

# “Authorized Generics”

Windfall to consumers or new strategy to  
harm competition?

# Background on Pharmaceutical Regulation

# Question

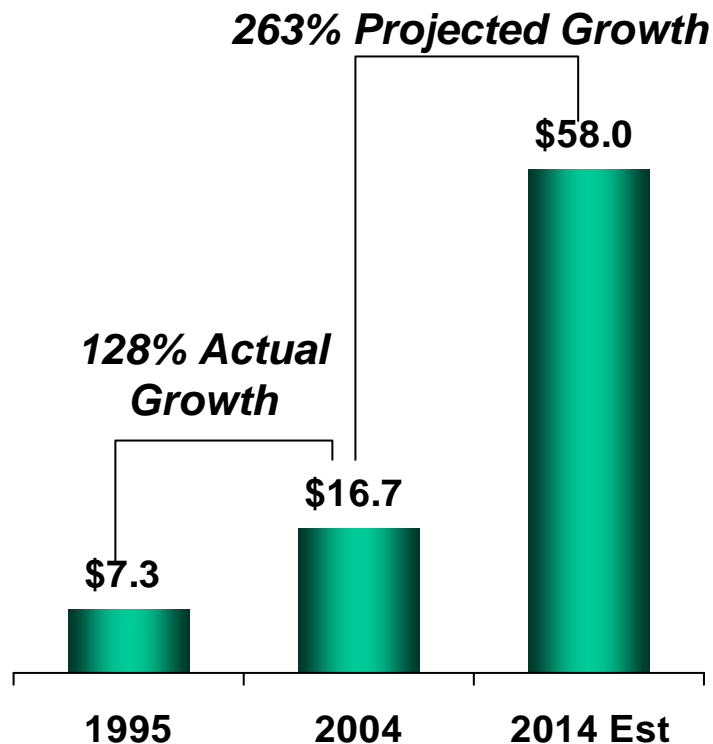


Does the use of AGs further then goals of Hatch-Waxman

- Promote patent challenges by rewarding the first-filer with exclusivity or
- Give the branded company the ability to control or diminish generic competition?

