

Assessing Exposures, Uncovering Risks – A Data Challenge To The Industry

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Assessing Exposures, Uncovering Risks

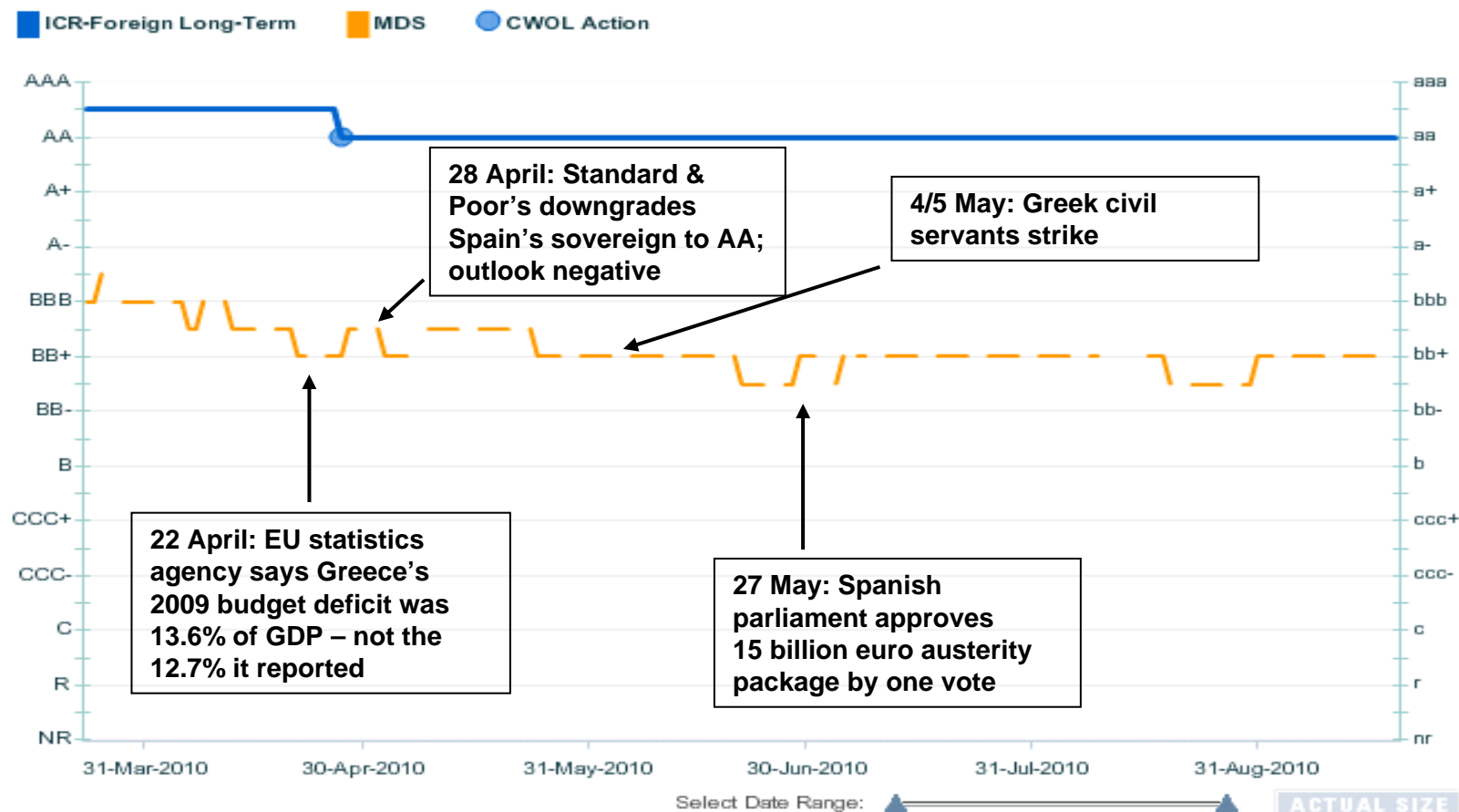
A Data Challenge To The Industry

- **Recent headlines make compelling examples**
 - Sovereign contagion: Spain/Portugal/Greece
 - BP p.l.c.
- **Are FISD members able to make data work fast and effectively to uncover exposures when potential risks hit the headlines?**
- **What are the implications of this problem for risk managers and data stewards?**
- **Case illustrations help identify the complexity of the challenge**

Spain Stresses – Evident In The Headlines

Events From 21 March 2010 To 20 September 2010

Ratings and Indicator Trendlines



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Source: S&P Valuation and Risk Strategies and Standard & Poor's Global Credit Portal®.

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Potential Sovereign Contagion – Spain/Portugal/Greece

Challenge: Identifying A Universe Of Impacts

- **Banks and corporations domiciled in the region are likely to be adversely impacted by sovereign credit deterioration**
 - Which entities may be impacted?
 - What securities have they issued?
 - What is an institution's exposure to these entities and securities?
- **Getting at potential exposures requires a solid foundation of data and the ability to link that data efficiently**
- **When speed may be critical...**

Revealing Exposure To Sovereign Contagion

Analysis Reveals 108 Domiciled Banks/705 Securities Exposed

Sovereign Exposure Test Report Included:

ISO Country Codes

ES (Spain)

GR (Greece)

PT (Portugal)

Report Results

- Identified 108 banks within Portugal, Greece and Spain with exposures to sovereigns
- Within this group, there were 705 outstanding securities

Bank Sector Codes

Federal Reserve Banks

Central Reserve Depositories

Foreign Trade and
International Banking Institutions

Bank Holding Companies

Branches and Agencies
of Foreign Banks

Commercial Banks

Source: S&P Valuation and Risk Strategies, as of 16 September 2010.
For illustrative purposes only.

