



## Danger Zone: Palo Alto Networks (PANW)

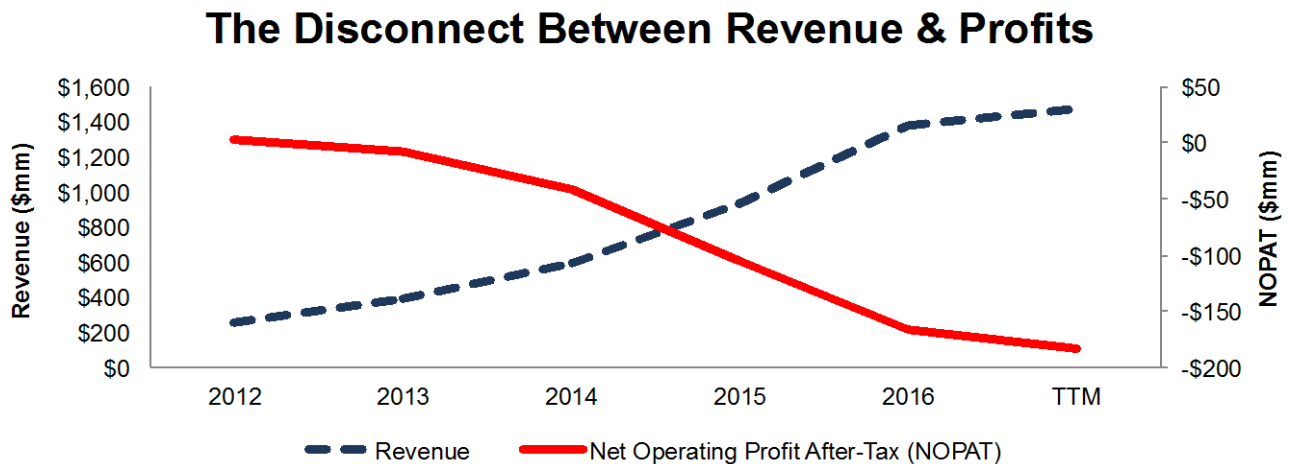
Check out this week's [Danger Zone interview](#) with Chuck Jaffe of [Money Life](#) and Marketwatch.com

Investing themes can come and go. From mid 2014 to mid 2015, the cyber security industry was the “hot buy.” Some cyber stock prices soared anywhere from 80% to nearly 300% in this time span. Ultimately, the buzz wore off and valuations sank to lower levels. With the White House making headlines about advanced cyber security spending, this sector is back in momentum traders' crosshairs. This week's Danger Zone pick is up 22% this year while the S&P is up just 5%. However, the fundamentals of the business make it hard to imagine a scenario where this firm can meet the expectations baked into its lofty valuation. For these reasons and more, Palo Alto Networks (PANW: \$155/share) is in the [Danger Zone](#) this week.

### Revenue Growth Without The Profits To Show

Palo Alto Network's after-tax profit (NOPAT) declined from \$2 million in 2012 to -\$165 million in 2016. NOPAT has fallen to -\$184 million over the last twelve months (TTM). This decline in profit comes despite revenue growing 52% compounded annually from 2012-2016, per Figure 1.

Figure 1: PANW's Profits Fall Despite Soaring Revenue



Sources: New Constructs, LLC and company filings

The issues with PANW's business run deeper than just NOPAT. The company's return on invested capital (ROIC) is currently a bottom-quintile -25%. Additionally, the firm has burned through a cumulative \$1 billion (7% of market cap) in [free cash flow](#) over the past four years. Palo Alto's business is faltering across many different key metrics.

### Compensation Plan Misaligns Executive Interests

Palo Alto's executive compensation plan [misaligns executive interests with those of shareholders](#) and fuels the profit losses shown above. In fact, the current compensation plan allows executives to earn large bonuses while shareholder value is destroyed.

