Stocks and Stock Indices in APAC – Where are They Going?

Andrew Clark, Head of Innovation and Chief Index Strategist
Lipper, A Thomson Reuters Company

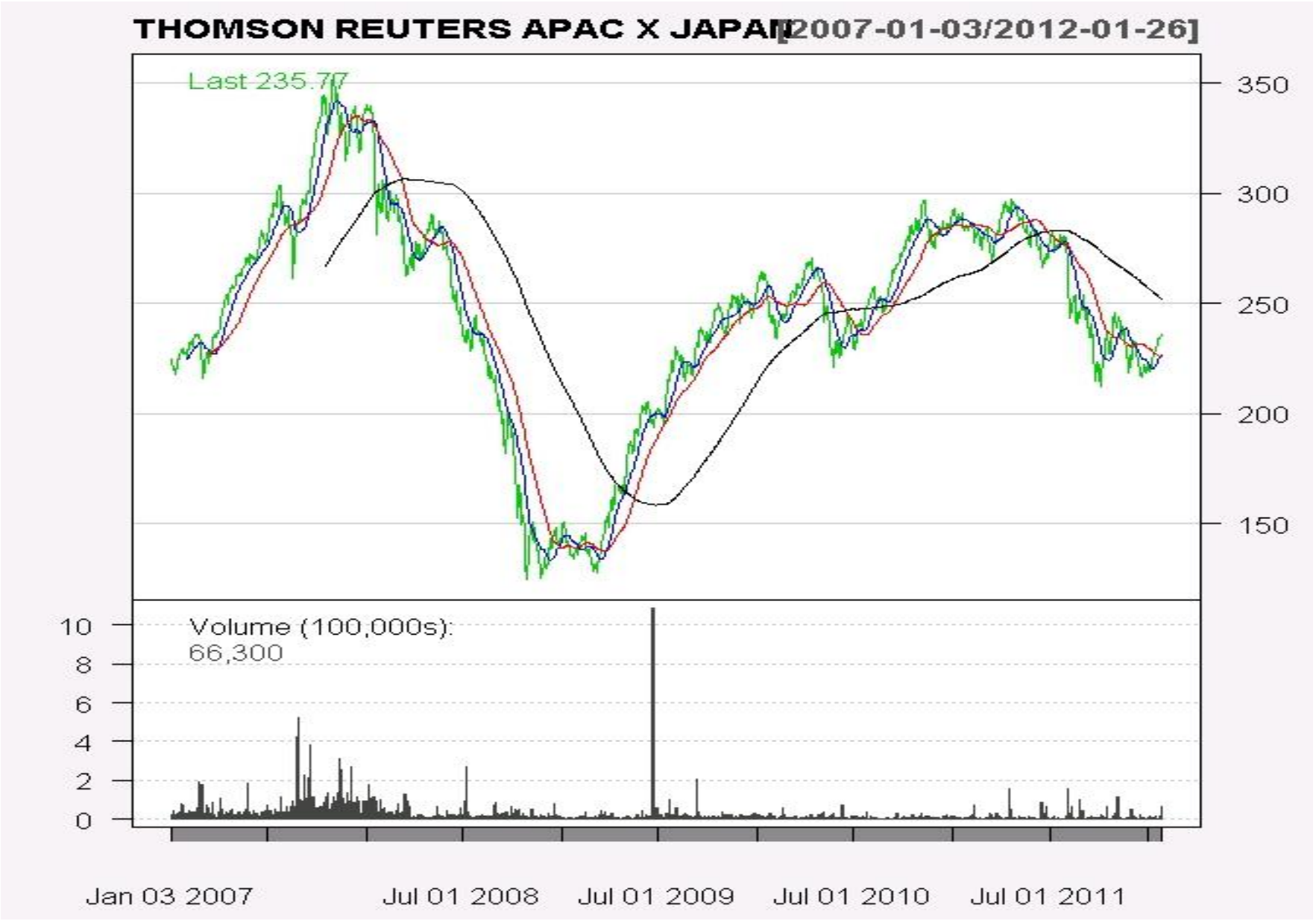
Hubbis Asian Wealth Management Forum 2012
Hong Kong

9th February, 2012

THOMSON REUTERS

Material To Be Covered

- A brief review of APAC x Japan price and volume movements over the past 5 years
- Why is volume generally ignored as an indicator of stock activity
- Classical and Generalized Analytical Techniques
- Applying these to stocks and stock indices to improve insight
- Where are stocks and stock indices going in APAC x Japan?


