

PUMP AND DUMP: THE STOCK SPAM PHENOMENON

August, 2006

Contents

Pump and Dump: The Stock Spam Phenomenon	2
Examples of Stock Spam	2
Why Spam Stocks?	4
Effect of Spam on Stock Prices	4
Other Features of Stock Spam	5
Conclusion	5

This document explores the purposes, methods, and effects of stock market tip spam.

Pump and Dump: The Stock Spam Phenomenon

Stock spam is spam that promotes a company's stock, passing itself off as a "hot" stock tip. It has appeared in force in the last two years. Prior to that it was insignificant.

Today stock spam covers a large part of the spam landscape. Marshal's figures indicate that in July 2006 it represented 15% of all spam. This made stock spam the second biggest category after health (products, pills and potions) at 40%.

Stock spam doesn't ask you to directly buy a product or service. Rather it usually takes the form of bogus "advice" on the prospects of a particular company, along with price quotes and share buying recommendations. These hot tips advertise genuine companies, listed on stock exchanges.

Examples of Stock Spam

Samples range from simple text with crude messages to messages contained in images. For example, see the text below.

We last promoted this stock (FCYI.pk) Last week of
may through first week of June
does 300% increase get your attention

FALCON ENERGY INC (fcyi . PK)
Current Price: \$ 0.60

OverView

An independent resource exploration and production
company whose current projects range from the
production of natural gas and oil in Alberta to the
exploration for minerals such as copper and gold in
Mongolia.

Is fcyi . PK Ready To Go? If You Think So, You know
what to do, happy earnings :)

Stock spammers also convey their messages in images and make use of randomization techniques, which make the messages harder for simpler text or signature based anti-spam devices to detect.

Note: For more information on image spam tricks, refer to Marshal's Whitepaper "Rise of Image Spam".

WHITEPAPER – The Stock Spam Phenomenon

The examples below are professional looking notices using images:

Profit Stampede
these bulls never see red

Market Info

Investigative Services Agency	
Ticker Symbol:	IVAY
Current Price:	\$0.23
Short Term Target:	\$1.50+
Long Term Target:	\$8.00+
Buy Recommendation:	STRONG

THIS STOCK IS SET TO EXPLODE!

From Iraq to Home Town, U.S.A. private security company guards out number police three to one. Private Police, Be very Afraid ?

Propelled by public panic over crime, the private security industry is one of the fastest growing enterprises in the U.S., spending more money and employing more guards than public police forces around the country. In 1990 alone, \$52 billion was spent on private security, compared to \$30 billion on police. More than 10,000 private security companies employ some 1.5 million guards, nearly triple the 554,000 state and local police officers.

The era of dual law enforcement is already here, with a vengeance. Private guards are popping up everywhere, patrolling shopping malls, workplaces, apartment buildings and neighborhoods. The phenomenal growth of massive private shopping malls, and the steady shrinkage of public shopping streets, means the public is more likely to encounter private security than public police on a daily basis. The business community already pays for security in malls, stores, offices, banks, and highly congested public places such as New York City's Grand Central Station. And as federal funding recedes, many municipalities are looking to cut costs further by hiring rent-a-cops to work ambulance services and parking enforcement, as well as to watch over crime scenes and transport prisoners who increasingly face incarceration in corporate-run prisons.

BREAKTHROUGH TECHNOLOGY
Savvy Investors realize change brings opportunity

In an era of privatization, astute investors need to look no further than the private security sector to realize incredible financial gains. One company that keeps flashing on our radar screen is Investigative Services Agencies, Inc. (OTC-IVAY)

