GAAMA Governance

Introduction

Implicit in the private sector success of commercially viable economies is a reflexive relationship between markets and firms. Markets provide multiples and liquidity that incentivize firms. Firms reciprocate by providing transparency and governance to comply with market commands. The end-condition of this process creates wealth. What self-respecting capital market consultant would deposit money in a zero interest savings account? Yet, this is what we asked the post-Soviet enterprises to do. The preceding papers of the symposium described "what," "where," "who," "when," and "how" to develop transitioning economies. GAAMA Governance focuses on the incentives of "why."

Joseph Stiglitz (1999) maintains that the "Washington Consensus" doctrine of transition failed in their understanding of the core elements of a market economy:

> "Standard neoclassical theory argues that for a market economy to work well (to be Pareto efficient), there must be both competition and private property (the "Siamese twins" of efficient wealth creation). Both are required, … The issue however, concerns choices: if one cannot have both, should one proceed with privatization alone? … After all, it is easy to simply give away state assets … Indeed, if privatization is conducted in ways that are widely viewed as illegitimate and in an environment that lacks the necessary institutional infrastructure, the longer-run prospects of a market economy may actually be undermined."

Markets want firms to state their corporate mission, disclose the results of their operation, and equitably apportion the residual commercial benefit to the corporate stakeholders. Markets also want to know that sound judgment exists relative to the custody of corporate assets that were entrusted to management and that these assets were deployed in a socially responsible manner. Firms, on the other hand, want to be rewarded for successful operations. They want to leverage their effort through debt and/or equity valuation multiples. Thereafter, at a time of their choosing, firm stakeholders want to be able to convert

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into cash any portion of the results of their operations through the orderly liquidation of their securities.

Path Dependence

Whenever any component of this reflexive relationship is missing, the relationship degenerates into a false construct that produces unintended consequences. Too often the capital markets of the post-Soviet successor states lacked valuation multiples and/or liquidity that resulted in the "Field of Dreams" fallacy—build it and they will come. This realization begs several questions. Were mistakes made relative to the initial condition of transitioning economies? Does the economy "lock-in" to these incorrect choices notwithstanding existing knowledge that these choices were incorrect? Path dependence argues that these lock-ins and errors occur, even in a world characterized by voluntary decisions and individually maximizing behavior.

In their paper entitled, "Path Dependence, Lock-In and History", S. J. Liebowitz and Stephen E. Margolis (1997) define three specific types of path dependence. They correctly warn that the three discrete forms of path dependence are often conflated in the literature. When different things are grouped together and treated as things that are similar, error is assured.

> "There are three possible efficiency outcomes where a dynamic process exhibits sensitive dependence on initial conditions. First-degree path dependence are instances in which sensitivity to starting points exists, but with no implied inefficiency … In second-degree path dependence, sensitive dependence on initial conditions leads to outcomes that are regrettable and costly to change. They are not, however, inefficient in any meaningful sense, given the assumed limitations on knowledge. … In third-degree path dependence, sensitive dependence on initial conditions leads to an outcome that is inefficient—but in this case the outcome is also "remediable." That is, there exists some feasible arrangement for recognizing and achieving a preferred outcome, but that outcome has not as yet been obtained."

Using the Liebowitz-Margolis model, the misdiagnosis of the Former Soviet Union as an "inefficient market" illustrates first-degree

path dependence. Mistakes were made, but the deliverables will eventually prove fully functional. The misdiagnosis of the initial condition resulted in a suboptimal path, but with no implication of inefficiency.

Second-degree path dependency was exhibited from the establishment of false constructs and their related unintended consequences since they have resulted in higher costs. The false construct establishing self-sustainability versus commercial viability as a desired-end condition had the unintended consequence of subsidizing shadow-economy activity. Firms in emerging economies share a common challenge as to whether they can evolve beyond self-sustainability (rewarding the enterprise's employees and management) to commercial viability (rewarding the enterprise's employees, management, and risk-capital contributors). By lowering expectations from commercial viability to self-sustainability, donor agencies may be inadvertently reinforcing many of the biases of the past that encouraged the appropriation of surplus capital before it could be distributed to enterprise stakeholders.

