

Will the Internet Reduce the Demand for Mall Space?

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Conventional wisdom holds that the Internet, particularly on-line retailers, poses a serious threat to many traditional brick-and-mortar retail businesses. Certainly, on-line sales are currently growing much faster than sales in traditional retail outlets, and on-line retail sales growth is projected to continue to dwarf physical world sales growth for the foreseeable future. Over the last two years, on-line sales grew at an annual rate of 150%, reaching \$20 billion in 1999. On-line sales are forecasted by Forrester Research to grow another 900% cumulatively, or 55% annually, during the next five years, to \$185 billion (*U.S. News and World Report* [2000]).¹ There is little doubt that Internet commerce will play an increasingly important role in the retail business.

At first glance, the rise of Internet commerce would seem to be a particularly dangerous threat to the owners of traditional shopping malls. To the extent that on-line retail depresses tenants' sales and reduces their profit margins, shopping mall rents will suffer (Benjamin, Boyle, and Sirmans [1990]). Even if current tenants end up dominating Web-based retail, the shift to on-line sales could significantly reduce the demand for physical space.

Exhibit 1 provides data that are consistent with investors accepting this hypothesis. Office/ industrial, retail, and apartment REITs together account for over 80% of the equity REIT market, according to NAREIT, with each comprising more than 20% of the mar-

ket. Retail REITs' performance provides a measure of investors' perceptions of traditional retail outlets' future. As a whole, 1999 was a bad year for equity REITs, but it was a particularly bad year for retail REITs.² While apartment and office/industrial REITs generated returns of roughly 11% and 4%, respectively, retail REITs earned a *negative* 12% return during 1999. Moreover, shopping centers underperformed freestanding stores by about 5% and regional malls earned even lower returns (-14.6%).

But the impact of the Internet on the future of brick-and-mortar retail is not as bleak as one might initially suppose. First, the Internet is likely to draw more heavily from catalog sales than from mall sales. Second, the lost mall sales will disproportionately be from less profitable transactions. Third, by increasing productivity — and thus real income growth — the Internet is increasing aggregate sales. While the Internet is reducing malls' share of sales, it is expanding total sales, and a smaller slice of a larger pie is not necessarily a smaller piece. Fourth, the Internet offers opportunities that traditional retailers can use to stem sales losses and protect profit margins.

In this article, we illustrate the offsetting impacts of the Internet on aggregate sales and the share going to malls. We discuss the ways in which traditional shopping malls can survive — and in many cases even thrive — as the on-line revolution continues. We conclude that the Internet will not necessarily

EXHIBIT 1

Investment Performance by Property Sector¹ (percentage changes)

Property Sector	Total Return 1999	Number of REITs	Equity Market Capitalization ²
Office	4.25	21	23.9
Industrial	3.90	10	8.5
Retail	-11.77	50	26.1
Shopping Centers	-10.71	31	12.0
Regional Malls	-14.58	12	11.2
Freestanding	-4.89	7	2.9
Apartments	10.73	21	22.9
Lodging/Resorts	-16.15	14	6.4
Health Care	-24.83	9	3.5

Source: NAREIT.

¹Includes all REITs that trade on the New York Stock Exchange, American Stock Exchange, and Nasdaq National Market List.

²Equity market capitalization and implied market capitalization represented in billions of dollars. Data as of December 31, 1999.

lower the aggregate demand for mall space. Based on retail REITs' 1999 performance, investors may be unduly pessimistic about the future of traditional retail.

THE THREAT: A SHIFT AWAY FROM MALL SALES AND PROFITS

The peril to malls flows through their clients — brick-and-mortar retail outlets. Traditional retail is threatened by on-line retailers' lower operating costs. These lower costs provide on-line retailers with the ability to underprice traditional retailers, forcing them either to match the lower prices and accept lower profit margins or to lose sales. The current ability of consumers to largely avoid sales taxes on Internet purchases compounds the impact of on-line retailers' lower operating costs. Lastly, on-line shopping's convenience appeals to many consumers, particularly to busy individuals who tend to be relatively affluent. For every "shop till you drop" consumer, there is a "buy on the fly" shopper.

