

Holographic Economics

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CEO, Founder

Some **disclaimers** and **caveats**

Background on your **speaker** today

- not an **economist**
- nor a **mathematician**
- **philosopher, information architect, ontologist, CEO**

Foreground on the **topic** today

- It involves a „big“ **idea**
- It involves **software** technology
- **Interactive**, multi-user, evolutionary seedling

Thinking out loud is strongly encourage

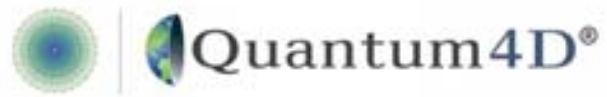
Agenda

- Introduction
- Tour
- Live experiment

Agenda (details)

- Introduction
 - The problem
 - The idea
 - The platform
- Tour
 - Global risk dashboard
 - Interbank payments
 - Adopt a model
- Live experiment

INTRODUCTION



The problem

Old solutions and a new world

Problem | Solution



No new significant interface to information since the invention of paper.

Words

Reports

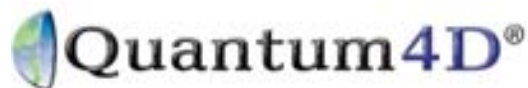
Files & folders



Numbers

Statistics

Ledgers & calculators



Visual (digital) language

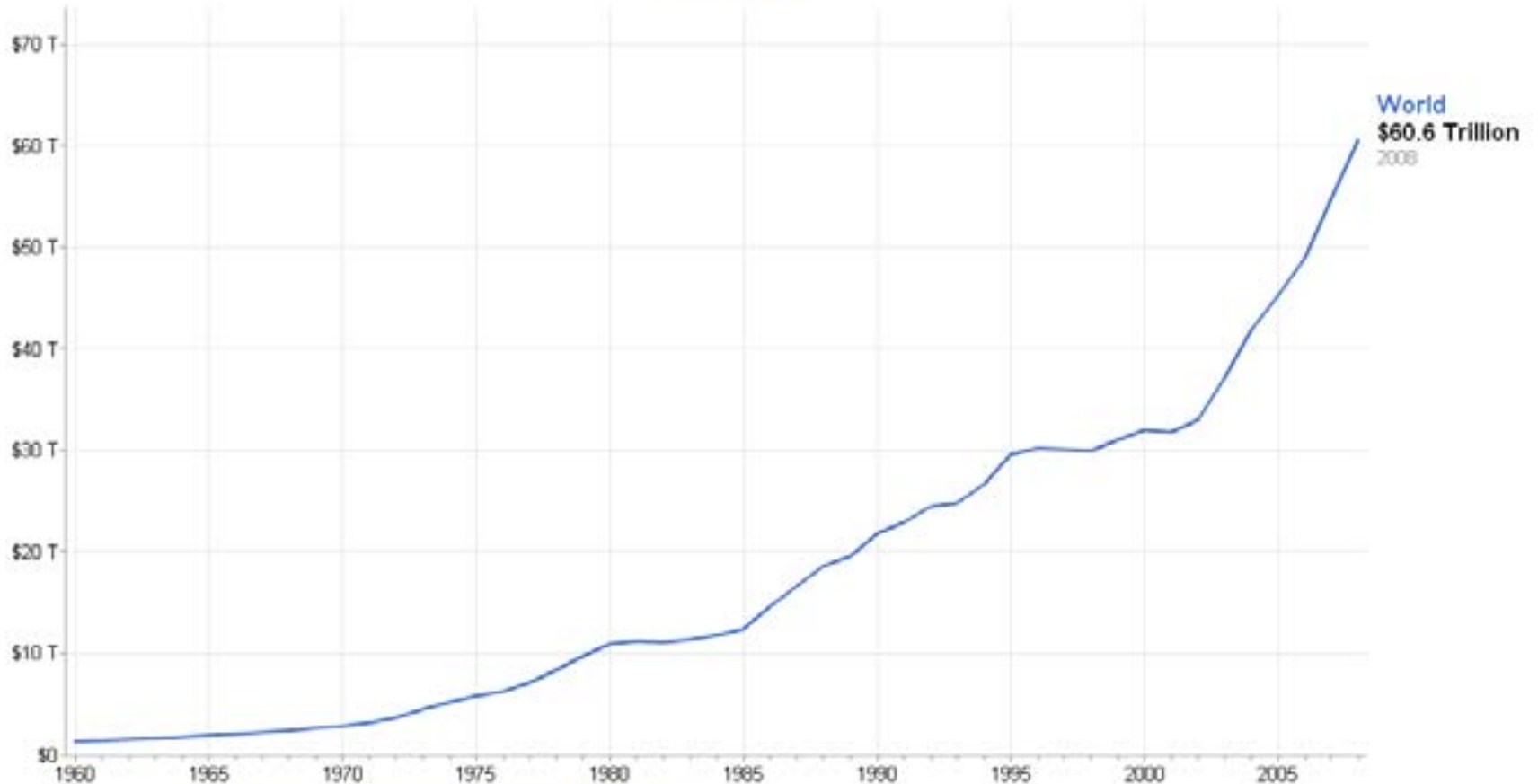
Spaces & unified model



Seeing the whole? | Easy! Done.

Gross Domestic Product

GDP in current U.S. dollars. Not adjusted for inflation. [More info »](#)



Data source: [World Bank, World Development Indicators](#) - Last updated March 1, 2010

What if this were the only tool your doctor had?



Such complex systems give rise to contextual **wicked problems**

Modern System Problems

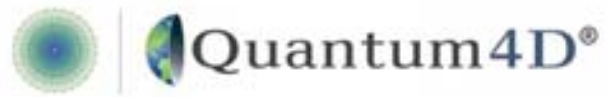
- There is **no definitive formulation**
- Every wicked problem is **essentially unique**
- There is **no** well-described **set of permissible operations** to incorporate into a plan

Challenges to Managing Systemic Systems

- There is **no immediate** or **ultimate** test for what constitutes a solution
- Solutions are never true-or-false, **but better or worse**.
- Every wicked problem can be considered to be a symptom of another problem
- Discrepancies can be explained in numerous ways. The choice of explanation impacts the nature of the problem's resolution

Characteristics of Good Solutions to Wicked Problems

- Every solution is a "one-shot operation"; there is **no opportunity to learn by trial-and-error**
- Wicked problems have no stopping rule – **statistics fail** to “tame the continuum of time.”
- Planners are **liable for the consequences** of the actions they generate