THOMSON REUTERS APAC X JAPAN [2007-01-03/2012-01-26]
Last 235.77
350
300
250
200
150
Volume (100,000s):
66,300
10
8
6
4
2
0
Jan 03 2007
Jul 01 2008
Jul 01 2009
Jul 01 2010
Jul 01 2011

Volume

- After thought with the financial press
- Mixed reception by stock analysts
  - Limited use by fundamentalists
  - Recognized by technicians and contrarians and used to measure the worth of a market move
    - Assigning a significance to the volume traded is subjective
- No current tools effectively combine volume and price into one numeric measure

Classical and Generalized Analytical Techniques

- Classical
  - Moving Averages
  - Momentum
- Generalized
  - Generalized momentum
  - Energy in the market
  - Generalized Energy in the market

Classical Techniques

- Moving Averages
  - Smoothing of prices over a specified period (days, weeks, months, years)
  - Crossing of Moving Averages
    - Gold and Death Crosses (signaling potential entrance and exit points)
  - Roughness
    - The number of times the averages cross is an indication of volatility

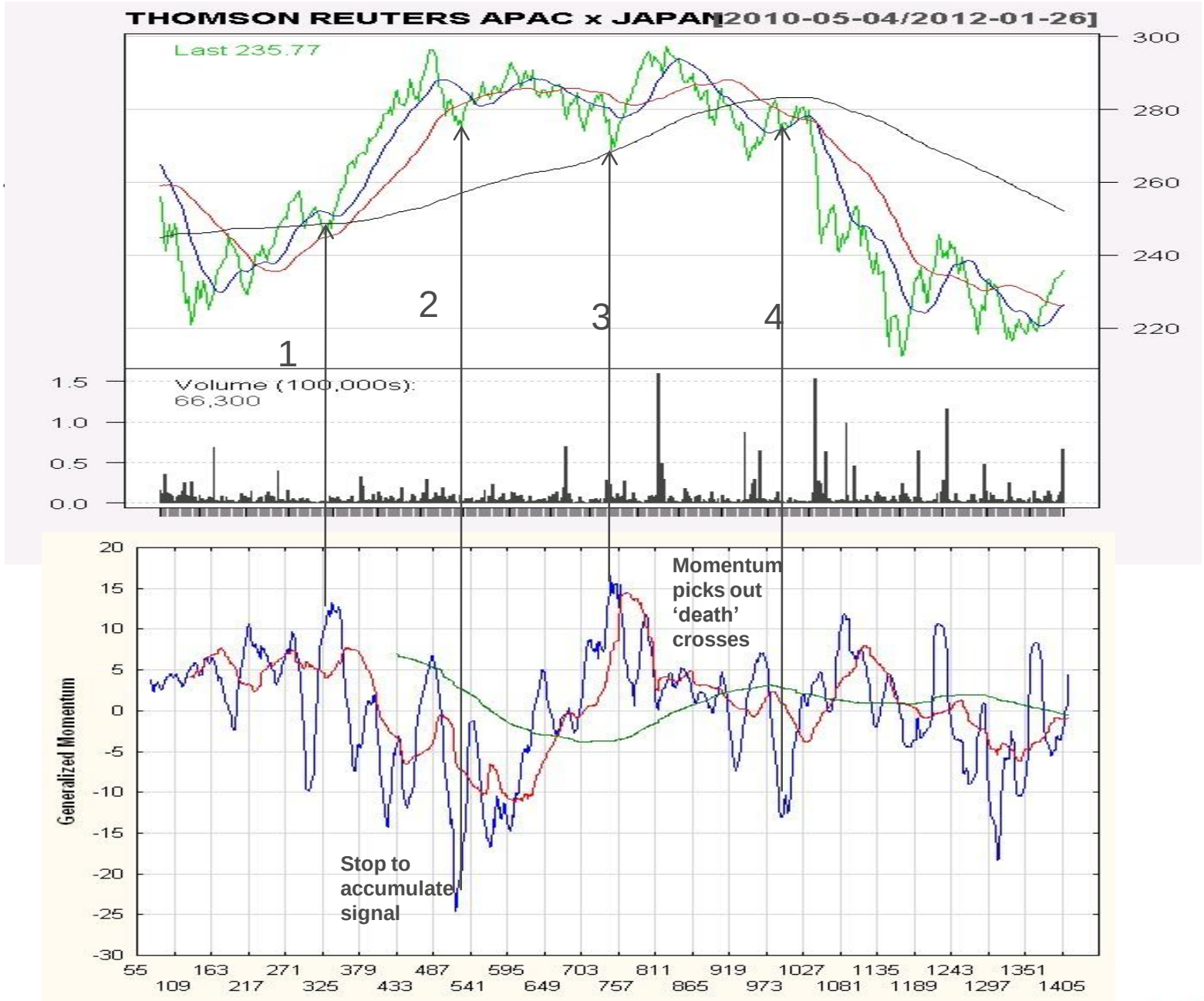
Classical Techniques

- Momentum
  - Change is price over a given period of time
  - As with Moving Averages, multiple time periods are examined
  - And also like Moving Averages, the number of times the momentum periods cross is a measure of roughness (volatility)