# Disincentive for Patent Challenges Due to Reduced Profit?

## *Expected Generic Market Growth (\$B)*



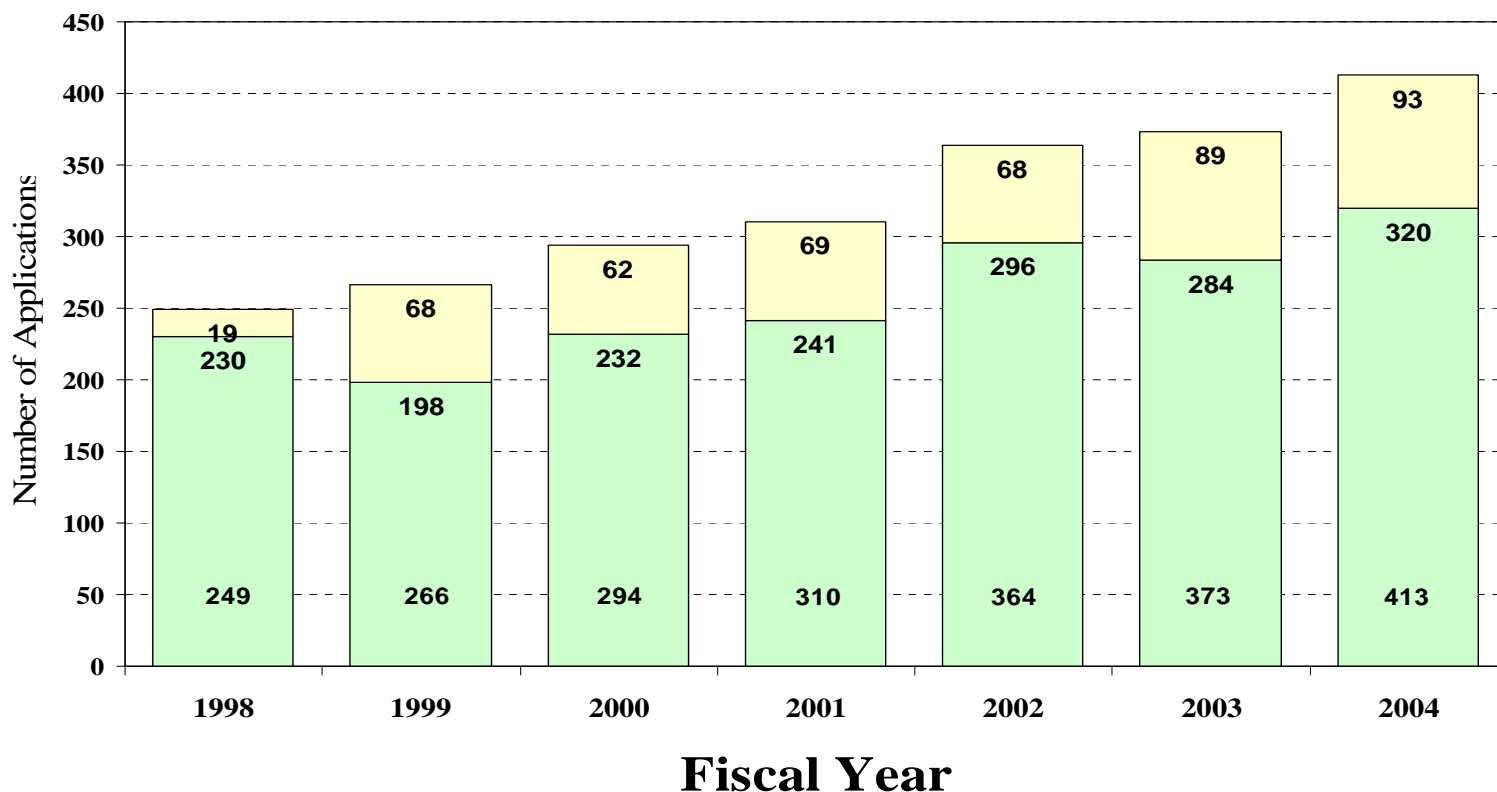
1995 data-IMS; 2004-2114 data- Merrill Lynch: Generic Pipeline-02/2005

“We see no end to the patent challenge opportunities [through litigation] as long as branded firms continue to get patents. I look at them as generating business for Barr”<sup>1</sup>

