



Falling Knives Around the World

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I. Introduction

In *Buying the Wrong Stock for the Right Reason*, we examined the performance of falling knives in the U.S. stock market from 1986 through 2002. While the falling knives we identified *did* post a relatively high bankruptcy rate over the three-year period following their initial drop, they also outperformed the S&P 500 by wide margins. We followed up our study of U.S.-based falling knives by extending our falling knife analysis to markets outside the United States – and we concluded that non-U.S. knives also tended to outdistance their benchmarks.

What's new in this paper? First, we study both U.S. and non-U.S. falling knives over a synchronized time period: 1980 through the end of 2003. As a result, our analysis now includes many falling knives that were generated in 2000, when the generally high valuation levels of the late 1990s began to wind down amid the collapse of the technology stock bubble.

We also take an in-depth look at falling knives over time, by sector, and – for non-U.S. knives – on a country-by-country basis. In addition, we test market capitalization and enterprise-value-to-sales ratios as possible predictors of falling knife performance.

Overall, we find that falling knives around the world continued to offer significant outperformance potential. Our research also yields a variety of specific conclusions:

- Bankruptcy risk was higher than normal among U.S. falling knives, but even when bankruptcies are counted, the average U.S. knife outperformed the S&P 500 substantially
- While falling knives in non-U.S. markets went bankrupt at a much lower rate than their U.S.-based counterparts, these non-U.S. knives posted similarly strong outperformance figures
- The information technology sector yielded a high proportion of falling knives, and these knives generally outperformed substantially; knives in the utilities sector also tended to perform strongly
- The positively skewed distribution of returns for both U.S. and non-U.S. falling knives suggests that stock selection could be critical to successful falling knife investment
- Enterprise-value-to-sales ratios could help investors identify the most compelling opportunities among falling knives

The next section reviews the methodology our study employs. In subsequent sections, we explore our results in detail.

II. Methodology

As in our previous studies, we defined falling knives as stocks whose prices declined 60% or more over a 12-month period. Our review was limited to stocks with post-fall market capitalizations of \$100 million or more; this excluded micro caps, or firms with prohibitively small market capitalizations, and yielded a sample that more accurately represented a truly “investable” universe.¹

We identified U.S.-based falling knives by screening Compustat’s U.S. database. Similarly, we identified non-U.S. stocks by screening Worldscope’s international database. For our non-U.S. screen, we focused on the 22 countries that compose the MSCI World Index ex USA; these countries and their market cap weights are listed in the table below.

MSCI World Index ex USA			
as of 12/31/03			
<i>country</i>	<i>weight</i>	<i>country</i>	<i>weight</i>
<i>Australia</i>	4.8%	<i>Italy</i>	3.6%
<i>Austria</i>	0.2%	<i>Japan</i>	20.1%
<i>Belgium</i>	1.0%	<i>Netherlands</i>	4.9%
<i>Canada</i>	5.9%	<i>New Zealand</i>	0.2%
<i>Denmark</i>	0.7%	<i>Norway</i>	0.5%
<i>Finland</i>	1.6%	<i>Portugal</i>	0.3%
<i>France</i>	9.3%	<i>Singapore</i>	0.8%
<i>Germany</i>	6.8%	<i>Spain</i>	3.5%
<i>Greece</i>	0.4%	<i>Sweden</i>	2.1%
<i>Hong Kong</i>	1.5%	<i>Switzerland</i>	6.9%
<i>Ireland</i>	0.7%	<i>United Kingdom</i>	24.3%

source: MSCI via FactSet

We screened the databases for falling knives over the period beginning in January 1980 (the year of Worldscope’s inception) and ending in December 2000 (the last month-end that allows for three subsequent years of performance measurement). For every falling knife we identified, we tracked its absolute performance as well as the performance of its country’s benchmark over the three years following its fall.²

¹ Companies are not completely removed from the database after their first appearance in our sample; instead, each falling knife rejoins the database 12 months after its fall. As a result, a knife can reappear in our study if it experiences a subsequent 60% fall in a separate 12-month period and still maintains a post-fall market capitalization above our \$100 million minimum.

² For U.S. knives, the benchmark is the S&P 500 Index. For non-U.S. knives, the benchmark is each knife’s MSCI country index. All performance is in U.S. dollars.

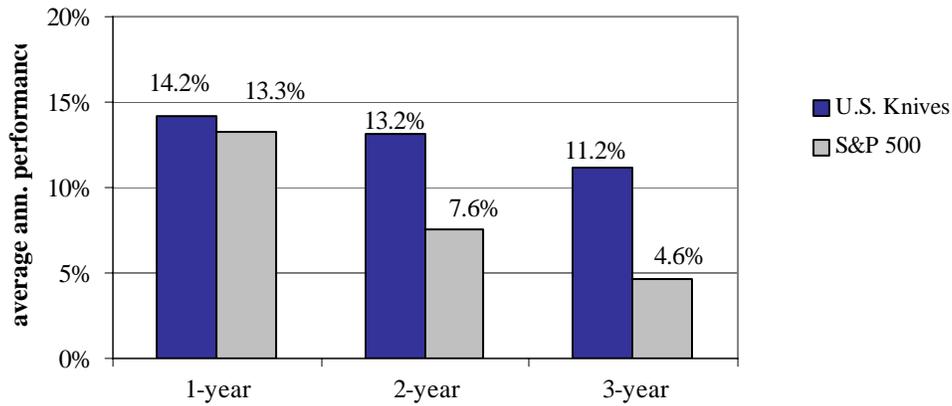
III. Overall Results

Falling Knives in the United States

Our Compustat screen yielded 1,904 U.S.-based falling knives. Bankruptcy risk was higher than normal among this group of stocks: while the typical bankruptcy rate for publicly held companies in the United States is in the neighborhood of 1% per year³, almost 9% of the U. S. knives in our study went bankrupt within 3 years of entering our study.