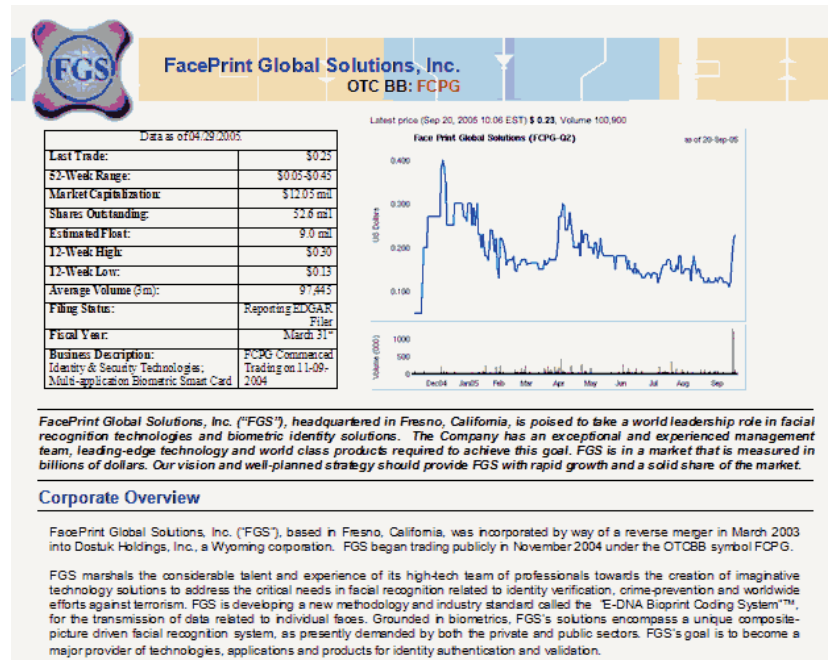
Investigative Services Agencies, Inc. is a full service investigative firm with its headquarters in Chicago, Illinois. IVAY provides in-depth expertise in Corporate Investigations, Private Investigations, Security and Corporate Consulting. IVAY has agents on call to handle any security or investigative matter on a moment's notice. IVAY also maintains a presence in the Homeland Security industry through risk assessment work and other activities for various corporations and government entities.

BUY BUY BUY!

copyright 2006 ProfitStampede All Rights Reserved

WHITEPAPER – The Stock Spam Phenomenon

This example displays detailed price information:



Why Spam Stocks?

All Spam is sent to make money. Given the rise in stock spam lately, we might assume that spammers have been successful in making some.

Spammers hope that the extra exposure and subsequent buying activity will affect the price of the stock. The spammers then profit by quickly selling their pre-bought shares. The target is usually small companies with thinly traded stocks. So called "penny" stocks offer more bang for your spam it seems.

Effect of Spam on Stock Prices

Can stock spam actually increase stock prices? Researchers Rainer Böhme and Thorsten Holz, from Germany, recently looked into the question and found the answer was yes – at least in the short term.

The persistence of such spam, as well as the results presented below, led us to conclude that this pump-and-dump strategy actually works.

Böhme and Holz, "The Effect of Stock Spam on Financial Markets", Workshop on the Economics of Information Security (WEIS) University of Cambridge UK, June 2006.

The researchers found that the arrival of stock spam resulted in a positive cumulative increase in stock price that fades over time and finally turns negative after day 4, as in the following table.

Day	Cumulative Return
0	+1.7%
1	+0.9%
2	+1.2%
3	+0.2%
4	-0.7%

WHITEPAPER – The Stock Spam Phenomenon

The team also found that new firms are constantly becoming victims of stock spam and that the large majority of it arrives on weekdays. They postulated that three groups of people are involved in the trading:

- Spammers, who benefit by quickly selling pre-bought stocks
- Naive traders who actually believe the investment advice in the spam
- Smart traders, who recognize that a scam is being attempted and jump on the bandwagon before also quickly disposing of the stock.

Other researchers have reinforced these findings. Frieder and Zittrain, in their paper “Spam Works: Evidence from Stock Touts and Corresponding Market Activity”, found that stocks experienced a significantly positive return on days when were heavily touted via spam, and on the day preceding such touting. Volume of trading also responded positively and significantly to heavy touting. However returns in the days following touting were significantly negative.

While the evidence suggests a spammer might benefit from stock spam in the short term, in the longer term, betting on spam stocks seems a sure-fire way to lose money.

