Introduction


In this edition of the newsletter, we detail some past and upcoming activities. This newsletter also includes two commentaries.

The first commentary is by Stephen A. Boyko, president of Global Market Thoughtware, Inc. (Mr. Boyko also contributed to the Fall, 2004 newsletter). In his commentary, Stephen Boyko critiques how problem solving is addressed in business schools, and presents several innovative approaches through which problem solving can be improved.

The second commentary is by Qi Lu, a visiting Assistant Professor of Finance at the Lubin School of Business, Pace University. In his commentary, Qi Lu delves into the recent anti-Japan demonstrations in Asia. Tracing the economic and historical foundations of the underlying dispute, Qi Lu considers the potential economic impact of the dispute to Asian economies.

We are confident that our readers will find these commentaries both insightful and engaging. Enjoy!
Global Finance Letter: The Newsletter of the Center for Global Finance

**Recent Events:**

*At the Center*

**Wednesday, February 16th**

Charles W. Gasparino, DYS '85, author of *Blood on the Street*

Topic: "The Sensational Inside Story of How Wall Street Analysts Duped a Generation of Investors"

*Presented by in association with the Lubin Alumni Association Board*

**March 30- April 1, 2005**

Jorge Pinto chaired panels on international investing in RISE (Redefining Investment Strategy Education) 2005 Symposium at the University of Ohio.

**March 22, 2005**

Breakfast with Dr. Szenberg and Lubin Faculty where Dr. Szenberg spoke on “Globalization, Technology and Three Societal Goals.”

**Upcoming Events:**

**May 6, 2005**

Finance Team Meeting.

Location: 18th Floor, Board Room North & South.

Breakfast will be served at 8:30 a.m. and will be followed by presentations with a break for lunch at 1:00 pm.

**The Center in the Press:**

During March Jorge Pinto was quoted in the following publications:

“Imports Remain a Key Part of U.S. Economy,”

*The Journal News, USA March 27, 2005.*

“Unemployment Rates Fall in Region,”

*The Journal News, USA March 31, 2005.*
Commentary: Cutting to the Chase

By Stephen A. Boyko

Stephen A. Boyko is president of Global Market Thoughtware, Inc., an international consulting company that specializes in economic governance issues. This commentary represents the opinion of the author, and does not represent the opinion of the Center for Global Finance or Pace University.

Introduction

Problem solving is the linchpin connecting business and business schools. In a previous article, I defined entrepreneurs as "pragmatic problem solvers." Think of the number of theoretical and applied problems the Wright brothers had to solve before their flight!

While teaching a financial management course several years ago, I was surprised by the number of vague and/or ambiguous conclusions reached in case analyses by students wanting to become entrepreneurs. These deficiencies were not the result of a lack of effort or unfamiliarity with the course content. Quite to the contrary, industrious students often suffered from information overload as they tried to substitute quantity of subject matter for a lack of analytical rigor.

Notwithstanding a 1500-word limit on the case study executive summary, approximately fifty percent of students learned that there were consequences to violating a budgeting constraint. While the word constraint focused the thought process, case presentations still lacked the analytical precision needed to concretize an entrepreneurial vision. This limitation was addressed when the students were asked to define the word "problem."

Defining a Problem

We all have problems. Problem solving has two prerequisites: one - the recognition of an adverse condition, and two - procedures with which to rectify the adverse condition. Our problem solving success depends on how creative we are in developing an effective (ability to solve) and efficient (minimal expenditure of time, cost, and effort) process.

For the purposes of this article, a "problem" is defined as a measured observance outside a standard's normative operating zone. To illustrate, consider a state trooper monitoring traffic on an interstate highway. The Department of Motor Vehicle (DMV) chooses commands appropriate for a given level of traffic and operating conditions. Commands are a combination of standards and rules that reflexively control behavior.

Standards are prospective societal policies that enforce normative behavior relative to cultural values. For example, drivers are assumed to be in the safe operating control of their vehicle at all times. Standards are defined in terms of "mass" indicating the number of people affected by the command and "materiality" indicating the relative importance of the command (stopping for a red light). In comparison, rules are the retrospective codification of best-practice procedures that optimize efficiency. Rules set limits in terms of gravitas and granularity. Gravitas is the seriousness of a violation as measured in terms of the amount of a fine and/or duration of a sentence. Granularity is the degree of precision required to ensure compliance (level of blood alcohol content to distinguish driving while intoxicated (DWI) from driving under the influence (DUI)).