Even counting these bankruptcies, however, the average U.S. knife outperformed the S&P 500 substantially – particularly in the 2- and 3-year periods following its initial fall. For example, as the chart below shows, the average knife gained an annualized 11.2% over the three years following its initial fall, while the corresponding gain for the S&P 500 averaged only 4.6%.

U.S. Falling Knives: Average Ann. Performance, 1980-2003

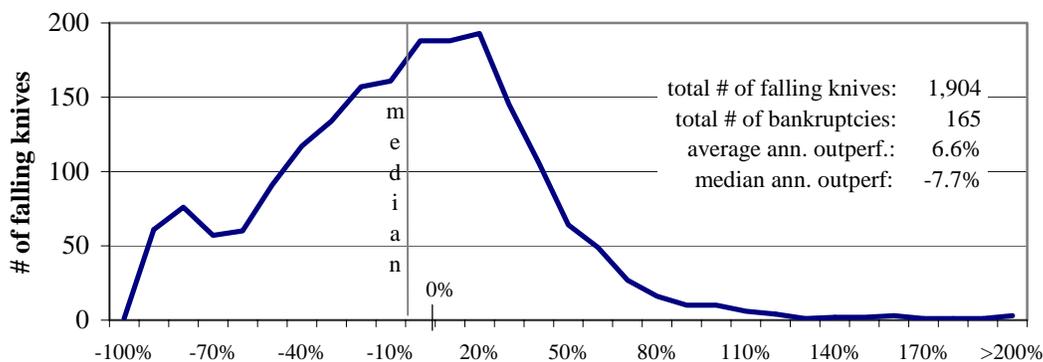


source: Standard & Poor's Compustat[®] data; The Brandes Institute

³ Based on 1980-2001 data from the U.S. Securities and Exchange Commission and from Bankruptcydata.com.

Importantly, average outperformance figures for U.S. falling knives were positively skewed; in other words, these figures were “pulled” in the positive direction by the relatively small number of knives whose returns outdistanced the S&P 500 by very wide margins. In fact, while the *average* U.S. knife beat the benchmark substantially, returns for the *median* knife trailed the S&P 500 by an annualized 7.7% over three years. This means that a majority of U.S. knives actually underperformed the S&P 500 in the years following their fall.

U.S. Knives: Distribution by 3-Year Annualized Outperformance, 1980-2003



source: Standard & Poor’s Compustat[®] data; The Brandes Institute

In our opinion, this outperformance breakdown suggests that stock selection could be critical to successful falling knife investment. With that in mind, we test the market capitalization and enterprise-value-to-sales metrics as possible predictors of falling knife performance in Section V.

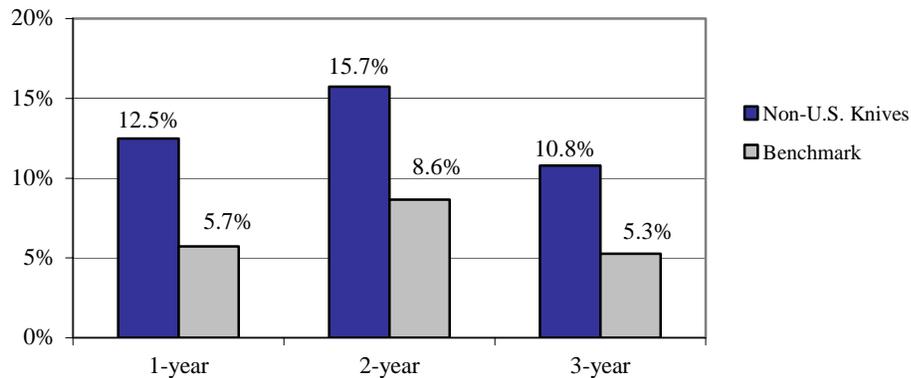
Non-U.S. Falling Knives

Interestingly, the 934 falling knives we identified in non-U.S. markets posted a much lower bankruptcy rate than their U.S.-based counterparts. While close to one in ten U.S. falling knives went bankrupt within three years of entering our study, only 1.7% of non-U.S. falling knives met the same fate.

We believe this disparity stemmed from differences between bankruptcy conventions in the United States and those in other countries. In the United States, corporate bankruptcy proceedings tend to emphasize the reorganization and rehabilitation of the stricken firm. This differs from nations such as the United Kingdom, for example, where a greater focus on immediate liquidation of assets and reimbursement of creditors could discourage bankruptcy as an option for a company in distress.

Bankruptcies notwithstanding, non-U.S. falling knives offered significant outperformance potential, as the chart below indicates. In each of the 1-, 2-, and 3-year periods following its initial fall, returns for the average non-U.S. knife outdistanced returns for its benchmark by wide margins. In the three years after entering our study, for example, the average non-U.S. knife gained 10.8% per year while its MSCI country index advanced at a 5.3% annual rate.

