

# When one company sneezes, who catches the cold?

## Mapping the Networked Economy

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# Mission: Build an Economic Graph that Uncovers Linkages of Companies

Firms do not exist in isolation  
and are linked to each other



What do companies do?  
Who do they work with?  
Where do they sell?



**3**

Datasets

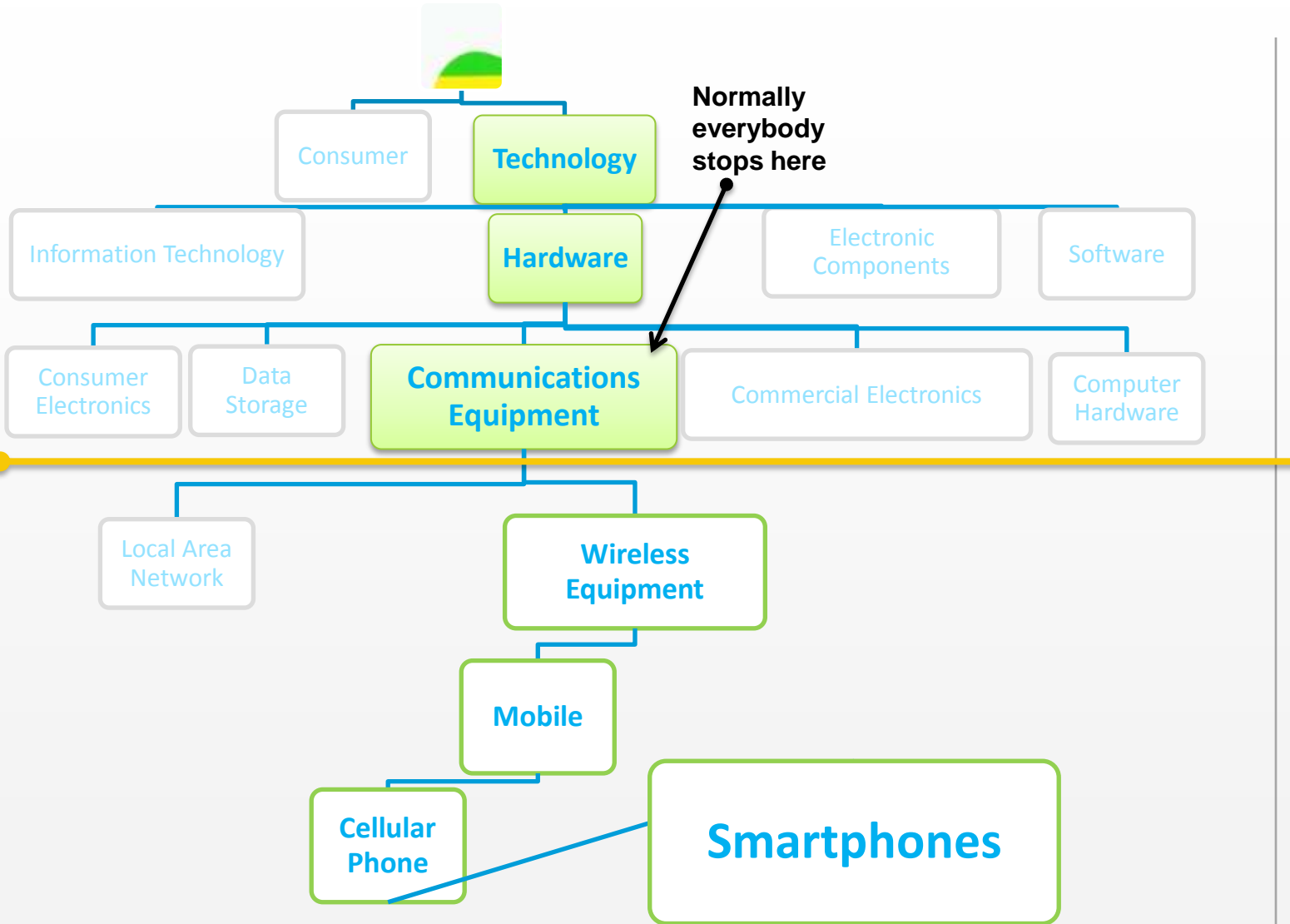
-  Patented **Industry Classification**
-  Map **Relationships Ecosystem**
-  Map **Geo-Exposure**

# Core information about companies

- + Question 1: What do companies do?
- + Question 2: Who do they work with?
- + Question 3: Where do they generate revenues from?