The 108 Banks In Greece, Spain And Portugal

Directly Exposed To Their Sovereign Governments (By Domicile)

Bank Name	Country	Bank Name	Country	Bank Name	Country
Alpha Bank A.E.	Greece	INPARSA - INDUSTRIAS E PARTICIPACSES, SGPS, S.A.	Portugal	VALORES LUCITANOS, S.G.P.S., S.A.	Portugal
Bank of Greece	Greece	GRUPO PESTANA - S.G.P.S., S.A.	Portugal	Banco Santander, S.A.	Spain
National Bank of Greece S.A.	Greece	IPE - INVESTIMENTOS E PARTICIPACSES EMPRESARIAIS, S.A.	Portugal	Banco de España	Spain
Piraeus Bank S.A.	Greece	METALGEST - SOCIEDADE DE GESTAO, S.G.P.S., S.A.	Portugal	Banco Alcala, S.A.	Spain
Aspis Bank S.A.	Greece	LACTOGAL, S.G.P.S., S.A.	Portugal	NUEVA COMPANIA DE INVERSIONES SA	Spain
Bank of Attica S.A.	Greece	FIBEIRA - SOCIEDADE GESTORA DE PARTICIPACSES SOCIAIS, S.A.	Portugal	Banco Cooperativo Espanol, S.A.	Spain
EFG Eurobank Ergasias S.A.	Greece	LUSOMUNDO - SOCIEDADE GESTORA DE PARTICIPACSES SOCIAIS, S.A.	Portugal	Banco de Valencia, S.A.	Spain
Proton Bank S.A.	Greece	LUSENERG - ENERGIAS RENOVAVEIS - SGPS, S.A.	Portugal	Banca March, S.A.	Spain
Banco Comercial Portugues, S.A.	Portugal	MODELO - SOCIEDADE GESTORA DE PARTICIPACSES SOCIAIS, S.A.	Portugal	Banco de la Pequena y Mediana Empresa, S.A.	Spain
Banco Espirito Santo SA	Portugal	OCIDENTAL SEGUROS GEST - SGPS, S.A.	Portugal	BBVA MULTIFONDO ALTERNATIVO FIMF.	Spain
ALCANTARA - SOCIEDADE DE EMPREENDIMENTOS ACUCAREIROS, S.A.	Portugal	GRUPO VALOURO - S.G.P.S., S.A.	Portugal	Monte de Piedad y Caja General de Ahorros de Badajoz	Spain
INVMELO - SOCIEDADE GESTORA DE PARTICIPACSES SOCIAIS, S.A.	Portugal	PETROCONTROL - SOCIEDADE GESTORA DE PARTICIPACSES SOCIAIS, S.A.	Portugal	Caja de Ahorros de Galicia	Spain
ANGLOPOR - COMPANHIA IMOBILIARIA PORTUGUESA, S.A.	Portugal	I'M - S.G.P.S., S.A.	Portugal	Caja de Ahorros Castilla La Mancha	Spain
A.SILVA & SILVA - SGPS, S.A.	Portugal	PORTUCEL - EMPRESA DE CELULOSE E PAPEL DE PORTUGAL, S.G.P.S., S.A.	Portugal	Caja de Ahorros Provincial San Fernando de Sevilla y Jerez	Spain
CAETANO, SGPS, S.A.	Portugal	PROHOLDING - SOCIEDADE GESTORA DE PARTICIPACSES, S.A.	Portugal	Caja de Ahorros Municipal de Burgos	Spain
Banco Borges & Irmao, S.A.	Portugal	SOGESFIN - SOCIEDADE GESTORA DE PARTICIPACSES SOCIAIS, S.A.	Portugal	Caja Laboral Popular Cooperativa de Credito	Spain
BUIQUEIRA - SOCIEDADE GESTORA DE PARTICIPACSES SOCIAIS, S.A.	Portugal	JULAR - SOCIEDADE GESTORA DE PARTICIPACSES SOCIAIS, S.A.	Portugal	Caja de Ahorros y Monte de Piedad de Ontinyent	Spain
ATLANTICPAR SGPS, S.A.	Portugal	ROBBIALAC SGPS, S.A.	Portugal	Caja Rural de Navarra, Sociedad Cooperativa de Credito	Spain
MCFI - S.G.P.S., S.A.	Portugal	SANTOGAL - S.G.P.S., S.A.	Portugal	CAJA DE AHORROS DE CADIZ	Spain