This false construct also acts to retard the development of market entrepreneurs. In "Myth of the Robber Barons," Burton Folsom (1996) describes an evolution of entrepreneurs. Folsom distinguishes early adapters, "political" entrepreneurs who take advantage of new licenses and/or legal opportunities, from later-stage, "market" entrepreneurs who provide cheaper and/or better goods and services. Initially, political entrepreneurs employ "state subsidies" in the form of directed order flow to benefit themselves, political apparatchiks, and oligarchs. Thereafter, market entrepreneurs use "best practices" to produce cheaper and/or better goods and services. Using the standard of self-sustainability (vs. commercial viability) delays the entrepreneurial evolution because it subsidizes political entrepreneurs with capital surpluses.

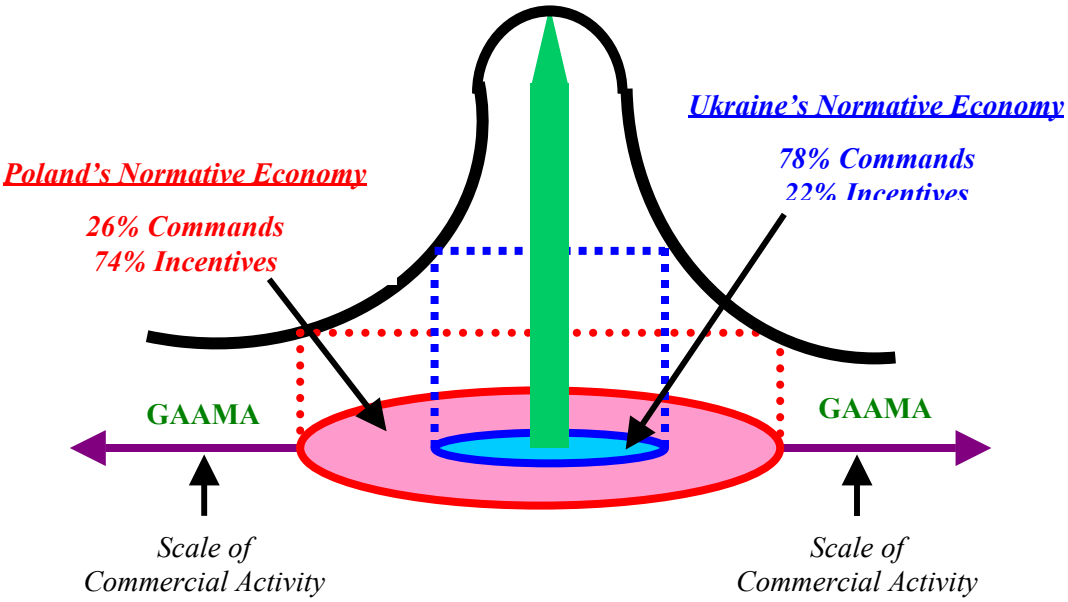
The second false construct was choosing to develop the post-Soviet successor states through mass privatization programs in the absence of capital formation. Unlike the US capital market that was "need-driven" in pursuit of capital formation, the post-Soviet capital markets have been primarily "event-driven" in response to mass privatization. The US capital market evolved from a series of initial public offerings to underwrite the needs of American industry. A secondary market was developed to provide aftermarket liquidity. "Best

practice" capital formation was codified in the 1933 Securities Act and best practice secondary trading was codified in the 1934 Securities Exchange. The post-Soviet experience has reversed this sequence. Privatization was undifferentiated. It had the unintended consequence of aiding FDIs acquire promising enterprises at bargain prices that resulted in these enterprises being securitized and colonized.

GAAMA Governance illustrates third-degree path dependence. It is sensitive to and dependent on the initial conditions of economic reform. It has lead to an outcome that while inefficient—is also "remediable." GAAMA Governance provides a practitioner's perspective that relies upon both incentives and commands. It holds that the command-to-incentive ratio in relation to a given level of commercial activity is what determines an enterprise's effectiveness. The bottom-line for corporate governance is to create shareholder wealth. GAAMA Governance is premised upon the principle that "good governance is good business". It goes beyond providing protocols for servicing compliance requirements for shareholder relations to emphasize incentives for maximizing shareholder value. Incentive-based corporate governance determines the market multiple (incentive) that aligns shareholder value with management self-interest as measured by an after-tax, risk-adjusted net benefit. This paper uses the z-axis of the GAAMA model to explore the question: What valuation multiples and degree of liquidity is necessary for a firm to provide market transparency and governance?