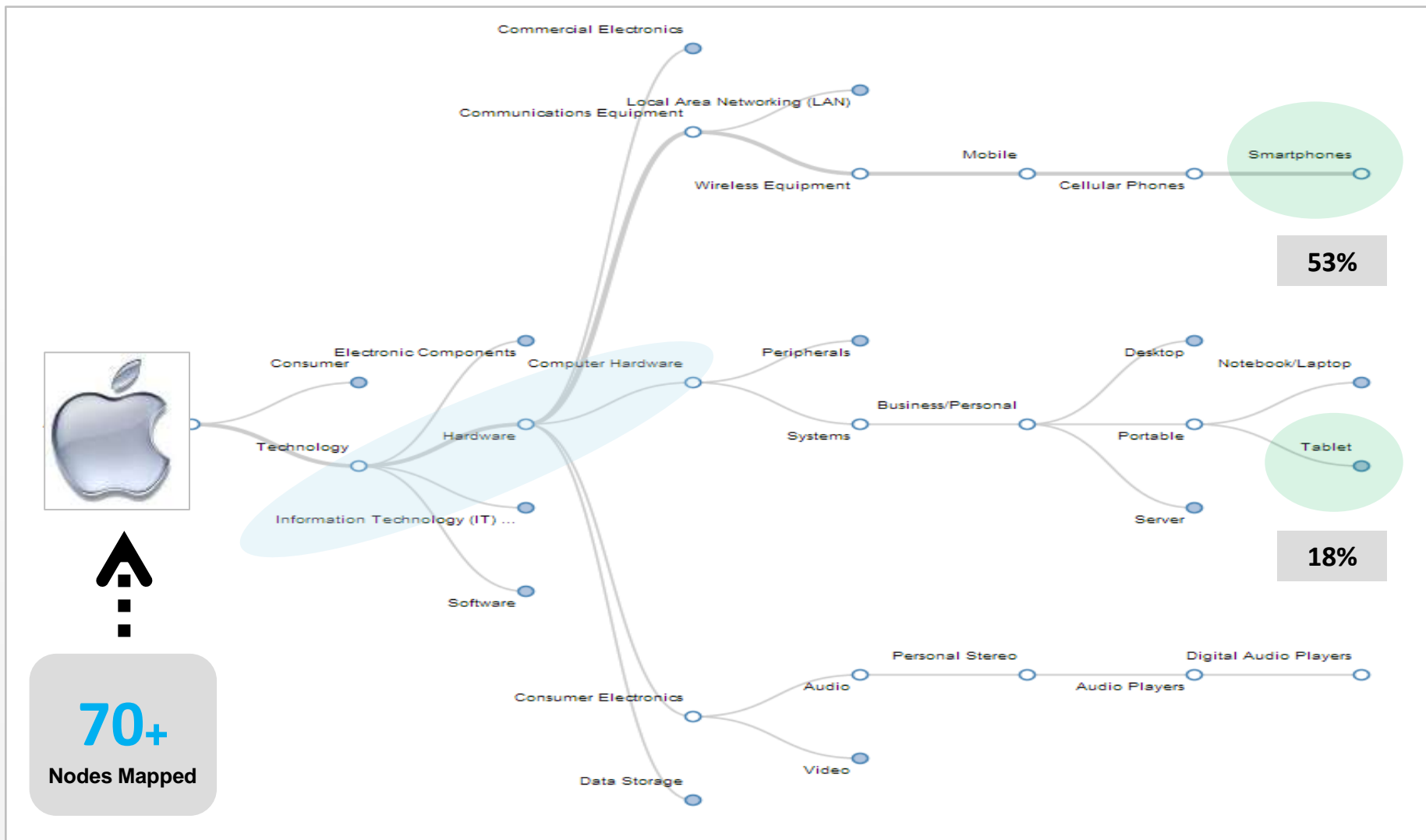
# Classification Application: Better Peer Group, Higher Signal-to-Noise



Computer Hardware by Conventional System?



# FactSet Reverse Classification: A Patented System in 7000+ Levels



## Bottom-Up Classification Delivers Never Before Accuracy

Company	GICS Level 2 - 4	RBICS Level 1 - 4
Google Inc.	Information Technology > <b>Software and Services (3)</b>	Consumer Production>Consumer Media > <b>Consumer Web Navigation (3)</b>
Visa Inc.	Information Technology > Software & Services > <b>IT Services (4)</b>	Business and Transportation>Professional Services > Electronic Transaction Processing and Clearinghouse Activities > <b>Electronic Payment Processing (4)</b>
Apple Inc.	Information Technology > Technology Hardware > <b>Computer &amp; Peripherals&gt;(4)</b>	Technology Hardware > Communications Equipment>End User Communication Products > <b>Cellular Phones, Pagers and Accessories(4)</b>

# FactSet Classification vs. GICS comparison

## Sector: Finance

Name	Ticker	GICS_Sector (Level 1)	GICS_Industry (Level 3 out of 4)	RBICS (Level 1)	RBICS (Level 4 out of 6)
Standard Chartered PLC	SCBFF	Financials	Commercial Banks	Finance	Banking Asia/Pacific
Credit Suisse Group AG	CS	Financials	Capital Markets (Diversified Capital Markets L4)	Finance	Asset Management and Financial Advisory
Deutsche Bank AG	DB	Financials	Capital Markets (Diversified Capital Markets L4)	Finance	Investment Banking and Corporate Finance
AXA SA	AXAHY	Financials	Insurance (Multi Line Insurance L4)	Finance	Life and Health Insurance and Reinsurance
ING Groep NV	ING	Financials	Diversified Financial Services (Other Diversified Financial Services L4)	Finance	Life and Health Insurance and Reinsurance
Zurich Insurance Group Ltd.	ZURVY	Financials	Insurance (Multi Line Insurance L4)	Finance	Property and Casualty Insurance