PANW executives are eligible for base salaries, cash bonuses, and long-term equity awards. The cash bonuses are tied to the achievement of revenue and EPS goals. Management believes “revenue is a key metric during this stage of our growth and enhances long-term value creation for our stockholders.” As shown in Figure 1, revenue growth has done little to enhance the profitability of the firm.

For 2017, a performance threshold was added to Palo Alto's long-term equity awards. The performance portion of equity awards will now be paid out based on “billings.” “Billings” represent a non-GAAP measure for revenue and further misalign executive interests with those of shareholders.

As we've [demonstrated before](#), ROIC, not revenue, EPS, or “billings”, is the primary driver of shareholder value creation. Without major changes to this compensation plan (e.g. emphasizing ROIC) investors should expect further value destruction.

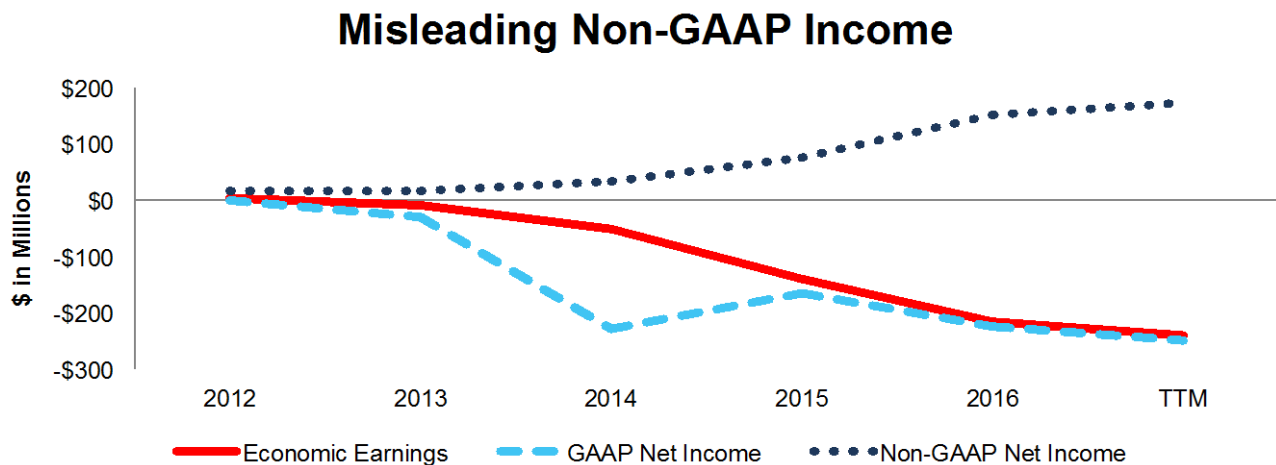
**Non-GAAP Metrics Create Illusion of Profitability**

Non-GAAP metrics often [mask the true economics](#) of a business and create the illusion of profits. Palo Alto Networks uses non-GAAP metrics such as non-GAAP net income and “billings” to “provide investors an additional tool to evaluate ongoing operating results.” However, these metrics simply make the firm look profitable when it is, in fact, losing money. Below are some of the items PANW removes to calculate its non-GAAP net income:

1. Share based compensation charges
2. Acquisition related charges
3. Litigation related charges

These adjustments have a significant impact on the disparity between GAAP net income, non-GAAP net income, and [economic earnings](#). In 2016 and 2015, PANW removed over \$408 million (30% of revenue) and \$233 million (25% of revenue) respectively in charges related to share-based compensation to calculate non-GAAP net income. When added to the other adjustments, Palo Alto reported 2016 non-GAAP net income of \$153 million. Per Figure 2, GAAP net income was -\$226 and economic earnings were -\$216 in 2016.

**Figure 2: Disconnect Between Non-GAAP & Economic Earnings**



Sources: New Constructs, LLC and company filings

**Negative Profitability In A Highly Competitive Market**

Palo Alto provides security solutions to businesses of all sizes. Its offerings include next generation firewall, endpoint protection, and cloud-based security solutions. This industry is fraught with competitors, ranging from platforms that meet one’s entire security needs to individual solutions that solve one piece of the security puzzle. Competitors include Cisco Systems (CSCO), International Business Machines (IBM), Fortinet (FTNT), Symantec (SYMC), and previous Long Idea, [Check Point Software](#) (CHKP).