COFINA.COM II - SGPS, S.A.	Portugal	H-FORM - SOCIEDADE GESTORA DE PARTICIPACSES SOCIAIS, S.A.	Portugal	Caja de Ahorros y Monte de Piedad de Segovia	Spain
SIEL - S.G.P.S., S.A.	Portugal	TEIXEIRA DUARTE - SOCIEDADE GESTORA DE PARTICIPACSES SOCIAIS, S.A.	Portugal	Caja de Ahorros y Monte de Piedad de Cordoba	Spain
ESTRELA - SOCIEDADE GESTORA DE PARTICIPACSES SOCIAIS, S.A.	Portugal	Banco de Portugal	Portugal	INMOBILIARIA ELECTRA SA	Spain
BRANDIA CENTRAL, SGPS, S.A.	Portugal	SOPONATA - SOCIEDADE PORTUGUESA DE NAVIOS TANQUES, S.A.	Portugal	Fireco SA (Extinguida)	Spain
DONIGO - SGPS, S.A.	Portugal	SOFINTER - SOCIEDADE GESTORA DE PARTICIPACSES SOCIAIS, S.A.	Portugal	B I Gran Premiere SICAV S.A.	Spain
EDIFER - INVESTIMENTOS, SGPS, S.A.	Portugal	SOGESVAL - SOCIEDADE GESTORA DE FUNDOS DE INVESTIMENTO MOBILIARIO, S.A.	Portugal	IBERICA DE AUTOPISTAS SA (EXTINGUIDA)	Spain
WINDVENTURE - SGPS, S.A.	Portugal	GUEDES, CARMO & SILVA - SOCIEDADE GESTORA DE PARTICIPACSES SOCIAIS, LDA	Portugal	FRANCO IBERICA DE SINTESIS ORGANICAS SA (EXTINGUIDA)	Spain
ENTREPOSTO - GESTAO E PARTICIPACSES (SGPS), S.A.	Portugal	PARSOMA - S.G.P.S., S.A.	Portugal	IM Cajamar 5, Fondo de Titulizacion de Activos	Spain
ESPRITO SANTO DATA, SGPS, S.A.	Portugal	COMPANHIA INDUSTRIAL QUINTAS & QUINTAS, SGPS, S.A.	Portugal	IM Pastor 4, Fondo de Titulizacion de Activos	Spain
E.P.M. - SOCIEDADE GESTORA DE PARTICIPACSES SOCIAIS, S.A.	Portugal	A.C.SANTOS - SOCIEDADE GESTORA DE PARTICIPACSES SOCIAIS (SGPS), S.A.	Portugal	Inversiones Ibersuizas, S.A.	Spain
MAGINCO - SOCIEDADE GESTORA DE PARTICIPACSES SOCIAIS, S.A.	Portugal	SOMARGESTE - SGPS, S.A.	Portugal	INVERSIONES IDIAQUEZ S.A.	Spain
FINPETRO - SOCIEDADE GESTORA DE PARTICIPACSES SOCIAIS, S.A.	Portugal	SOMELOS - S.G.P.S., S.A.	Portugal	GLOBAL MANAGEMENT TRUST SA (EXTINGUIDA)	Spain
FIR - SOCIEDADE GESTORA DE PARTICIPACSES SOCIAIS, S.A.	Portugal	SOGEOC - SOCIEDADE GESTORA DE PARTICIPACSES SOCIAIS, S.A.	Portugal	CATA CORPORACION 2000 S.L.	Spain
HIT - HOLDING DA INDUSTRIA TRANSFORMADORA DO TOMATE, SGPS, S.A.	Portugal	TECNOVIA - SGPS, S.A.	Portugal	Pesiver Corporacion Alimentaria, S.A.	Spain
G.A.P. - SOCIEDADE GESTORA DE PARTICIPACSES SOCIAIS, S.A.	Portugal	LUSITANA DE INVESTIMENTOS, S.G.P.S., S.A.	Portugal	TERREVA SA (EXTINGUIDA)	Spain
CENTRO DE GESTAO FINANCEIRA DA SEGURANCA SOCIAL	Portugal	TOTAFINANCE - SERVICOS FINANCEIROS, SGPS, S.A.	Portugal	Fondo de Titulizacion de Activos UCI 14	Spain
IBERHOLDING - SOCIEDADE GESTORA DE PARTICIPACSES SOCIAIS, S.A.	Portugal	UNIGARCO - SOCIEDADE GESTORA DE PARTICIPACSES SOCIAIS, S.A.	Portugal	SIMEON GESTION SOCIEDAD GESTORA DE INSTITUCIONES DE INVERSION COLECTIVA SA (EXTINGUIDA)	Spain