Rules and standards can be perceived as alternative mechanisms through which governance objectives are satisfied. The state trooper screens on-coming traffic with a radar gun to determine whether motorists are complying with the speed limit (plus or minus a 5-mile per hour tolerance margin) and prudent driving protocols. Drivers in excess of the speed limit, driving recklessly, and/or driving too slowly in the left lane pose problems that must be addressed.
Solving a Problem

There are two basic methodologies for solving problems: data mining and model building. These are reflexive functions similar to multiplication and division, where one method is used to predict a solution and the other method is used to prove the prediction. It should be noted that an entrepreneurial idea could never be proven true. No matter how many market tests seem to agree with it, it may still be wrong. On the other hand, a single contrary experiment can invalidate an entrepreneurial business model.

Data Mining

Data mining uses information extraction techniques to accumulate and separate facts from assumptions. Facts are empirical truths, whereas assumptions are beliefs without empirical evidence. Facts are correlated to format recognizable information patterns. Hypotheses are limited statements regarding cause and effect that refer to the state of knowledge before experiments took place. Predictions are initial conditions (inputs) combined with hypothesis. Explanations are end conditions (outputs) combined with hypotheses. The data-mining methodology collects facts that are mutually exclusive and collectively exhaustive. Facts are then formatted to transform data into information. Thereafter tests (input/output analyses) are conducted to validate the hypotheses for predictive capability (knowledge).

Model Building: Predictive Versus Descriptive

Models present a simplified version of complex reality and should be used whenever it is known that the hypothesis has at least limited validity. Model building can be descriptive or predictive. To illustrate the difference between predictive and descriptive models, envision the Wright brother’s dilemma. They could have defined the “problem” predicatively for a specific solution for building a heavier-than-air machine that flew reliably (six sigma) under its own power. However, the Wright brothers chose to frame the definition of their problem descriptively in terms of a societal need for an airline industry. Rather than obtain a patent for a specific airplane to monopolize the embryonic air industry, the brothers pragmatically patented a process that included but was not limited to:

- How much force is needed to lift the plane?
- What is the optimal wing configuration for a given level of speed to generate the needed lift?
- How do you go up and down (pitch)?
- How do you turn (yaw)? And
- How do you keep the plane from tipping (roll)?

The Wright brothers recognized that anyone who built an airplane would need to control the elements of flight. Their process patent allowed them to collect royalties from anyone who built airplanes. They encouraged others to build planes, while they built an industry. To this end, the Wright brothers published, gave demonstrations, and sold airplane assembly plans. Their razor-blade strategy was to encourage others to build the products of the industry while they perfected the processes of the industry.

Predictive Model Building

A predictive model is an equation or set of rules that makes it possible to forecast an unseen or unmeasured discrete value (the dependent variable or output) from other, known values (independent variables or inputs). For example, given the independent variables of the radius of a circle and the statistical estimation used to approximate the value for the constant, \( \pi (3.14) \), we can determine a unique value for the dependent variable of the circle’s area from the equation: area of circle \( \pi r^2 \). Using the mathematical technique of integration, we can perturb or manipulate the formula from a two to a three-dimensional format to determine the volume of a sphere from the equation: volume of sphere \( \frac{4}{3}\pi r^3 \). Each equation provides a specific correct answer.
Descriptive Model Building

A descriptive model is constructed to aid in understanding underlying processes or behavior. The descriptive problem-solving functions consist of identifying, analyzing, solving, and controlling constructs. Each construct defines its domain or boundary with binary benchmarks that provide a fundamental understanding as to the model’s function.

The problem identification construct defines and describes problems in quantitative and qualitative terms. Effective problem definitions are clear insofar as they are precisely calibrated to the targeted audience to avoid confusion and are unambiguous as to the importance of the message. Efficient problem definitions are concise, fewer than twenty-five words, to enable them to reach a large audience with a minimum of time, cost and effort. Whenever possible, word pictures should be used to enhance listener connectivity.

Problem analysis compares and contrasts in matrix format two constructs that are similar in nature and essential to understanding the problem. The constructs are then subdivided into binary benchmarks to identify the boundaries of the rationale to be examined.

A descriptive entrepreneurial model contains a proposal for the range of benefits related to a transforming event. The pragmatic nature of the model provides pathways to commercialization. Entrepreneurs combine vision with pragmatism by not making the “perfect” the enemy of the “good”. They take a Darwinian path of least resistance to sequence prototype, test, beta, and production models for the incremental rollout of their vision.

The control function combines common sense with common practice to develop best practices that are relevant to the cultural experience and proportionate to the current level of commercial activity. The monitoring construct ascertains the solution’s inputs to ensure that participants are prepared and “know what to do.” This construct test for preparedness by eliminating ambiguity that results from insufficient data, unclear choices, and/or conflicting results that is unable to differentiate among choices. The measuring construct ascertains the solution’s outputs by ensuring that actors “do what they know.”