Adding Volume to Classical Analysis

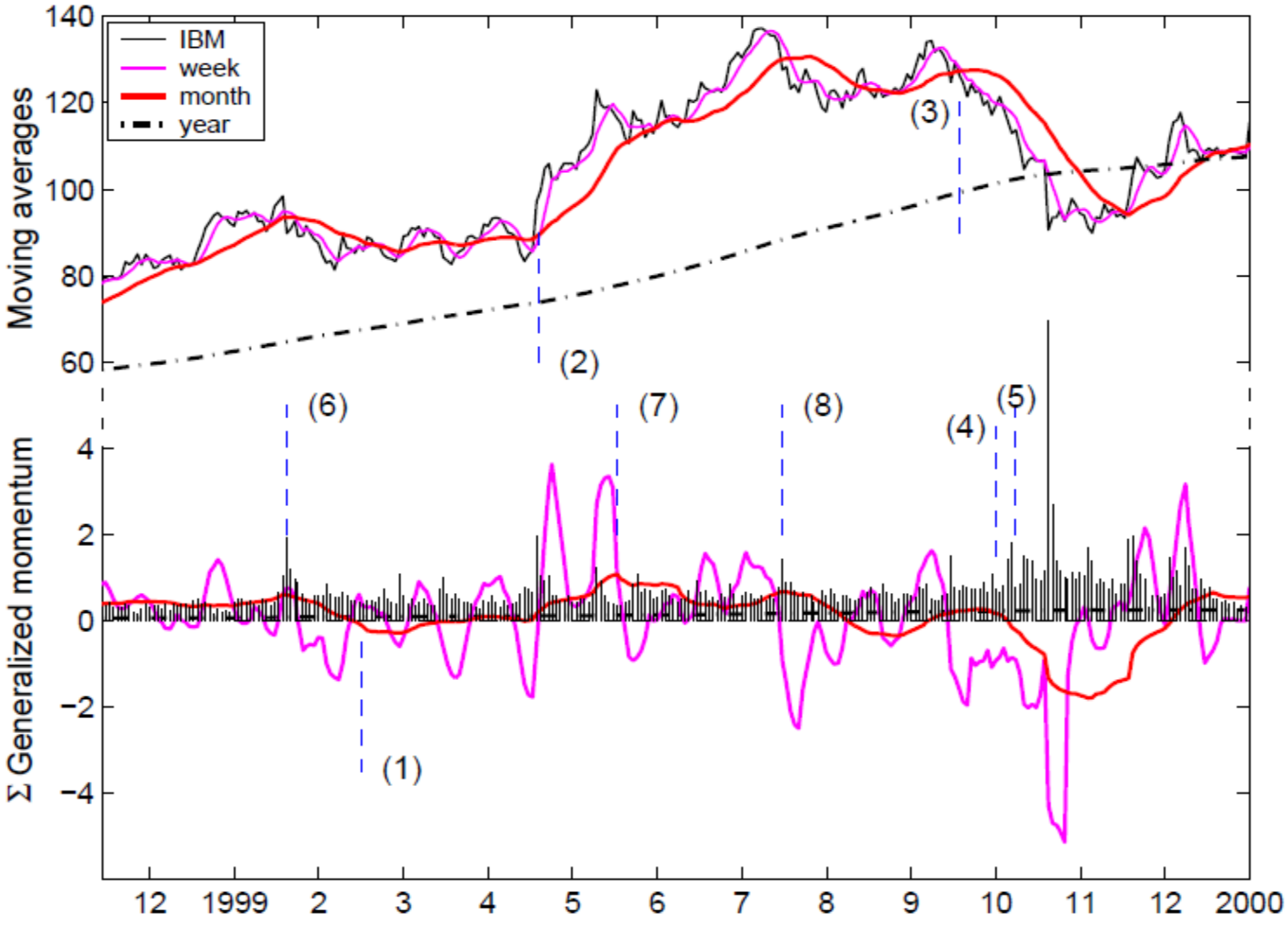
- Stock markets do have another component beside prices or volatilities. This is the volume of transactions.
- It is introduced here as the *physical mass of stocks.*
- Remember that the number of shares is constant over rather long time intervals, i.e. usually between splits, like the mass of an object.

THOMSON REUTERS APAC x JAPAN
[2010-04-30/2012-01-26]
Last 235.77
1
2
3
4
5
6
Volume (100,000s):
66,300
Apr 30 2010
Jun 01 2010
Jul 01 2010
Aug 02 2010
Sep 01 2010
Oct 01 2010
Nov 01 2010
Dec 01 2010
Jan 03 2011
Mar 01 2011
Apr 01 2011
Jun 01 2011
Jul 01 2011
Aug 01 2011
Sep 01 2011
Oct 03 2011
Nov 01 2011
Dec 01 2011
Jan 03 2012