The idea

A new approach

holographic economics | etymology

ὅλος γραφή οἰκονόμος

hólos grafē oeconomia

Graph the whole wealth & resources of a ~~country~~
world

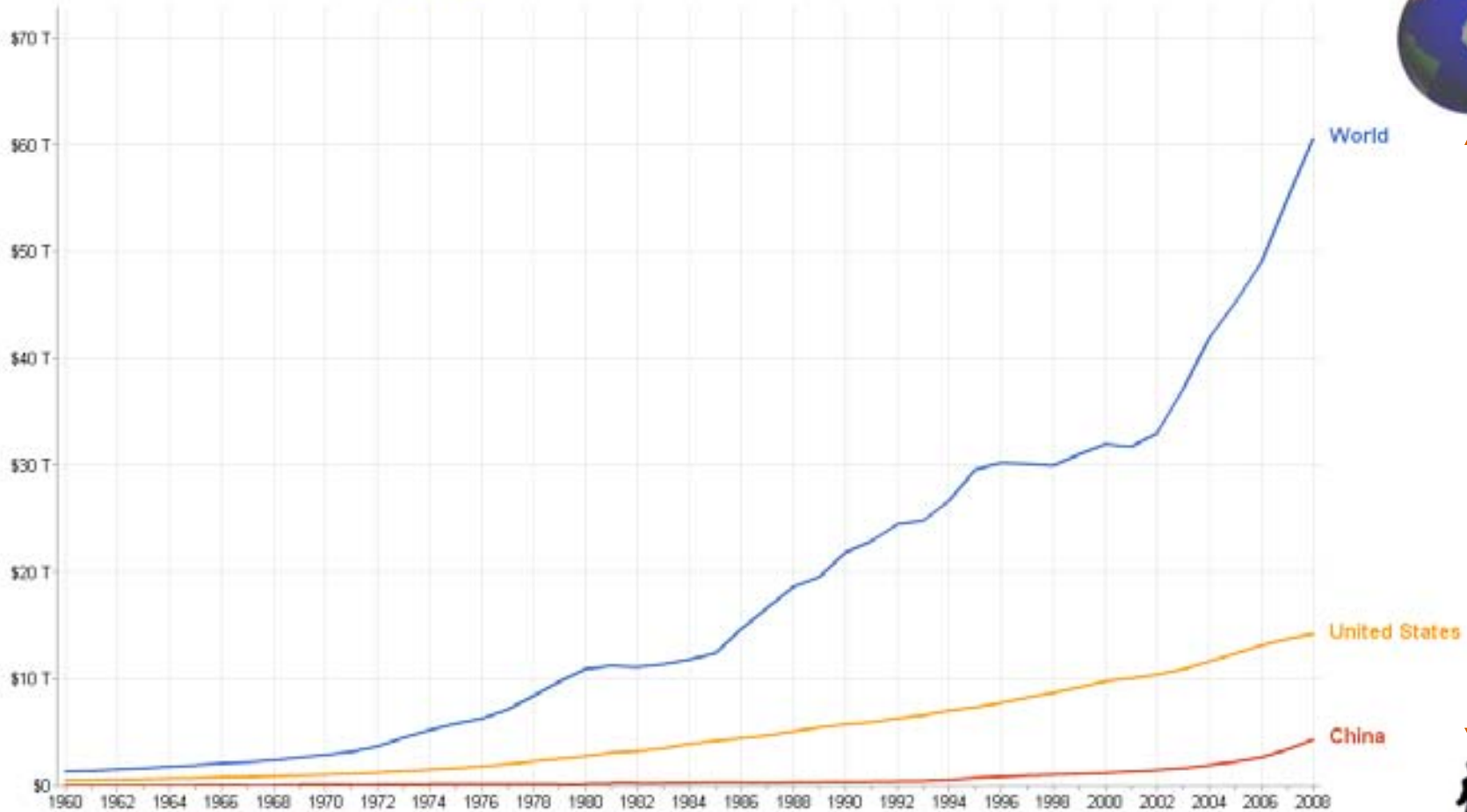
There is always a place for this...



What if you want more than a pulse?

Gross Domestic Product

GDP in current U.S. dollars. Not adjusted for inflation. [More info >](#)



Date source: [World Bank, World Development Indicators](#) - Last updated March 1, 2010

Holographic Economics | illuminate the system



Holographic Economics | capture meaning across multiple scales of information

Economic Overviews

Non-U.S. securities information & expertise

- Real-time quotes (per customer services)
- Currencies & exchanges.
- Late-breaking international news
- non-U.S. companies & markets in economic context
- Analysts' earnings estimates, price history & charts and third-party analysis.
- Explore macro to micro: thousands of non-U.S. securities in national contexts.

Market Overviews

- Real-time quotes
- Late-breaking market news
- U.S. markets in economic context
- Explore all markets in one view; drill down...

Industry Overviews

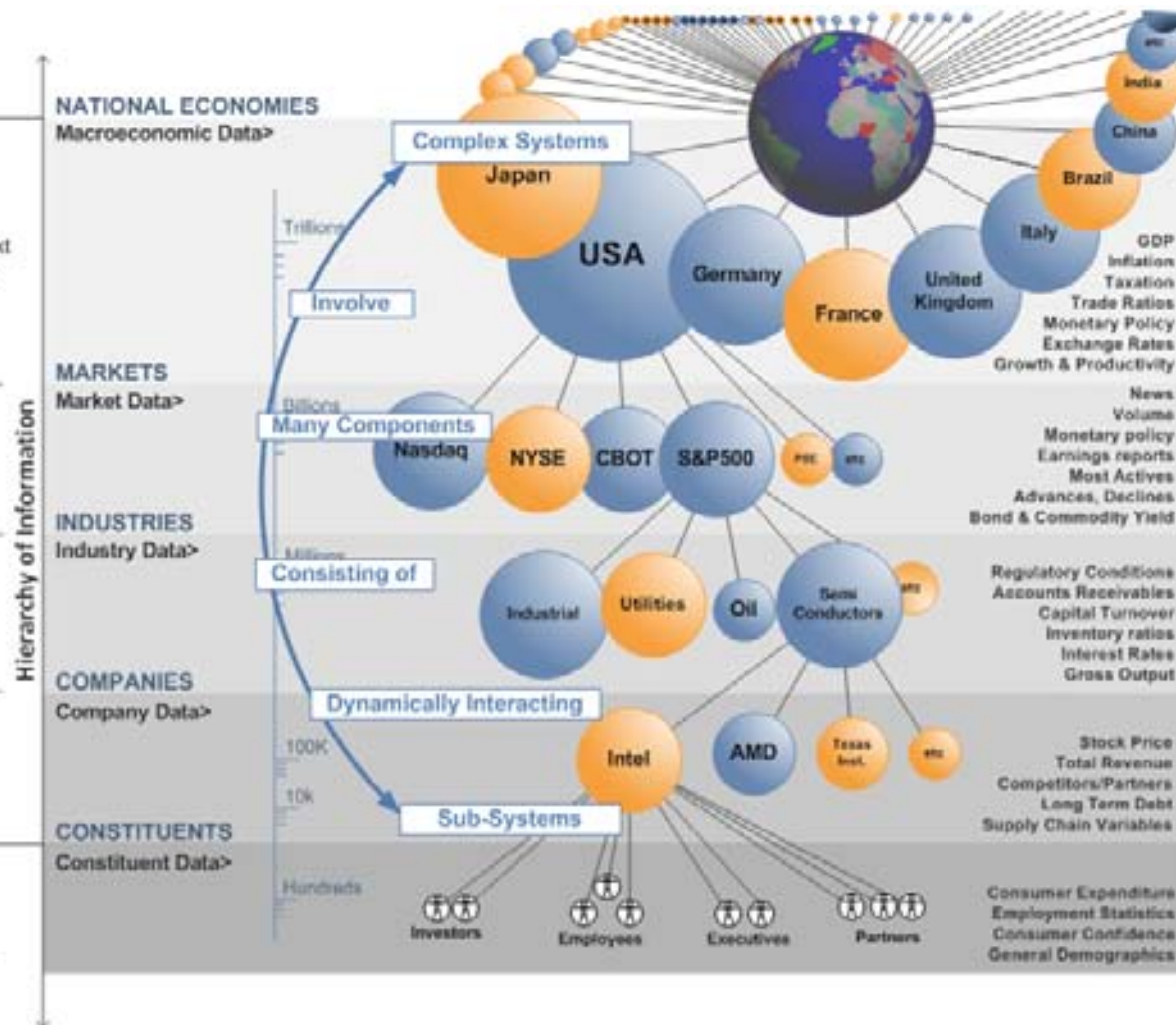
- Late-breaking industry news.
- Industries in economic context.
- Analysts' research on industries.
- Explore industry views; drill down...

Company Research

- Companies in industry context.
- Analysts' earnings estimates, price history charts & third party analysis on companies.
- Drill into details on company (sales etc...)

Individuals & Products

- Online presentations.
- Give tours of Portfolios in global context.
- Explore interconnected galleries.
- Discover ways of seeing concerns in their context.