The key takeaway from Figure 3 is Palo Alto Networks’ ROIC and NOPAT margin rank below nearly all competitors. The only company with lower margins than PANW is another Danger Zone pick, [FireEye](#) (FEYE), which is down 23% (S&P up 18%) since being placed in the Danger Zone. The firms with the highest profitability in the industry are those that have diversified businesses. Firms such as Cisco, Juniper Networks (JNPR), and Intel (INTC) provide security solutions in addition to business lines that are already profitable. The profits from these other business segments can be used to ensure security is a value-add to existing customers but not the main profit source of the firm. PANW doesn’t have that ability, which puts it at a competitive disadvantage.



**Figure 3: Palo Alto Network’s Lack Of Profitability**

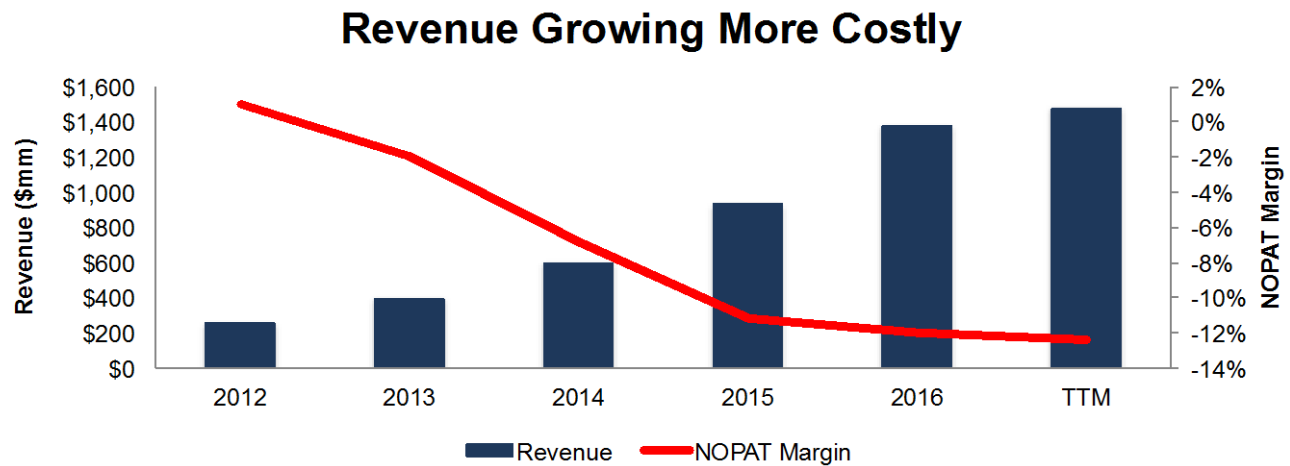
Company	Ticker	Return On Invested Capital (ROIC)	NOPAT Margin
Check Point Software	CHKP	162%	41%
Cisco Systems	CSCO	17%	21%
Intel Corporation	INTC	16%	20%
International Business Machines	IBM	10%	14%
Juniper Networks	JNPR	11%	14%
Fortinet Inc.	FTNT	–	2%
Symantec Corporation	SYMC	0%	1%
Palo Alto Networks	PANW	-25%	-12%
FireEye Inc.	FEYE	-19%	-53%

Sources: New Constructs, LLC and company filings

**Bulls Ignore Negative Margins After Reaching Scale**

Palo Alto bulls will tout the firm’s impressive revenue growth as reason to invest in the company. This view fails to acknowledge that not only has PANW been unprofitable thus far, but revenue growth is also becoming more costly. Per Figure 4, as Palo Alto has grown revenue, its NOPAT margin has plummeted from 1% in 2012 to negative 12% TTM.