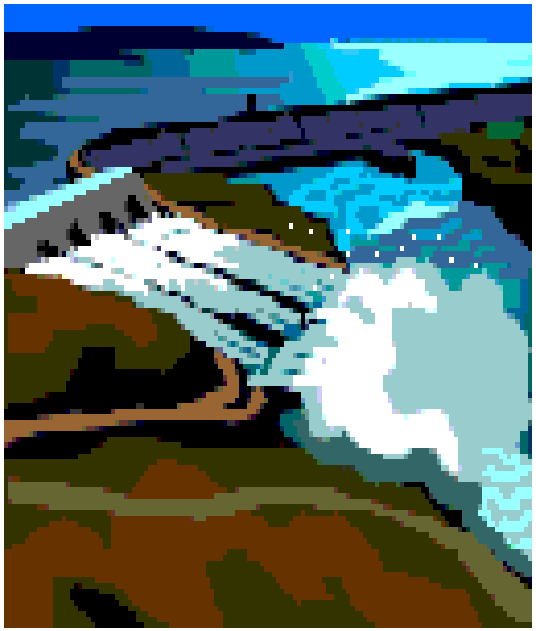

THOMSON REUTERS APAC x JAPAN [2010-05-04/2012-01-26]
Last 235.77
300
280
260
240
220
1
2
3
4
Volume (100,000s):
66,300
1.5
1.0
0.5
0.0
Generalized Momentum
20
15
10
5
0
-5
-10
-15
-20
-25
-30
Momentum picks out 'death' crosses
Stop to accumulate signal
55 109 163 217 271 325 379 433 487 541 595 649 703 757 811 865 919 973 1027 1081 1135 1189 1243 1297 1351 1405

Classical vs. Generalized Momentum

- Both techniques give you entry points
  - Classical just before the initial signal such as the “golden” cross
  - Generalized just after so it tends to be a confirming signal
- Generalized momentum gives a clear stop to accumulate signal (line [2])
- Generalized momentum picks out “death” cross(es) and confirmation of same (line [4])
- Classical momentum gives a fuzzier signal of when to stop to accumulating and does not necessarily confirm exit signals
  - No real signal
  - Relies on “death” cross

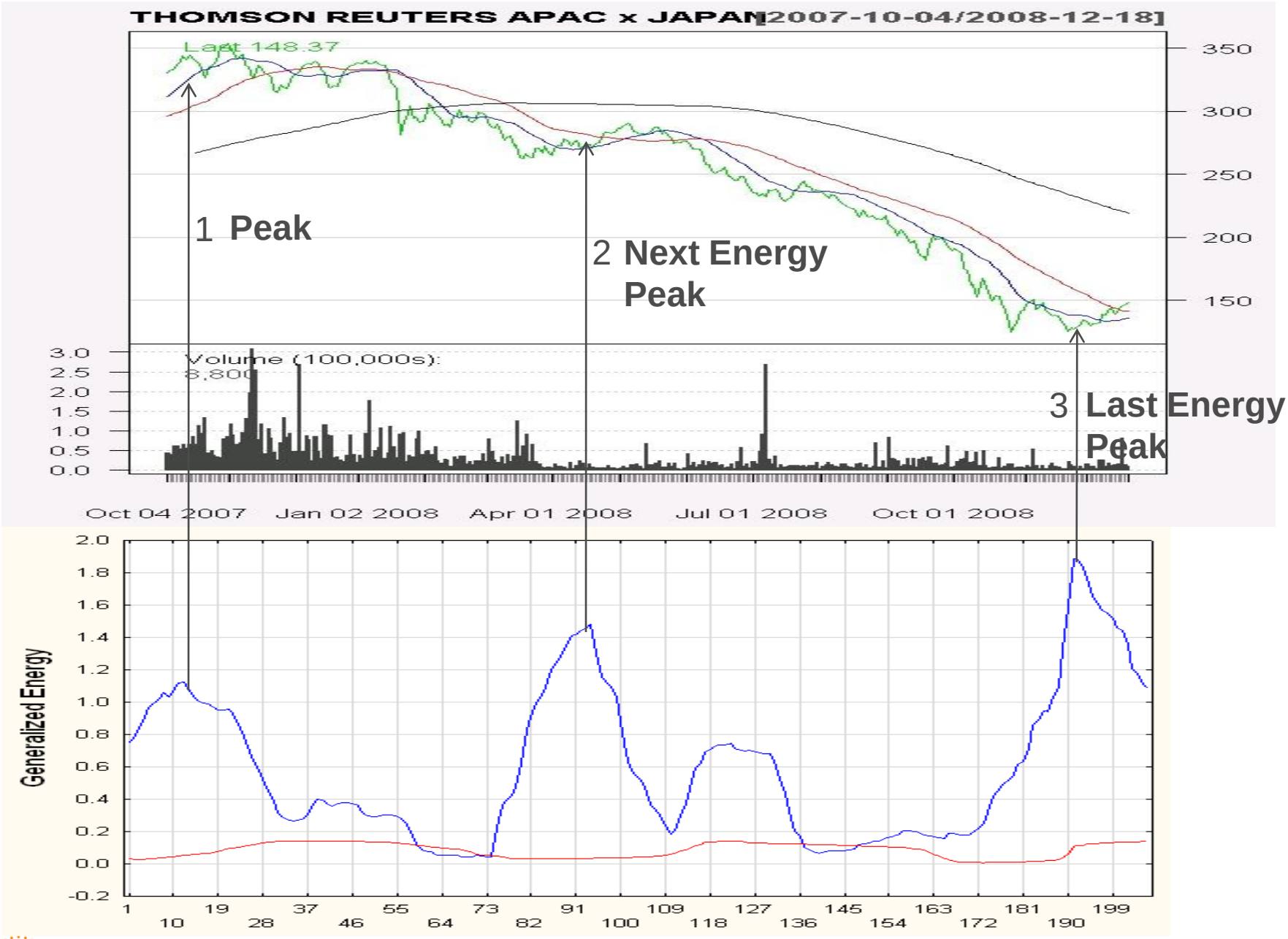

IBM
week
month
year
Moving averages
140
120
100
80
60
(1)
(2)
(3)
(4)
(5)
(6)
(7)
(8)
Σ Generalized momentum
4
2
0
−2
−4
12
1999
2
3
4
5
6
7
8
9
10
11
12
2000

Which Produces More Energy?