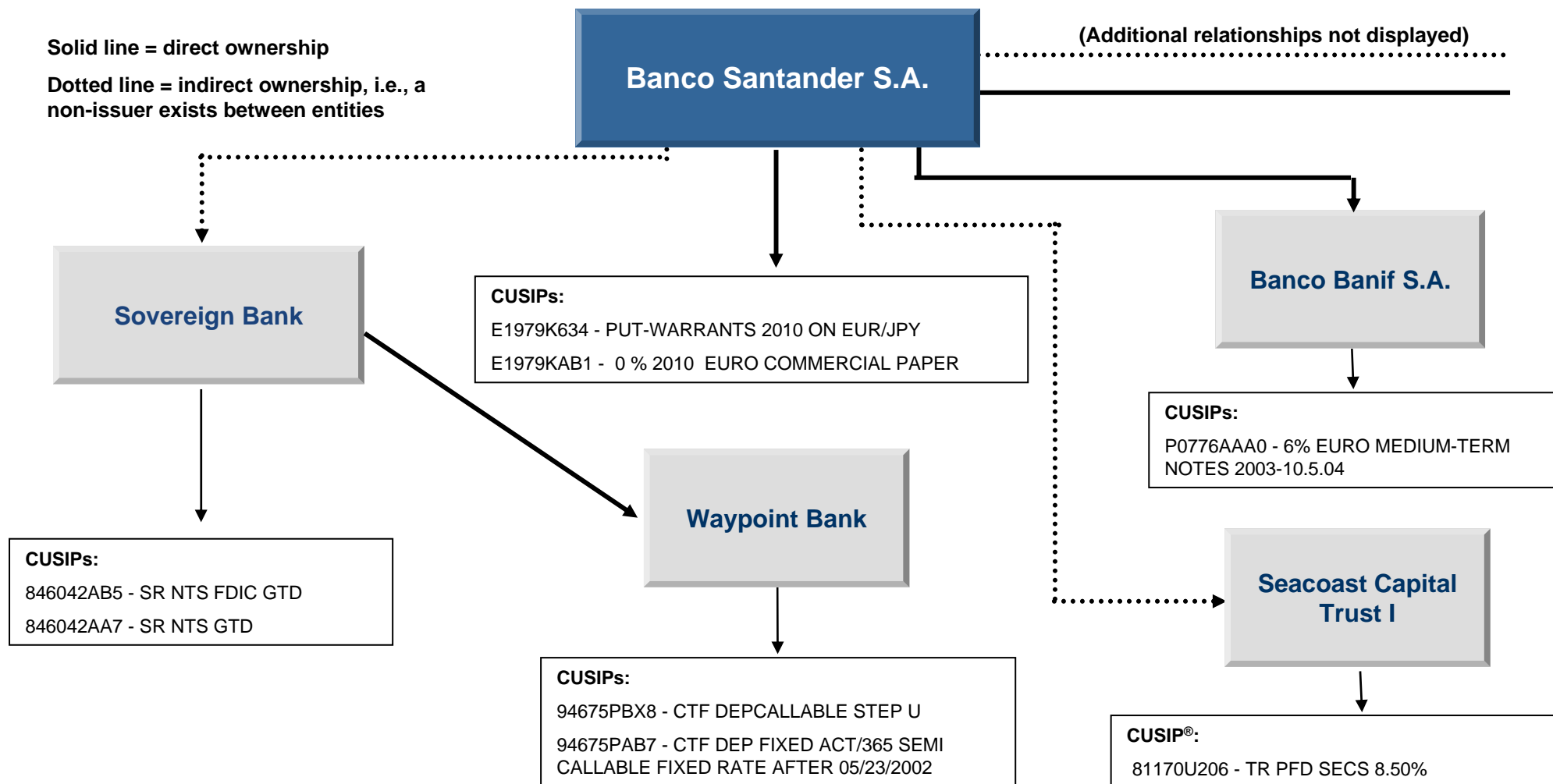
**Banco
Santander
S.A.**

Source: S&P Valuation and Risk Strategies, as of 15 September 2010.
For illustrative purposes only.

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One Of The 108 – Banco Santander S.A.

Sample Of Securities And Entities Linked By Ownership



Source: S&P Valuation and Risk Strategies, as of 9 September 2010.
For illustrative purposes only, more issuers and subsidiaries exist.

One Of The 108 – Banco Santander S.A.