**Figure 4: Growing Revenue Is Too Costly**



Sources: New Constructs, LLC and company filings.

A more detailed breakdown of the rampant cost growth can be seen in Figure 5. Palo Alto Networks’ research & development, sales & marketing, and general & administrative costs have grown 65%, 61%, and 52% compounded annually, respectively, since 2012. Over the same time, PANW’s revenue has grown 52% compounded annually.

**Figure 5: PANW’s Expenses Growing Faster Than Revenue**

Operating Item	2012	2016	CAGR
Research & Development	\$39	\$284	65%
Sales & Marketing	\$116	\$776	61%
General & Administrative	\$26	\$138	52%
Revenues	\$255	\$1,379	52%

Sources: New Constructs, LLC and company filings

Bulls will also argue that these high costs are required to “reach scale”, but it appears Palo Alto Networks has already achieved scale with over 35,000 customers across 150 countries. For reference, FireEye has over 5,300 customers.

No matter what you think about PANW’s business, the stock’s valuation is hard to justify. The expectations already baked into the stock price imply that not only will PANW immediately reach profitability, but that it will take significant market share, as we’ll show below.

### **PANW Is Already Priced For Perfection**

To justify its current price of \$155/share, PANW must achieve NOPAT margins of 5% (average of competitors in Figure 3, compared to -12% TTM) and [grow revenue by 31% compounded annually for the next 11 years](#). In this scenario, Palo Alto would be generating \$26 billion in revenue (11 years from now), which is half of Cisco’s last fiscal year revenue and greater than Juniper, Symantec, Check Point Software, Fortinet, and FireEye’s last fiscal year revenue combined. In other words, the expectations already baked into the stock price imply Palo Alto taking significant market share while also drastically improving its profit margins.

Even if we assume PANW can achieve a 5% NOPAT margin and [grow revenue by 26% compounded annually for the next decade](#), the stock is worth only \$90/share today – a 42% downside. Each of these scenarios also assumes PANW is able to grow revenue and NOPAT/free cash flow without spending on working capital or fixed assets. This assumption is unlikely but allows us to create very optimistic scenarios that demonstrate how high expectations in the current valuation are. For reference, PANW’s [invested capital](#) has grown on average \$177 million (13% of 2016 revenue) per year over the last four years.

### **Is PANW Worth Acquiring?**

The largest risk to our bear thesis is what we call “[stupid money risk](#)”, which means an acquirer comes in and pays for PANW at the current, or higher, share price despite the stock being overvalued. We only see an acquisition as possible if an acquiring firm is willing to destroy substantial shareholder value.

Below we show just how expensive PANW remains after assuming an acquirer can gain significant synergies.

To begin, PANW has liabilities of which investors may not be aware that make it more expensive than the accounting numbers suggest.

1. \$376 million in [off-balance-sheet operating leases](#) (3% of market cap)
2. \$283 million in [outstanding employee stock options](#) (2% of market cap)

After adjusting for these liabilities we can model multiple purchase price scenarios. Even in the most optimistic of scenarios, PANW is worth less than the current share price.

Figures 6 and 7 show what we think Cisco Systems (CSCO) should pay for Palo Alto to ensure it does not destroy shareholder value. Cisco has been mentioned as a potential acquirer of security platforms with the end goal of bulking up its security offering. Acquiring PANW could quickly help achieve that goal. However, there are limits on how much CSCO would pay for PANW to earn a proper return, given the NOPAT or free cash flows being acquired.

Each implied price is based on a ‘goal ROIC’ assuming different levels of revenue growth. In each scenario, the estimated revenue growth rate in year one and two equals the consensus estimate for the current year (31%) and next year (29%). For the subsequent years, we use 29% in scenario one because it represents a continuation of next year’s expectations. We use 35% in scenario two because it assumes a merger with CSCO could create revenue growth through increased sales opportunities to existing Cisco customers.