*Barr CEO Bruce Downey*

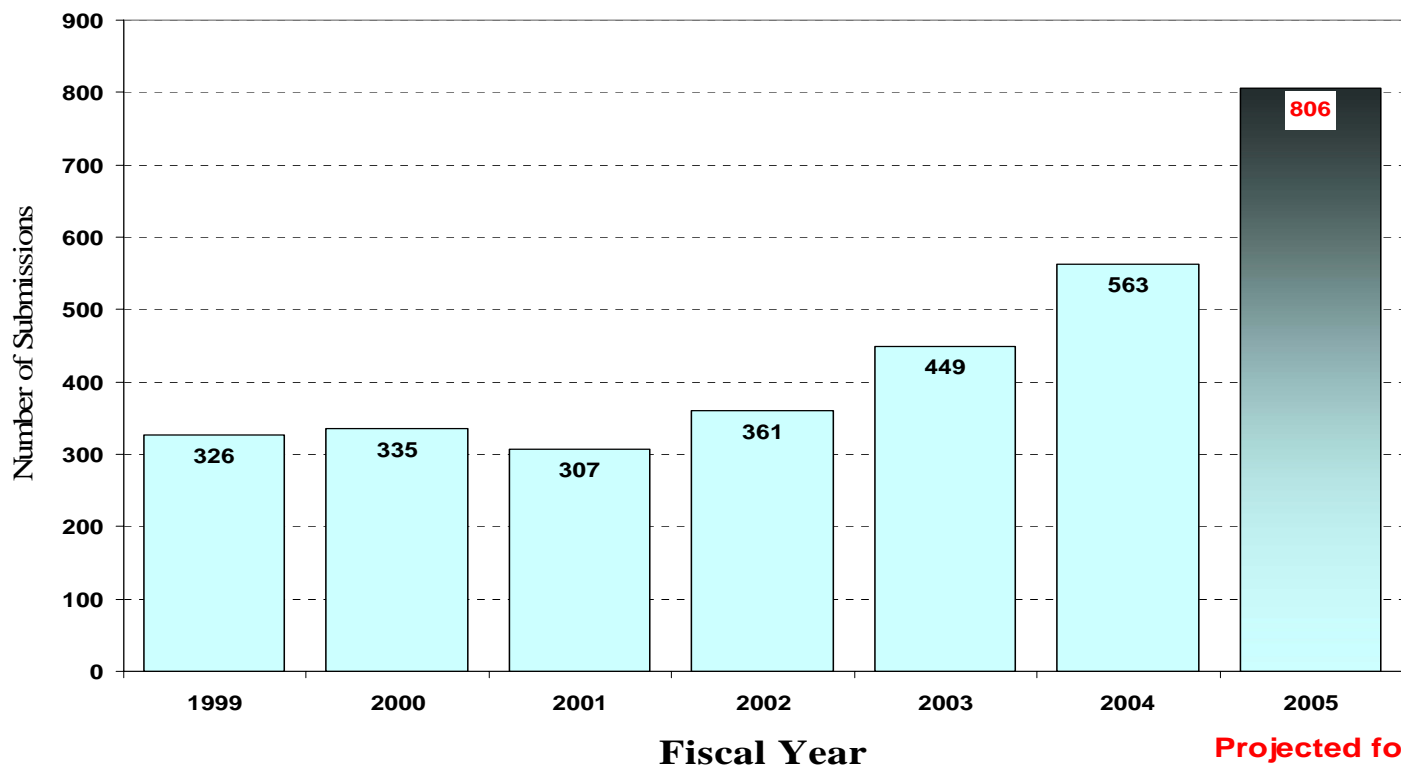
1. Goldberg Robert, *Yesterday's Drugs for Tomorrow's Diseases?* 30 July 2002

# ANDA Approvals and Tentative Approvals



**FY 2005 Approvals + Tentative Approvals = 380 thru 7/05 (est. 456 full Year)**

# Receipts of Original ANDAs



Projected for  
FY2005

# New Firms with First ANDA Approval in Last 12 Months\*

- Aigis Industries
- Akyma Pharm
- Aurobindo
- Aurosal
- Cedar Pharm
- Cobalt
- Gedeon Richter
- Hikma Pharm
- Invagen Pharm
- Novex Pharm
- Orchid Healthcare
- Pharmax Group
- Rx Elite
- Spectrum Pharm
- Yung Shin Pharm
- Zydus Pharm

\*Derived from FDA 2005 Monthly Approval Lists and Review of 2004 Orange Book for absence of Firm Name

# ROI on paraIV Filing

- Based on the estimated capture of pre-launch brand sales by a pIV filer (assumed pIV filing and litigation cost=\$10M)
- Annual brand sales break-even thresholds

	Annual Pre-Launch Brand Sales (millions)	ROI <i>with</i> Separate AG Launch	ROI <i>without</i> Separate AG Launch
	\$48	(46 %)	0%
– pIV filing <i>with</i> AG launch – <u>\$89 million</u>	\$89	0 %	85%
	\$150	68%	212%
– pIV filing <i>without</i> AG launch – <u>\$48 million</u>	\$250	180%	421%
	\$500	461%	941%
	\$1,000	1,021%	1,983%

Calculations assume a \$10 million investment and (sample) average sales capture. They do not take into account the risk of pIV filing failure, COGS, taxes, or the time-value of money.