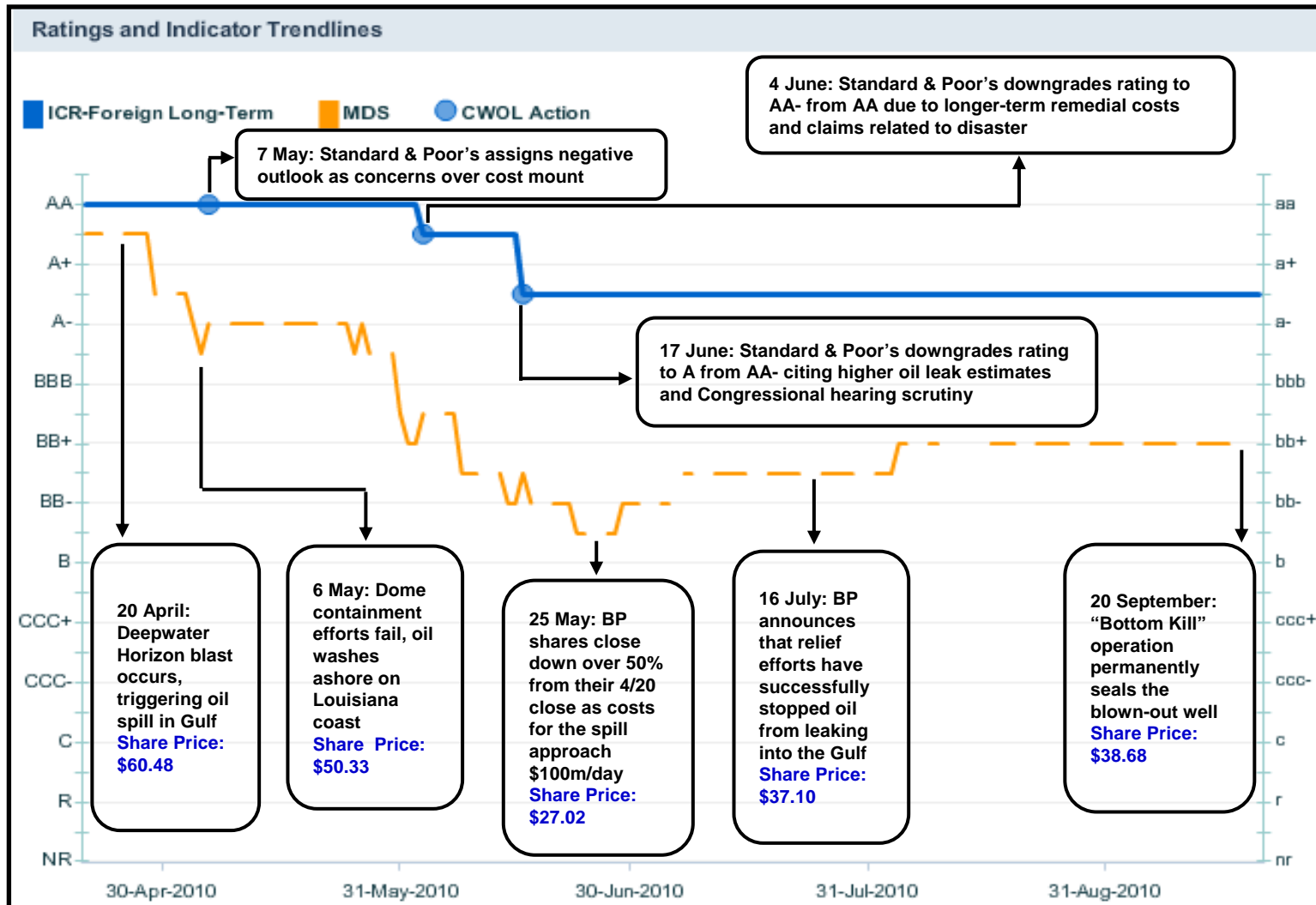
Has 4,102 Securities Outstanding

Major Subsidiaries	Number of Securities
Abbey National	83
Abbey National Treasury Services	531
Banco do Estado de Sao Paulo, S.A.	76
Banco Santander Puerto Rico	254
Banco Santander S.A.	447
Sovereign Bank	152
Sovereign Bancorp	85
Santander Consumer Finance S.A.	100
Number of issuers related to the major subsidiaries	124
Number of unique issuer identifiers under Banco Santander	277
Number of securities outstanding under Banco Santander	4,102

Source: S&P Valuation and Risk Strategies, as of 9 September 2010.
For illustrative purposes only, more issuers and subsidiaries exist.