We conservatively assume that Cisco can grow Palo Alto’s revenue and NOPAT without spending on working capital or fixed assets. We also assume Palo Alto immediately achieves a 5% NOPAT margin, which is the average of Cisco and Palo Alto’s NOPAT margin. For reference, PANW’s TTM NOPAT margin is -12%, so this assumption implies immediate improvement and allows the creation of a truly best case scenario.

**Figure 6: Implied Acquisition Prices For CSCO To Achieve 6% ROIC**

To Earn 6% ROIC On Acquisition		
Revenue Growth Scenario	PANW's Implied Stock Value	% Discount to Current Price
29% CAGR for 5 years	\$51	67%
33% CAGR for 5 years	\$58	63%

Sources: New Constructs, LLC and company filings.

Figure 6 shows the 'goal ROIC' for CSCO as its weighted average cost of capital (WACC) or 6%. Even if Palo Alto Networks can grow revenue by 33% compounded annually with a 5% NOPAT margin for the next five years, the firm is worth less than its current price of \$155/share. It's worth noting that any deal that only achieves a 6% ROIC would be only value neutral and not accretive, as the return on the deal would equal CSCO's WACC.

**Figure 7: Implied Acquisition Prices For CSCO To Achieve 17% ROIC**

To Earn 17% ROIC on Acquisition		
Revenue Growth Scenario	PANW's Implied Stock Value	% Discount To Current Price
29% CAGR for 5 years	\$22	86%
33% CAGR for 5 years	\$24	84%

Sources: New Constructs, LLC and company filings.

Figure 7 shows the next 'goal ROIC' of 17%, which is Cisco's current ROIC. Acquisitions completed at these prices would be truly accretive to CSCO shareholders. Even in the best-case growth scenario, the most CSCO should pay for PANW is \$24/share (84% downside). Even assuming this best-case scenario, CSCO would destroy over \$11 billion by purchasing PANW at its current valuation. Any scenario assuming less than 33% CAGR in revenue would result in further capital destruction for CSCO.

### **PANW Between A Rock & A Hard Place: Both Options Could Tank Shares**

Palo Alto has reached a point where we see two options moving forward.

1. Continue to focus on revenue growth.
2. Focus on cutting costs in an effort to achieve positive margins.

However, neither approach adequately addresses the expectations already baked into the stock price. With option one, Palo Alto is able to please investors satisfied with massive revenue growth rates but will never meet profitability expectations. This approach can boost shares in the short-term, but with no profits long-term, shares could crater to a more realistic valuation.

In option two, Palo Alto achieves profitability but never grows revenue fast enough to meet the expectations (\$26 billion in revenue) implied in the valuation scenario presented above. With this approach, PANW could see its valuation cut immediately, as investors would be forced to re-evaluate the firm with a focus on profits, not hyper-revenue growth.

In order to meet the expectations in PANW, the company must find a way to immediately cut costs while maintaining rapid revenue growth rates. Such a growth story (margins and revenue simultaneously) is something few, if any, firms have ever pulled off. We wouldn't bet on Palo Alto achieving such a feat given its negative margins and tough competition.

### **Insider Action Is Minimal While Short Interest Is Noteworthy**

Over the past 12 months, 220 thousand insider shares have been purchased and nearly 1.1 million have been sold for a net effect of 842 thousand insider shares sold. These sales represent less than 1% of shares outstanding. Additionally, there are 7.6 million shares sold short, or 8% of shares outstanding. It would appear many in the market are catching on to PANW's overvaluation.

### Impact of Footnotes Adjustments and Forensic Accounting

In order to derive the true recurring cash flows, an accurate invested capital, and a real shareholder value, we made the following adjustments to Palo Alto Network's 2016 10-K:

Income Statement: we made \$77 million of adjustments with a net effect of removing \$61 million in non-operating expense (4% of revenue). We removed \$8 million related to [non-operating income](#) and \$69 million related to [non-operating expenses](#). See all the adjustments made to PANW's income statement [here](#).