These scales of information display the properties of **complex systems**

Structural complexity | connections across layers of systems

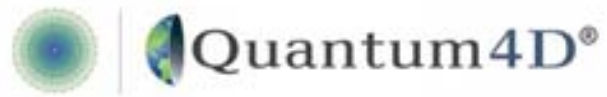
Network evolution | connections change over time

Connection diversity | different weights to different connections

Dynamical complexity | behaviors change over time

Object diversity | different types of things in system

Meta-complication | all of the above can influence each other



The platform







The world beyond windows

Movie file here showing system applied to banking
(not included in PDF)

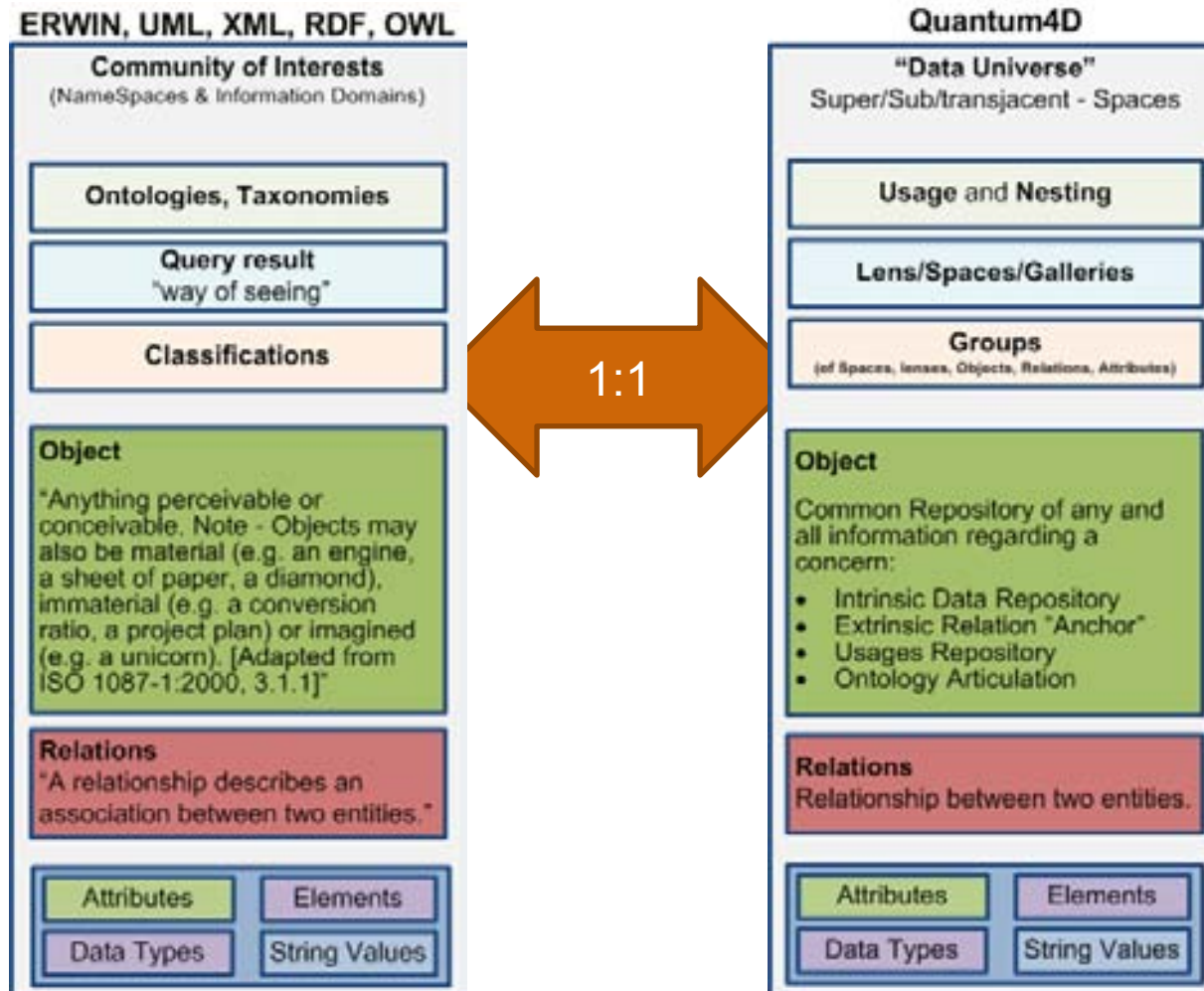
Adjacent Technologies | Quantum4D is like...

	Visual Intelligence	Living Systems	Object Oriented	Network Enabled	Multiple Perspectives	Knowledge Systems	Analytics	Collaborative Workspace
Views								
Models			Bloomberg				MATLAB 	
Data				ORACLE				Google
	See Meaning	See Dynamics	In Context	Capture Connections	Pivot Insights	Knowledge Canvas	Unified Reuse	Inter-connected Worlds

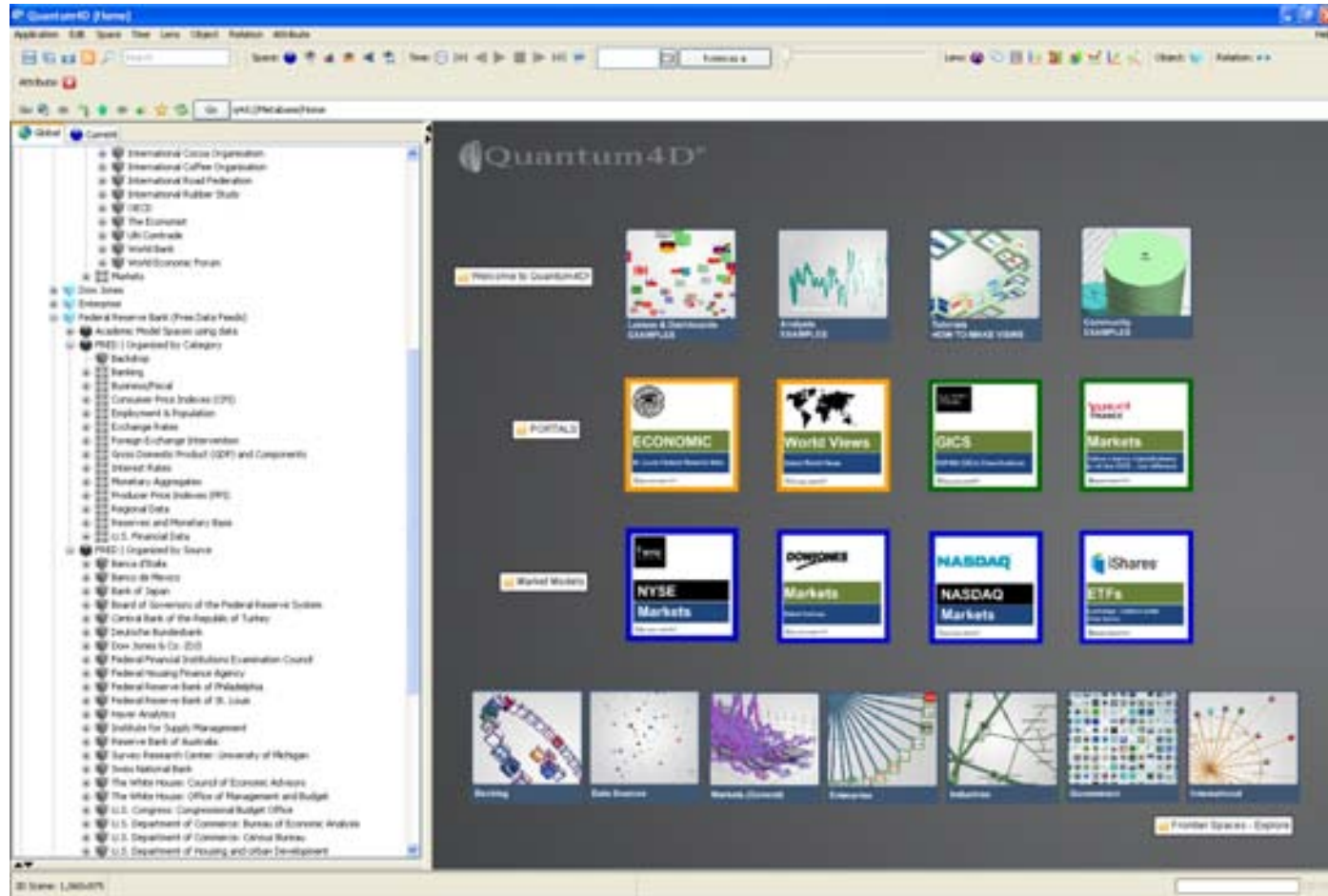
Quantum4D exposes a system for modeling systems using **basic concepts** to provide a visual conceptual framework for managing complex systems

<u>Concept</u>	<u>Description</u>	<u>Example</u>	<u>Icon</u>
Space	context/position	<i>An industry</i>	
Time	animation	The „4 th “ dimension	
Lens	way of seeing	<i>„EPS View“</i>	
Objects	people, places, things	<i>A company</i>	
Relations	connections	<i>Sales to customers</i>	
Attributes	raw data	<i>Product Prices</i>	