Table based on Pfizer independent research on all para IV generic drug launches (tablet /capsule – excluding contraceptives) between 01/2003 & 06/2004 with or without AG launches. Break even thresholds consistent with Morgan Stanley published data



# Significant Profit for ANDA filers when there is Limited Competition

***Generic Firms Will Continue to Take the Risk of Filing Challenges Even if They Are Not the First to File***

***Jonathan Siegel (Bear Stearns)\****

- ***ROI on PIV challenge for \$1B brand product***
  - 1128% ROI without AG launch
  - 470% ROI with AG launch
- ***Attractive ROI plus consumers benefit***
- ***Apotex sales of 150-\$200M on generic Paxil \*\****

\* Numbers differ due to different values for market penetration and price reductions. \$1B sales number based on theoretical scenario

\*\*Comments Submitted on Behalf of Apotex In Support of Docket No. 2004P-0075/CP1

# Background on Pharmaceutical Regulation

- Food, Drug, and Cosmetics Act (FDCA), 21 U.S.C. §301 *et seq*, governs manufacture and marketing of pharmaceuticals
  - FDA is the primary regulatory agency for pharmaceuticals
  - Marketing of a new drug requires filing a “New Drug Application” (NDA) with the FDA, along with clinical tests showing that the drug is both safe and effective for the intended use
  - Approved drugs, and certain underlying patents, are listed in the “Orange Book”

# Background on Pharmaceutical Regulation (cont.)

- Hatch-Watch Act amended the FDCA to permit expedited approval process for generics
  - Generic need only file an Abbreviated New Drug Application (ANDA)
  - ANDA must demonstrate that the generic is “bioequivalent” to an approved NDA
  - Generic must file certification regarding patents listed in “Orange Book” for the respective NDA  
(4 possible certifications)

# Background on Pharmaceutical Regulation (cont.)

- Paragraph IV Certification: patent is invalid or will not be infringed
  - After being notified, if NDA timely files suit, 30 month “automatic stay” is triggered  
(FDA prohibited from approving another ANDA)
  - First ANDA is granted a 180 day exclusivity period, as an incentive for generics to challenge NDA patents
  - 180 day exclusivity may be forfeited under certain circumstances, preventing certain anticompetitive agreements between first ANDA and NDA

# NDA Efforts to Delay Generic Entry

- Protracted Patent Litigation
- Anticompetitive Settlements:
  - Agreements between NDAs and first ANDA to “bottleneck” subsequent ANDAs
  - “reverse” payments with ANDAs
- Orange Book Misuse
- Label Changes; Reformulations; Line-Extensions
- “Submarine” Patents
- Filing “11<sup>th</sup> Hour” Citizen Petitions with dubious or redundant claims

# “Authorized Generics” An Introduction

# “Authorized Generics”

- Definition:

- “The Court's use of the terms ‘brand generic drugs’ or ‘authorized generic drugs’ references generic drugs that are put on the market by the holder of a New Drug Application (‘NDA’) as opposed to a ‘ANDA generic drug,’ which is put on the market by the holder of an Abbreviated New Drug Application (‘ANDA’).” *Teva Pharmaceuticals v. FDA*, 355 F.Supp.2d 111 (D.D.C.2004), *affirmed*, 410 F.3d 51 (D.C.Cir.2005).
- “Solely for the purpose of this response, the [FDA] defines the term as any marketing by an NDA holder or authorized by an NDA holder, including through a third-party distributor, of the drug product approved under the NDA in a manner equivalent to the marketing practices of holders of an approved ANDA for that drug.” FDA Response to Citizen Petitions 2004P-0075 & 2004P-0261 (July 2004)

# Examples of Marketing of Authorized Generics

- Via License Agreements:
  - Procardia (Pfizer/Mylan)
  - Paxil (GSK/Par)
  - Macrobid (P&G/Watson)
- “Unilateral” Authorized Generics:
  - Accupril (Pfizer)
  - Rebetol (Schering-Plough)