Web-based retailers' advantages are partly offset by the need to pay shipping charges on Internet purchases, either explicitly or as part of the sales price, and by the delay before an item purchased on-line is delivered. Additionally, returns, exchanges, and service are generally more convenient when an item is bought at a traditional

retail outlet. Nonetheless, there is no doubt that on-line sales have grown and will continue to grow sharply.

The Internet also threatens traditional retailers by creating a more competitive environment. Historically, retailers competed locally, limiting price pressure in many areas. Consumers would weigh the benefits of potentially lower prices from a competitor across town against the costs of driving across town and the risk that the distant competitor would not actually offer a lower price on the items of interest. On the Internet, consumers have convenient access to many retailing options, making it difficult for sellers to charge a premium price unless they offer premium features (service, speed, etc.). Further, it is very easy for consumers to compare prices before making a purchase. As Internet access

becomes ubiquitous, off-line retailers will also have to compete globally.

Although the transparency of Internet prices may limit retail margins, this transparency and the ability to change prices electronically can provide offsetting benefits. In a traditional setting, retailers, as well as customers, cannot easily observe competitors' prices. This constrains competing retailers' ability to collude on prices (Tirole [1988]). Ignorance about competitors' prices can also lead retailers to charge less than is necessary to boost sales to a desired level. The Internet, by making prices instantly visible and allowing retailers to quickly match a competitor's discount, limits retailers' incentive to cut prices. This could actually reduce the number of discounts (particularly extreme discounts), supporting stores' ability to pay rent. This hypothesis is supported by the behavior of the major airlines after the introduction of computerized reservation systems (Desmond [1990]).

The Internet may offer brick-and-mortar retail an additional benefit. Because Internet retailers will disproportionately attract certain types of shoppers, traditional retailers may face a somewhat different clientele in the future. In particular, the Internet should disproportionately attract shoppers who are willing to spend time searching for the best price on a particular item. The current need for mall retailers to cater to these extremely

price-sensitive shoppers is costly because when a retailer offers a loss-leader to attract price-sensitive shoppers, the retailer is forced to sell the item at a loss to all of their other customers, even those willing to pay full price. Removing the most price-sensitive consumers from the shopping center target population will lower profits far less than it will lower sales.

THE OPPORTUNITY: HOW MALLS SHOULD RESPOND TO THE INTERNET

Shopping malls' first response to the threat of the Internet has been to enhance the shopping experience. If going to the mall includes dinner and a movie, an on-line excursion is a completely different event. This strategy of shifting toward entertainment-type tenants, however, is a partial abdication: shifting space away from retail virtually guarantees falling retail sales. Additionally, although the traffic generated by a restaurant may support the mall's retail business, consumers may also simply use the mall for entertainment and shop from home on the Web.

Most observers focus on two shopping alternatives: traditional and on-line. However, there is also a hybrid model, in which consumers browse, order, and pay on-line, but pick up their order locally. This hybrid model allows for much of the benefit of on-line shopping while avoiding the need to pay shipping charges and wait for delivery. It also facilitates returns, exchanges, and service. The hybrid model matches many of the on-line retailers' cost and convenience advantages, but is flexible enough to fully exploit traditional retailers' advantages. In this way, the Internet can be used to truly augment a brick-and-mortar retail outlet, offering different sales channels that appeal to different consumers.³

Recognizing the hybrid model's value, venture capitalists and Internet companies have begun to gravitate toward traditional retail partners. This type of partnership activity, virtually unknown before mid-1999, exceeded \$300 million in the second half of 1999 and should continue to grow rapidly through the leadership of top venture firms (e.g., Softbank and Benchmark) and investment funds created specifically to fund partnerships with traditional retailers (e.g., Online Retail Partners). According to Forrester Research (Red Herring Online [1999]), "the cost to run a business to consumer commerce site is \$40 million for the first year, and another \$49 million annually on an ongoing basis, with a 25% reduction if the site is operated by a brick-and-mortar business." These cost savings help make the hybrid model very compelling.