Energy and Momentum

- Mechanically speaking, it can be said that some energy accumulates through the interplay of price and volume
- This causes a general force or pressure to arise
- We'll call this force the energy in the market
- The energy ranges from small to strong


THOMSON REUTERS APAC x JAPAN [2007-10-04/2008-12-18]
Last 148.37
350
300
250
200
150
1 Peak
2 Next Energy Peak
3 Last Energy Peak
Volume (100,000s):
3.0
2.5
2.0
1.5
1.0
0.5
0.0
Oct 04 2007
Jan 02 2008
Apr 01 2008
Jul 01 2008
Oct 01 2008
Generalized Energy
2.0
1.8
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
-0.2
1
10
19
28
37
46
55
64
73
82
91
100
109
118
127
136
145
154
163
172
181
190
199

Generalized Energy

- The peak and associated drop off signified by line (1) (approx. Oct. 2007) indicates the market has “run out of steam”
- This is confirmed by the related Generalized Momentum indicator (not shown)
- The following 5+ months shows the market struggling

Generalized Energy

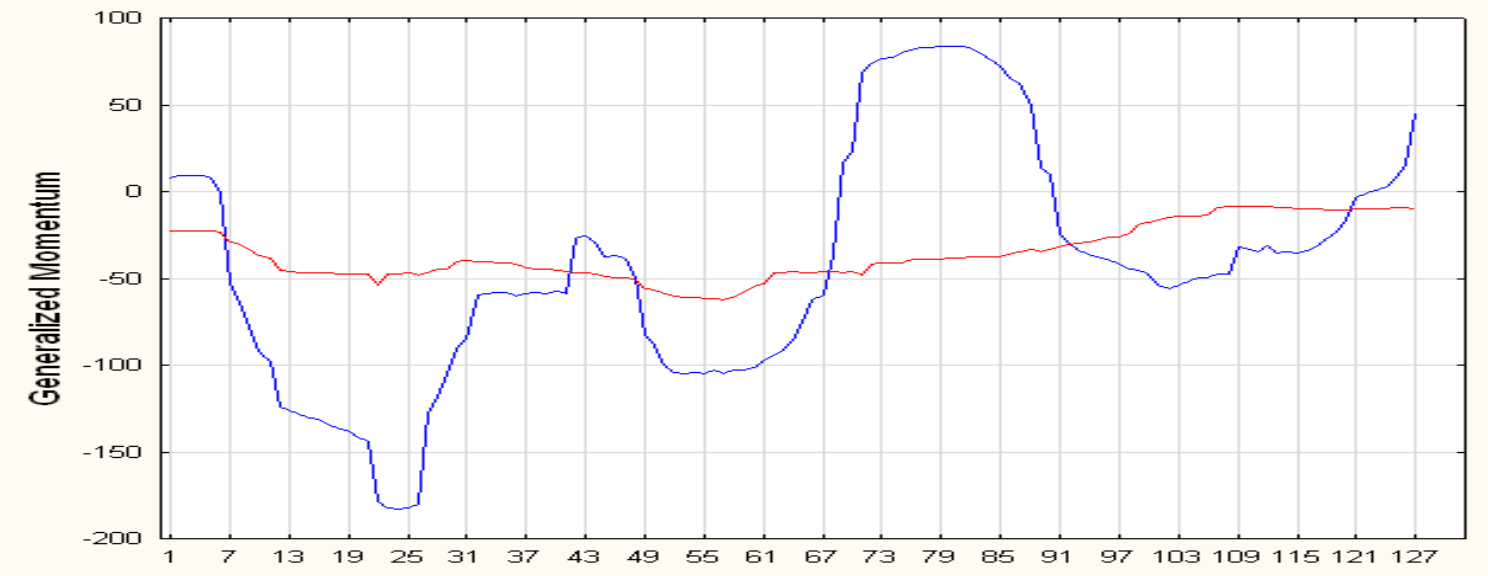
- The market “throws in the towel” just after the next energy peak occurs (which is bigger than the first) (Line 2)
- Again confirmed by generalized momentum
- Finally, at the last energy peak (line 3), the energy associated with the sell-off dissipates, setting the stage for the recovery, which occurs after the dissipation
- Also confirmed by generalized momentum