(Authorized generics are marketed under a generic name – NOT the aforementioned branded names)



# Why Branded Companies Market Authorized Generics

- Recoup some losses after generic entry
  - Generics substitution rate of 80% of market in as little as 8 weeks after generic entry. Speed and extent of generic substitution caused by policies of third-party payors, e.g., PBMs, HMOs, Insurance, and Medicaid/Medicare, mandating substitution when available
  - Profitable despite “cannibalization” of branded drug resulting from substantial, speedy generic substitution.

# Why Branded Companies Market Authorized Generics (cont.)

- Deter generic entry
  - In smaller markets with limited demand and/or less than substantial profits, may deter entry (since less profits for generic entrants)
  - Less entry may result in higher prices (especially if only a few “true” generics and few substitutes for the drug)
- Reduce Challenges to NDA’s Patents
  - Because under Hatch-Waxman, generic entry prior to patent expiration often results in a patent lawsuit, less entry may result in less patent challenges (i.e. protecting weak patents). As a result, consumers may be forced to pay monopoly prices on dubious patents for duration of patent life.

# Potential Benefits of Authorized Generics

- May lead to lower prices for generics, especially during the 180 day exclusivity period
- May result in settlement of patent litigation, saving resources of courts/parties, and permitting generic entry prior to patent expiration
- Consumers may obtain the branded drug for less.  
(Prices of branded drug often *rise* post generic entry, but the authorized generic will be offered at *lower*, generic prices.)

# Criticism of Authorized Generics

- Violates the FDCA, as amended by Hatch –Waxman
  - Marketing an authorized generic (AG) during the 180 day exclusivity period violates the first ANDA’s statutorily granted “exclusivity”
  - Packaging and labeling the branded drug as a generic is “misbranding” under the FDCA and misleading to consumers.

Citizen Petitions 2004P-0075 & 2004P-0261

# Criticism of Authorized Generics (cont.)

- Violates policy and intent of Hatch-Waxman
  - Authorized generics undermine the balance created by Hatch-Waxman, of encouraging generic entry while maintaining sufficient incentives for innovation. *Id.*

QUESTION: Do authorized generics further the goals of Hatch- Waxman?

- Promote patent challenges by rewarding the first ANDA with exclusivity, or
- Give the NDA the ability to control and diminish generic competition?

# Criticism of Authorized Generics (cont.)

- Authorized generics are anticompetitive
  - May deter entry, which may lead to higher prices
    - Because first ANDA must share its exclusivity, if profits are reduced enough so that an entrant may not recoup sunk costs (including litigation costs), less entry may occur.
    - Economic theory predicts, and studies of drug markets evince, that prices generally decrease as more firms enter a market
  - Means of Protecting Weak Patents
    - Reduced profitable during 180 exclusivity may deter entry, including “paragraph IV” entry, which usually results in patent litigation.
  - Predation: “scored earth” strategy & “reputational harm”
    - Inflicting harm to first ANDA – at the cost of cannibalizing its own profits in branded market – signals to other generics that NDA will fight and thus may deter other ANDAs

# Current Analysis & Views Towards Authorized Generics

# FDA Response to Authorized Generics

- Marketing an AG during the exclusivity period does not violate the FDCA
  - “...§505(j)(5)(B)(iv) provides for the delaying of product approval only for specific categories of applicants – in this case subsequent ANDA applicants that make paragraph IV certifications. The provision does not contemplate or countenance delaying the marketing of authorized generics.” FDA response to Citizen Petitions 2004P-0075 & 2004P-0261
- FDA lacks authority to prohibit marketing of authorized generics
  - “FDA has authority to regulate changes made to an approved product, but this authority does not permit the Agency categorically to prohibit or delay the marketing of a product with those changes, except as appropriate to ensure the safety and effectiveness of the product.” *Id.*