# RBICS Deepens Performance and Risk Exposure Understanding



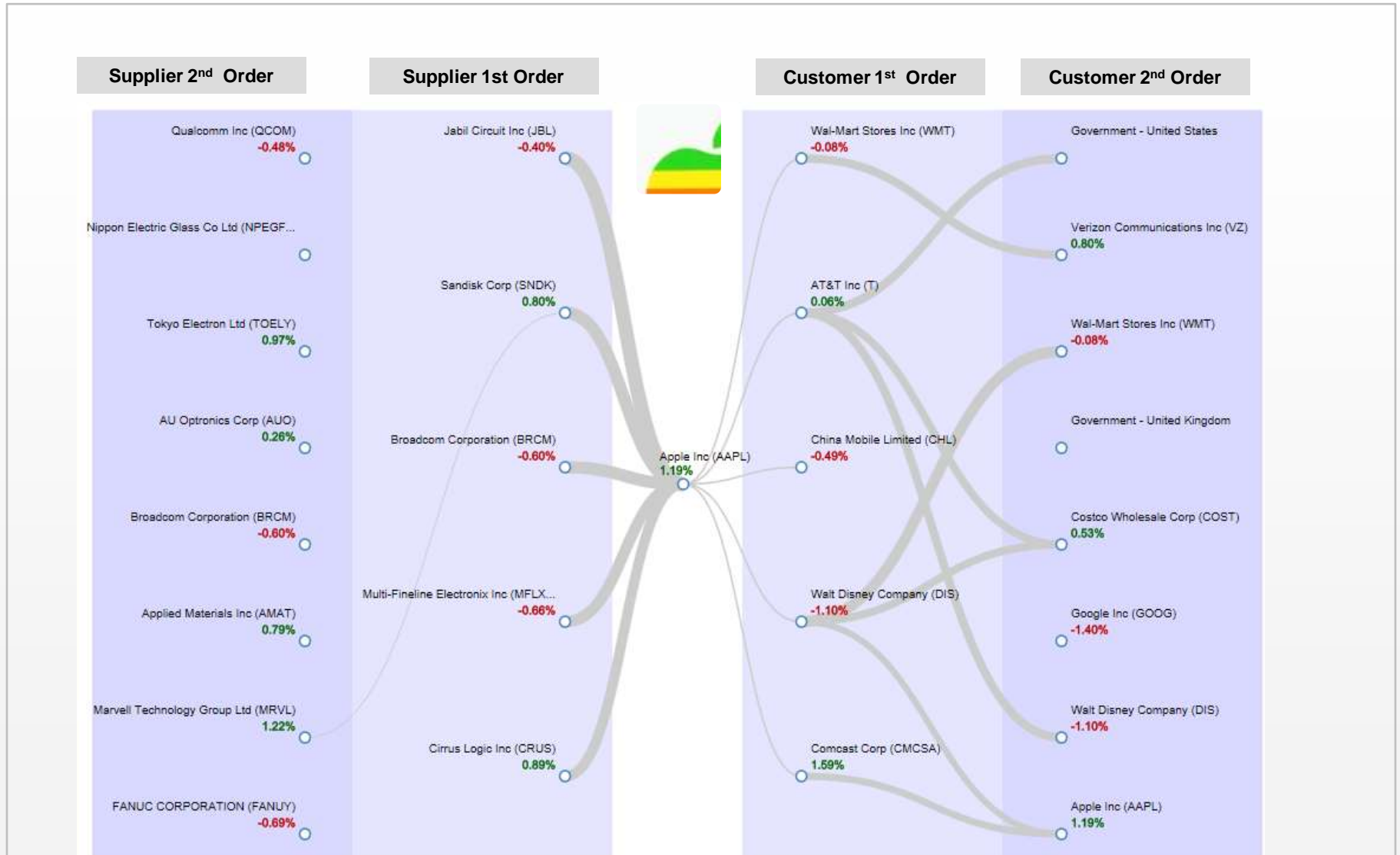
Barclay Sector vs. RBICS	YTD Return	OAS	YTM	Duration	S&P Rating
<b>Oil Field Services</b> (Barclays Classification)	6.7%	122	3.32	7.77	BBB
<b>Onshore Drilling</b> (RBICS)	7.41%	103	2.69	4.59	BBB
<b>Offshore Drilling</b> (RBICS)	5.16%	149	3.35	6.45	BBB-

- **Onshore Drilling** has lower risk profiles and higher return, hence its risk-adjusted return is much more favorable than either **Oil Field Services** or **Offshore Drilling**.
- Market is pricing Onshore and Offshore drilling differently, and investors should differentiate these sector bets.
- This differentiation wouldn't have been visible without RBICS.

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# FactSet Revere Supply Chain: Information Advantage via Inter-linkages Visibility



# Capture Significance of Revenue Dependencies Not Disclosed by Target Companies

## Only 2 out of 291 Suppliers of Samsung are Disclosed by Samsung

Samsung Electronics Co., Ltd. (005930-KR) W1,201,000.00 Next Rpt Date: 24 Oct '14 Key Statistics FactSet Fundamentals

All Values in KRW

All Suppliers (291)

T Defined by Target O Defined by Other B Defined by Both

<input type="checkbox"/>	Company Name	Related Revenue (%)	Market Value (M)	FactSet Sector	FactSet Industry	Country
<input type="checkbox"/>	O D.ID Corp.	87.50	39,543	Electronic Technology	Electronic Components	
<input type="checkbox"/>	O Partron Co., Ltd.	80.00	576,766	Electronic Technology	Electronic Components	
<input type="checkbox"/>	O Audience, Inc.	63.00	199,094	Electronic Technology	Semiconductors	
<input type="checkbox"/>	O Elk Corp Npv	61.61	-	Distribution Services	Medical Distributors	
<input type="checkbox"/>	O Universal Display Corporation	60.00	1,651,875	Electronic Technology	Electronic Components	
<input type="checkbox"/>	O Samsung Electro-Mechanics Co., Ltd	56.30	4,040,929	Electronic Technology	Electronic Components	
<input type="checkbox"/>	O QuickLogic Corporation	56.00	186,266	Electronic Technology	Semiconductors	
<input type="checkbox"/>	O Signetics Corporation	55.00	136,308	Electronic Technology	Electronic Components	
<input type="checkbox"/>	O BSE Holdings Co., Ltd	49.12	72,988	Technology Services	Information Technology Services	
<input type="checkbox"/>	O Immersion Corporation	47.00	288,274	Electronic Technology	Computer Peripherals	
<input type="checkbox"/>	O TES Co., Ltd.	42.50	149,169	Electronic Technology	Electronic Production Equipment	
<input type="checkbox"/>	O Silicon Image, Inc.	40.20	399,084	Electronic Technology	Semiconductors	
<input type="checkbox"/>	O ANADIGICS, Inc.	40.00	64,874	Electronic Technology	Semiconductors	
<input type="checkbox"/>	O UBIC, Inc.	39.10	274,883	Commercial Services	Miscellaneous Commercial Services	
<input type="checkbox"/>	O Youngwoo Telecom Co., Ltd.	36.64	55,017	Electronic Technology	Telecommunications Equipment	
<input type="checkbox"/>	O INZI Display Co., Ltd	35.17	72,452	Electronic Technology	Electronic Components	
<input type="checkbox"/>	O Invensense, Inc.	35.00	2,185,660	Electronic Technology	Semiconductors	
<input type="checkbox"/>	O Mattson Technology, Inc.	35.00	191,748	Electronic Technology	Electronic Production Equipment	
<input type="checkbox"/>	O Samsung SDI Co., Ltd	34.50	10,620,470	Electronic Technology	Electronic Components	
<input type="checkbox"/>	O Rambus Inc.	33.00	1,465,657	Electronic Technology	Semiconductors	
<input type="checkbox"/>	O Micronics Japan Co., Ltd.	29.80	1,177,845	Electronic Technology	Electronic Production Equipment	
<input type="checkbox"/>	O Shinwha Intertek Co., Ltd.	29.56	68,539	Process Industries	Industrial Specialties	
<input type="checkbox"/>	O Maxim Integrated Products, Inc.	28.00	9,056,212	Electronic Technology	Semiconductors	
<input type="checkbox"/>	O Synaptics Incorporated	28.00	3,115,137	Electronic Technology	Computer Peripherals	
<input type="checkbox"/>	O RF Micro Devices, Inc.	25.00	3,546,983	Electronic Technology	Semiconductors	
<input type="checkbox"/>	O PDF Solutions, Inc.	24.00	632,697	Electronic Technology	Electronic Production Equipment	
<input type="checkbox"/>	O Giantplus Technology Co., Ltd.	22.45	196,929	Electronic Technology	Computer Peripherals	



## Capture Important Partnerships Ignored by Other Providers

Biogen (BIIB) and Swedish Orphan Biovitrum (SOBI) do **not** have a Supplier-Customer Relationship, but are very **dependent** upon **each other via Research Collaboration**.