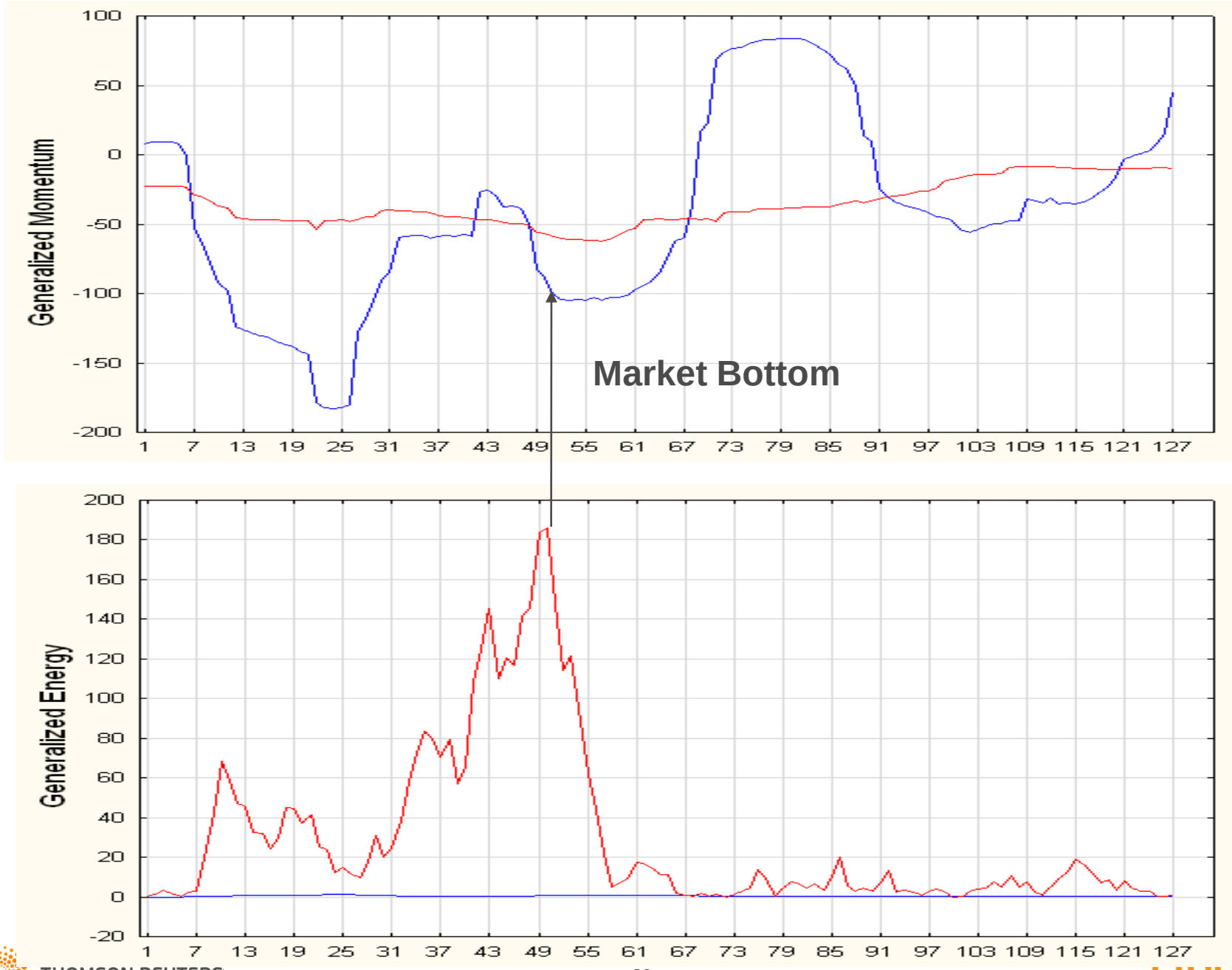
Generalized vs. Classical

- Both rely upon moving averages – various "crosses" to either indicate entry and exit points or they anticipate them
- Both tend to give confirming signals but Classical less often
- Generalized gives clear signals for when accumulation needs to stop
- Generalized makes clear the relationship between momentum and the underlying forces in the market
- Most importantly a joint signal from momentum and energy warns of exhaustion points

WHERE IS APAC X JAPAN GOING?