# FDA Response to Authorized Generics (cont.)

- FDA lacks authority to require FDA approval and the filing of a supplemental NDA prior to marketing an AG
  - “The Agency has authority to alter its product review and approval procedures to ensure the safety and effectiveness of drug products.... However, the Agency has no existing statutory authority to establish approval requirements for authorized generics solely to prevent their marketing in anticipation of – and during – a 180 day exclusivity period.” FDA response to Citizen Petition 2004-P0075 and 2004P-0261, dated July 2, 2004.
- Authorized Generics are Pro-Competitive & Pro-Consumer
  - “...[C]ompetition during the 180 day period furthers the Hatch-Waxman objective of enhancing competition overall among drug product. For example, it can be anticipated to encourage ANDA applicants to offer their products at lower prices during the exclusivity period, thereby reducing the substantial ‘mark up’ ANDA applicants can often apply during the period, before approval of subsequent ANDA applicants increases competition.” *Id.*
  - “Marketing of authorized generics increases competition, promoting lower prices for pharmaceuticals, particularly during the 180-day exclusivity period....” FDA Talk Paper (July 2,2004)

# Case Law Analysis

- Judge Keeley in *Mylan v. FDA* (D.WV 2001), *affirmed*, Case 05-2160 (4<sup>th</sup> Cir.2006). Although the court dismissed the case, it acknowledge the anticompetitive concern:
  - “If the generic, the true generic, is run out of the market because they can’t recoup their cost of developing the drug and filing the ANDA and possibly undergoing years of litigation, isn’t it in point of fact that the ultimate winner there would be the brand and this would have the deleterious effect of driving the generics out of the market?”

# Case Law Analysis (cont.)

- *Teva Pharmaceuticals v. Lester Crawford*, 410 F.3d 51 (D.C.Cir.2005)
  - “Section 355(j)(5)(B)(iv) says nothing about how the holder of an approved NDA may market its drug; rather, that provision grants ‘exclusivity’ to the first to file an ANDA containing a paragraph IV certification by delaying the effective date upon which the FDA may approve any subsequent ANDA containing a paragraph IV certification with respect to the same drug.”
  - Under Hatch-Waxman, “...the means the Congress ‘deemed appropriate, and prescribed’ to give generic drug makers an incentive to challenge brand-drug patents is unambiguous: The FDA may not approve a second or later ANDA containing a paragraph (IV) certification until 180 days after the first filer with such a certification begins commercially marketing the drug or wins a court decision against the patent holder. There is simply no way to read that limitation upon what the FDA may do in such a way as to prevent the holder of an approved NDA, which does not need to file an ANDA and certainly would not challenge its own patent, from marketing a brand-generic product.”

# Case Law Analysis (cont.)

- *Mylan v. FDA*, Case 05-2160 (4<sup>th</sup> Cir.2006)
  - “The economic benefits of this practice are clear. Such an authorized generic appeals to patients because it is sold at a lower price than the branded pioneer drug. It also appeals to the pioneer drug maker, who benefits from sales of the authorized generic even after the patent protecting the pioneer drug has expired.”
  - “Although the introduction of an authorized generic may reduce the economic benefit of the 180 days of exclusivity awarded to the first paragraph IV ANDA applicant, §355(j)(5)(B)(iv) gives no legal basis for the FDA to prohibit the encroachment of authorized generics on that exclusivity.”

# Case Law Analysis (cont.)

- *Asahi Glass v. Pentech Pharmaceuticals*, 289 F.Supp.2d 986 (N.I.Ill.2003)(Posner, C.J.), *dismissed* by 10 Fed.Appx. 178 (Fed.Cir.2004)(wherein the court *in dicta* opined that a settlement agreement between an NDA and an ANDA that resulted in an authorized generic did not violate antitrust laws absent evidence that the NDA's patent infringement claims against the ANDA was "frivolous," "objectively baseless," or done in "bad faith.")
- *Mylan Pharma. v. The Proctor & Gamble*, CGC-04-429860 (Cal. Sup.Ct.2004). Mylan, the first ANDA, sues P&G and Watson, asserting that their agreement to market an authorized generic violates the Sherman Act.