Relationship: Partners Report: Description Currency: Local

**Biogen Idec Inc. (BIIB)** \$314.57 Next Rpt Date: 22 Jul '14 Key Statistics FactSet Fundamentals

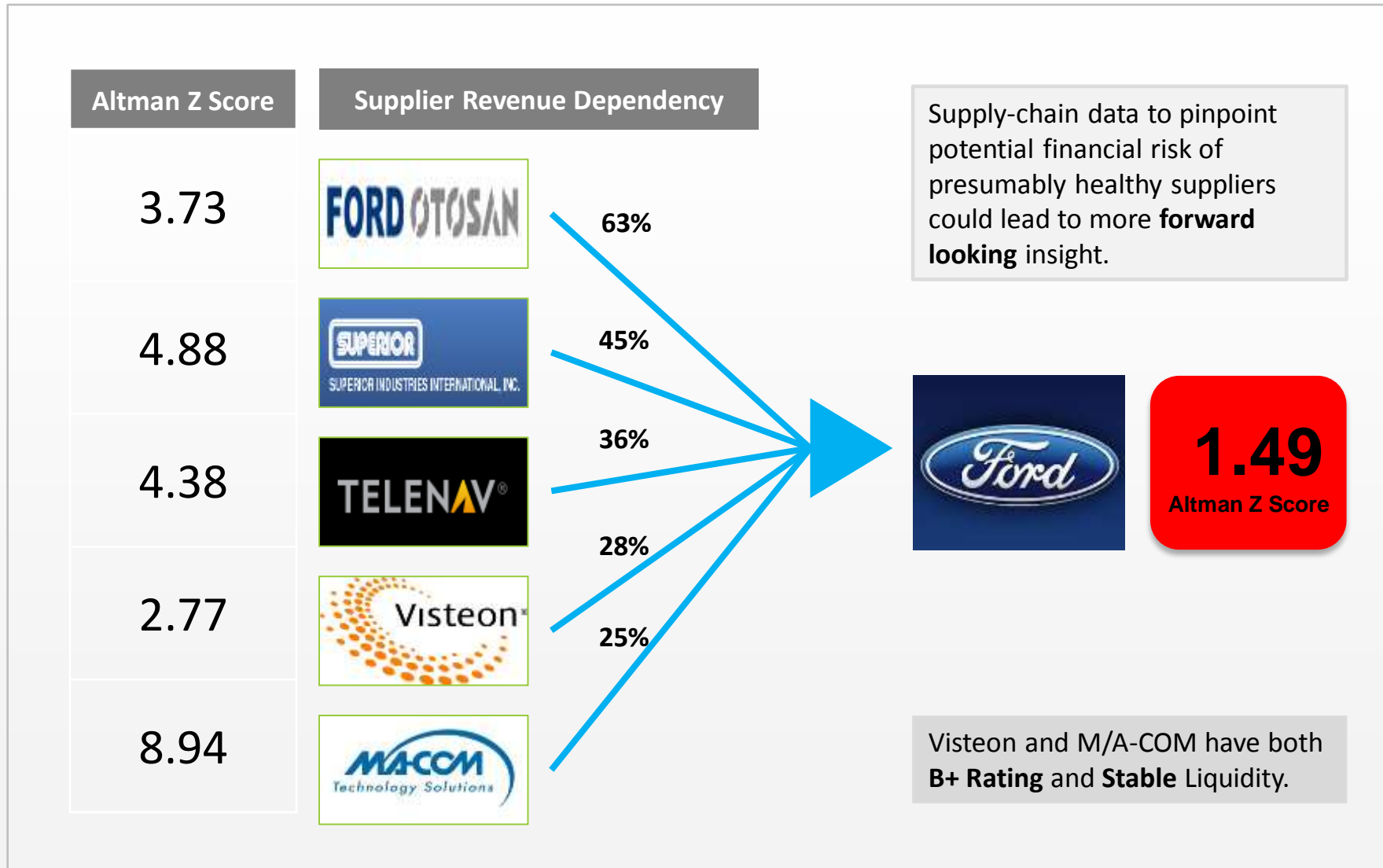
All Values in U

All Partners (24 of 24)  

T Defined by Target O Defined by Other B Defined by Both

<input type="checkbox"/>	Company Name	Related Revenue (%)	Market Value (M)	FactSet Sector	FactSet Industry	Country
<input type="checkbox"/>	B AbbVie, Inc.	-	85,212	Health Technology	Pharmaceuticals: Major	
<input type="checkbox"/>	B Eisai Co., Ltd.	-	12,392	Health Technology	Pharmaceuticals: Other	
<input type="checkbox"/>	B Swedish Orphan Biovitrum AB	-	3,488	Health Technology	Biotechnology	
<input type="checkbox"/>	B UCB S.A.	-	16,272	Health Technology	Pharmaceuticals: Other	
<input type="checkbox"/>	B Portola Pharmaceuticals, Inc.	-	1,184	Health Technology	Pharmaceuticals: Other	
<input type="checkbox"/>	B Acorda Therapeutics, Inc.	-	1,423	Health Technology	Biotechnology	
<input type="checkbox"/>	B Medicines Company	-	1,863	Health Technology	Biotechnology	
<input type="checkbox"/>	B Sangamo BioSciences, Inc.	-	1,064	Health Technology	Biotechnology	
<input type="checkbox"/>	T Roche Holding Ltd Genusssch.	-	254,024	Health Technology	Pharmaceuticals: Major	