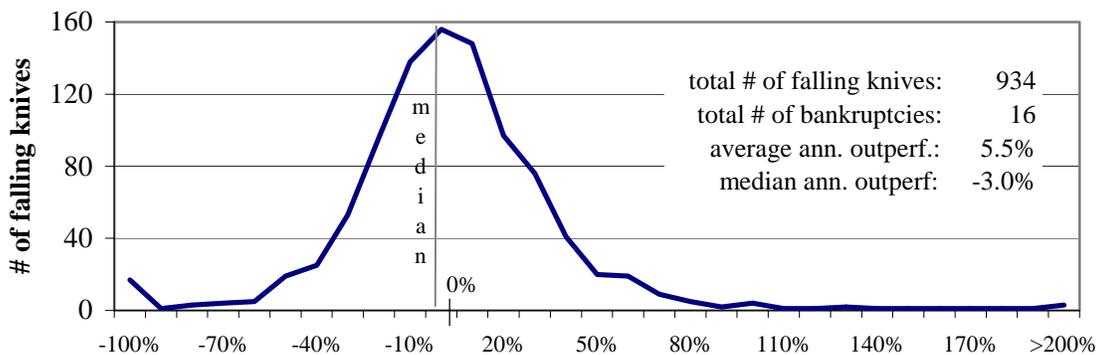
Non-U.S. Knives: Average Ann. Performance, 1980-2003



source: Worldscope via FactSet; MSCI via FactSet; The Brandes Institute

As seen in the chart below, average outperformance figures for non-U.S. knives were positively skewed by the relatively small number of knives that outperformed the benchmark by very wide margins. Though the *average* non-U.S. knife outperformed substantially, the *median* knife trailed its benchmark by an annualized 3.0% over three years. In other words, a majority of non-U.S. knives underperformed the benchmark in the years following their fall.

Non-U.S. Knives: Distribution by 3-Year Ann. Outperformance, 1980-2003



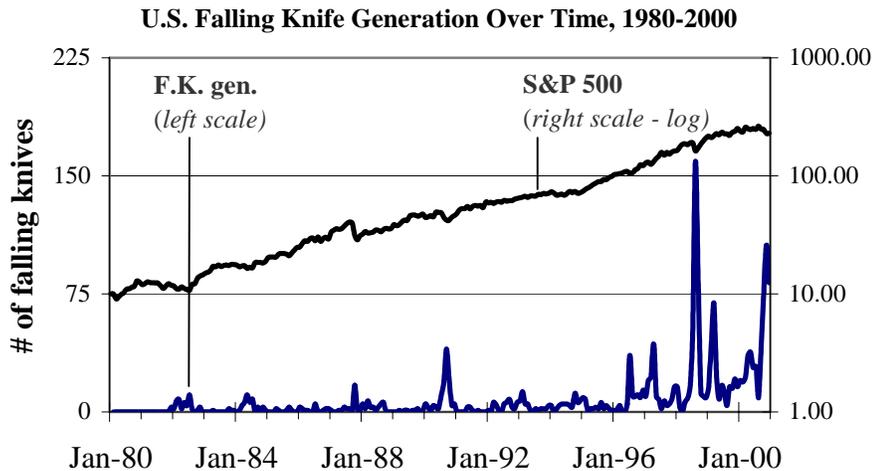
source: Worldscope via FactSet; The Brandes Institute

We believe this outperformance breakdown – when coupled with the similar distribution noted among U.S. falling knives – suggests that stock selection could be critical to successful falling knife investment. With that in mind, we test the market capitalization and enterprise-value-to-sales metrics as possible predictors of falling knife performance in Section V. First, though, we take a closer look at where falling knives came from and how they performed.

IV. Falling Knives by Sector, by Country, and Over Time

Falling Knives in the United States

As shown in the chart below, spikes in U.S. falling knife generation tended to coincide with S&P 500 price declines. For example, 159 of the 1,904 U.S. knives we identified were generated in August 1998 – a month that saw the S&P 500 shed nearly 15%. Similarly, knife generation was also heavy in late 2000, when the generally high valuation levels of the late 1990s began to wind down amid the collapse of the technology-stock bubble. Overall, 80% of the U.S. knives we identified were generated in our study’s six most knife-intensive years: 1990, 1996, 1997, 1998, 1999, and 2000.



source: Standard & Poor’s Compustat[®] data; Bloomberg; The Brandes Institute

Increases in the volatility of the overall market seem to coincide with spikes in falling knife generation. As the table below notes, calendar years with increasing market volatility (as measured by the rolling 12-month standard deviation of the S&P 500's daily returns) yielded an average of 174 knives per year, while knife generation in years of decreasing volatility averaged only 30.

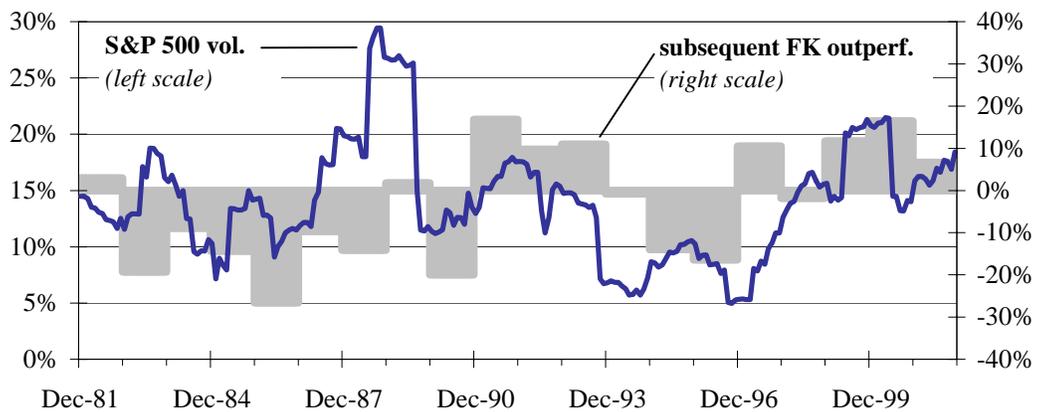
U.S. Falling Knife Generation and Market Volatility, 1980-2003