BP p.l.c. In The Headlines – Gulf Of Mexico Spill Disaster

Events From 20 April 2010 To 21 September 2010

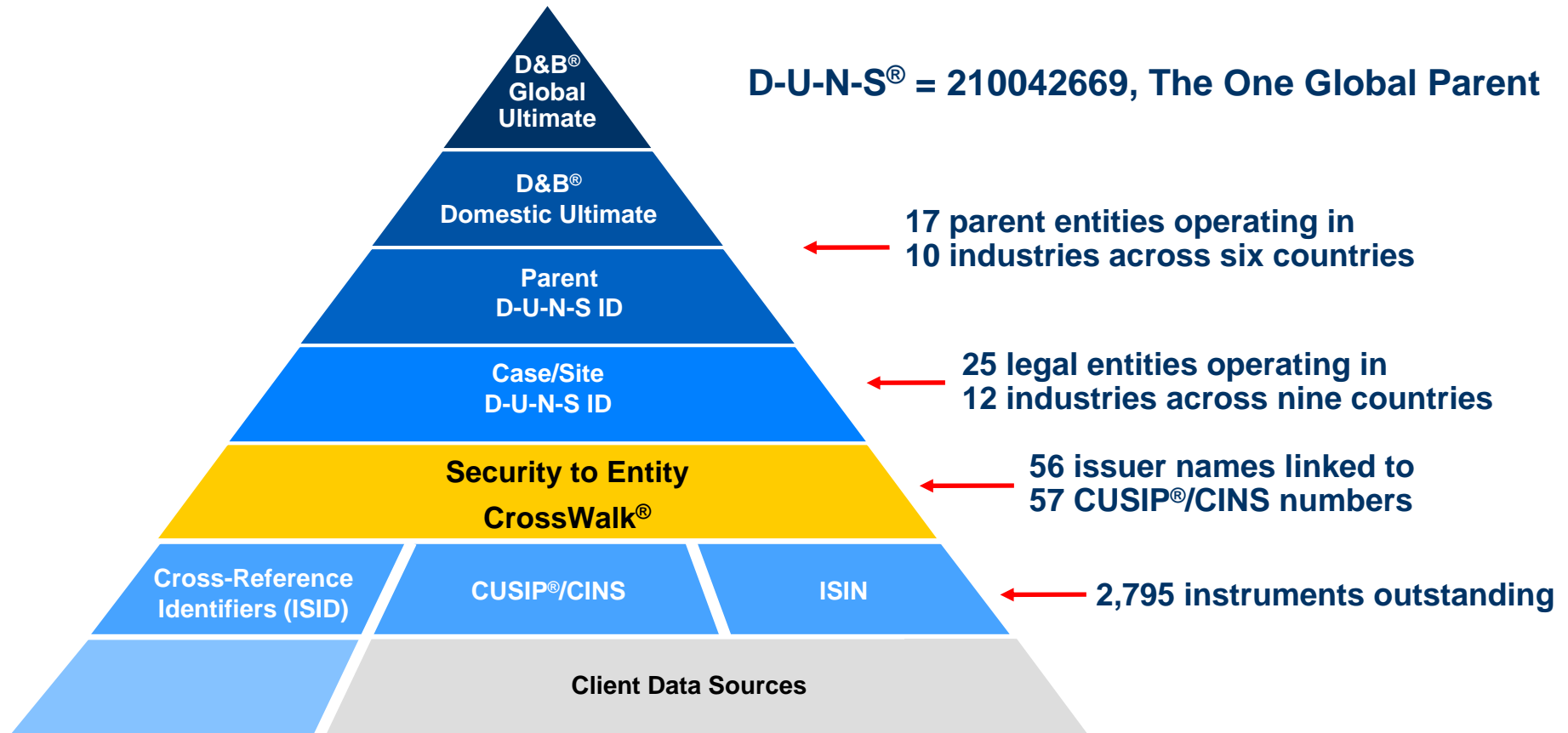


Source: S&P Valuation and Risk Strategies and Standard & Poor's Global Credit Portal®, as of 21 September 2010.

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Uncovering Exposures To BP p.l.c. From The Top-Down

Reveals an Ownership Linkage Pyramid with 2,795 Securities Outstanding



Source: S&P Valuation and Risk Strategies' Security to Entity CrossWalk®, as of 17 September 2010.

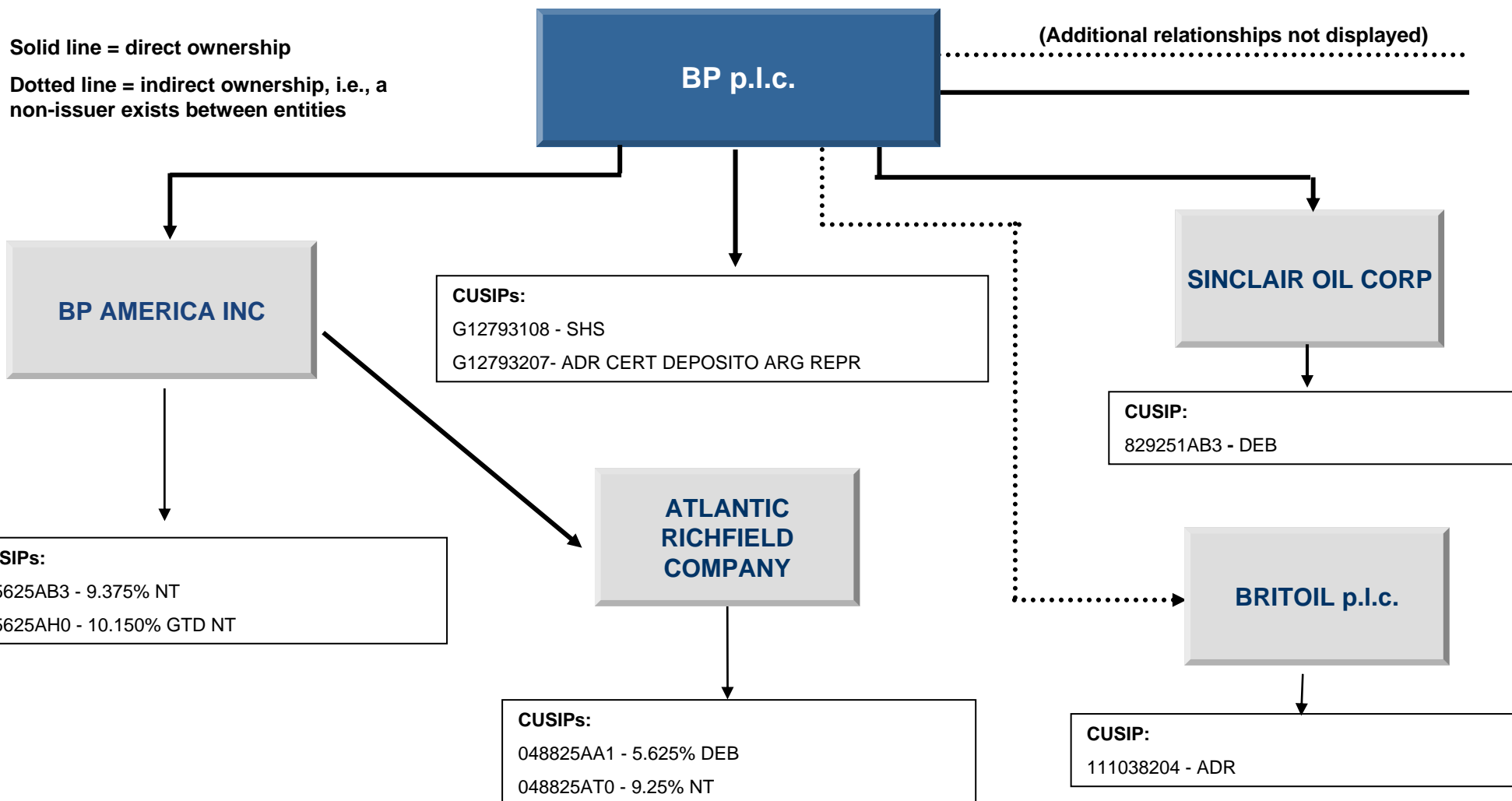
For illustrative purposes only.