The GAAMA Model's Z-axis represents commands-to-incentives for a given level of commerce. It posits that the smaller the ratio of commands-to-incentives, the larger the area of normative economic activity. This enables a comparison of the size of the Polish normative economy versus Ukraine's normative economy. The Eilat-Zinnes USAID study found that the Ukrainian shadow economy (study score 78) was approximately three times the size of Poland's (study score 26) for a comparable level of commercial activity (Eilat-Zinnes, 2000). This is consistent with World Factbook 2000 estimates for per capital GDP of $8,500 for Poland and $3,500 for the Ukraine or about a 2.5 times difference. It also suggests the degree that incentives necessary to convert GAAMA markets into normative economic activity since "the shadow economy might have considerable influence on growth. As such, USAID asked the authors to examine the shadow economy in transition countries with the goal of addressing a few questions. How big *is* the shadow economy in each of the transition countries? Does a shadow economy

prevent, merely slow down, or actually promote economic growth and competitiveness, and through what mechanisms (Eilat-Zinnes, 2000)?"



Incentive-driven market components of multiples and liquidity

The "Clooshka Concept" is introduced to discuss market valuation multiples. "Clooshka" is the Ukrainian word for hockey stick. Investment analysts look for stock charts with the shape of a hockey stick lying on its side to illustrate models of success. American entrepreneurs understand that every six to eight years, the stock market provides them with a "100x Dot Com" valuation multiple as an exit scenario. This provides the incentive to implement best-practice corporate governance because it is in management's best interest. The preconditions necessary for the "Clooshka Concept" are: a stock market that provides high valuation multiples, sufficient market liquidity to ensure ease of investment entry and exit, a long-term perspective, adequate capitalization, a stable currency, and a fair tax system (reference the glossary in Appendix A for the valuation multiples life cycle). It should be noted that America is the only economy with a venture capital market that has both mass and materiality to periodically engender "Clooshkas."

The "Clooshka Concept" requires a present-versus-future value analysis. Given Ukraine's lack of an adequate market multiples, corporate managers are not rewarded for taking a long-term perspective. The question arises as to what valuation multiple would be required to counteract the abuses of "asset stripping" and "transfer pricing?" What tax policy would provide an adequate incentive for a satisfactory level of corporate governance? Unless adequate incentives are provided, no amount of regulation or quantity of regulators can overcome these impediments to economic prosperity.

Soros' boom-bust model is used to illustrate the "Clooshka Concept." The boom-bust model analyzes the far-from-equilibrium conditions that existed in the "Dot_Comets" market bubble. Trend analysis is a function of risk management. Increases in the trend's risk are related to the trend's biases. Soros gets somewhat esoteric differentiating between deterministic paradigms based on asymmetrical information flows and feedback paradigms based on judgment (Soros, 2000) rather than viewing them in tandem much like multiplication is used to prove division and vice versa.

The model contains two segments, a boom segment and a bust segment. Each segment is comprised of three phases. The "boom" segment of the trend integrates state-of-practice technology with state-of-art application to change the terms of competitive engagement and create profit opportunities for early-adapting political entrepreneurs.

- The introductory phase finds the demand for the product and its assumptions mutually reinforcing as existing technologies are reconfigured to meet new opportunities. Sales increased dramatically as commercial applications were found for a government-sponsored communication bulletin board. The internet business driver was the cheap acquisition of a customer base to digitally deliver and bill e-commerce.

- The acceleration phase produces capabilities to do something people always wanted to do, if only they had thought of it. Increased profit margins created a mutual dependency between the existing technology and its new application. E-commerce reached 50 million users in only 4 years. This compares to radio that took 38 years, personal computers that took 16 years, and television that took 12 years to reach 50 million users. The internet provided solutions that went beyond the transactional benefits of the

Electronic Data Interchange and data aggregation benefits provided by systems like SABRE (Sarnoff networks) to provide low-cost, open markets that interacted with each other (Metcalfe networks).

- In the manic phase all things are thought to be possible as a result of a new reality. Normative analysis was suspended and the "clooshka" was created. Amazon's capitalization was greater than that of General Electric. PSI Net's value was determined on a projected twelve-month price-to-sales ratio. PSI's name lasted longer on the Baltimore football stadium than its symbol lasted on a stockbroker's quote machine.