Additionally, Internet companies have begun to view partnerships with traditional retailers as a chance to catapult themselves into leadership positions.⁴ The pending convergence of on-line and off-line retail suggests that traditional malls' position is less tenuous than on-line retail's growth rates might suggest.

On-line retailers' access to real-time sales and inventory information, along with the ability to instantly change Web prices, provides substantial benefits. By monitoring the way price changes impact sales, Internet retailers can quickly learn about the demand functions for their products. Although on-line retailers can profit from this information, hybrid retailers are uniquely positioned to leverage this data to improve their pricing in their brick-and-mortar stores.

Moreover, hybrid retailers can use this same information to improve inventory management, product design/selection, advertising, and sales strategies. For example, customer orders that are placed on-line can result in price revisions and inventory replenishment, even before the merchandise is picked up at the store. Taken even further, hybrid retailers can use their on-line order data to refine stocking/placement strategies in their traditional stores and vice versa. For example, if a particular type of jacket is selling briskly in New England stores, a hybrid retailer can feature that jacket prominently on its Web site. This exploits one of traditional retailers' strengths — the ability to present customers with the "look and feel" of new products and receive immediate feedback about how the product are received (based on sales). Hybrid retailers' ability to learn quickly which new products are popular and immediately feature them on-line could be a substantial advantage.

THE INTERNET MAKES THE OVERALL SALES PIE GROW FASTER

At the same time that on-line retailers threaten to take a meaningful portion of traditional retailers' market, Internet technologies applied to business-to-business transactions have increased, and will continue to increase, economic growth, and thus the total sales pie. Between 1973 and 1995, U.S. productivity growth averaged 1.4%, far below the roughly 2.5% experienced during the prior two decades. However, during the last four years, productivity growth has jumped to an average of 2.63%, an increase of 0.125%. A fashionable explanation for the U.S. economy's stellar performance is that we are experiencing a paradigm shift, into what is often called the

“new economy,” the “information economy,” or the “Internet economy.”

A recent study by Macroeconomic Advisors argues that this near doubling in U.S. productivity growth, while growth in the rest of the industrialized world has been stagnant, is sustainable. All of this increase is the result of investment in computers, advances in computers, and better use of computers. As the Internet efficiently links these computers together, we expect productivity growth to accelerate even beyond the 2.63% during the next five years.

By accelerating the rate at which the entire sales pie grows, increased productivity growth has a compound effect on retail sales. The key sales concept here is GAF sales, the sum of General merchandise (department stores), Apparel and accessories, and Furniture (including computers), the goods sold largely in malls. These constituted a roughly constant 26% of total retail sales during the 1990s (the excluded sales items are largely automobiles and food) and totaled \$686 billion in 1997. With 6.1% growth (the 1992-1999 average) these sales are projected to reach \$1,052 billion in 2004. Say, however, that in the absence of Internet technologies, growth would be only 4.7%. The result would be retail sales of \$946 billion in 2004, over \$100 billion, or 10%, less.

Even if the Internet were to cause mall sales to decline from 100% of total sales in 1997 to 90% in 2004, the dollar value of mall sales would rise from \$686 billion to \$947 billion, a billion more than what they would have been in the absence of the Internet. That is, while on-line retail will cause traditional retailers' *percentage* share of the sales pie to shrink over time, Internet technologies' net impact could lead traditional retailers' total dollar sales to rise *faster* than would otherwise be the case.

DEMAND FOR MALL SPACE

We begin with some facts about the 1990s. During the 1992-1999 period, total GAF sales grew at an annual rate of 6.1%, with a range of 4.4% to 7.6%. Catalog GAF sales grew at a much faster 14%, with a range of 9.1% to 18.3%. Somewhat surprisingly, the latter does not show any sign of reverting toward the total GAF sales growth rate: the 1999 catalog growth rate was 16.5%. Between 1997 and 1999, on-line GAF sales grew at a 160% annual rate. During the decade and also in 1999, mall sales, defined as total GAF sales less catalog and on-line sales, grew 5.25% annually.