# of years of increasing volatility	9
# of knives generated in these years	1570
average # of knives per year	174
# of years of decreasing volatility	11
# of knives generated in these years	334
average # of knives per year	30

source: Standard & Poor's Compustat[®] data; The Brandes Institute

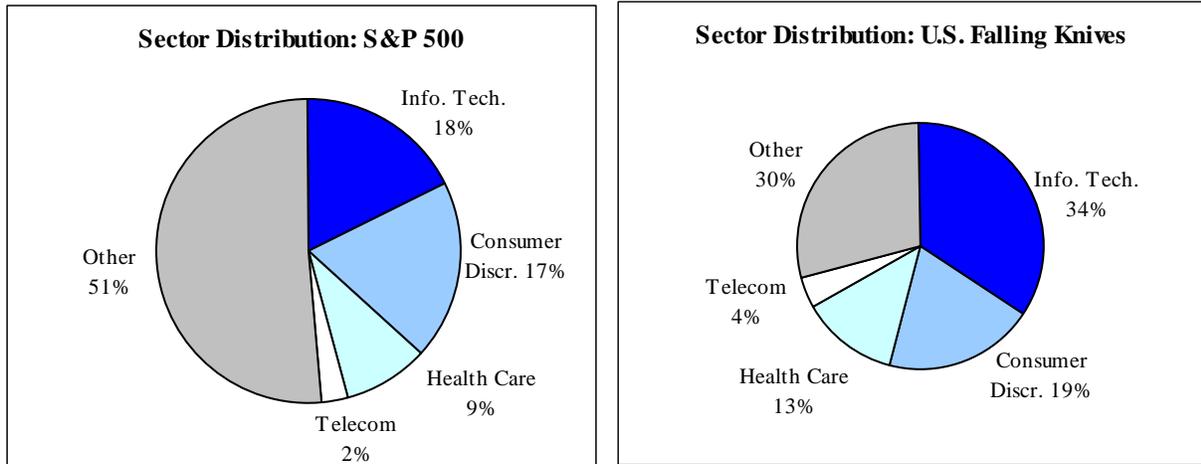
Interestingly, U.S. falling knives that were generated in years of increasing market volatility seem to have offered more outperformance potential. The chart below plots the rolling 12-month annualized standard deviation of the S&P 500's daily returns and the 3-year outperformance of the falling knives generated in each of the years of our study. We believe the chart shows that falling knives generated during periods of increasing market volatility tended to outperform, while knives from periods of diminishing volatility were more likely to underperform.

U.S. Falling Knife Outperformance vs. Market Volatility, 1980-2003



source: Standard & Poor's Compustat[®] data; The Brandes Institute

As the charts below indicate, the information technology (IT) sector was over-represented among U.S. falling knives. While IT stocks represented only 18% of the S&P 500's constituents at the end of 2000, they formed 34% of the U.S.-based falling knives in our study. The majority of these knives were generated in the late 1990s and 2000, a period of unusual volatility, particularly for technology stocks. Other sectors with relatively high levels of falling knives included consumer discretionary, health care, and telecom.



source: S&P; Standard & Poor's Compustat[®] data; The Brandes Institute; data as of 12/31/00

U.S. falling knife performance was fairly consistent across sectors, as the table below shows. Average annualized 3-year outperformance figures were positive for nine of ten sectors; only U.S. knives from the telecom sector underperformed on average. Knives in the health care sector outperformed most strongly, beating the S&P 500 by an average of 13.2% per year over three years.

U.S. Falling Knives: Sector-by-Sector Findings, 1980-2003

	# of knives	bankruptcy rate	average outperformance		
			1-year	2-year	3-year
Consumer Discretionary	367	9.8%	-10.5%	0.8%	4.4%
Consumer Staples	37	8.1%	-10.3%	1.9%	8.3%
Energy	112	2.7%	-0.6%	13.1%	5.4%
Financials	120	13.3%	-9.6%	0.8%	6.5%
Health Care	243	4.9%	10.4%	10.7%	13.2%
Industrials	207	8.2%	-2.2%	1.6%	2.3%
Information Technology	656	7.6%	8.8%	10.1%	9.3%
Materials	71	1.4%	9.9%	5.5%	3.1%
Telecom	76	35.5%	-19.8%	-24.1%	-10.1%
Utilities	15	0.0%	22.1%	17.4%	11.7%
Total	1,904	8.7%	1.0%	6.0%	7.1%

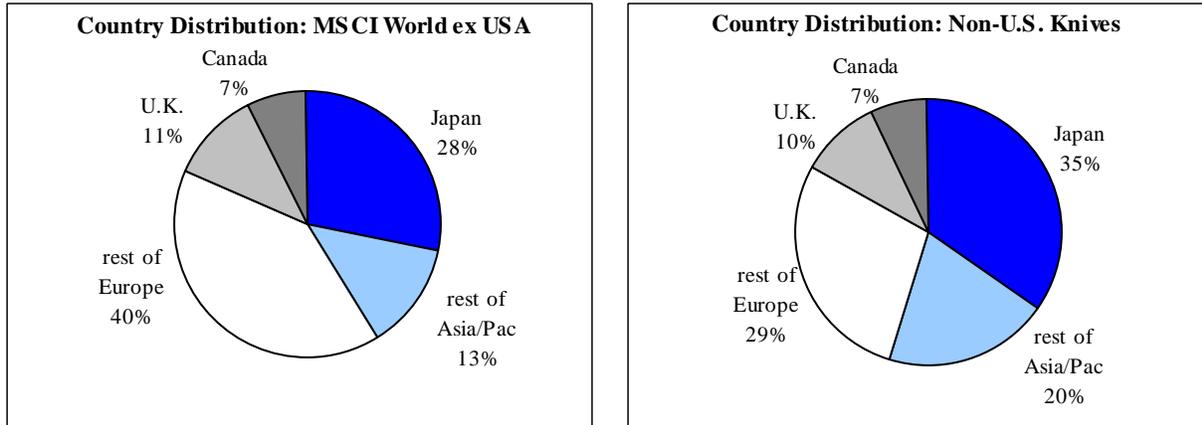
source: Standard & Poor's Compustat[®] data; The Brandes Institute

Notably, knives in the information technology sector also outdistanced the S&P 500 substantially on average – particularly when tech knives that were generated in the bear market of 2000 are excluded. With those knives aside, the remaining group's average annualized three-year outperformance jumps to 14.6%.