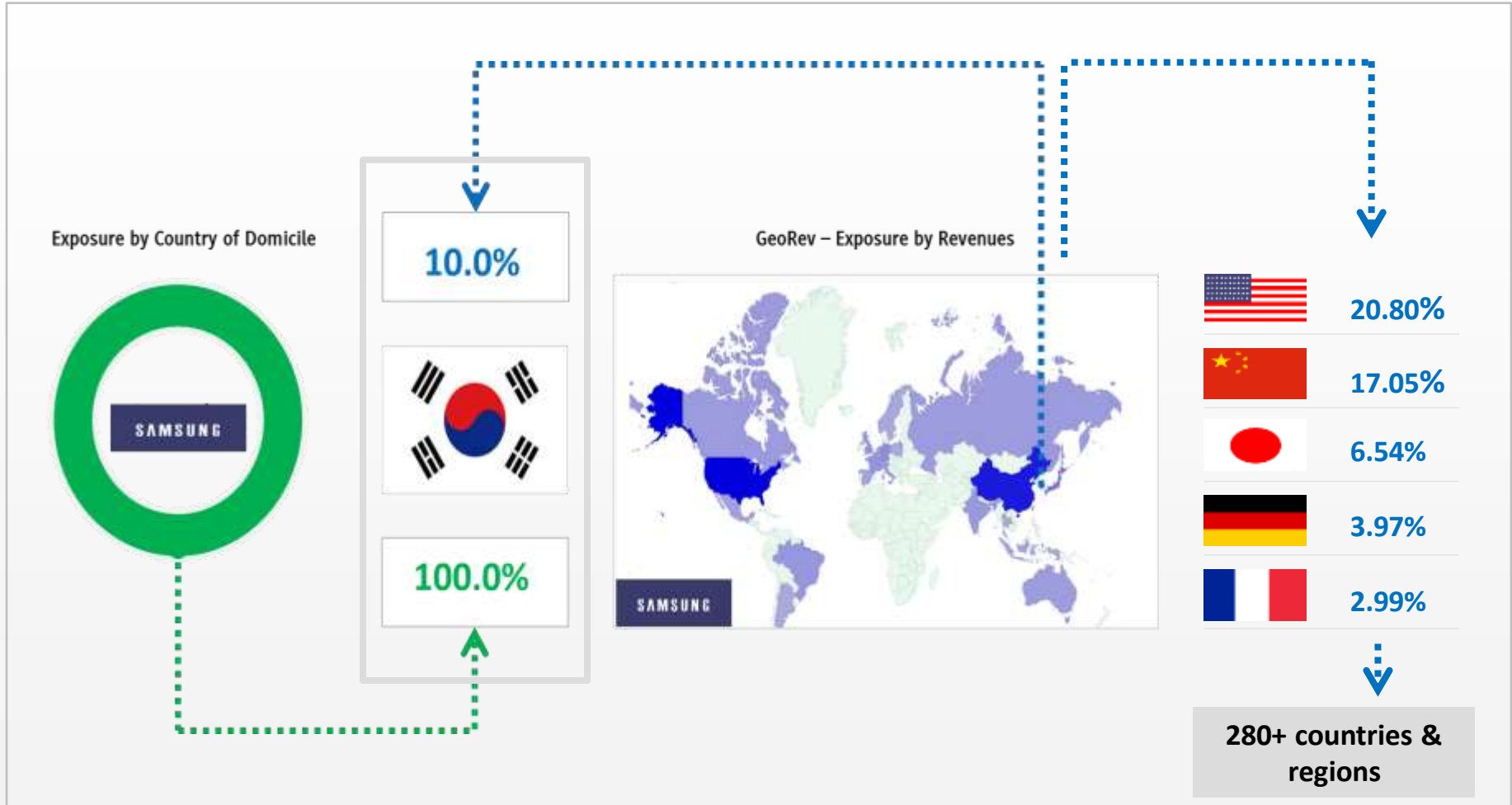
# Suppliers of 'Bankruptcy Likely' Ford Motor may Actually be at High Risk