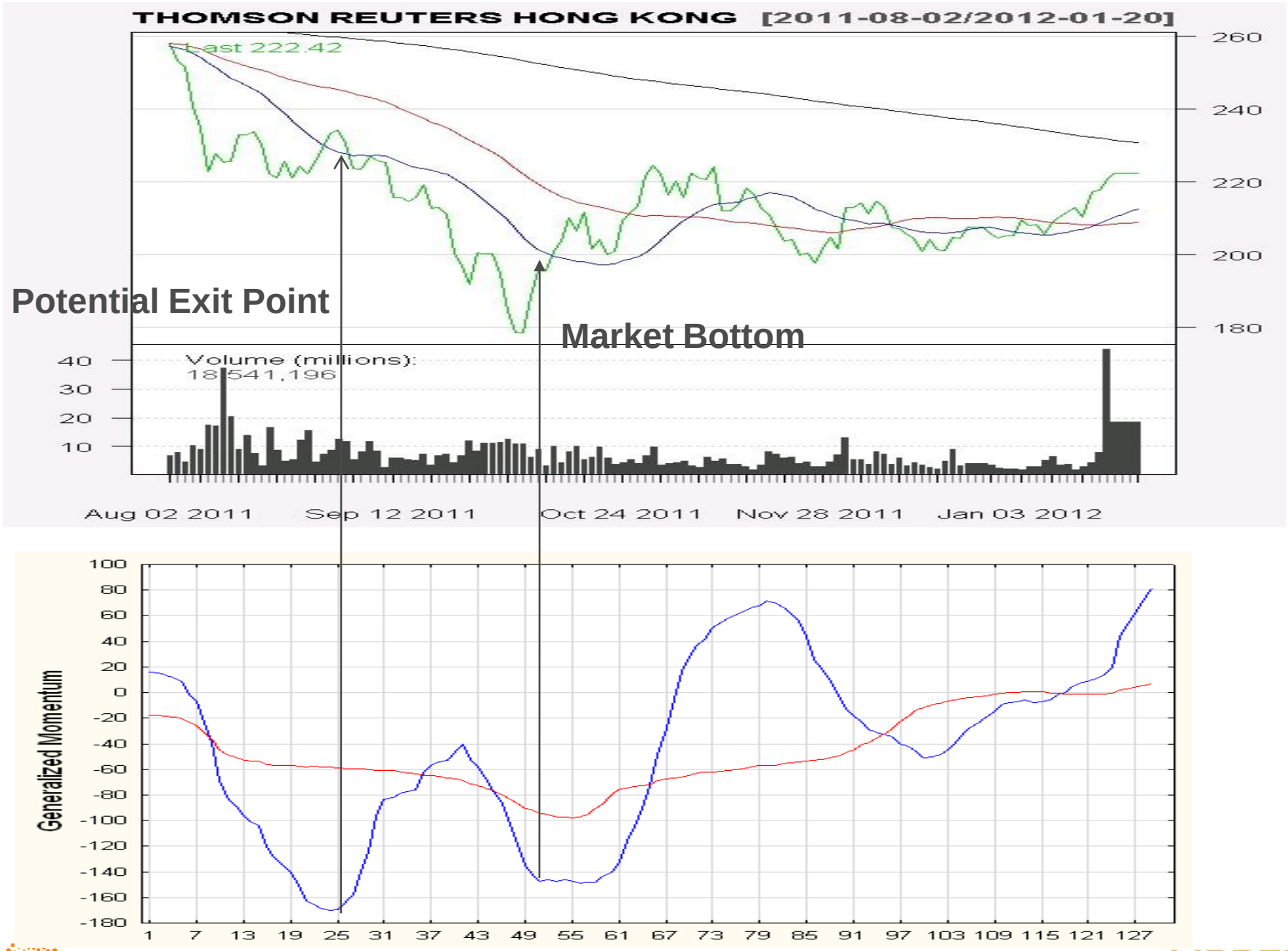
THOMSON REUTERS APAC x JAPAN[2011-07-28/2012-01-26]
Last 235.77
280
270
260
250
240
230
220
210
1.5
1.0
0.5
0.0
Volume (100,000s):
66,300
Jul 28 2011
Sep 06 2011
Oct 17 2011
Nov 21 2011
Jan 03 2012