U.S. falling knives from the utilities sector – while forming only a small portion of the overall sample – also posted substantial outperformance on average, and no bankruptcies. We believe this may have stemmed from the regulated status of many utilities firms. Utilities tend to operate in a capital-intensive environment, and their stock prices – which often move in cyclical patterns – can be subject to dramatic declines. However, regulatory benefits such as monopoly-like market structures may have meant that utilities falling knives were better equipped to handle the distress that a stock price decline of 60% or more typically indicates. (For more sector-by-sector information on U.S. knives, see Appendix A.)

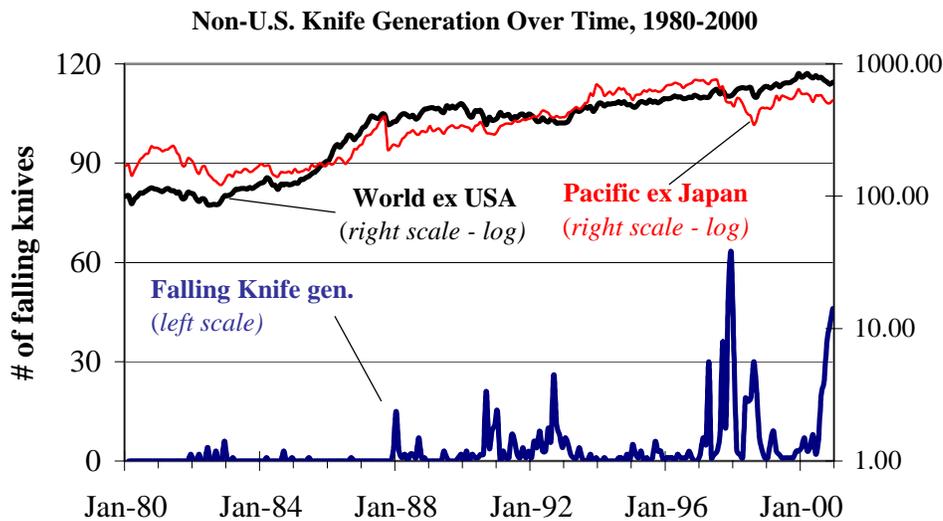
Non-U.S. Falling Knives

Japan and the other Asia/Pacific nations we survey were over-represented among the 934 non-U.S. knives in our study. As the first chart below indicates, companies from these nations represented approximately 40% of the constituents of the MSCI World Index ex USA as of December 31, 2000. More than 50% of the knives we identified, however, came from Japan and the Asia/Pacific region.



source: MSCI via FactSet; Worldscope via FactSet; The Brandes Institute; data as of 12/31/00

In our opinion, this over-representation stemmed from the currency turmoil associated with the “Asian Contagion” triggered by the devaluation of the Thai baht. Currency weakness and tumbling stock prices were evident in a number of Asia/Pacific markets at this time, including Japan in 1998 – and as the chart below indicates, these periods were characterized by heavy generation of falling knives. Other peaks in non-U.S. falling knife generation coincided with broader market declines; in late 1990, for example, falling knife generation increased as the MSCI World Index ex USA dipped on the heels of Iraq’s invasion of Kuwait. (For more country-by-country information on non-U.S. falling knives, see Appendix B.)



source: MSCI via FactSet; Worldscope via FactSet; The Brandes Institute

As we noted in the United States, spikes in falling knife generation in non-U.S. markets seem to coincide with increases in market volatility. In calendar years when the rolling 12-month standard deviation of the MSCI World Index ex USA's daily returns increased, knife generation averaged 71 per year. Conversely, an average of only 15 knives were generated in years when the Index's volatility decreased.

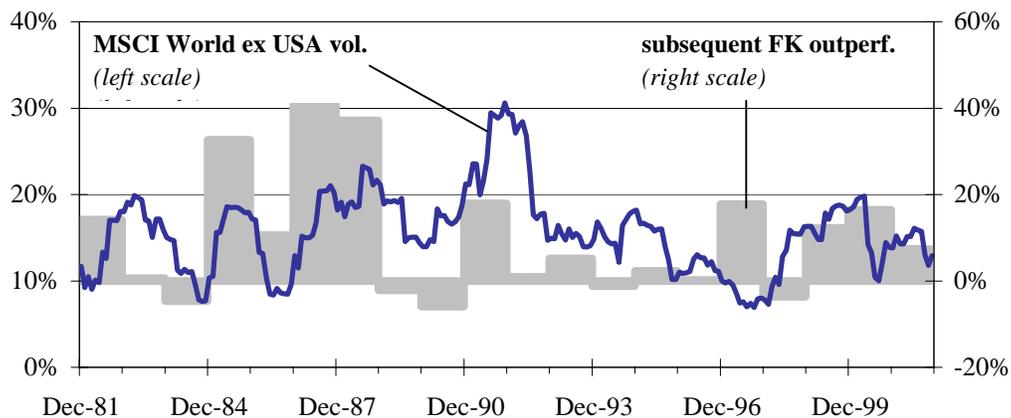
Non-U.S. Falling Knife Generation and Market Volatility, 1980-2003