These basic concepts overlay and render **transparent** to the end users traditional „heavy“ or „esoteric“ ontology schematics



Spaces | Navigate free/fee public data, models & views

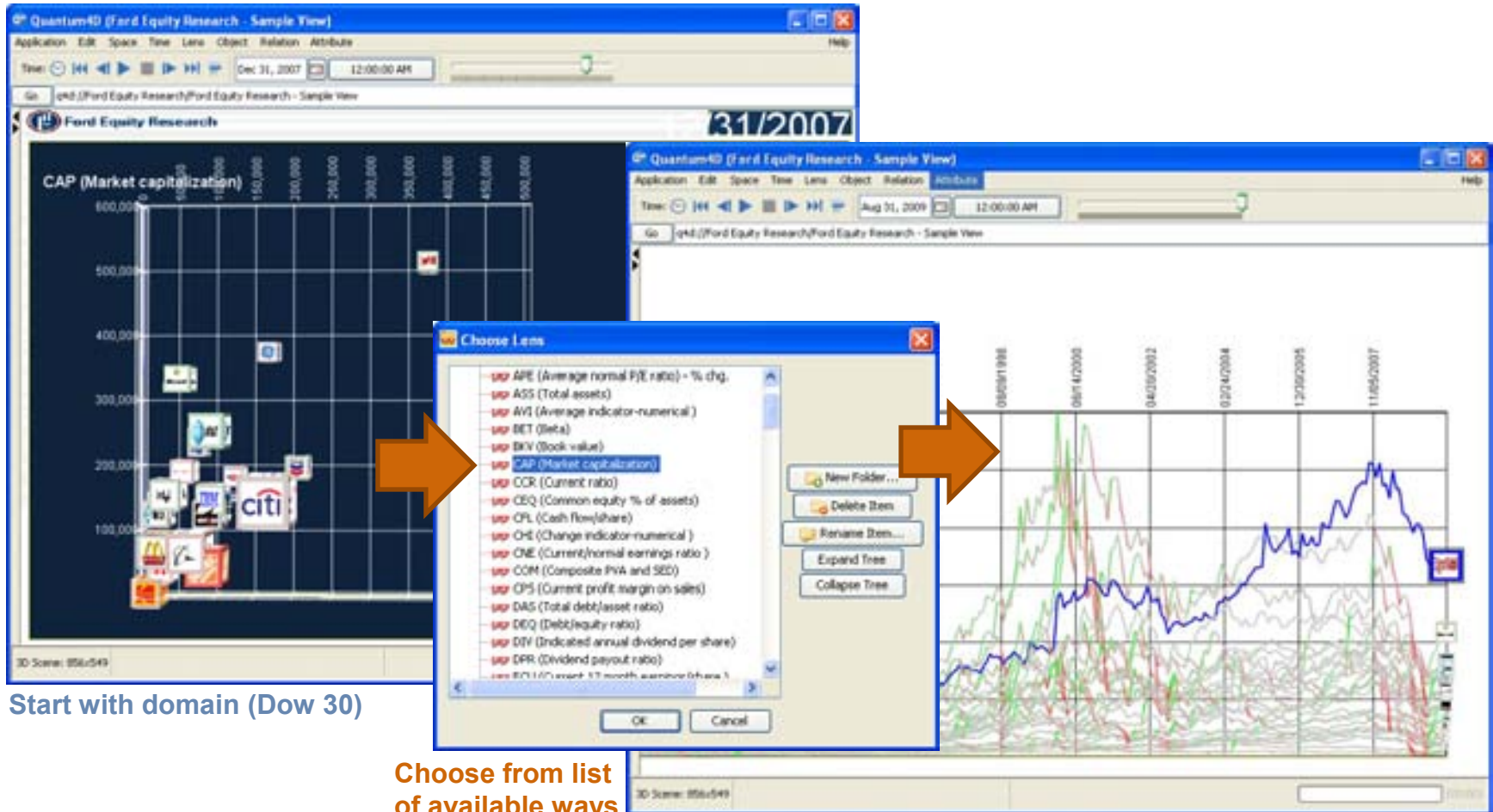


Currently with 25,000 dynamically updating time series in 10,000 spaces

Most country and industry structures (OECD groups, NAICS, SIC, GICs) pre-built.

Simply copy and paste into your personal or enterprise repository for private reuse/mash-up

Lens | Create, save and share ways of seeing



Start with domain (Dow 30)

Choose from list of available ways of viewing the associated data

View data through templates saved by other users.
Add notes on views to share with other users.

Objects | people, places, products

Attribute Repository

Aircraft departures
 Arms imports (% of total imports)
 Barrels of Crude Oil per Metric Ton
 Current expenditure (current LCU)
 Adjusted savings: consumption of fixed capital (% of GNI)
 Agricultural machinery, tractors per 100 hectares of arable land
 Cereal yield (kg per hectare)
 Agriculture value added per worker (constant 1995 US\$)
 Adjusted savings: mineral depletion (% of GNI)
 Domestic financing, total (% of GDP)
 CO2 emissions (kg per 1995 US\$ of GDP)...

News, events, analysis (URLs)

US
 The Beige Book
 March 4th 2009
 Reports from the twelve Federal Reserve Districts suggest that national economic conditions deteriorated further during the reporting period of January through late February. Ten of the twelve reports indicated weaker conditions or declines in economic activity; the exceptions were Philadelphia and Chicago, which reported that their regional economies "remained weak." The deterioration was broad based, with only a few sectors such as basic food production and ph...



Usages (ways of seeing)

- USA
- 1. All Countries (No Settings)
- APEC Member Countries
- Agriculture
- All one Group
- BIS: Bank Settlements - Select Countries
- BIS: Merge Countries
- BIS: Table 9.B (All Data) Mapped
- BIS: Table 9.B (All Data) [No Settings]
- Consolidated foreign claims of reporting banks - I
- Countries (World)
- Countries: All American (GDP, Ind. & Pop. Growth)
- Country Data (US)
- Country/National
- Currencies: All North American

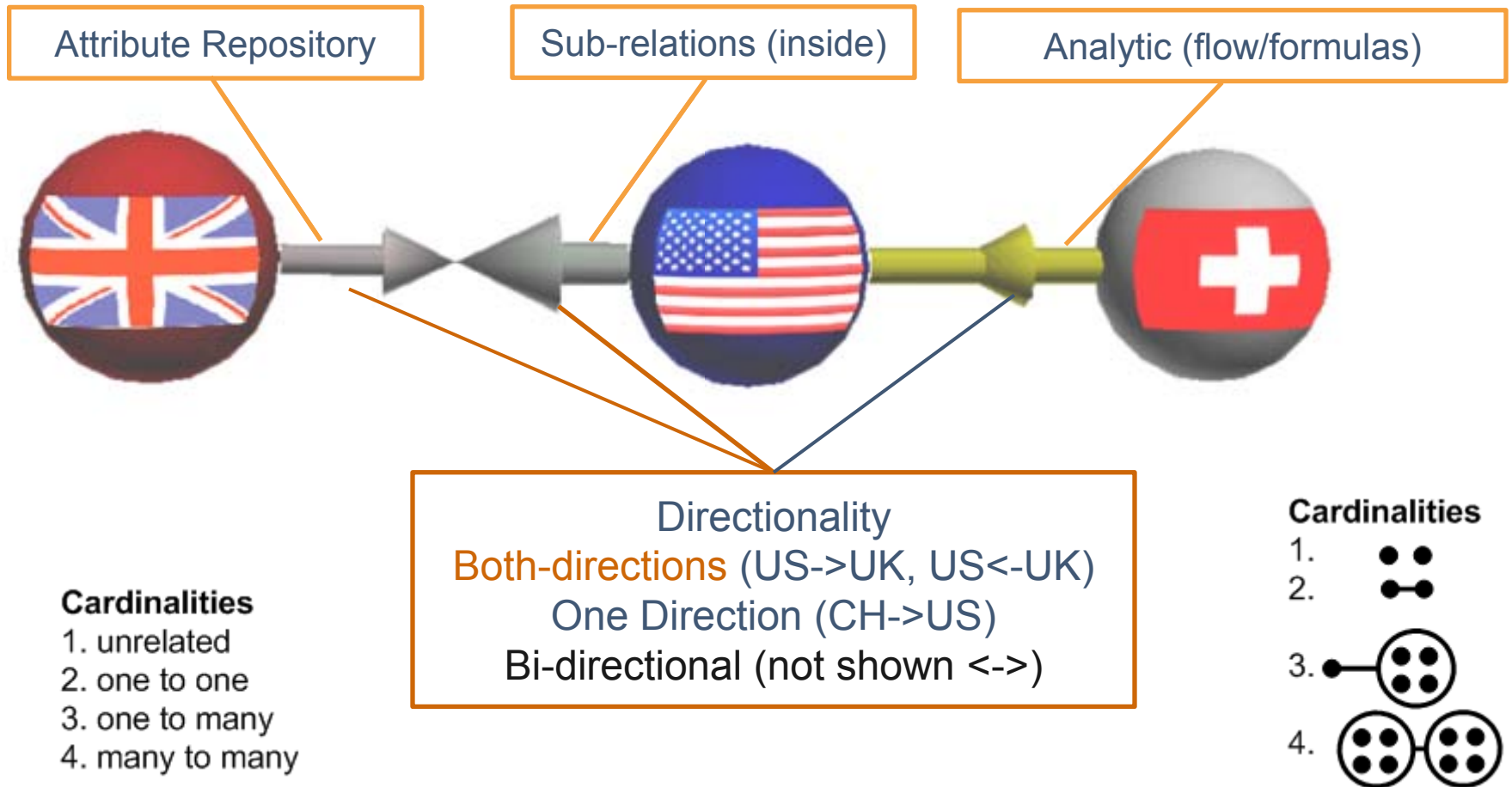
Sub-spaces (inside)