Balance Sheet: we made \$2 billion of adjustments to calculate invested capital with a net decrease of \$1.3 billion. The most notable adjustment was \$376 million (20% of reported net assets) for [operating leases](#). See all adjustments to PANW's balance sheet [here](#).

Valuation: we made \$2.9 billion of adjustments with a net effect of increasing shareholder value by \$563 million. The largest adjustment to shareholder value was \$1.7 billion in [excess cash](#). This adjustment represents 12% of PANW's market cap. Despite the increase in shareholder value, PANW remains significantly overvalued as detailed above.

### Dangerous Funds That Hold PANW

The following funds receive our Dangerous-or-worse rating and allocate significantly to Palo Alto Networks.

1. Zevenbergen Genea Fund (ZVGIX) – 5.2% allocation and Very Dangerous rating.
2. Zevenbergen Growth Fund (ZVNBX) – 4.0% allocation and Dangerous rating.
3. Firsthand Funds Technology Opportunities Fund (TEFQX) – 3.7% allocation and Dangerous rating.
4. RidgeWorth Innovative Growth Stock Fund (SCATX) – 3.5% allocation and Dangerous rating.
5. CRM Large Cap Opportunity Fund (CRMGX) – 2.7% allocation and Very Dangerous rating.

*This article originally published [here](#) on February 27, 2017.*

*Disclosure: David Trainer, Kyle Guske II, and Kyle Martone receive no compensation to write about any specific stock, style, or theme.*

*Follow us on [Twitter](#), [Facebook](#), [LinkedIn](#), and [StockTwits](#) for real-time alerts on all our research.*

*Scottrade clients get a Free Gold Membership (\$588/yr value) as well as 50% discounts and up to 20 free trades (\$140 value) for signing up to Platinum, Pro or Unlimited memberships. [Login or open your Scottrade account](#) & find us under Quotes & Research/Investor Tools.*



## ***New Constructs® – Profile***

---

### ***How New Constructs Creates Value for Clients***

We find it. You benefit. Cutting-edge technology enables us to scale our [forensic accounting expertise](#) across 3000+ stocks. We shine a light in the dark corners of SEC filings so our clients can make safer, more informed decisions.

Our [stock rating methodology](#) instantly informs you of the quality of the business and the fairness of the stock's valuation. We do the diligence on earnings quality and valuation so you don't have to.

In-depth risk/reward analysis underpins our ratings. Our rating methodology grades every stock, ETF, and mutual fund according to what we believe are the 5 most important criteria for assessing the quality of an equity. Each grade reflects the balance of potential risk and reward of buying that equity. Our analysis results in the 5 ratings described below. Very Attractive and Attractive correspond to a "Buy" rating, Very Dangerous and Dangerous correspond to a "Sell" rating, while Neutral corresponds to a "Hold" rating.

QUESTION: Why shouldn't fund research be as good as stock research? Why should fund investors rely on backward-looking price trends?

ANSWER: They should not.

Don't judge a fund by its cover. Take a look inside at its holdings and understand the quality of earnings and valuation of the stocks it holds. We enable you to choose the best fund based on its stock-picking merits so you do not have to rely solely on backward-looking technical metrics.

The drivers of our [forward-looking fund ratings](#) are Portfolio Management (i.e. the aggregated ratings of its holdings) and Total Annual Costs. The Total Annual Costs Rating ([details here](#)) captures the all-in cost of being in a fund over a 3-year holding period, the average period for all fund investors.

### ***Our Philosophy About Research***

Accounting data is not designed for equity investors, but for debt investors. [Accounting data must be translated into economic earnings](#) to understand the profitability and valuation relevant to equity investors. Respected investors (e.g. Adam Smith, Warren Buffett and Ben Graham) have repeatedly emphasized that accounting results should not be used to value stocks. [Economic earnings](#) are what matter because they are:

1. Based on the complete set of financial information available.
2. Standard for all companies.
3. A more accurate representation of the true underlying cash flows of the business.