# Economic Studies on Authorized Generics

- Hollis (2003; 2005)
- Reiffen & Ward (2005)
- Berndt, Mortimer, et al (2005)
- IMS/Pharma (2006)
- Hollis/Liang (2006)

# Economic Studies (cont.): Hollis (2003; 2005)

- Studies on Anticompetitive Effects of Authorized Generics in Canadian Market.
  - Unlike H-W, Canada has no incentive for generic entry. In addition, the first entrant incurs substantial costs from development, testing and litigation.
  - “First Mover Advantage.” In Canada, first generic obtains and maintains substantial share of generic market. Primarily the result of regulatory framework (which eliminates incentives for price competition and for pharmacist to use cheapest generics) and switching costs.
  - In smaller drug markets, AG may deter entry. In larger markets, may delay entry.
  - High market share of AG strongly correlated with higher *branded* prices.
- Comment: Because Canada has very different health care system and regulatory structure for drugs, of limited use for US market analysis. In particular, “first mover advantage” not appear so pronounced in US.

# Economic Studies (cont.): Berndt, Mortimer, et al (2005)

- **Conclusion: AG not likely anticompetitive**
  - Decreases prices during first ANDA's exclusivity
  - In larger markets, enough profits so that AG does not deter entry by ANDAs.
  - AG will likely only deter entrants who are least likely to win patent litigation ("speculative" challenges)
  - Deterrence by AG not likely to be harmful unless substantial, i.e., deters nearly all ANDAs from entry
- **Comment: Conclusions based largely on data from three drugs (Paxil, Cipro, Ortho Tri-Cyclen), and a general analysis of the effects on long-term prices caused by an exclusivity period to first ANDA. In addition, study ignores smaller markets.**



# Economic Studies (cont.): Reiffen & Ward (2005)

- Entry into generic drug market, at least for first 8 entrants, leads to lower prices of generics
- “First Mover Advantage:” Because entry leads to lower prices and less market share for existing firms in the market, earlier entry is more profitable than later entry
- AG lead to less profits for generic firms, yet the effect on price only significant in smaller markets
- AG leads to small increase in prices of *branded* drug
- In larger markets, primary effect of AG is to transfer profits from ANDA to NDA. In smaller markets, may eliminate entry
- Comment: All data from 1980s and 1990s. Also, does not measure effects of AG directly, but rather estimates the effects by altering earlier economic models that were used to evaluate effects of generic entry on prices and expected profits

# Economic Studies (cont.): IMS/PhRMA (2006)

- Study compares 9 drugs where AG was introduced during exclusivity period, with 9 drugs where no AG was introduced
  - In markets with AG, average discount of generics vs. branded prices was greater than in markets without AG (38.8% vs. 23%, respectively)
  - Post exclusivity period, AG only effected the average discount of generic vs. branded price in smaller markets . In markets with 6 or more ANDAs, AG had little effect on post-exclusivity prices.
- Comment: Several problems with data, methodology which make conclusions suspect and misleading. See Hollis/Liang (2006). Also, study assumes patents are valid, i.e., does not consider that AG may deter entry patent challenges, thereby causing consumer to pay higher, monopoly prices for duration of patent.

# Economic Studies (cont.): Hollis/Liang (2006)-- 1 of 2

- Critique of IMS/PhRMA study
  - Study uses wholesale pricing, yet retail pricing better reflects effects on consumers
  - Study does not weight average discounts based on sales volume. Thus, in calculating average discounts, drugs with small volume given same weight as drugs with large volume
  - Study assumes branded prices unaffected by AG, contrary to economic theory and empirical evidence
  - Direct comparison of AG and non-AG markets is improper. Markets with AG likely have different characteristics than markets without AG
  - Data problems: errors in data and inconsistent choices
  - Failure to disclose pricing methodology. Study uses single price for each drugs, despite drugs having various strengths and dosage forms – all priced differently.