- Finance: venture Capital (US)
- Financial Services Industry (US)
- Financial: US Financial Stock
- Geographic: City, State, Metro/Micropolitan
- Geographic: States
- Government: Agencies & Departments (455)
- Industries: Capital Flow (All Industry/Commodities)
- Industries: Input/Output Industry Analysis
- Industries: NAICS [1997/2002] Sectors 11-92 (20)

Relations (invoke/expand)

- Imports from Persia
 - Persian Gulf->USA
- Inter-Regional FX
 - Brazil->USA
 - China->USA
 - Denmark->USA
 - Euro->USA
 - Greece->USA
 - Hong Kong->USA
 - India->USA
 - Japan->USA
 - Malaysia->USA
 - New Zealand->USA
 - Norway->USA

Relations |



Attributes

Quantum4D Data Sheet - Ireland

Data Edit Insert Window

Layout

Primary Header Object Separate Column

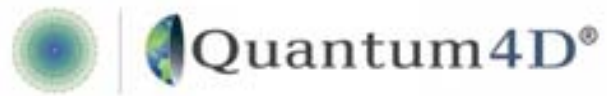
Columns Data

Rows Attribute

Change...

	A	B	C	D	E	F	G	H	I	J	K	L	M
51	Capital - Average Production Capital Ratio			11.022	11.934	11.84	11.490	11.023	10.954	9.777	9.203	8.856	8.1
52	Capital - Average Propensity to Consume			0.095	0.102	0.107	0.112	0.116	0.122	0.125	0.128	0.13	0
53	Capital - Business Investment by Industry, Nominal \$			76	108	110	113	120	132	156	171	188	:
54	Capital - Business Investment by Industry, 1995 \$			85	115	121	124	127	130	154	169	183	:
55	Capital - Commodity Price Index in US \$ (1995=1.0)			0.891	0.897	0.91	0.915	0.946	1	1.013	1.013	1.027	1.1
56	Capital - Employment Share of Total Employment (%)			0.008	0.004	0.005	0.005	0.004	0.003	0.004	0.004	0.004	0.1
57	Capital - Employment Thousands			8.755	4.489	4.919	5.146	4.425	3.841	4.326	4.811	5.237	4.1
58	Capital - Export Prices			0.909	0.909	0.912	0.92	0.957	1	1.037	1.06	1.113	1.1
59	Capital - Export Share of Total Exports (%)			0.023	0.024	0.025	0.025	0.029	0.029	0.025	0.028	0.03	0
60	Capital - Exports Millions Nominal \$			497.814	509.72	621.776	636.776	676.402	722.86	937.217	1,094.495	1,290.858	1,520.1
61	Capital - Exports Millions 1995 \$			547.595	615.652	681.806	692.507	708.965	722.86	903.398	1,032.513	1,159.684	1,367
62	Capital - Exports as a Share of World Exports (%)			0.001	0.002	0.002	0.002	0.002	0.001	0.002	0.002	0.002	0.1
63	Capital - Exports/Production for Traded Goods (%)			0.328	0.271	0.286	0.284	0.284	0.277	0.299	0.31	0.322	0.1
64	Capital - Gross Output (Production), 1995 \$			1,671	2,208	2,383	2,437	2,500	2,608	3,025	3,332	3,605	3.1
65	Capital - Gross Output (Production) Nominal \$			1,490	2,036	2,169	2,230	2,305	2,408	3,005	3,374	3,702	4.1
66	Capital - Import Prices			0.922	0.919	0.926	0.925	0.955	1	1.002	0.981	1.059	1.1
67	Capital - Import Share of Total Imports (%)			0.158	0.148	0.146	0.142	0.134	0.133	0.128	0.125	0.114	0
68	Capital - Imports Millions Nominal \$			1,802.793	1,897.951	2,108.832	2,342.321	2,545.91	2,815.832	3,095.474	3,111.209	3,507.368	3,664.1
69	Capital - Imports Millions 1995 US \$			1,955.15	2,063.675	2,343.407	2,520.969	2,657.932	2,815.832	3,094.559	3,171.921	3,513.418	3,471.1
70	Capital - Imports Share of World Market with Market Demand Sp...			2.091	2.467	2.432	2.425	2.283	2.24	2.18	2.062	2.113	1
71	Capital - Imports as a Share of World Imports (%)			0.006	0.006	0.007	0.007	0.006	0.006	0.006	0.006	0.006	0.1
72	Capital - Imports/Market Demand for Traded Goods (%)			0.533	0.484	0.505	0.507	0.5	0.514	0.514	0.507	0.541	0.1
73	Capital - International Trade Balance (Millions 1995 \$)			-1,407.554	-1,447.963	-1,961.6	-1,828.462	-1,948.937	-2,092.972	-2,131.155	-2,138.802	-2,153.734	-2,103.1
74	Capital - International Trade Balance (Nominal \$) Millions			-1,304.975	-1,337.031	-1,547.050	-1,705.545	-1,871.418	-2,092.972	-2,102.257	-2,016.714	-2,216.51	-2,143.1
75	Capital - Labor Capital Ratio			57.733	41.576	35.737	32.241	29.081	26.09	17.57	15.295	13.439	12.1
76	Capital - Local Currency Price Commodity Index, 1995=1.0			0.891	0.897	0.91	0.915	0.946	1	1.013	1.013	1.027	1.1
77	Capital - Marginal Productivity of Capital								6.299	5.496	5.473	5.089	6.1
78	Capital - Marginal Propensity to Consume								0.439	0.318	0.277	0.257	0.1
79	Capital - Market Demand Share of Regional Demand (%)			0.117	0.119	0.076	0.084	0.147	0.152	0.158	0.158	0.148	0
80	Capital - Market Demand Share of Total Market Demand (%)			0.059	0.06	0.06	0.062	0.061	0.061	0.061	0.061	0.054	0.1
81	Capital - Market Demand as a Share of World Demand (%)			0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.1
82	Capital - Market Demand, Consumption, 1995\$			143	194	186	196	242	265	274	271	252	:
83	Capital - Market Demand, Consumption, Nominal \$			132	150	172	181	229	265	277	272	254	:
84	Capital - Market Demand, Government, 1995\$			311	321	336	341	333	326	326	347	313	:
85	Capital - Market Demand, Government, Nominal \$			276	288	305	312	314	326	330	352	327	:
86	Capital - Market Demand, Intermediate, 1995 \$			2,131	2,577	2,737	2,807	2,948	3,075	3,398	3,641	3,623	3.1
87	Capital - Market Demand, Intermediate, Nominal \$			1,952	2,318	2,499	2,569	2,789	3,075	3,442	3,692	3,705	3.1
88	Capital - Market Demand, Investment, 1995 \$			1,086	1,206	1,363	1,624	1,752	1,817	1,908	1,994	1,936	1.1
89	Capital - Market Demand, Investment, Nominal \$			965	1,063	1,258	1,487	1,695	1,817	1,937	2,024	1,994	1.1
90	Capital - Market Demand, Total, 1995 \$			3,071	4,208	4,641	4,908	5,314	5,474	5,905	6,253	6,130	7.1
91	Capital - Market Demand, Total, Nominal \$			3,275	3,839	4,228	4,548	5,027	5,474	5,980	6,329	6,280	7.1