The "bust" segment finds state-of-art technology being introduced. To fund the development of next generation technology and capture market share from state-of-practice technologies, business plans' financial *pro formas* employed long-term extrapolations based on short-term hyperbolic growth experience. This created far-from-equilibrium conditions that were unstable.

- The "moment of truth" occurs when the divergence between reality and the new application's presumed benefit is recognized. Profits narrow as "state-of-art" technological innovations are sought to achieve original forecasts. Advertising expenses grew faster than profits as illustrated by E*trade's advertising of the 1999 Super Bowl half-time show. This is one of the most expensive forms of advertising and violates the e-commerce tenet of cheap acquisition of clients. Either E*trade did not know its business (which I do not believe) or the business had changed.

- At the threshold of discontinuity, R&D reaches the point of diminishing returns as technology is able no longer to provide greater benefit at less cost. Obsolescence threatens state-of-practice technologies. Weak competitors are consolidated through mergers and acquisitions. This was illustrated when online grocer, Streamline, stopped service after thoroughly exhausting financing alternatives. NASDAQ halted trading at $0.16 per share. In efforts to make ends meet, Streamline sold its Washington, D.C. and Chicago operations to Peapod which then was purchased by supermarket giant and foreign direct investor, Royal Ahold.

- The climax phase finds a retrenchment from overcapacity. Market demand is satisfied at a replacement rate. What was "state-of-art" technology becomes a commodity, and the process is repeated. Societal codifications (legal/tax) memorialize the previous trend's biases. Reference high-profile, internet analyst, Henry Blodget, who left Merrill Lynch with a severance package estimated at $2 million and a court ruling that limited lawsuits from disgruntled investors who had lost money when the Internet-stock bubble burst.

Clooshkas are like the nursery rhyme, Humpty-Dumpty. Once broken, they are not easily reassembled. The E*trade illustration of the trend's inflection point represents subjective judgment. Other points that just as easily could have been chosen to illustrate a shift in sentiment are: the success tax of the Microsoft suit, the rise in interest rates, and greater systemic risk from the political uncertainty attendant to the 2000 Presidential election. Whatever point was chosen, there was a point when investors should have become defensive recognizing the precarious trend of the bust segment.

We now turn to market liquidity that gives investors confidence that securities can be readily purchased and sold at prices that are reasonably related to quoted prices. It presumes sufficient buyers and sellers are available to provide easy investment entry and exit. Liquidity is a function of time and volatility. The time component is the duration required for matching bids with offers for the aggregate number of shares needed to consummate a transaction. The volatility component is the risk to price over time.

Investments are typically easier to get into than they are to exit. The virtual ease of exit is a function of liquidity. The liquidity function is comprised of a subjective quality and an objective quality. The subjective quality is the investor's perception of the relative attractiveness of the current investment in comparison to the perceived attractiveness of the prospective investment. In essence, liquidity's subjective quality relates to fear and greed. The objective component is comprised of two facets that address the characteristics of the market place and the capacity of the participants.

There are four characteristics that define liquidity.

1. Depth: sufficient market orders available at prices above and below the current market price to absorb large orders without material price

changes. The depth of market is determined, in part, by the amount of intermediary capital employed as illustrated by the below chart.

	Other People's Money	Proprietary Account
Unidimensional	**Order-taker:** Passively fills riskless orders in one-way market	**Market-maker:** Initiates at-risk, two-way markets
Multidimensional	**Order-matcher:** Fee-based, single-spread specialist that mitigates order imbalance	**Arbitrageur:** Seeker of asymmetrical order flow in multiple markets

2. Breadth: sufficient intermediaries ready to execute the transaction at their quoted price. The breadth of market is determined by the "portfolio effect" created by the number of competing intermediaries. This is accomplished in both quote-driven markets and order-driven markets.

3. Volatility: systematic risk to price over time as measured by a sensitivity ratio of excess returns on the security to excess returns on the market. This measure is called the stock's BETA. It is represented by the capital asset price line's slope.