# of years of increasing volatility	11
# of knives generated in these years	786
average # of knives per year	71
# of years of decreasing volatility	10
# of knives generated in these years	148
average # of knives per year	15

source: MSCI via FactSet; Worldscope via FactSet; The Brandes Institute

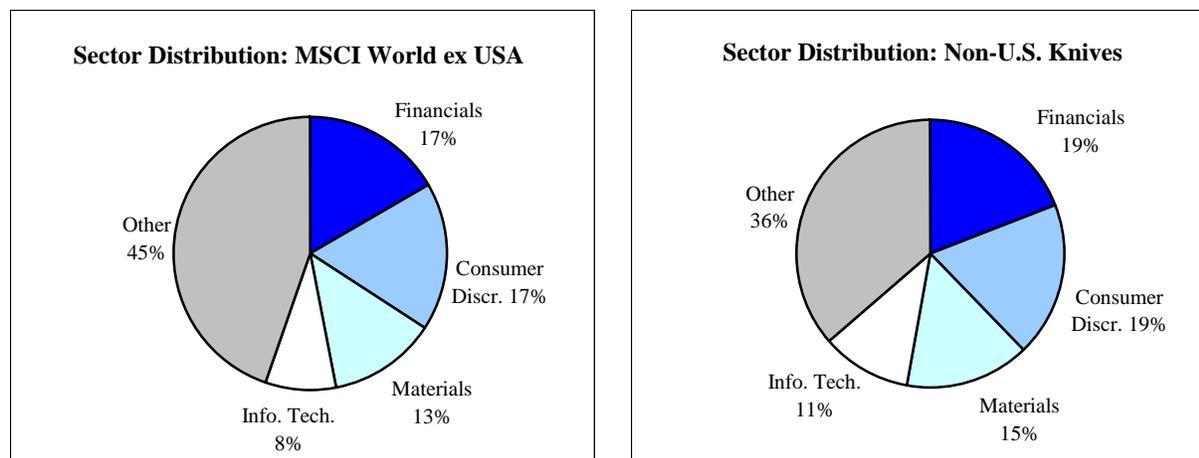
Like their U.S.-based counterparts, non-U.S. falling knives that were generated in years of increasing market volatility offered more outperformance potential. The chart below plots the rolling 12-month annualized standard deviation of the MSCI World Index ex USA's daily returns and the 3-year outperformance of the falling knives generated in each of the years of our study. In our opinion, the chart shows that falling knives generated during periods of rising market volatility tended to outperform, while knives from periods of decreasing volatility generally underperformed.

Non-U.S. Knife Outperformance vs. Market Volatility, 1980-2003



source: MSCI via FactSet; Worldscope via FactSet; The Brandes Institute

From a sector perspective, the distribution of non-U.S. falling knives was generally in line with the index. Financials stocks were slightly over-represented: these firms formed only 17% of the MSCI World ex USA Index at the end of 2000, while 19% of the non-U.S. falling knives we identify came from the financials sector. Other sectors with relatively high levels of falling knives included consumer discretionary, materials, and information technology.



source: MSCI via FactSet; Worldscope via FactSet; The Brandes Institute; data as of 12/31/00

As the table below shows, performance for non-U.S. falling knives was fairly consistent across sectors. Average annualized 3-year outperformance figures were positive for virtually all sectors; only non-U.S. knives from the telecom sector underperformed on average. Falling knives from the energy and utilities sectors outperformed the most strongly, though these knives represented less than 4% of the total non-U.S. group. And like their U.S. counterparts, non-U.S. knives in the information technology sector demonstrated substantial outperformance potential. (For more sector-by-sector information on non-U.S. falling knives, see Appendix C.)

Non-U.S. Falling Knives: Sector-by-Sector Findings, 1980-2003

	# of knives	bankruptcy rate	average outperformance		
			1-year	2-year	3-year
Consumer Discretionary	175	1.1%	1.8%	8.9%	8.3%
Consumer Staples	65	3.1%	-2.4%	4.6%	5.7%
Energy	22	0.0%	25.5%	31.0%	22.4%
Financials	179	2.8%	4.4%	0.0%	0.4%
Health Care	12	8.3%	-9.1%	-8.2%	5.7%
Industrials	212	1.4%	10.7%	4.1%	3.2%
Information Technology	101	1.0%	15.3%	22.2%	15.7%
Materials	139	0.7%	8.3%	6.5%	3.7%
Telecom	20	5.0%	-15.2%	9.5%	-0.7%
Utilities	9	0.0%	26.3%	26.5%	18.2%
Total	934	1.7%	6.8%	7.6%	6.1%

source: Worldscope via FactSet; The Brandes Institute

V. The Predictive Value of Market Capitalization and Enterprise-Value-to-Sales

Does market capitalization have any predictive ability when it comes to falling knife performance? What about enterprise-value-to-sales, a metric analysts sometimes use to compare the valuations of two or more companies? To find out, we examined the relationship between each of these two factors and falling knife performance.

Market Capitalization

Of the 1,904 U.S. falling knives we identified, 1,707 had post-fall market capitalizations of under \$1 billion while 197 had market caps of over \$1 billion.⁴ On average, performance for the two groups was very similar, as the chart below shows. Larger-cap U.S. knives outdistanced the S&P 500 by an average of 6.2% per year over three years. Similarly, smaller-cap U.S. knives posted annualized three-year outperformance of 7.0%.

U.S. Falling Knives: Market Cap and Outperformance, 1980-2003

	<i>post-fall market cap (US\$ mil)</i>	
	<i>\$100 - \$1,000</i>	<i>\$1,000+</i>
# of falling knives	1,707	197
average post-fall cap (US\$ mil)	\$274	\$5,310
bankruptcy rate	9.1%	4.6%
avg. ann. three-year outperformance	7.0%	6.2%

source: Standard & Poor's Compustat[®] data; The Brandes Institute

Interestingly, the year 2000 was unusual in terms of the breakdown between small-cap knives and large-cap knives: while the small-cap/large-cap split averaged about 90%/10% through the rest of the study, the breakdown in 2000 was roughly 75%/25%. And when falling knives from 2000 are excluded from our analysis, annualized three-year outperformance for the remaining large caps jumps to 13.4% while outperformance for the remaining small caps is relatively unchanged at 6.5%.