Quantum4D



Global risk dashboard

Building a shared intelligence module

Step 1 | Search for source data by concept and/or country

The screenshot displays the Quantum4D software interface. The main window shows a search bar at the top with a magnifying glass icon and a search button. Below the search bar is a navigation tree on the left side, listing various data sources and categories. A red box highlights the tree structure, and a red arrow points from the search bar to the 'Advanced Search' dialog box. The 'Advanced Search' dialog box is open, showing a dropdown menu for the data source, a search input field containing 'Iceland, Capital', and several checkboxes for search options.

Navigate by source, topic, region or drag and drop to create your own taxonomy on the fly.

Quantum4D | Advanced Search

Global Economics Proprietary Database

Search... Iceland, Capital

Return: Spaces Groups Objects

Whole Word Match Exactly Case Sensitive

Short Name Long Name Notes

Search Cancel

Navigate via tree.

Step 2 | View, select and download your desired results.

The screenshot displays the Quantum4D software interface. The main window shows a data table with columns labeled A through M. The table contains various economic indicators, such as 'Capital - Average Production Capital Rate', 'Capital - Average Propensity to Consume', and 'Capital - Business Investment by Industry, Nominal \$'. The values are numerical, representing different metrics over time or across regions.

The left sidebar shows a tree view of categories, including 'Cross-border Capital Flows', 'Foreign Investments', 'Foreign Investments Navigator', 'Asset Class Contribution to Growth', 'Asset Class Share of Cross-border', 'Comparison of Cross-border Investment', 'Composition of Foreign Investment', 'Foreign Assets & Liabilities by Country', '5. Select Countries (Foreign Investment)', 'Total Foreign Assets/GDP', 'Total Foreign Assets', 'Total Foreign Liabilities', 'Growth in Cross-border Investment', 'Growth in Foreign Investment A', 'Net Investment by Country', 'Net Investment by Country', 'Regional Contribution to Growth', 'Global Financial Assets', 'Granular Growth', 'OECD', 'OECD Country Groups', 'By Income', and 'By Region'. The 'Total Foreign Assets' category is currently selected.

The top menu bar includes 'Application', 'Edit', 'Space', 'Time', 'Lens', 'Object', 'Relation', and 'Attribute'. The bottom status bar shows '3D Scene: 516x409'.

Select and download data to Excel® spreadsheets, Eviews® or other applications.

Step 3 | Copy your model formulas

Current Account Balance, % of GDP

GREEN: $(-3 \leq x)$

YELLOW: $(-6 \leq x < -3)$

RED: $(x < -6)$

$\text{if}(-3 \leq a, 1, \text{if}(-6 \leq a \&\& a < -3, 0, -1))$

Fiscal Balance, % of GDP

GREEN: $(-3 \leq x)$

YELLOW: $(-6 \leq x < -3)$

RED: $(x < -6)$

$\text{if}(a \geq -3, 1, \text{if}(a < -3 \&\& a \geq -6, 0, -1))$

Foreign Exchange Reserves, % of Short-Term External Debt

GREEN: $(100 \leq x)$

YELLOW: $(50 \leq x < 100)$

RED: $(x < 50)$

$\text{if}(a > 100, 1, \text{if}(50 < a \&\& a < 100, 0, -1))$

Foreign Exchange Reserves, Months of Imports

GREEN: $(3 \leq x)$

YELLOW: $(1.5 \leq x < 3)$

RED: $(x < 1.5)$

$\text{if}(3 \leq a, 1, \text{if}(1.5 < a \&\& a < 3, 0, -1))$

One-Year Credit Default Swaps, Basis Points

GREEN: $(x \leq 200)$

YELLOW: $(200 < x \leq 600)$

RED: $(600 < x)$

$\text{if}(a \leq 25, 1, \text{if}(a > 100, -1, 0))$

Real GDP Growth, Percent

GREEN: $(2 \leq x \leq 7)$

YELLOW: $(0 \leq x < 2)$ OR $(7 < x \leq 10)$

RED: $(x < 0)$ OR $(10 < x)$

$\text{if}(2 \leq a \&\& a \leq 7, 1, \text{if}((0 \leq a \&\& a < 2) \mid (7 < a \&\& a \leq 10), 0, -1))$

Real Private-Sector Domestic Credit Growth, year-over-year

GREEN: $(x \leq 20)$

YELLOW: $(20 < x \leq 30)$

RED: $(30 < x)$

$\text{if}(a \leq 20, 1, \text{if}(a < 30, 0, -1))$

Real Short-Term Interest Rate

GREEN: $(-5 \leq x \leq 5)$

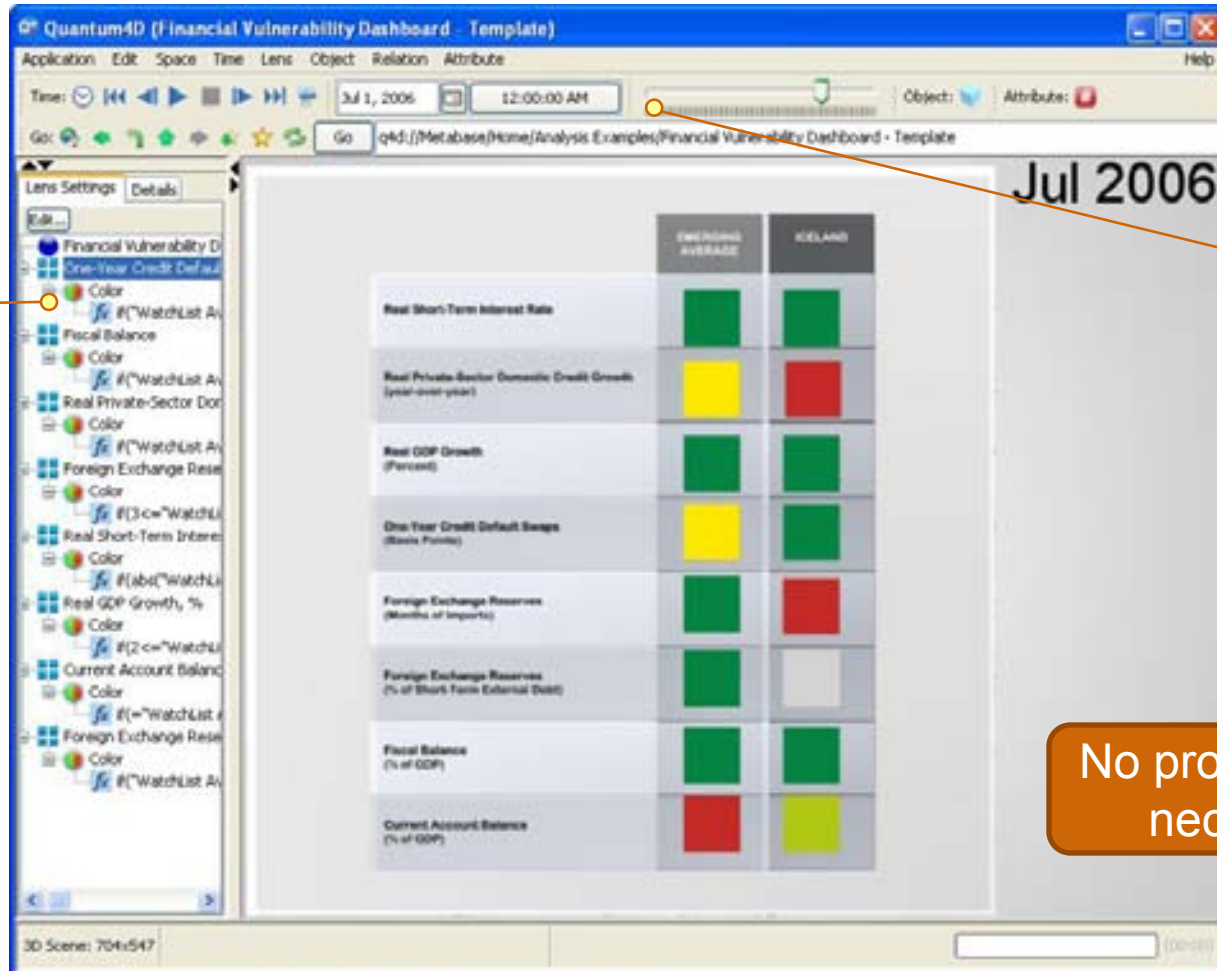
YELLOW: $(-10 \leq x < -5)$ OR $(5 < x \leq 10)$