# Core information about companies

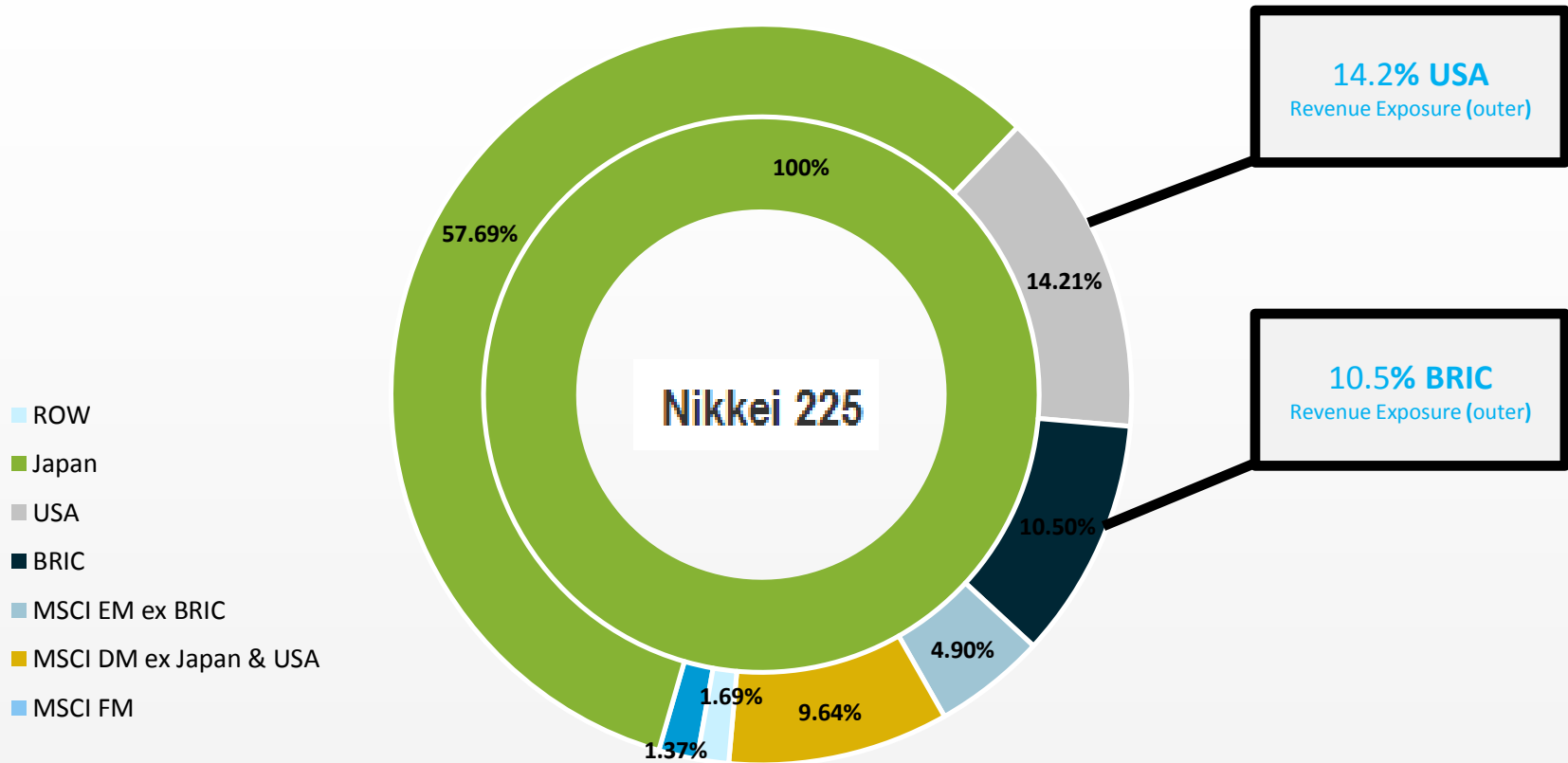
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# A More Precise Geographic Exposure: Samsung