In 2005, a fictional portfolio of spam stocks was created. An initial outlay of \$53,163.00 turned into a loss of \$39,346.50. More details can be found at <http://www.spamstocktracker.com>

Another source on the web for people interested in daily price movements of spam stocks is The Stock Spam Effectiveness Monitor (<http://www.crummy.com/features/StockSpam>).

Other Features of Stock Spam

Stock spam is rather unique in the spam world. It doesn't ask you to directly buy a product or service. It also differs in that it doesn't have a URL to click on to buy anything – rendering useless the traditional anti-spam techniques of URL filtering and blacklists.

Conclusion

Stock spam has emerged in the past two years to become the second largest category of spam behind health products. This rise, coupled with the fact that it appears to influence stock prices, makes us presume that spammers are making good money from stock spam.

But the pump and dump stock spam phenomenon goes beyond IT security.

Some people are obviously acting on the “advice” in stock spam. The possibility that spammers can influence financial markets in this way is of wider concern and there is little evidence to suggest that this phenomenon is waning. Bigger scams involving bigger companies and more credible information might just be around the corner.

THIS DOCUMENT AND THE SOFTWARE DESCRIBED IN THIS DOCUMENT ARE FURNISHED UNDER AND ARE SUBJECT TO THE TERMS OF A LICENSE AGREEMENT OR A NON-DISCLOSURE AGREEMENT. EXCEPT AS EXPRESSLY SET FORTH IN SUCH LICENSE AGREEMENT OR NON-DISCLOSURE AGREEMENT, MARSHAL LIMITED PROVIDES THIS DOCUMENT AND THE SOFTWARE DESCRIBED IN THIS DOCUMENT "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SOME JURISDICTIONS DO NOT ALLOW DISCLAIMERS OF EXPRESS OR IMPLIED WARRANTIES IN CERTAIN TRANSACTIONS; THEREFORE, THIS STATEMENT MAY NOT APPLY TO YOU.

This document and the software described in this document may not be lent, sold, or given away without the prior written permission of Marshal, except as otherwise permitted by law. Except as expressly set forth in such license agreement or non-disclosure agreement, no part of this document or the software described in this document may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, or otherwise, without the prior written consent of Marshal. Some companies, names, and data in this document are used for illustration purposes and may not represent real companies, individuals, or data. This document could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein. These changes may be incorporated in new editions of this document. Marshal may make improvements in or changes to the software described in this document at any time.

© 2006 Marshal Limited, all rights reserved.

U.S. Government Restricted Rights: The software and the documentation are commercial computer software and documentation developed at private expense. Use, duplication, or disclosure by the U.S. Government is subject to the terms of the Marshal standard commercial license for the software, and where applicable, the restrictions set forth in the Rights in Technical Data and Computer Software clauses and any successor rules or regulations.

Marshal, MailMarshal, the Marshal logo, WebMarshal, Security Reporting Center and Firewall Suite are trademarks or registered trademarks of Marshal Limited or its subsidiaries in the United Kingdom and other jurisdictions. All other company and product names mentioned are used only for identification purposes and may be trademarks or registered trademarks of their respective companies.



Marshal's Worldwide and EMEA HQ
Marshal Limited,
Renaissance 2200,
Basing View,
Basingstoke,
Hampshire RG21 4EQ
United Kingdom

Phone: +44 (0) 1256 848080
Fax: +44 (0) 1256 848060

Email: emea.sales@marshal.com

Americas
Marshal Inc.
5909 Peachtree Dunwoody Road NE,
Suite 770,
Atlanta,
GA 30328
USA

Phone: +1 404 564-5800
Fax: +1 404 564-5801

Email: americas.sales@marshal.com
info@marshal.com | www.marshal.com

Asia-Pacific
Marshal Software (NZ) Ltd
Suite 1, Level 1, Building C
Millennium Centre
600 Great South Road
Greenlane, Auckland
New Zealand

Phone: +64 9 984 5700
Fax: +64 9 984 5720

Email: apac.sales@marshal.com