RED: $(x < -10)$ OR $(10 < x)$

$\text{if}(\text{abs}(a) \leq 5, 1, \text{if}(\text{abs}(a) < 10, 0, -1))$

Step 3 | Paste formulas into Quantum4D

Paste formulas here



Select time range
Scroll through time

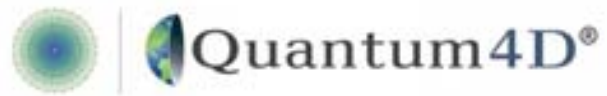
No programming necessary

Data resident on the "Iceland" object is channeled through the model and into the display. All models are refreshed as new data become available (these can trigger alerts in other spaces).

Share| Save, apply to all countries, share

		Current Account Balance (% of GDP)	Fiscal Balance (% of GDP)	Foreign Exchange Reserves (% of Short Term External Debt)	Foreign Exchange Reserves (Months of Imports)	One Year Credit Default Swap (Basis Points)	Real GDP Growth (YoY)	Real Private Sector Domestic Credit Growth (YoY)	Real Short-Term Interest Rate
AMERICAS	AR (Argentina)	Green	Green	Green	Green	Yellow	Green	Yellow	Green
	BR (Brazil)	Green	Green	Green	Green	Grey	Green	Light Green	Yellow
	EC (Ecuador)	Green	Green	Green	Yellow	Red	Green	Green	Green
	SV (El Salvador)	Yellow	Green	Green	Green	Green	Green	Green	Green
	JM (Jamaica)	Red	Yellow	Green	Green	Grey	Green	Green	Green
	MX (Mexico)	Green	Green	Green	Green	Green	Green	Yellow	Green
	VE (Venezuela)	Green	Green	Green	Green	Red	Green	Green	Red
ASIA	CN (China)	Green	Green	Green	Green	Green	Green	Grey	Yellow
	IN (India)	Green	Green	Green	Green	Green	Green	Red	Green
	ID (Indonesia)	Green	Green	Green	Green	Yellow	Green	Red	Green
	MY (Malaysia)	Green	Yellow	Green	Green	Green	Green	Red	Green
	PH (Philippines)	Green	Green	Green	Green	Yellow	Green	Red	Green
	KR (South Korea)	Green	Green	Green	Green	Green	Green	Red	Green
	TH (Thailand)	Green	Green	Green	Green	Green	Green	Red	Green
AFRICA	ZA (South Africa)	Red	Green	Green	Green	Green	Green	Red	Green
EUROPE	BG (Bulgaria)	Red	Green	Red	Red	Green	Green	Light Green	Green
	BY (Belarus)	Red	Green	Green	Green	Green	Green	Green	Yellow
	HR (Croatia)	Red	Green	Green	Green	Green	Green	Red	Green
	EE (Estonia)	Red	Green	Yellow	Yellow	Green	Green	Light Green	Green
	HU (Hungary)	Yellow	Yellow	Green	Yellow	Grey	Green	Red	Green
	IS (Iceland)	Red	Green	Grey	Green	Green	Green	Light Green	Yellow
	KZ (Kazakhstan)	Red	Green	Green	Green	Green	Green	Green	Yellow
	LV (Latvia)	Red	Green	Red	Green	Green	Green	Green	Yellow
	LT (Lithuania)	Red	Green	Yellow	Yellow	Green	Green	Light Green	Green
	PL (Poland)	Yellow	Green	Green	Green	Green	Green	Yellow	Green
	RO (Romania)	Red	Green	Green	Green	Green	Green	Green	Green
	RU (Russia)	Green	Green	Green	Green	Yellow	Green	Green	Yellow
	UA (Ukraine)	Yellow	Green	Green	Green	Yellow	Green	Green	Red
MIDDLE EAST	EG (Egypt)	Green	Red	Green	Green	Yellow	Green	Red	Green
	PK (Pakistan)	Yellow	Yellow	Green	Green	Yellow	Green	Red	Green
	TR (Turkey)	Yellow	Green	Green	Green	Yellow	Green	Red	Yellow

View side by side (above) or drill down to view one at a time (previous slide - Iceland)



Interbank Payments

Visualizing counter-party risk

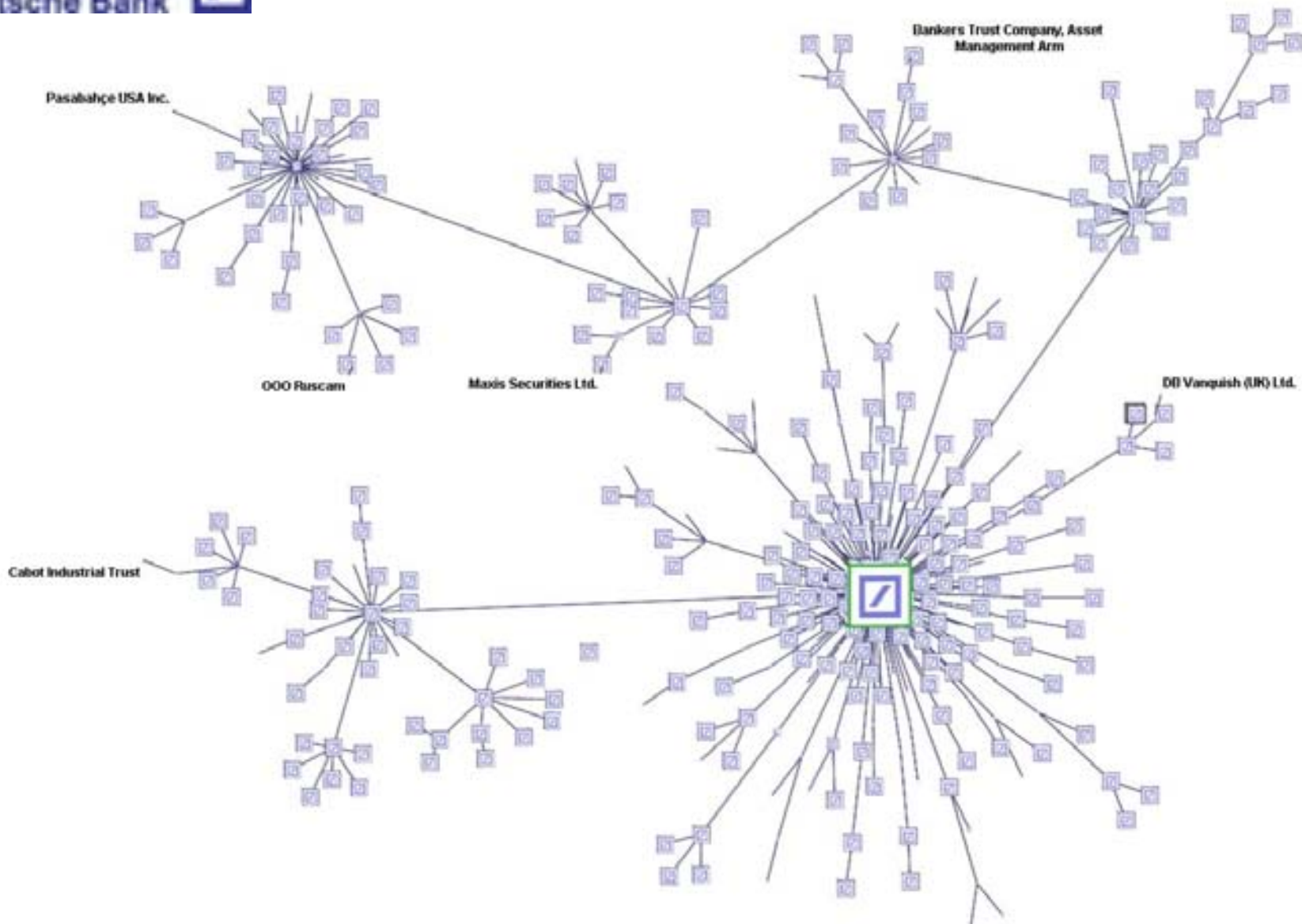
JPMorgan Chase & Co. (NYSE:JPM) > Corporate Structure Tree