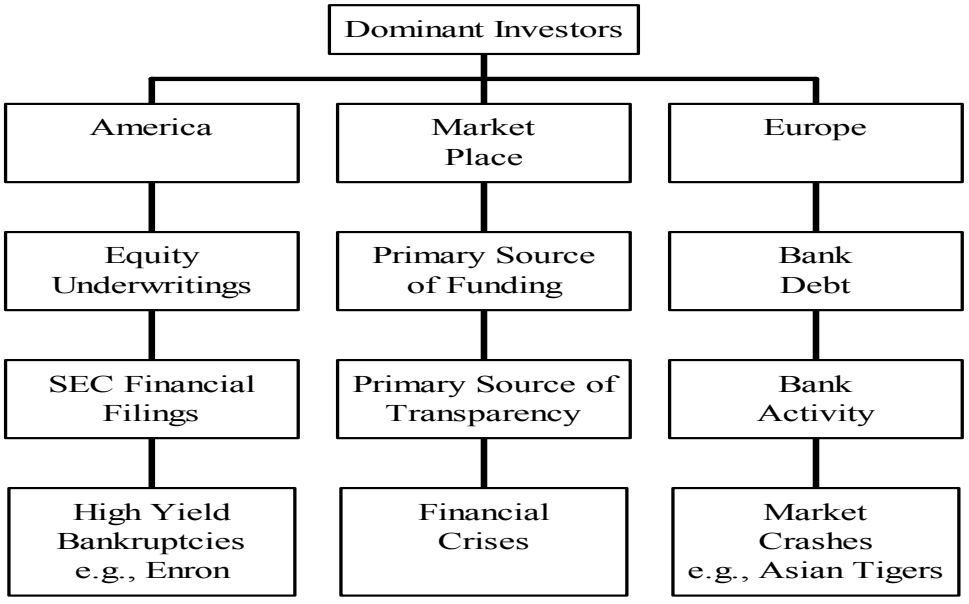
4. Resiliency: measures time to attract new market orders after the price changes. This is a function of the number of financial intermediaries with whom the principals have to interact to consummate transactions.

The second facet of the objective component describes the capacity in which principals to the trade are acting. Principals may act as long-term investors who are seeking a superior return valued on an after-tax, risk-adjusted basis. They may be speculators who are short-term investors awaiting the probable occurrence of a specific event. Speculators are differentiated from gamblers who wager on the outcome of random events. Principals may be traders who are short-term investors employing specific rules that either follow or react to market trends. They may be hedgers who have established a short-term position to lock in profits or protect for contingencies. Hedgers are differentiated from insurers in that hedgers tend to receive premium income from the sale of contra-derivative products. The capacity of the investor determines the direction and the degree of their response to market information.

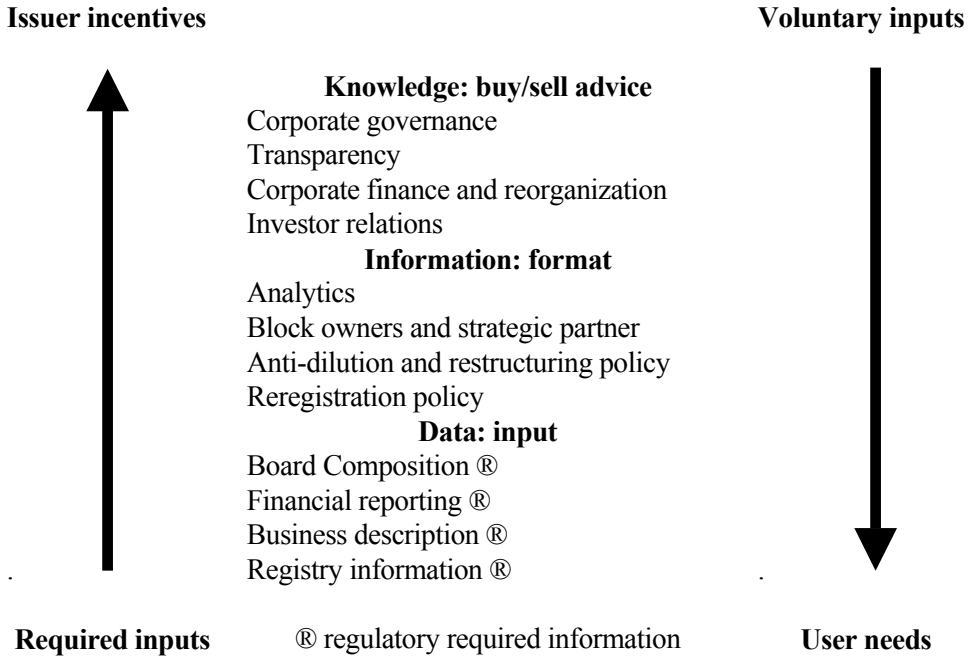
Incentive-driven firm components of transparency and governance