For non-U.S. knives, those with smaller capitalizations also demonstrated stronger outperformance potential. As the table below indicates, the average large-cap non-U.S. knife beat its country's MSCI index by 2.0% per year over three years. Over the same period, outperformance for the average small-cap non-U.S. knife averaged 7.4%.

Non-U.S. Knives: Market Cap and Outperformance, 1980-2003

	<i>post-fall market cap (US\$ mil)</i>	
	<i>\$100 - \$1,000</i>	<i>\$1,000+</i>
# of falling knives	700	234
average post-fall cap (US\$ mil)	\$382	\$4,050
bankruptcy rate	1.7%	1.6%
avg. ann. three-year outperformance	7.4%	2.0%

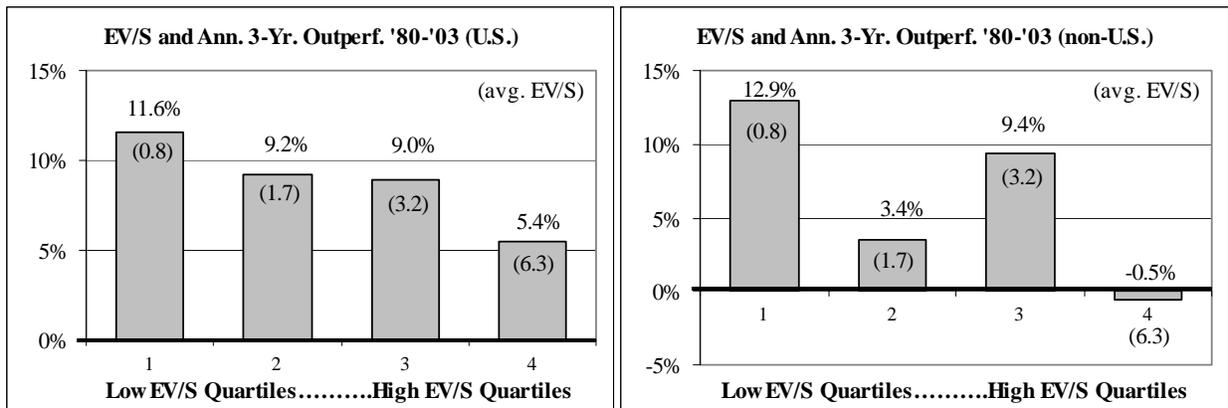
source: Worldscope via Factset; MSCI via FactSet; The Brandes Institute

⁴ We used total market capitalization – share price multiplied by total number of shares outstanding – not “float-adjusted” market cap, which reduces total market cap to reflect freely traded shares.

Enterprise-value-to-sales⁵

To understand the relationship between a falling knife's post-fall enterprise-value-to-sales (EV/S) ratio and its subsequent performance, we sorted our U.S. study's 1,904 knives into quartiles based on their EV/S ratios immediately after their initial fall. Falling knives with the lowest EV/S ratios were grouped in quartile 1. For each consecutive quartile, EV/S ratios increased; this culminated in falling knives with the highest EV/S values forming quartile 4.⁶

As seen in the chart on the left below, U.S. falling knives with lower EV/S ratios posted higher outperformance than those with higher EV/S ratios. On average, quartile 1 knives – with average EV/S ratios of 0.8 – beat the S&P 500 by 11.6% per year over three years. In contrast, the average quartile 4 knives – with an EV/S ratio of 6.3 – beat the S&P 500 by 5.4% annually.



source: Standard & Poor's Compustat[®] data; Worldscope via FactSet; The Brandes Institute

A similar pattern emerged among non-U.S. falling knives, as the chart on the right shows. In our opinion, these results suggest that the ratio of a falling knife's enterprise-value-to-sales may have predictive power when it comes to post-fall outperformance. Specifically, investors could be well served by focusing on knives with lower EV/S ratios.

⁵ Enterprise value is equal to the firm's market capitalization plus the market value of its debt minus any cash and cash equivalents the firm has on hand. Essentially, enterprise value measures the total market value of both the company's equity and its debt – in other words, the full price an acquirer would have to pay to have a 100% claim on the firm's assets and earnings.

⁶ To mitigate the impact of outliers, we excluded falling knives with EV/S ratios greater than 10.

VI. Conclusion

In *Buying the Wrong Stock for the Right Reason*, we examined the performance of falling knives in the U.S. stock market from 1986 through 2002. We found that investors who never catch a falling knife could be foregoing significant opportunity: while the falling knives we identified posted a relatively high bankruptcy rate over the three-year period following their initial drop, the average knife outperformed the S&P 500 by a wide margin. A follow-up study of falling knives in markets outside the United States indicated that non-U.S. knives also appear to offer significant outperformance potential.

In this paper, we enhanced our analysis by conducting parallel reviews of U.S. and non-U.S. falling knives over the 1980 to 2003 period. For both groups of knives, we studied post-fall bankruptcy rates as well as performance versus the benchmark. In addition, we examined falling knives over time, by sector, and – for non-U.S. knives – on a country-by-country basis. Finally, we tested market capitalization and enterprise-value-to-sales ratios as possible predictors of falling knife performance.