Report Criteria

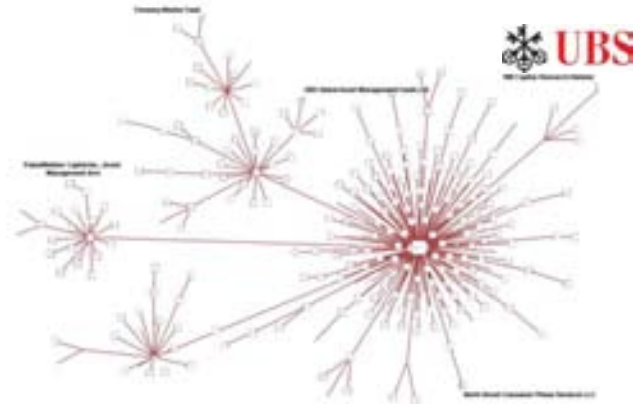
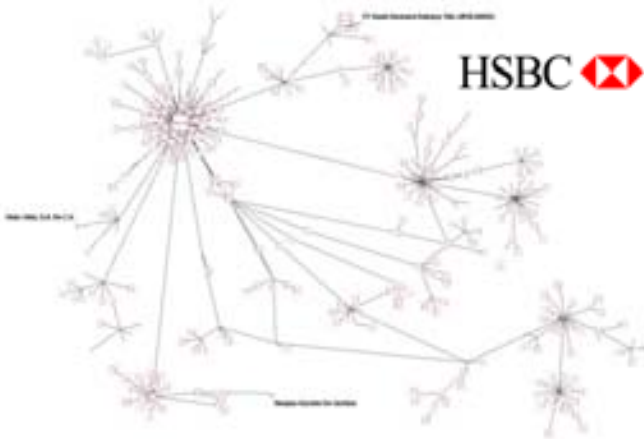
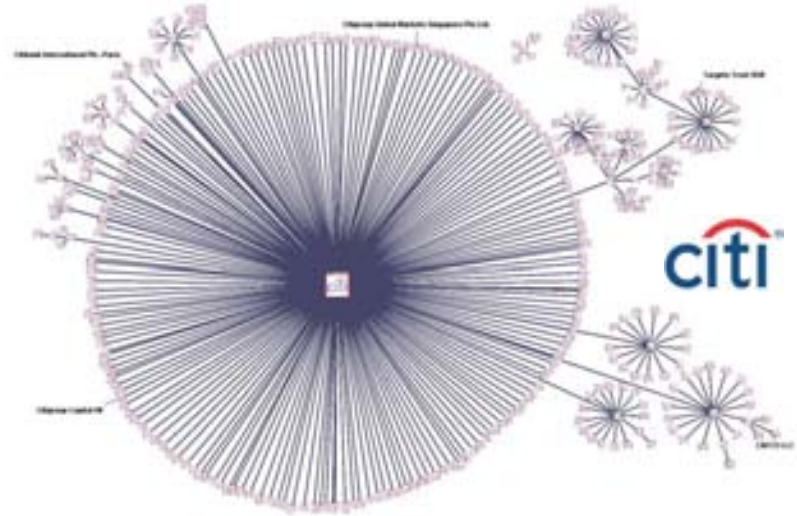
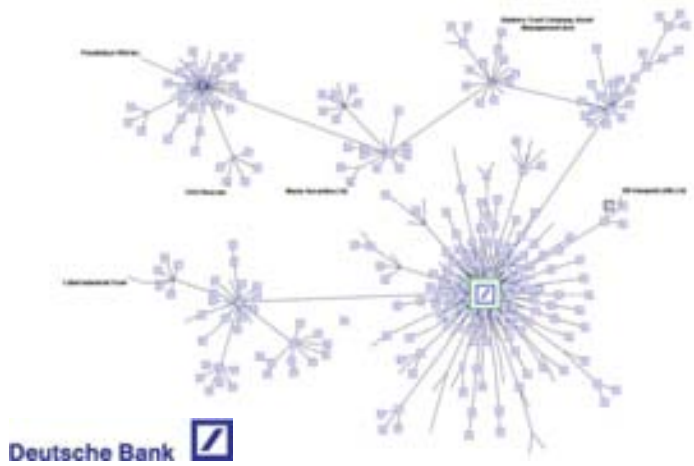
Relationship Types Current Subsidiaries/Operating Units

- JPMorgan Chase & Co. (NYSE:JPM)
 Parent Company | {{(% Owned;)}}
 {{(L TM Total Revenues (USD MM);)}}53,348.00 | {{(L TM Net Income (USD MM);)}}6,091.00 | {{(LFQ Total Debt (USD MM);)}}710,496.00
 {{(Headquarters;)}}New York, New York | United States
- American Electric Power Co Inc., Orange Power Plant
 Current Subsidiary/Operating Unit | {{(% Owned;)}}50.0
 {{(L TM Total Revenues (MM);)}}- | {{(L TM Net Income (MM);)}}- | {{(LFQ Total Debt (MM);)}}-
 {{(Headquarters;)}}Bartow, Florida | United States
- American Electric Power Co Inc., Thermo Power Plant
 Current Subsidiary/Operating Unit | {{(% Owned;)}}50.0
 {{(L TM Total Revenues (MM);)}}- | {{(L TM Net Income (MM);)}}- | {{(LFQ Total Debt (MM);)}}-
 {{(Headquarters;)}}Fort Lupton, Colorado | United States
- Banc One Building Management Corporation
 Current Subsidiary/Operating Unit | {{(% Owned;)}}100.0
 {{(L TM Total Revenues (MM);)}}- | {{(L TM Net Income (MM);)}}- | {{(LFQ Total Debt (MM);)}}-
 {{(Headquarters;)}}United States
- Banc One Capital Holdings Corporation
 Current Subsidiary/Operating Unit | {{(% Owned;)}}100.0
 {{(L TM Total Revenues (MM);)}}- | {{(L TM Net Income (MM);)}}- | {{(LFQ Total Debt (MM);)}}-
 {{(Headquarters;)}}United States
 - Banc One Securities Corporation
 Current Subsidiary/Operating Unit | {{(% Owned;)}}100.0
 {{(L TM Total Revenues (MM);)}}0.00 | {{(L TM Net Income (MM);)}}- | {{(LFQ Total Debt (MM);)}}-
 {{(Headquarters;)}}United States
- Banc One Capital Holdings LLC
 Current Subsidiary/Operating Unit | {{(% Owned;)}}100.0
 {{(L TM Total Revenues (MM);)}}- | {{(L TM Net Income (MM);)}}- | {{(LFQ Total Debt (MM);)}}-
 {{(Headquarters;)}}United States
 - Banc One Management And Consulting Corporation
 Current Subsidiary/Operating Unit | {{(% Owned;)}}-
 {{(L TM Total Revenues (MM);)}}- | {{(L TM Net Income (MM);)}}- | {{(LFQ Total Debt (MM);)}}-
 {{(Headquarters;)}}United States
 - Bonnet Resources Corporation
 Current Subsidiary/Operating Unit | {{(% Owned;)}}-

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It is easier to connect the dots once you can see them



Income Statement (JP Morgan)

06/30/2009