# Economic Studies (cont.): Hollis/Liang (2006)– 2 of 2

- Analysis of PhRMA data using retail prices, weighted discounts, and measuring change in branded prices (which affected the average discounts between generic and branded prices)
  - In markets with AG, average discount of generics vs. branded prices was *less than* in markets without AG (17.7% vs. 17.1%)
  - During exclusivity period, prices of *branded drug* increased more in markets with AG than in markets without AG (compared to branded prices prior to exclusivity period)
- Comments: This “new analysis” of PhRMA data still makes improper direct comparison of AG markets with non-AG markets. Study may have been paid for (at least in part) by GPhRMA.

# Recent Developments

# Speech By FTC Commissioner

On May 12, 2005, Commissioner Leibowitz expressed his views regarding authorized generics at an ABA speech

- Practice has grown since 2003
- Short-term benefits during 180-day period
- Long-term disincentive to develop generics
- Not persuaded that AG violates H-W or antitrust
- But could have H-W implications
- A study will not be easy, but this is the FTC's role

# FTC Proposes Study On Authorized Generics

- On March 29, 2006, FTC announced its intention to conduct a study of the use and likely short- and long-term competitive effects of authorized generics in the prescription drug marketplace.
- Study Methodology:
  - FTC requested comments on what information would be useful for its study
  - FTC intends to submit document/information requests to numerous branded and generic companies
  - FTC intends to analyze information and talk with industry prior to issuing a final report

# FTC Proposes Study On Authorized Generics (cont.)

- **FTC GOAL:** To assess the likely short- and long-term effects of market entry by authorized generics on generic drug competition.
  - Examine actual wholesale prices (including rebates/discounts) for branded and generic drugs, both with and without competition from authorized generics.
  - Evaluate business reasons that support authorized generic entry; factors relevant to the decisions of generic firms about whether and under what circumstances to seek entry prior to patent expiration
  - To examine licensing agreements for authorized generics



# Proposed Bill to Ban Authorized Generics

- On July 19, 2006, Senators Rickerfeller, Schumer, and Leahy proposed bill S. 3695, amending the FDCA to prohibit the marketing of authorized generics

# Senate' Special Committee on Aging: Hearing on Generic Entry

- On July 20, 2006, FTC Commissioner Jon Leibowitz, testified before the Committee's hearing on generic entry. In oral and written statements, he discussed, *inter alia*, potential anticompetitive effects of authorized generics, and the FTC's proposed study. Significant concerns expressed were:
  - Entry deterrence prior to patent expiration, especially in smaller markets
  - Settlements where an NDA will forego marketing an authorized generic if an ANDA agrees to delay date

# AGs the Antitrust Risks

- Can be challenged under Section 1 or 2 of the Sherman Act
- Or State Unfair Competition Acts

# Antitrust Concerns

- Battle between short term apparent benefit and potential long term harm

Potential Competitive harm:

- Deter Patent Challenges
- Reduce incentives to seek 180-day exclusivity
- Permit greater price discrimination
- Predatory pricing (Tobacco example)

# One Anticompetitive Theory

## Reputational Harm:

- AG significantly reduces anticipated profits for first-filer
- Brand name firm establishes “reputation” for strategic conduct
  - Diminish incentive for generic firms to challenge patents of BN firm
  - Raise barriers to entry

# Food For Thought

“For this to really work, you’d have to have the whole industry do that systematically each time a patent expires so that you truly eliminate the incentive in the calculation that generic companies would make. . . . [I]t’s a very interesting and intriguing idea. Food for thought.”

Sidney Taurel, Lilly’s CEO (December 2003)

# Questions

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