Combining the identifying, analyzing, solving, and controlling constructs produces a problem-solving model that describes complex entrepreneurial realities in a simple manner. Applying concepts advocated by the problem-solving model does not necessarily beget the next “Wright brother”. But, over time, process becomes content. Consistent application of the problem-solving model increases pattern-recognition skills to manage better the chaotic conditions associated with the introduction of a transforming event.

Endnotes

2 Peters, Edgar. “Complexity, Risk, and Financial Markets,” (John Wiley & Sons, New York, NY.) p. 29-35. Vagueness is the result of imprecise data that supports all alternatives, while ambiguity is the inability to choose among alternatives due to insufficient, confusing, and/or conflicting data.
3 The interstate speed limit is 55 miles per hour. Vehicles B and C are compliant, whereas vehicle A is going too slowly to be in the left lane and vehicle D is speeding.

4 George Soros refers to this as “radical fallibility” (Open Society, 2000). Also reference,
Typical data mining applications include market segmentation, customer profiling, fraud detection, evaluation of retail promotions, and credit risk analysis.


7 The following matrix illustrates formatting data to provide information.

<table>
<thead>
<tr>
<th>Data Measurement</th>
<th>Facts</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantitative</td>
<td>55 MPH speed limit</td>
<td>Dry road</td>
</tr>
<tr>
<td>Qualitative</td>
<td>Driving too close</td>
<td>Aggressive driving</td>
</tr>
<tr>
<td>Fixed</td>
<td>Stop at red light</td>
<td>Emergency vehicle</td>
</tr>
<tr>
<td>Variable</td>
<td>Lights on at dusk</td>
<td>Time of dusk varies each night</td>
</tr>
</tbody>
</table>

8 http://www.twocrows.com/glossary.htm

9 General Electric’s zero-defect standard for manufacturing excellence.

10 To prove my point with entrepreneurs, I asked them to repeat Lincoln’s Gettysburg Address. Most entrepreneurs had difficulty in getting past word seventeen. If people have difficulty in remembering one of the greatest speeches of all time, will they have the mental bandwidth to remember an entrepreneur’s value proposition?


Commentary: Recent Anti-Japan Demonstrations in Asia and the Japanese Economy

By Qi Lu

Qi Lu is visiting Assistant Professor of Finance at the Lubin School of Business, Pace University, and is completing his Ph.D. in Finance from Northwestern University. This commentary represents the opinion of the author, and does not represent the opinion of the Center for Global Finance or Pace University.

There has recently been a wave of anti-Japan demonstrations in Asian countries, particularly in China and South Korea. While these demonstrations appear mostly political, they have economic causes deep down. These events may have economic impact to these countries. If the issues involved are not dealt properly, they will most certainly hurt the economic development of the region and further the global economy.

A recount of recent events

In early 2005, Japanese Prime Minister Koizumi proposed a series of changes to Japan’s pacifist constitution to allow Japan sending troops oversea to engage in military actions. Japan also made it bids to a permanent membership of UN Security Council.

In March 2005, Japanese Educational Ministry approved the latest edition of a high school history textbook written by right-wing nationalists. This textbook downplays the wartime atrocities during World War II and defends Japan’s militarism as an attempt to liberate Asia from western colonialism.

On March 17, 2005, South Korean civic groups, angered by the approval of aforementioned textbook, launched the boycott of Japanese products.

On April 11, 2005, South Korean protesters rallied near the Japanese Embassy in Seoul carrying anti-Japan placards opposing
Japan’s bid for UN Security Council membership and denouncing Japan’s militarism.

From April 10 to April 17, a week long anti-Japan demonstrations erupted in China. Estimated hundreds of thousands protesters took streets of over 50 cities, and in several occasions demonstrations turned violent. Civic groups presented to the Chinese government a petition of blocking Japan’s bid for UN Security Council membership, with over 20 millions people signed on the petition.

On April 22, Japanese P.M. Koizumi issued an apology for its wartime past at Asia-Africa Conference in Jakarta. On the same day, close to 50 Japanese law makers visited the highly controversial Yasukuni Shrine which honors about 2.5 million Japanese war dead including executed war criminals such as World War II-era Prime Minister Hideki Tojo.

The economic ties

While the events listed above appear to be related to the textbook and UN issues, they are only the latest development of a long history of frictions between Japan and its neighboring countries. Although these frictions appear to be mostly political, they are also economic issues in the root. To understand this, we need to take a look of the geography of Japan.

Japan is an island nation with the size slightly smaller than California. Since 85% of its land is taken up by high inhabitable volcanic mountains, its estimated 127 million populations are crowed in the narrow Pacific coastal strip. In comparison, California has a population of about 35 millions. The land size and high population density limit the potential of agricultural development. For a long history, fishing had been the supporting industry of Japanese economy. After the industrial revolution in the west, Japan went through a series of reforms and became an industrial power. While the economic development has been rather successful over the past century or so, Japan has always faced a unique challenge as an industrial country: limited access to markets and natural resources. Japan’s mineral resources are negligible. The geographical conditions limit Japan’s domestic demand and made trades more costly.