Security to Entity CrossWalk® is an alliance of Standard & Poor's, D&B, and SIX Telekurs.

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Further Drill-Down On BP

Sample Of Entity And Security Linkages By Ownership



Source: S&P Valuation and Risk Strategies, as of 16 September 2010.
For illustrative purposes only, more issuers and subsidiaries exist.

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And From The Bottom-Up

Linkage To BP p.l.c. By Obligation (Two Illustrations)

60534P2Q5

Issuer Description:	<u>MISSISSIPPI DEV BANK SPL OBLG</u>
Issuing Description:	MUNI GAS AUTH - NAT GAS PROJ
Dated Date:	05-19-2005
Coupon:	VARIABLE
Maturity Date:	07-01-2015
Maturity Amount:	\$424,988,000
Purpose:	REV
Class:	UTIL
Subclass:	GAS
Special Redemption:	YES – DUE TO BANKRUPTCY

Associated Obligor # 1

Obligor Name:	BP Corp North America Inc
Role Type:	Guarantee
Coverage Amt:	100%
Expiration Date	1-July-2015

72753EAC1

Issuer Description:	<u>PLAQUEMINES LA ENVIRONMENTAL REV</u>
Issuing Description:	BP EXPLORATION AND OIL
Dated Date:	03-06-1995
Coupon:	VARIABLE
Maturity Date:	05-01-2025
Maturity Amount:	\$24,300,000
Purpose:	REV
Class:	EDR
Subclass:	OILG
Special Redemption:	YES – PROJECT NOT FEASIBLE

Associated Obligor # 2

Obligor Name:	BP p.l.c.
Role Type:	Obligor
Coverage Amt:	100%
Credit Expiration Date:	19-September-2011

Parent Company: BP p.l.c.
CUSIP/CINS 6: G12793

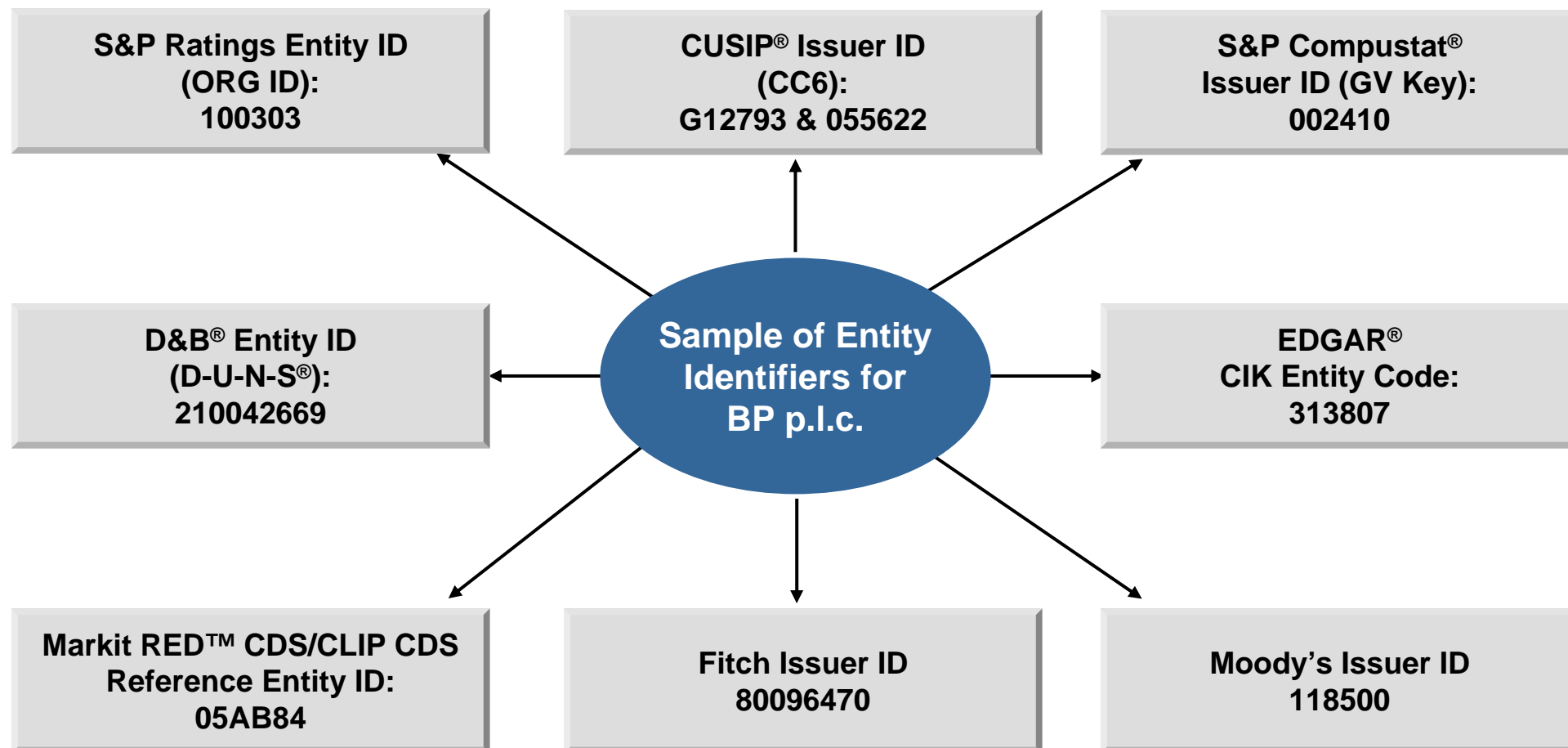
Source: S&P Valuation and Risk Strategies' Associated Obligor service, as of 15 September 2010.