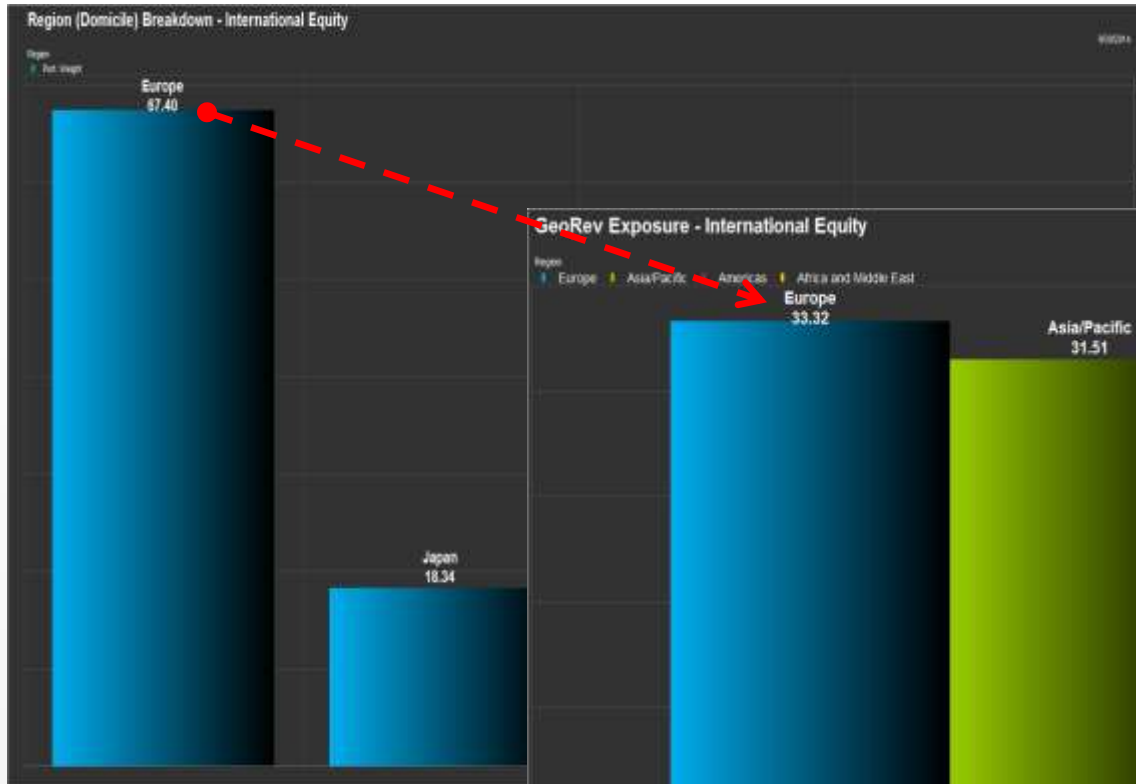


# Nikkei 225 Geographic Exposure by Country of Domicile vs. Revenues

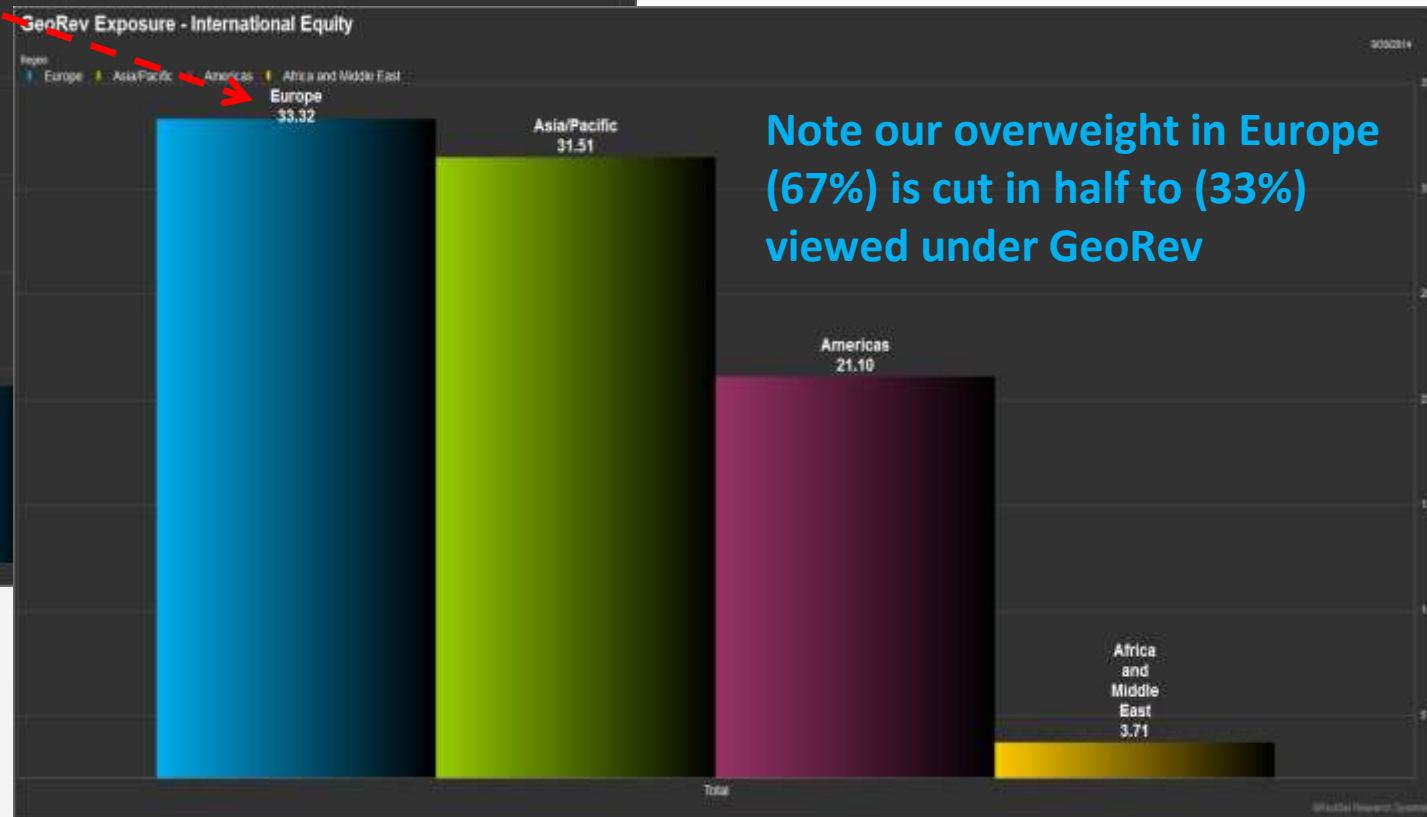


The Nikkei 225 is more than 40% and 10% exposed to the international market and BRIC by revenues, respectively.

## Geographic Revenue in PA – By Major Continents

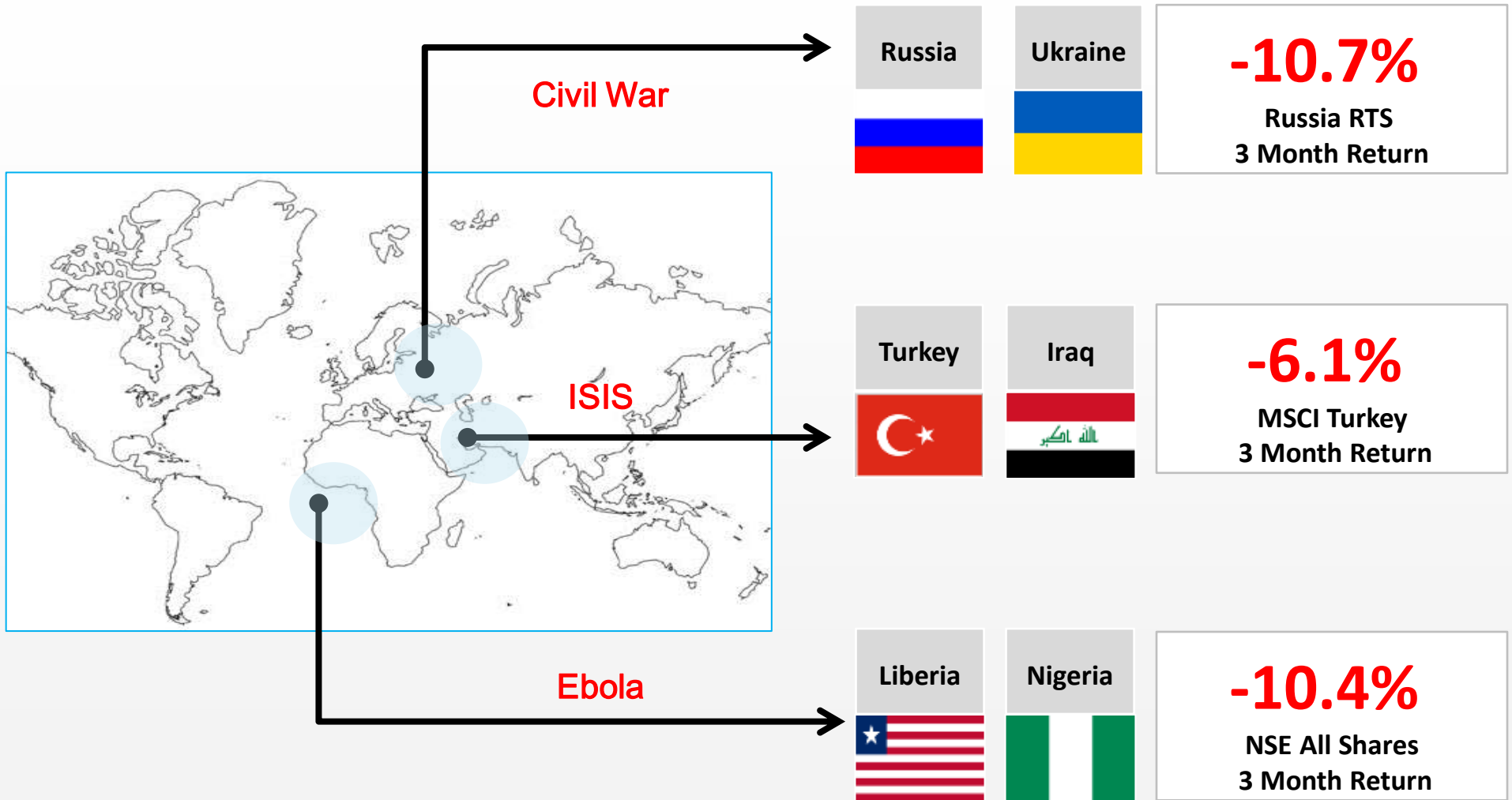


Show more relevant geographical exposure by revenues vs. country of domicile.



