 7 vitamins, MSG

• UBS: Municipal Derivatives, LIBOR, FOREX
Global Cartels: The Worst of the Worse

• Global cartels: the world is their oyster

• Highest affected sales, highest overcharges, longest duration => greatest injuries

• Yet longest investigations result in lowest severity of penalties
Duration of Contemporary Global Cartels (1990-2015?):

Duration Is Rising

\[ R^2 = 0.1108 \]
\[ R^2 = 0.1638 \]
Median Length of All Governments’ Investigations of Global Cartels Relatively Slow

- 1990-99: 53 months
- 2000-04: 51 months
- 2005-09: 37 months
- 2010-15: 41 months

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Global Cartels’ Overcharges, Severity, and Recovery (Penalties/Damages Ratio)

Note: Penalties from all jurisdictions
Severity of Penalties on Global Cartels
Higher than Local, Except US Fines

Penalties/Affected Sales (%)

Note: Penalties are skewed, so the median is the more meaningful measure.
IT IS TIME TO HARMONIZE INTERNATIONAL ENFORCEMENT

• The EC and EU Courts are rapidly moving toward criminal-law standards in cartel procedures. More deference needed. (Already happening in U.S. courts in class actions?)

• Recent bank prosecutions show need to develop cross-border prosecutorial task forces for vast global conspiracies

• More seamless cooperation for extradition of cartel managers

• Time to recognize the validity of foreign convictions for recidivism fine enhancements
APPENDIX

• Extra & unused slides
# Extra Slides by Category

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3. **CORPORATE FINES OVERVIEW**  
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5. **SEVERITY OF PENALTIES**  
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8. **Global Cartels: THE WORST**  
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Annual Rates of Discovery of Cartels Worldwide Are Rising over Time

![Bar Graph showing the increase in annual rates of discovery of cartels worldwide from 1990-1999 (15 cartels), 2000-2009 (48 cartels), to 2010-2015 (79 cartels).](image-url)

May 2015

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Annual Rate of Cartel Detections by the US DOJ, 1990-2015
U.S. Share of Cartel Detections, All Antitrust Authorities 1990-2015

1990-1995: 20.0%
1996-1999: 32.0%
2000-2004: 27.0%
2005-2009: 18.0%
2010-2015: 12.0%
Median Number of Companies: North American-Convicted Cartels

Average Number of corporations/cartel

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<td>6</td>
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</table>

May 2015

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Bid Rigging Supports Cartels with Higher Average Numbers of Firms

![Bar chart showing mean number of firms in Bid-Rigging vs Classic methods.](image)

Total $28 billion

Calendar Year First Member of Cartel Is Fined

Total $30.6 billion

Calendar Year First Member of Cartel Is Fined

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Total $25.9 billion

Total $8.6 billion
International Cartel Fines Announced, All Governments, Annually 1990-2014

Total $98 billion

Calendar Year First Member of Cartel Is Fined

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Record Cartel Fines,
U.S. GOVERNMENT, 1990-2015

Calendar Year First Member of Cartel Is Fined

$ billion

May 2015

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Record Cartel Fines’ Trend, U.S. GOVERNMENT, 1990-2025

R² = 0.8538

Total 694

Calendar Year


Firms

Airlines
Price-Fixing Penalties Imposed: The Division’s Share of All U.S. Govt.
Cartel Fines: **U.S. Share** of the World

Average year authorities announced fine(s)

- **1990-99**: 50%
- **2000-04**: 20%
- **2005-09**: 20%
- **2010-15**: 20%

**May 2015**
U.S. PENALTY ENHANCEMENTS NEED TO BE MORE PRECISE & CONSISTENT

• U.S. DOJ denies the existence of a single recidivist cartel defendant 1997-present!
• The USSGs are vague on the definition, time, geography, and size of fine enhancement.
• Adopt the EU’s “ultimate parent” rule
• Time to loosen the strict, extra-judicial definition of U.S. recidivism and count previous violations in state, non-U.S. courts back more than 10 years
• Will result in more severe penalties, as occurred in EU after 2006 Guidelines adopted
Proportion of U.S. Govt. Fines from Non-U.S. Corporations, 1990-2014

% Non-US among All Intl. Cartel fines

Calendar Year First Member Fined

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LIBOR Cartel: Penalties Imposed by Multiple Governments

Total $6.2 billion

Deutsche Bank
UBS
Rabobank
RBS
Lloyds
Barclays

Other Govt
UK FCA
Other U.S.
DOJ

July 2015
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Proportion of U.S. Govt. Fines from Non-U.S. Corporations, 1990-2014

% Non-US among All Intl. Cartel fines

Calendar Year First Member Fined
International Cartel **Fines Imposed**, **EC** and **DOJ** Trends, Annual 1990-2015

- **EC** $bil.
- **DOJ** $bil.
- Poly. (EC $bil.)
- Poly. (DOJ $bil.)

R² = 0.5621

R² = 0.6615

Calendar Year
Cumulative **Government** Penalties

**Imposed: after 2000, EU Pulls Ahead of US**

EU total $55 billion

US total $32 billion
U.S. and EU Cumulative Cartel Penalties, 1986-2014
U.S. and EU Cumulative Cartel Penalties, Projections to 2020

R² = 0.9961

R² = 0.9843


EC + NCAs

US Govt+PVT

Poly. (EC + NCAs)

Poly. (US Govt+PVT)
TREND in LENGTH of Median Investigation, US DOJ, 1990-2015

Understates length because termination is year the first cartelist was fined

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Trend: Corporate Cartelists Penalized, Number, by Region of Jurisdictions

Year First Cartel Participant Fined

- 1990-94
- 1995-99
- 2000-04
- 2005-09
- 2010-15

- ROW
- EU NCAs
- EC
- USA & Canada

July 2015
Trends in Severity of Cartel Fines:

US DOJ Falls, EC Rises

\[ R^2 = 0.0831 \]

\[ R^2 = 0.0518 \]

Fines/Sales %

US Severity

EC Severity

Expon. (US Severity)

Expon. (EC Severity)

R\(^2\) = 0.0518

R\(^2\) = 0.0831


May 2015

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