For the purposes of this illustration, only two of various associated obligors have been displayed from the full report.

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How Opaque Is The Data?

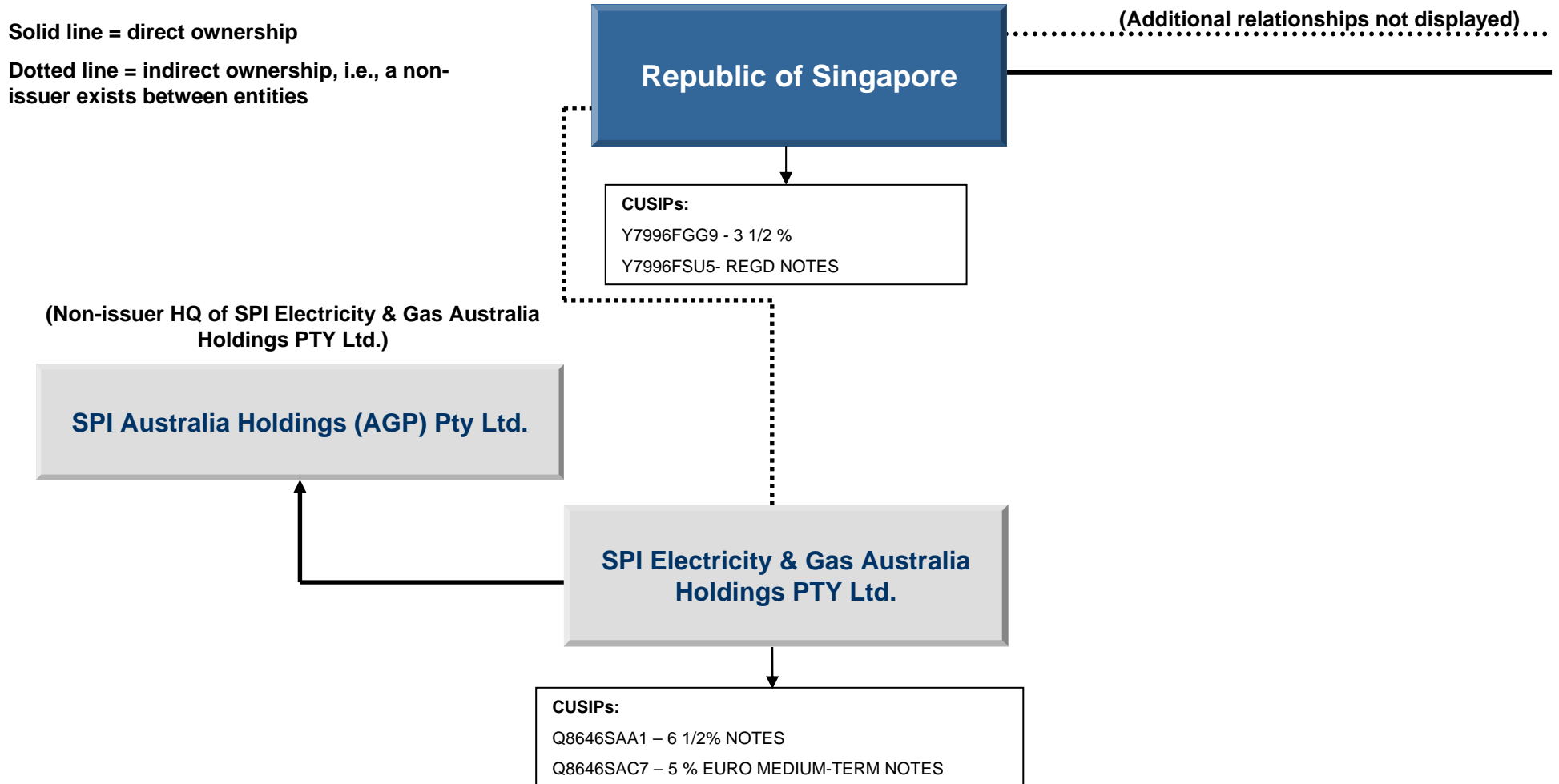
A Universe Of Disparate Identifiers For BP p.l.c.



Source: S&P Valuation and Risk Strategies, as of 16 September 2010.
More entities and identifiers exist.

How Surprising May Be The Inter-relationships?

An Australia Corporate And The Republic Of Singapore...



Source: S&P Valuation and Risk Strategies, as of 1 October 2010.
For illustrative purposes only. More issuers and subsidiaries exist.

Assessing Exposures, Uncovering Risks

Concluding Thoughts

- Are FISD members prepared to address this data challenge?
- What are the implications of this problem for risk managers and data stewards?
- Exposures come in many forms
- Hidden exposures can result in unpleasant surprises
- The complete picture can be complex and difficult to assemble
- Effective cross-referencing is essential to effective risk management



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