These economic difficulties, combined with radical imperialism, drove Japan to invade neighboring countries starting from the end of 19th century. Japan took control of Taiwan, the Korean Peninsula and northeast China (Manchuria) through a series of military invasions. The added lands, natural resources, and markets that came with the lands greatly boosted Japan’s economic development. The success further drove Japan to pursue greater economic and military dominance by conquering other Southeast Asian countries and challenging western powers. Eventually it led to the attack of Pearl Harbor and its defeat in WWII.

After decades of post-war development, the Japanese economy reached a new high in the 1980’s. However, it still faces the same economic difficulties that have hamstrung its development. To be competitive in world markets, the Japanese government heavily supported certain industries. While it proved to be successful in the 70’s and 80’s, the heavy sponsorship by the government also created substantial non-working loans which caused the financial crisis in Japan in the 90’s. Meanwhile, industries that did not get government support tended to be underdeveloped. To protect domestic market for those industries, Japan often impose high tariff on imports. This often angers its trade partners in the region.

However, Japan’s limited access to natural resources is the more serious issue that causes frictions with its neighboring countries. Japan has major territory disputes with Russia, South Korea and China and all these disputes are mostly driven by access to natural resources.

The territory dispute between Japan and Russia is around northern four islands. The water area surrounding northern four islands is ideal for fishing. Years of over-fishing has
caused fish, this natural resource, to become rare around Japan. Therefore, the right to northern four islands will boost the Japanese fishing industry. Neither Japan nor Russia had been willing to compromise until recently, when Japan agrees to financially support building an oil pipeline from Siberia to Pacific coast. By providing high financial incentives, Japan hopes to secure this oil supply and earn compromise from Russia on northern islands negotiation.

The territory dispute between Japan and South Korea is around Takeshima (Tokdo) island. Again, this dispute is motivated by the rich fish resources in the water area around the island in dispute. While South Korea currently controls the island, there have been a number of attempts by Japanese right-wing groups to forcefully land on the island to claim sovereignty. On January 16, the Japanese Shimane prefectural assembly passed a bill proclaiming February 22 as “Takeshima Day”, effectively claimed the right to the disputed island.

The on-going sovereignty dispute between Japan and China is over the Diaoyu (Senkaku) Islands located in East Asia Sea. The dispute arose when ECAFE (United Nations Economic Commission for Asia and the Far East) suggested possible large oil reserve in the waters off Diaoyu islands in 1969. The oil reserve raised huge interests in both countries as both are big oil consumers. While there are many unanswered questions about who these islands belong to and how to settle on economic zones, Japan has repeatedly sent its navel forces to eject Chinese fishermen from the area. A crisis occurred in 1978 when the Japanese right wing political group Nihon Seinensha (Japanese Youth Federation) illegally erected a lighthouse on Daioyu in an attempt to legitimize Japanese territorial claim over the islands. In the spring of 2005, Japanese government granted a Japanese private company the drilling right in the disputed territory. All these unilateral action contribute to the anti-Japan sentiment among Chinese.

As one can see, Japan’s militarism past and its current conflicts with neighboring countries share the similar economic causes: limited access to markets and natural resources. It is natural for Japan’s past victims to question whether the same economic causes will lead Japan to repeat its mistake. After all, economic forces, unlike political forces, are the driving forces of history and are often beyond our control.

Though the Japanese government has apologized for its militarism past again and again, Japanese people have not undergone the kind of self-questioning West Germans went through in the 70's and 80's over their Nazi past. There never was anything similar to de-Nazification in Japan. There seem to be, still, many Japanese who view World War II as a war in which they were the "real" victims (of the atom bombs and the subsequent US occupation). These observations do not help to ease the concerns of Japan's neighbors that the same economic forces may drive Japan to pursue military dominance once again in the future.

Conclusion

Recent anti-Japan protests should cause concern about the potential damage to the regional and world economy. Japan, in particular, has a lot at stake. The trade value between Japan and other Asian countries has seen rapid growth in past several years. Japan has trade surplus to all trade partners in Asia, including China. In 2004, China overtook US, for the first time in history, as Japan's biggest trade partner. Thanks to the trade growth with neighboring countries, Japanese economy is showing signs of real recovery for the first time in over a decade. It is safe to say that the recovery and further development crucially depends on its relationship with regional trade partners, such as China and South Korea. The challenge to Japan is to learn how to share the markets and resources through multilateral corporation, and eases people’s concerns caused by its past.