Note our overweight in Europe (67%) is cut in half to (33%) viewed under GeoRev

# Geopolitics Impacting Markets\*



\*3 month return from 7/30/2014 to 10/30/2014.


## Country of Revenue: Calculating Intel's EM Exposure




**25**  
countries

**Emerging  
Market**

Geography	% Revenue
Taiwan	31.6%
United States	15.6%
China	15.0%
Europe	12.9%
Asia/Pac	10.2%
Japan	9.3%
Americas (ex.US)	5.4%

 = **31.6**

 = **14.5**

Other EM countries = **11.4**

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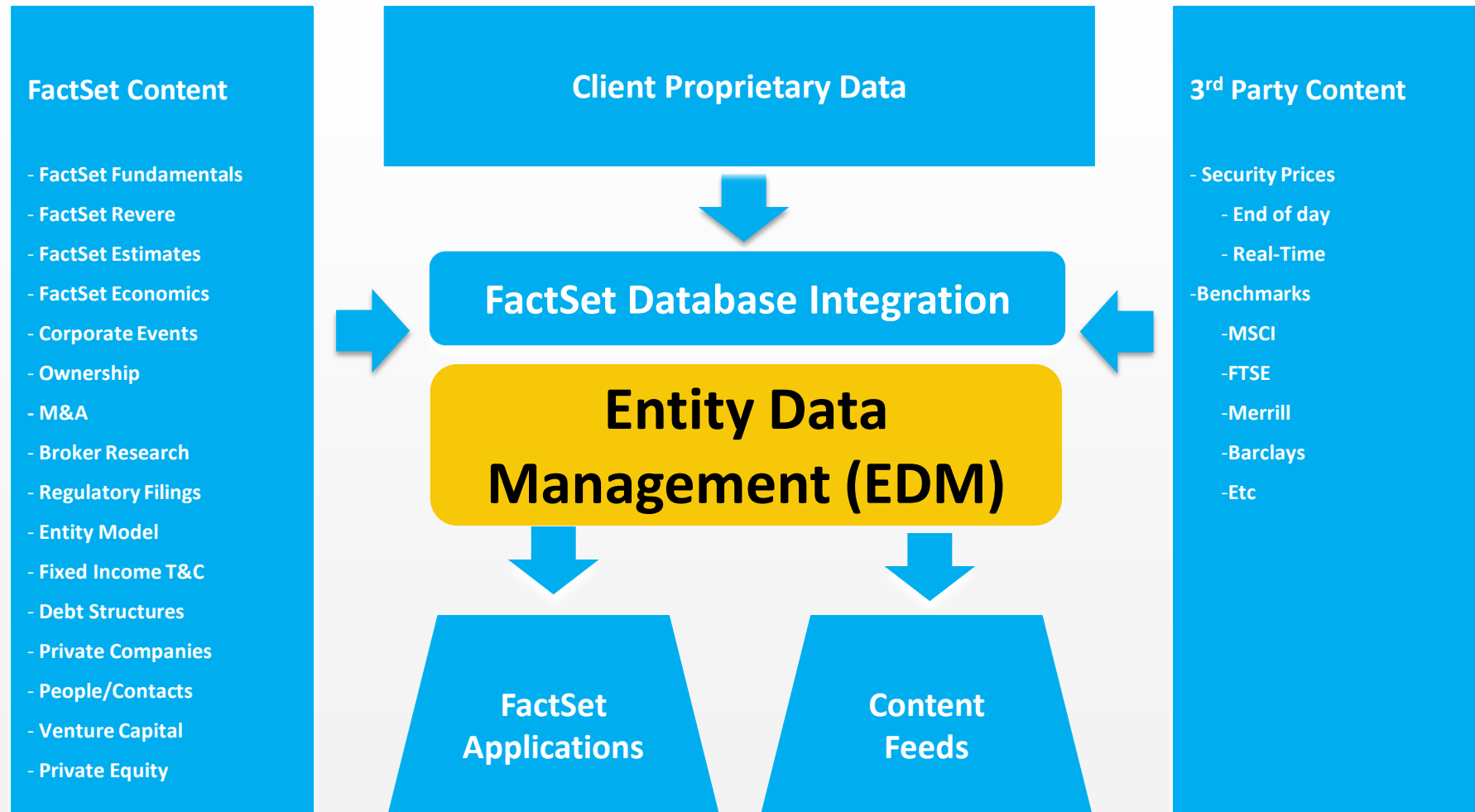
**Total**                      **57.5**

1. Algorithm uses GDP weight to estimate EM exposure when needed
2. Taiwan is given, no estimate is needed
3. For China (includes Hong Kong), algorithm kicks in and allocates 14.5% to EM
4. 14.5% = 15.0% X 0.966 (EM Multiplier), using GDP weight of "China ex HK" divided by "China + HK"
5. EM Multiplier derivation is conceptually simple, but computationally complex depending on how each company chooses to disclose its geographic revenues distribution.

# Summary

- + Company fundamental information is of key importance:
  - + What do they do?
  - + Who do they work with?
  - + Where do they generate their revenues?
- + Clients can benefit from our contents:
  - + To measure the risk on their portfolios
  - + To use the factors to generate alpha on your models
- + Department using our data:
  - + Compliance
  - + Risk management
  - + Portfolio management
  - + Quantitative analysis

# The FactSet Data Model



# Questions?

## Contact

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