What are the likely changes in these categories between now and 2004? Forrester has forecasted that

GAF on-line sales will grow at a 67% annual rate, rising from the current \$10.1 billion to \$131.4 billion. If we grow total GAF sales at 6.1% and catalog sales at 14%, the cumulative growth in mall sales over the five years is 10%. Of course, if we are concerned about the demand for mall space, it is the *real* growth in mall sales that is relevant, not the nominal growth. Adjusting for 3% inflation to obtain real growth rates, under the above assumptions real mall sales will actually *decline* by a cumulative 6.4%.

This is certainly a worst-case scenario. In particular, it seems unrealistic not to taper off the growth rate in catalog sales, especially in light of the forecasted surge in on-line sales. Decreasing the real catalog growth rate to 7% lowers the decline in the demand for mall space to 2.0%. We take this to be the worst case.

So what is the impact of the Internet in all this? What would the growth rate in space demand be in the absence of the Internet? A naive answer is obtained by simply maintaining the above real growth rates in total GAF and catalog sales and setting Internet sales to zero. The result is an increase of 13% in space demand. Thus one might conclude that the Internet is expected to lower the cumulative demand for mall space by roughly 15% (from +13% to -2%) over the next five years, relative to what it would have been. These calculations are summarized in the left column of Exhibit 2.

We believe this to be a gross overstatement of the negative impact of the Internet on malls. First, the 62% real annual growth rate of on-line sales convey a far too negative impact on the demand for mall space.⁵ Even if these sales grow at this rate, rapid adoption of the hybrid strategy by retailers would dampen the negative impact on the demand for mall space by channeling a portion of on-line sales fulfillment through malls: space is needed for the pickup, exchanges, and service associated with hybrid sales. Second, the loss of more price-sensitive consumers means that the remaining demand is relatively more profitable, increasing the ability of tenants to pay rent and requiring more space per sale. Third, the greater transparency of prices may reduce price competition, boosting profit margins and retailers' ability to pay higher rents. If we adjust for these factors by lowering the *effective* on-line annual real sales growth rate by a third (to 41.6%), the cumulative demand for mall space *rises* by 6.2%.

On the other hand, the forecasted 13% rise in mall space demand in the absence of the Internet inappropriately includes the positive impact the Internet has and will have on real sales demand. We assume that the Internet has increased productivity by one percent per year

EXHIBIT 2

Forecasts of the Impact of the Internet on the Demand for Mall Space, 1999-2004

Internet Nominal Cumulative Growth (6.1%, 14.0%, 67.0%) 10.0%

Naive		Adjusted	
Internet Real (3%, 7%, 62%)*	-2.0%	Adjustment for Hybrid Strategy	6.2%
No Internet Real (3%, 7%, 0%)*	13.0%	Adjustment for Productivity (2%, 6%, 0)*	6.2%
Real Internet Difference	-15.0%	Adjusted Real Difference	0.0%

* % in parentheses refers to annual growth rates in GAF sales, catalog sales, and Internet sales.

since 1995 and will increase it by one and a quarter percent through 2004. Thus, to evaluate a "no Internet" world, we need to lower the total GAF and catalog real growth rates by one percent over the 1996-1999 period and by one and a quarter percent thereafter. This, along with setting on-line sales equal to zero, gives our estimate of the Internet's net impact on the demand for mall space. The growth adjustment lowers the forecasted rise in mall space demanded, absent the Internet, from 18% to 6.2%. Thus in this particular example, the Internet's total impact on space demand is conveniently (by construction) zero (6.2 - 6.2).

Of course, this exact result is not necessarily the most likely outcome. In fact, it is likely a tad optimistic for malls. Our point is that plausible assumptions combined with malls responding promptly to the new environment can lead to the conclusion that the Internet age will cause no decline in the demand for mall space.

SUMMARY: PREPARING FOR THE FUTURE

Traditional retail faces a significant challenge. On-line retailers offer substantial cost and convenience advantages that will continue to grow as consumers acquire better Internet connections and hone their search skills. Even if traditional retailers lever their existing brand and distribution networks by offering Web-based shopping (as they appear to be doing), the owners of physical shopping mall space stand to lose dramatically as their tenants move their business on-line. Fortunately, the faster growth of the economy, and, consequently, the total retail sales, emanating from Internet technologies will mitigate the impact on space demand.

