

# A Case Study of Economic Infographic by Beautiful Visualization Method

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## Abstract

As the flood of huge data, simply static traditional diagram cannot help reader understand these dataset. Economic data analysis needs a lot of time to clearly understood. The purpose of this study is by using beautiful visualization method to analysis economic infographic displayed huge data easily, quickly and aesthetically.

## 1. Background

There are already have some visual data analysis software products that help you see multi-levelled categories. The formulation of aesthetics of information need some clearly artistic value of works in information visualization[1].

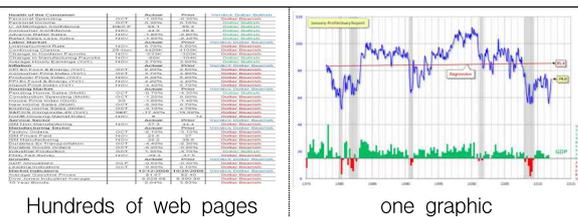


Figure 1. The risk data of stock exchange floating.

Lev Manovich(2002) indicated that data visualization art is concerned with the anti-sublime[2].

## 2. Method

A good infographic provides some kind of visual dimensions, Matthias Shapiro(2010) analyzed the size, color, location, networks, time and the other multiple visual presentation methods achieved a beautiful economic infographic[3].

I have selected ten visual data for the financial analysis (trouble asset relief program, industry and equity analysis, exchange rate, budget, business expansions and stock market data) to organized economic information applied to beautiful visualization.

## 3. Theoretical investigation

Infographic(or information graphic) is visual representations of information, data or knowledge. Understanding of infographic in documents is a relatively new research problem, which becomes more challenging when infographic appear as raster images. Information graphics are visual devices intended to

communicate complex information quickly and clearly. It is commonly used to show statistical data[4].

Anti-sublime characterization of artistic information graphic as an exercise in beautiful image making to render data friendly or easy is unsatisfactory for most artists and designers concerned with information visualization[2]. A good infographic promotes a unique way of thinking, the well organized information and tells us a story. It works on multiple levels and its scale is accurate, and its visual is well-designed and the graphic stands on its own[4].

In any successful graphic there must be an effective blending of content, context, construction and design. Presenting data involves deciding what information you want to convey and draw a display appropriation for the content and for the intended audience[5]. Aesthetics issues of sensation is to find out what makes people emotional.

According to Noah Illiinsky' s definition, a beautiful data visualization is a method which is novel, informative, efficient, and aesthetic[3].

Table 1. Four key elements of beautiful visualization

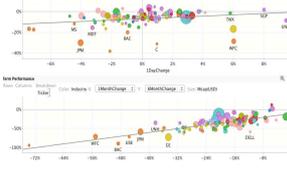
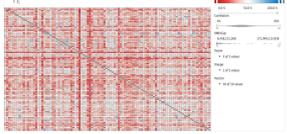
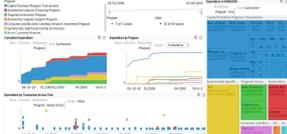
Novel	a fresh look at the data or a format that gives readers a spark of excitement and results in a new level of understanding. Step outside default formats
Informative	convey information, keen attention to the intended message and the context of use
Efficient	deliver necessary information straightforwardly
Aesthetic	appropriate usage of the graphical construction elements, graphical treatment does enhance the efficiency

A visual representation is kind of visual dimensions that can change in correspondence to the data[3].

Table 2. Portray a visual presentation method

Size	differentiating between two objects, comparing two unfamiliar numbers
Color	commonly used for identifying patterns and anomalies in large datasets
Location	attaches data to geographical visual element corresponding to a real or virtual place
Networks	show the relationships between data points.
Time	portray the changeable data along a timeline
Multiple visual presentation methods	processing complex and diversify dataset.

#### 4. Case study on economic infographics

Infographic	method		Infographic	method		
 <p>The Scatter Plots shows short and mid term performance. Equity analysis dashboard</p>	Subjects	Capital Markets, Risk & Performance, and Equity	 <p>Fund of Fund analysis The tree map shows Business Map of Risk</p>	Subjects	Capital Markets, Risk & Performance, Time Equity & FI Screening	
	Color	Represents different industry.		Color	6 kinds of domain	
	Size	Value of Market Cap		Size	Net Assets	
	Time	Weekly to Monthly/ Quarterly to Semiannually		Tree map	Display tree-structured data into intuitive set of nested rectangles is easy to understand.	
	Scatter Plot	X: one-day change, Y e: one-week change, plot shows floating range				
 <p>Equity correlation matrix</p>	Subjects	Capital Markets, Equity & FI Screening and Map of the Market	 <p>US Federal budget analysis dashboard</p>	Subjects	Political, multi-tabbed EX Dashboard to provide multiple perspectives	
	Color	Red-Blue Domain, analyzing large flat data volumes.		Color	Percentage change	
	Heat Matrix	a special kind of Heat map. Displays the price changing in stocks in portfolio.		Size	Value	
 <p>BI dashboard for consumer products distributor</p>	Subjects	Capital Markets, Visualizing CEP Data, Streaming Data, Map of the Market		 <p>Visualize US stock market activity</p>	Horizon Graphs	Percentage change from start or percentage change
	Color	Activity and data percentage change			Subjects	Profit & Loss, Marketing, Corporate
	Size	Different industry Market Cap and turnover	Color		Order Duration Day	
	Tree Map	Provides a visual overview of market activity	Size		Revenue	
 <p>Sales intelligence dashboard</p>	Subjects	Profit & Loss, Marketing and Corporate.	 <p>Visualize US stock market activity, unusual activity finder</p>		Bar Grapic	Analyze and monitor orders and sales
	Bar Graphs	Make comparisons simple and provide visibility into future revenue opportunities		Subjects	Capital Markets, Visualizing CEP Data, Streaming Data, Map of the Market.	
	Scatter Plots	By using color to difference industry, size to present sales volume make correlations		Color	Represents different industry.	
 <p>TARP program expenditures analysis</p>	Subjects	Capital Markets, Political, Time Series Data Analysis, Macroeconomics		 <p>Analysis of Wal-Mart retail chain expansion in the USEasy to interpret with virtually no training</p>	Size	Shows Market Cap. named of real activity and percentage change.
	Color	Program name			Scatter Plot	The info-graphic allows traders to spot outliers and correlations instantly.
	Size	Cumulative	Subjects		Demographic, Retail, Marketing, And Corporate	
	Time	Data Stack graphic show each quantitative change contributes to the total	Color		Region/Opening Date	
			Size		Store Count	
			Geogaphic Scatter Plots	Correlate changes in complex databases with physical locations.		

#### 5. Conclusion

Using the huge data to convey information becomes a challenge. There are plenty of benefits to be achieved from incorporating infographic into economic data. Infographic like a storytelling, helps us to discern data. Beautiful visualization makes information more appealing and more memorable and lessen boredom. Economic data could be more persuasive, accessible and easier understanding.

#### ■ Reference ■

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