Transparency is the condition that ensures that full disclosure of all material financial information is made readily available to market participants in order that they may make informed judgments. The 1990s saw a series of financial crises affecting emerging markets. World Bank and IMF studies revealed that information asymmetries were an important cause of financial market failures. In this context, there has been a great deal of emphasis placed on the need to strengthen the financial disclosure systems in emerging markets.

Strategic transparency decisions in financial markets are determined to a large extent by the dominant investor. In general, bank-controlled, debt-driven firms prefer less information attendant to stock market trading. This tends to protect firms in a weak competitive position. Conversely, equity shareholders prefer more disclosure to promote the strategic advantage of firms in a strong competitive position (Perotti and Van Thadden, 1999). America is predisposed to investment banking and equity-driven markets, whereas Europe is predisposed to commercial banking and debt-driven markets. The differences between these regimes can best be illustrated by the $1 billion revision to earnings that Mercedes Benz experienced when it applied for listing on the New York Stock Exchange. Also, equity-driven regimes tend to experience debt-related financial crises, while debt-driven regimes tend to experience equity related financial crises.



"Transparency" refers to dissemination of information about issuers. Accurate and timely information increases valuation multiples and liquidity of the market. A high degree of transparency remedies GAAMA's asymmetrical and asynchronous information flows. The process involves the reflexive interaction between issuers and users to develop data, information, and knowledge. This course of action ranges from a base registry level required by regulators to buy/sell advice required by market participants. Raw inputs from corporate and/or market activity is captured to define the data's universe. Intermediaries enhance data with analytical format to provide information. Information is enriched with proprietary metrics to provide predictive capability that results in buy/sell knowledge. Issuers interested in prospective corporate finance opportunities are duly incented to put forth an appropriate level of disclosure relative to operational results and corporate governance. Interested market participants performing due diligence respond by providing incremental, scalable sponsorship.



Corporate managers of emerging market enterprises are continually searching for ways to lower their cost of capital. The term cost of capital means the rate the company must pay for its funds. There is a positive correlation between the cost of equity capital and the market's

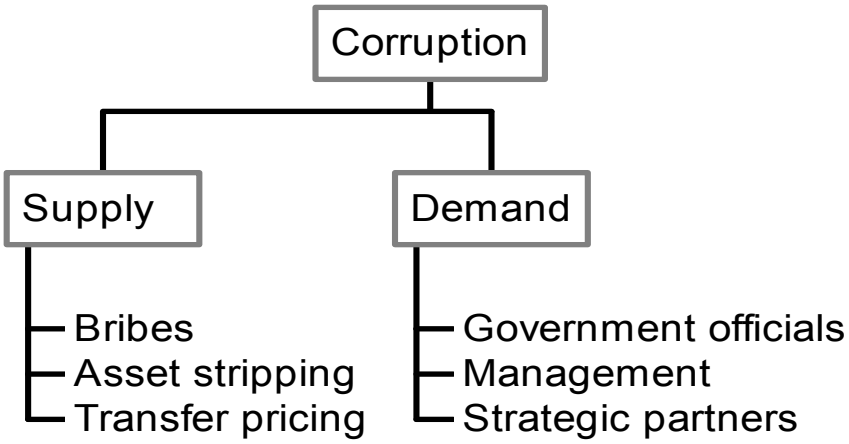
perception of risk associated with a company's stock. There are two main components of an enterprise's cost of capital: information availability; and information content. Information is developed from a registry level provided as a cost-free byproduct of normal corporate compliance. This is done through collaborative commerce with market participants to create a quantitative, incentive-based rating system that can be augmented by a qualitative third-party rating system. Given the present level of development in emerging markets, how much information an issuer volunteers (availability) is as important as what information is volunteered (content). Information transparency provides a window into management's mind that enables investors to predict how their equity will be governed.