### ***Additional Information***

Incorporated in July 2002, [New Constructs](#) is an independent publisher of investment research that provides clients with consulting and research services. We specialize in quality-of-earnings, forensic accounting and discounted cash flow valuation analyses for all U.S. public companies. We translate accounting data from 10Ks into economic financial statements, i.e. [NOPAT](#), [Invested Capital](#), and [WACC](#), to create [economic earnings models](#), which are necessary to understand the true profitability and valuation of companies. Visit the [Free Archive](#) to download samples of our research. New Constructs is a [BBB accredited](#) business and a member of the [Investorside Research Association](#).

## DISCLOSURES

---

New Constructs®, LLC (together with any subsidiaries and/or affiliates, "New Constructs") is an independent organization with no management ties to the companies it covers. None of the members of New Constructs' management team or the management team of any New Constructs' affiliate holds a seat on the Board of Directors of any of the companies New Constructs covers. New Constructs does not perform any investment or merchant banking functions and does not operate a trading desk.

New Constructs' Stock Ownership Policy prevents any of its employees or managers from engaging in Insider Trading and restricts any trading whereby an employee may exploit inside information regarding our stock research. In addition, employees and managers of the company are bound by a code of ethics that restricts them from purchasing or selling a security that they know or should have known was under consideration for inclusion in a New Constructs report nor may they purchase or sell a security for the first 15 days after New Constructs issues a report on that security.

## DISCLAIMERS

---

The information and opinions presented in this report are provided to you for information purposes only and are not to be used or considered as an offer or solicitation of an offer to buy or sell securities or other financial instruments. New Constructs has not taken any steps to ensure that the securities referred to in this report are suitable for any particular investor and nothing in this report constitutes investment, legal, accounting or tax advice. This report includes general information that does not take into account your individual circumstance, financial situation or needs, nor does it represent a personal recommendation to you. The investments or services contained or referred to in this report may not be suitable for you and it is recommended that you consult an independent investment advisor if you are in doubt about any such investments or investment services.

Information and opinions presented in this report have been obtained or derived from sources believed by New Constructs to be reliable, but New Constructs makes no representation as to their accuracy, authority, usefulness, reliability, timeliness or completeness. New Constructs accepts no liability for loss arising from the use of the information presented in this report, and New Constructs makes no warranty as to results that may be obtained from the information presented in this report. Past performance should not be taken as an indication or guarantee of future performance, and no representation or warranty, express or implied, is made regarding future performance. Information and opinions contained in this report reflect a judgment at its original date of publication by New Constructs and are subject to change without notice. New Constructs may have issued, and may in the future issue, other reports that are inconsistent with, and reach different conclusions from, the information presented in this report. Those reports reflect the different assumptions, views and analytical methods of the analysts who prepared them and New Constructs is under no obligation to insure that such other reports are brought to the attention of any recipient of this report.

New Constructs' reports are intended for distribution to its professional and institutional investor customers. Recipients who are not professionals or institutional investor customers of New Constructs should seek the advice of their independent financial advisor prior to making any investment decision or for any necessary explanation of its contents.

This report is not directed to, or intended for distribution to or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or jurisdiction where such distribution, publication, availability or use would be contrary to law or regulation or which would be subject New Constructs to any registration or licensing requirement within such jurisdiction.

This report may provide the addresses of websites. Except to the extent to which the report refers to New Constructs own website material, New Constructs has not reviewed the linked site and takes no responsibility for the content therein. Such address or hyperlink (including addresses or hyperlinks to New Constructs own website material) is provided solely for your convenience and the information and content of the linked site do not in any way form part of this report. Accessing such websites or following such hyperlink through this report shall be at your own risk.

All material in this report is the property of, and under copyright, of New Constructs. None of the contents, nor any copy of it, may be altered in any way, copied, or distributed or transmitted to any other party without the prior express written consent of New Constructs. All trademarks, service marks and logos used in this report are trademarks or service marks or registered trademarks or service marks of New Constructs.

Copyright New Constructs, LLC 2003 through the present date. All rights reserved.