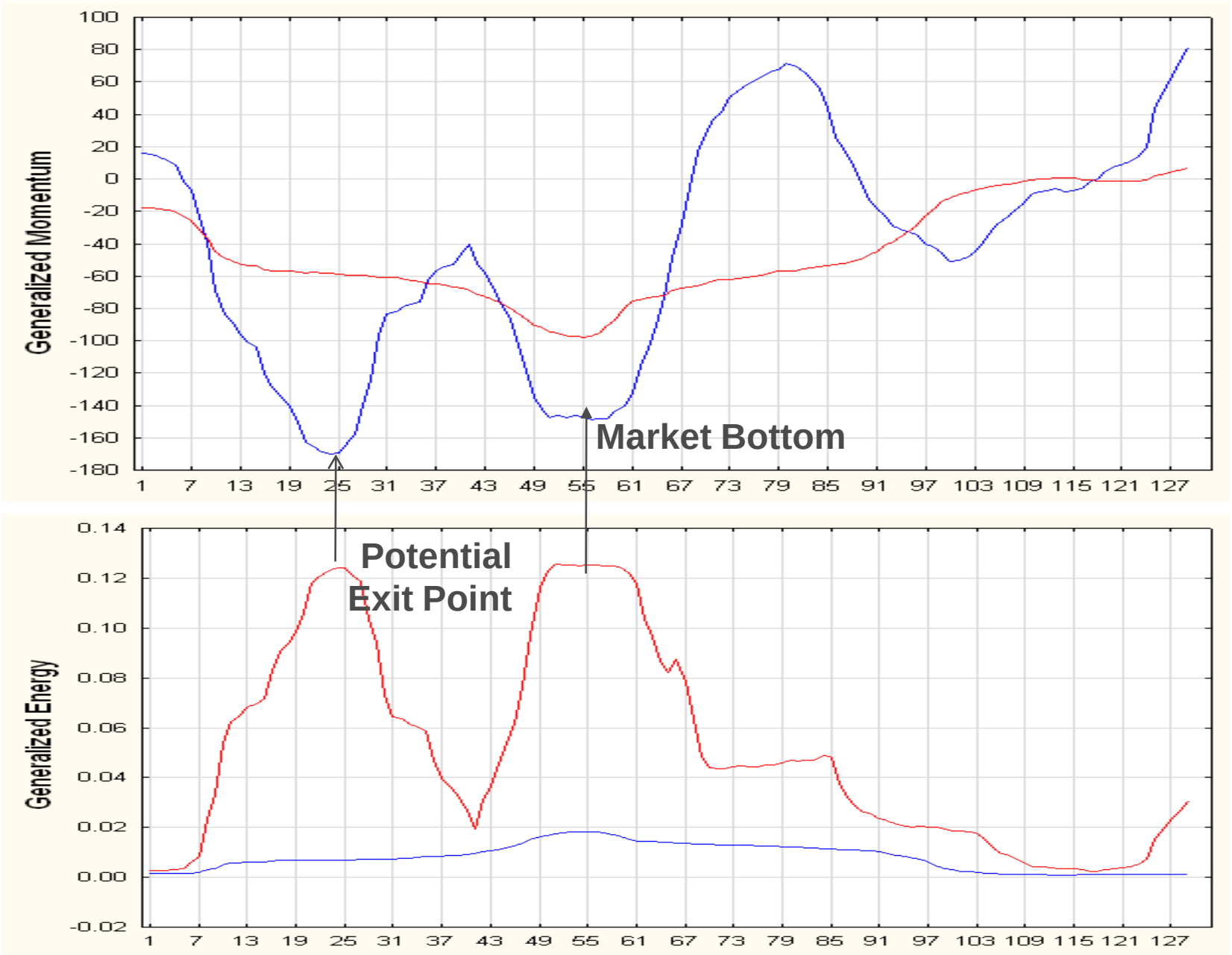

Generalized Momentum
100
50
0
-50
-100
-150
-200
1
7
13
19
25
31
37
43
49
55
61
67
73
79
85
91
97
103
109
115
121
127


Generalized Momentum
100
50
0
-50
-100
-150
-200
1 7 13 19 25 31 37 43 49 55 61 67 73 79 85 91 97 103 109 115 121 127
Market Bottom
Generalized Energy
200
180
160
140
120
100
80
60
40
20
0
-20
1 7 13 19 25 31 37 43 49 55 61 67 73 79 85 91 97 103 109 115 121 127

APAC x JAPAN OUTLOOK

- A golden cross is appearing
- Momentum clearly up
- Energy – the force behind the market – near historic lows
- So the “pressure” – the mix of price & volume – is in approximate equilibrium
- For the index to move up 10%
  - Volume can stay where it is or rise but not fall
- If volume falls 10% - 20%
  - Prices could fall 10%


THOMSON REUTERS HONG KONG [2011-08-02/2012-01-20]
Last 222.42
260
240
220
200
180
Potential Exit Point
Market Bottom
Volume (millions):
18,541,196
40
30
20
10
Aug 02 2011
Sep 12 2011
Oct 24 2011
Nov 28 2011
Jan 03 2012
Generalized Momentum
100
80
60
40
20
0
-20
-40
-60
-80
-100
-120
-140
-160
-180
1
7
13
19
25
31
37
43
49
55
61
67
73
79
85
91
97
103
109
115
121
127


Generalized Momentum
100
80
60
40
20
0
-20
-40
-60
-80
-100
-120
-140
-160
-180
1 7 13 19 25 31 37 43 49 55 61 67 73 79 85 91 97 103 109 115 121 127
Market Bottom
Potential
Exit Point
Generalized Energy
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.00
-0.02
1 7 13 19 25 31 37 43 49 55 61 67 73 79 85 91 97 103 109 115 121 127

HONG KONG OUTLOOK

- Short and Medium Term momentum up
- Energy is rising so pressure, though limited at this pt, is increasing (could bear watching)
- For prices to rise, there must be volume follow through
- We say this because over the past 5 years, every increase in price above 220 (current index price) is accompanied by an increase in volume
- So any sustained price rise in the HK index must be followed by a rise in volume
- There is plenty of room for volume and/or prices to rise before the energy levels get high

Conclusions

- Current classical techniques are good at identifying entry points but just ok for exits
- Old market saying, “The market signals 1000s of entry points but few exits”
- Generalized techniques – those that marry price and volume and examine the energy in the market
- Add insight and confirm entry and exit points
- Signals when accumulation needs to stop
- They also signal, via energy alone or in conjunction with momentum, exhaustion points

Conclusions

- Examining the generalized output in conjunction with price and volume allows statements to be made about the interrelationship of price and volume in the future
- Open question: can the generalized indicators in conjunction with moving averages and classical momentum be used to develop an investment strategy?

Conclusions

- The “R” code to produce the generalized indicators is available from the presenter (“R” is math and stats freeware)
- The code requires good working knowledge of basic “R” and *is not* a Thomson Reuters product
- The presenter is making it available so others can test the generalized indicators themselves

QUESTIONS?

CONTACT INFORMATION

Andrew Clark
Head of Innovation and Chief Index Strategist
Lipper, A Thomson Reuters Company
Andrew.Clark@thomsonreuters.com
+1 303 941 6017