Governance is a composite of four models. The degree to which corporate governance controls and directs economic activity vis-à-vis market, industrial policy regime, and governmental agency governance structures is a function of their respective efficiency to produce goods and services. Corporate governance involves a set of relationships between a company's management, its board, its shareholders and other stakeholders. Corporate governance also provides the structure through which the objectives of the company are set, and the means of attaining those objectives and monitoring performance are determined. Good corporate governance should provide the proper incentives to pursue objectives that are in the interest of the company and its shareholders. It should facilitate effective monitoring, thereby encouraging firms to use resources effectively (OECD, 2002).

A 1996 McKinsey investor opinion survey found that investors would pay more for a "well-governed" firm (a company responsive to investors, with an independent board). The size of the premium investors were willing to pay varies by country in a range of twenty to twenty-five percent, all other factors being equal. This suggests that the quality of corporate governance at the company level is perceived as most valuable in situations where both: mandated disclosure and legal protection for shareholders are weak; and investors believe there is the most room for improvement (Gregory, 2000).

For that portion of the world that is governed by prudential norms, the Organization of Economic Co-operation and Development (OECD) has put forth many excellent position papers describing what should be, given an ideal state. But what about the eighty percent of the world for whom there are no legally enforceable property rights (De Soto, 2000), that

portion of commerce where the marginalized is the majority and the non-normative is the norm. How do we analyze the supply and demand for corruption?



Corruption is usually defined as "the misuse of public power for private gain," but privatization permanently deprives public servants of public property, so apparatchiks can no longer charge money for the privilege of using it. Today in the post-Soviet successor states, bribery is not related to privatization but is overwhelmingly connected with law enforcement, tax collection, and state intervention (Aslund, 2001).

A minority shareholder suit involving asset stripping was filed against Russia's state controlled gas behemoth Gazprom and PricewaterhouseCoopers (PwC), the energy company's auditor. The suit alleges false and misleading audit conclusions reached last year. William Browder, CEO of Hermitage Capital Management Fund, stated that "PwC had to look at the relationship between Gazprom and its subsidiary, Itera, to determine if there was anything improper." PwC had huge incentives to co-operate with the management. Mr. Browder argued that below-market conveyance of assets "led to billion dollars losses and resulted in Gazprom shares being deeply depressed over a long period of time" (BBC, 2002).

Transfer pricing covers a wide variety of methods that managers use to divert profits to their private benefit. For example, subsidiaries are generally created to provide inputs to, and sell finished good for, the parent company. But often businesses are structured so that profits accrue to the subsidiary rather than the parent company. This is done because

subsidiaries have fewer shareholders and more flexibility in rewarding employees. Profits then are redirected from the shareholders of the parent company to persons in control of the subsidiary (Seeger and Patton, 2000).

"Dead capital," is a term coined by Hernando De Soto in his book entitled "The Mystery of Capital". "Dead capital" represents resources that have to be "sold" in GAAMA markets. It is a problem that troubles virtually every emerging economy. De Soto states that the underclasses of developing nations are not so much lacking in resources as they are lacking in the ability to fully monetize the value of the resources that they control.

De Soto estimates that the total value of real estate held but not legally titled by the poor of the Third World and former communist nations is approximately $9.3 trillion. This is roughly equal to the capitalization of U.S. stock market, double the U.S. money supply, and twenty times the amount of foreign direct investment since the fall of communism. Legal property that emphasized preemptive rights gave the United States the tools to create wealth as a multiple of its physical basis.

The problem that transitioning economies face is the need to establish and normalize the network of rules and standards that turns assets from "dead" into "liquid" capital. Liquid capital becomes fungible to be combined with other sources of capital to achieve critical mass and/or it can be differentiated through securitization to increase its efficiency of utilization to become scalable to achieve materiality.

Post-Soviet successor states whose economic development has been slower than expected now find themselves at a crossroads. They need better management of GAAMA markets to convert dead capital into productive capital. In 2000, the average Eastern-European per capita GDP was estimated to be approximately $7,000. This compared to $35,000 for the United States. To maintain the same per capita GDP spread, transitioning economies need to grow five times faster just to keep pace with the US. They must act sooner rather than later, with more commitment to reform rather than less. Otherwise the lack of expediency promotes "securitized colonization" and the lack of commitment promotes the "shadow economy." These activities are subsidized by a generational tax on the youth.