But with proper preparation, shopping malls and their tenants, acting together, may be able to totally offset the negative impact of the Internet on space demand. Doing so would have the immediate impact of helping

investors understand the importance of malls in the Internet era. As we noted in the introduction, retail REITs, especially those invested in regional malls, dramatically underperformed office, industrial, and especially apartment REITs in 1999. This is not surprising. The faster economic growth that we argue will help maintain the demand for mall space — and thus the value of retail assets — will boost the demand for other real estate as well. And implementing a successful hybrid strategy is far from costless. Moreover, to date, malls have not responded decisively to the threat that on-line retail poses to their long-term business. Doing so could prevent further decline in retail asset prices and perhaps reverse at least some of the 1999 decline.

We believe that the most important response will be what we have termed the hybrid retail strategy, encouraging consumers to browse and buy on-line, but pick up and exchange goods at the local mall. Because for many products the hybrid strategy is optimal, adapting the existing physical retail infrastructure to support hybrid retail can not only counter the threat of the Internet, but also exploit the opportunities that the Internet provides.

To date, some of the more aggressive moves to exploit the Internet have come from the Simon DeBartolo Group, a publicly held REIT that is the nation's largest owner of retail space. As of the end of 1999, it owned or had an interest in 259 regional malls, community shopping centers, and specialty and mixed-use properties, containing 184 million square feet of space in thirty-six states. Simon's announced Internet strategy has three components: 1) developing individual mall Web sites linked through Simon.com, 2) wiring malls for kiosks that allow on-line shopping from their tenant stores, and 3) offering electronic services like FastFrog.com, which mimics on-line retailers' wish lists, and YourSherpa.com, which offers personal shopping services (Schoenberger [1999]). Possibly the most promising of the steps is the proposed supplying of data on consumer tastes to Simon's

retailers. However, although they represent a start, these types of services do not exploit malls' key strength: the ability to meld convenient on-line purchases with readily available local fulfillment, exchange, and service from a known, trusted merchant.

Specifically, we believe that the five key parts of an Internet strategy for a retail mall are:

- Helping tenants get on-line. This does not mean putting kiosks in stores (although it could be useful). Tenants need commerce-enabled Web sites that customers can find and use from home or work.
- Enabling tenants to become more closely linked to their parent companies and suppliers. This will allow tenants to take advantage of many of the operating efficiencies that the Internet affords and better participate in hybrid strategies.
- Developing a Web presence. All major malls should have a virtual counterpart that allows customers to order from their client stores. At a minimum, this requires setting up a collection of links to tenants' Web sites — at, for example, www.valleyfairmall.com — and publicizing the Web site locally. Malls can also expand their on-line listings to include links to local stores and on-line retailers offering goods not available from their tenants. Virtual malls should offer maximum convenience — for example, by allowing customers to pay for all of their "mall" purchases together and pick them up all at once.
- Cultivating local E-commerce. If manufactures pursue direct on-line sales, the virtual mall should host local E-commerce, either through its own Web site or the manufactures' Web site, via a hybrid strategy with its tenants.
- Creating the infrastructure for hybrid fulfillment. The mall of the twenty-first century will dedicate substantial space to hybrid retail. This means creating an efficient, reliable, error-free system for fulfilling on-line orders with various tenants that can be picked up at a central location.

ENDNOTES

¹The Forrester aggregate data refers to all Internet sales, some categories of which are not really competitive with malls. Such categories include autos, travel, and event tickets, which are not traditionally sold in malls. But even excluding these categories, Internet sales were \$10 billion in 1999 and are forecasted to be over \$130 billion in 2004.

²It was truly disastrous for the smaller health care and hotel sectors.

³To understand why the hybrid model is so compelling, consider a consumer who needs a new starter for his car. In cases like this, the on-line delivery delay precludes Internet commerce. In many others, it is a major inconvenience.

⁴For a more detailed discussion of Internet brick-and-mortar partnerships, along with numerous examples of recent partnerships, see Hendershott [2000].

⁵The 62% is computed as $1.67/1.03 - 1$.

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