Our research yields a variety of conclusions:

- Bankruptcy risk was higher than normal among U.S. falling knives, but even when bankruptcies were counted, the average U.S. knife outperformed the S&P 500 substantially
- While falling knives in non-U.S. markets posted a much lower bankruptcy rate than their U.S.-based counterparts, these non-U.S. knives posted similarly strong outperformance figures on average
- The information technology sector yielded a high proportion of falling knives, and these knives generally outperformed substantially; knives in the utilities sector also tended to perform strongly
- The positively skewed distribution of returns for both U.S. and non-U.S. falling knives suggests that stock selection could be critical to successful falling knife investment
- Enterprise-value-to-sales ratios could help investors identify the most compelling opportunities among falling knives

Appendix A

U.S. Falling Knives: Sector-by-Sector Generation Over Time, 1980-2003

	'80-'82	'83-'84	'85-'86	'87-'88	'89-'90	'91-'92	'93-'94	'95-'96	'97-'98	'99-'00	Total
<i>Consumer Discret.</i>	1	10	5	21	37	5	34	33	82	139	367
<i>Consumer Staples</i>	0	0	1	1	1	1	0	2	8	23	37
<i>Energy</i>	23	2	5	1	4	4	1	2	64	6	112
<i>Financials</i>	1	6	1	8	38	0	2	2	26	36	120
<i>Health Care</i>	1	5	0	12	7	17	19	15	80	87	243
<i>Industrials</i>	11	5	1	6	10	7	14	16	46	91	207
<i>Info. Tech</i>	4	17	9	13	17	13	26	66	195	296	656
<i>Materials</i>	6	0	3	1	10	1	2	0	19	29	71
<i>Telecom</i>	0	1	0	0	2	0	2	6	11	54	76
<i>Utilities</i>	2	3	0	3	1	2	1	0	1	2	15
Total	49	49	25	66	127	50	101	142	532	763	1,904

source: Standard & Poor's Compustat[®] data; The Brandes Institute

The table above illustrates sector-by-sector falling knife generation over time. Each number represents the number of falling knives created in a given sector during a given time period. Column totals represent the total number of knives generated in each time period. Row totals represent the total number of knives generated in each sector.

Appendix B

Country-by-Country Falling Knife Sector Breakdown, 1980-2003

	consumer discret.	consumer staples	energy	financials	health care	industrials	info. tech	materials	telecom	utilities	Total
<i>Australia</i>	11	5	1	2	0	4	2	23	1	0	49
<i>Austria</i>	0	0	0	0	0	1	1	0	0	0	2
<i>Belgium</i>	0	0	0	0	0	0	0	0	0	0	0
<i>Canada</i>	5	2	5	5	3	7	11	24	4	0	66
<i>Denmark</i>	1	0	0	2	0	2	1	0	0	0	6
<i>Finland</i>	1	2	0	3	0	3	1	2	1	0	13
<i>France</i>	8	0	1	11	1	10	3	3	0	0	37
<i>Germany</i>	3	1	0	3	0	12	6	6	2	1	34
<i>Greece</i>	11	7	0	10	2	12	7	5	0	0	54
<i>Hong Kong</i>	16	1	0	46	0	7	3	1	4	0	78
<i>Ireland</i>	1	2	1	1	0	0	1	1	0	0	7
<i>Italy</i>	4	0	1	8	0	11	1	5	0	1	31
<i>Japan</i>	76	26	5	50	4	87	34	40	3	0	325
<i>Netherlands</i>	2	1	0	0	0	6	4	1	3	0	17
<i>New Zealand</i>	0	1	1	4	0	2	0	5	0	1	14
<i>Norway</i>	1	0	6	1	0	2	4	0	0	1	15
<i>Portugal</i>	0	1	0	1	0	0	0	5	0	0	7
<i>Singapore</i>	9	5	0	18	1	6	3	0	0	0	42
<i>Spain</i>	4	2	0	3	0	1	3	11	0	0	24
<i>Sweden</i>	1	0	0	7	0	4	3	2	0	1	18
<i>Switzerland</i>	0	0	0	0	0	2	1	0	0	1	4
<i>United Kingdom</i>	21	9	1	4	1	33	12	5	2	3	91
Total	175	65	22	179	12	212	101	139	20	9	934

source: *Worldscope via FactSet; The Brandes Institute*

The table above illustrates how non-U.S. falling knives break down by sector on a country-by-country basis. Each number represents the number of falling knives from a given country in a given sector. Column totals represent the total number of knives in each sector. Row totals represent the total number of knives in each country.

Appendix C

Non-U.S. Falling Knives: Sector-by-Sector Generation Over Time, 1980-2003

	'80-'82	'83-'84	'85-'86	'87-'88	'89-'90	'91-'92	'93-'94	'95-'96	'97-'98	'99-'00	Total
<i>Consumer Discret.</i>	1	2	1	3	14	26	5	4	70	49	175
<i>Consumer Staples</i>	0	0	0	0	3	10	1	0	26	25	65
<i>Energy</i>	1	1	0	1	0	1	0	0	14	4	22
<i>Financials</i>	8	0	0	15	13	31	3	7	81	21	179
<i>Health Care</i>	0	0	0	1	1	0	1	0	7	2	12
<i>Industrials</i>	2	1	0	4	17	31	13	14	90	40	212
<i>Info. Tech</i>	1	0	0	2	3	9	2	8	20	56	101
<i>Materials</i>	4	2	0	10	12	27	4	3	59	18	139
<i>Telecom</i>	0	0	0	1	0	0	0	0	5	14	20
<i>Utilities</i>	0	0	1	1	0	1	0	1	1	4	9
Total	17	6	2	38	63	136	29	37	373	233	934

source: *Worldscope via FactSet; The Brandes Institute*

The table above illustrates sector-by-sector falling knife generation outside the United States over time. Each number represents the number of falling knives created in a given sector during a given time period. Column totals represent the total number of knives generated in each time period. Row totals represent the total number of knives generated in each sector.

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