Infrastructure enhancements

The International Dealers Access Network (“IDAN”) and the Issuer Disclosure and Analytic Center ("IDAC") are infrastructure enhancements designed to bolster the capital market capacity of post-Soviet successor states by providing attractive valuation multiples and adequate levels of liquidity.

IDAN is a financial advisory and funding service that facilitates economic development by serving as a global incubator for the establishment of collaborative, strategic alliances. IDAN combines a western emerging-growth company that will function as the financial partner and mentor for corporate governance issues with a foreign emerging-growth company that will function as producer/product distributor and access-provider to a foreign free-trade or enterprise zone.

IDAN is positioned to capitalize on the dramatic economic and political changes that recently have occurred. Regional collaborative commerce requires capital flows for the whole region to be sufficient to satisfy the funding requirements of both State Property Fund privatization enterprises and the capital formation of successful enterprises that have been privatized. Too many good emerging enterprises too often are still-born due to a lack of adequate funding.

Emerging economies need to leverage the fruits of their labor by privatizing and converting USAID-sponsored enterprise funds into business development companies (BDCs). BDCs are closed-end investment management companies that are sanctioned under the Investment Company Act of 1940. The original intent of the enterprise funds was to provide capital and management for restructuring and expansion of private enterprise to create jobs and wealth for the people of the region. The funds demonstrated that best-practice management metrics could be implemented and that profitable commerce could be undertaken. They have completed their mission. The enterprise funds now need to be converted into BDCs. The transitioning economies need “Clooshka” models that can dually list on national stock markets and NASDAQ to provide global liquidity and valuation multiples (Reference Appendix C for BDC regulations and illustrations).

Emerging-growth companies recognize the desirability of obtaining a global distribution network and having the funding capability to finance

global distribution. The dilemma that emerging-growth companies face is whether to join forces with a large international concern and face the risk of being acquired; or, form a collaborative alliance with a foreign emerging-growth company and face the development risk. IDAN's premise is that companies of a similar size, corporate culture, and product development stage are the preferred choice to become strategic partners. What emerging-growth companies have lacked to date is a suitable forum in which to operate. IDAN is that suitable forum.

IDAC establishes an informational and professional services co-operative network for capital markets in the Black Sea and Central Asian Regions. IDAC increases market efficiency and transparency for issuers and market participants to enable them to be integrated more readily into a global capital market. It provides robust solutions to achieve adequate levels of liquidity.

IDAC provides comprehensive advice to issuers and market participants on the metrics for commercial market information and disclosure systems to enhance issuer transparency and corporate governance. This includes recommendations for information-sharing mechanisms between private sector market organizations to optimize their respective and proper roles within a new market-based disclosure and reporting environment. IDAC balances social responsibility with business requirements to determine the critical path for developing documentary and electronic information in collaborative commerce.

The formation of a commercially viable IDAC requires a paradigm shift. IDAC's mission defines the world in terms of possibilities rather than problems. It seeks enterprises that manage their mission through incentives instead of commands to maximize shareholder value. IDAC creates instantaneous critical mass of commercial activity derived from regional versus national commerce. IDAC services a region that possesses geographical proximity and common cultural history to engage in collaborative commerce for the potential mutual benefit of the entire area. Its clear message supports the goals of commercial viability, private property, the equal treatment of shareholder rights, and reliance on private-sector initiative to create wealth.

Conclusion

Post-Soviet successor states now find themselves at a crossroads. The design of mass privatization programs was compromised to accommodate workers represented by Soviet-era trade unions and the industrial lobby (Goldsmith, 2001). This rendered the scope of privatization too limited for the task intended. Either Newly Independent States scale back their privatization effort to land reform and develop their economy from a 1950's Soviet agrarian base; or, they adopt new economic methodologies to undertake capital formation efforts that enable enterprises to redesign their products and retrain their personnel. The former is command-driven and has a high probability of achieving self-sustainability but is limited to an organic growth rate that is a function of its commodity base. The latter is incentive-driven and has a higher degree of risk attendant to collaborative commerce but is capable of producing commercially viable economies.

GAAMA Governance links neo-classical economic theory that organizes near-equilibrium conditions with chaos theory that manages far-from equilibrium conditions. Planners have to determine whether they should emphasize incentives or commands as the independent variable in the economic development. This dilemma confronts Newly Independent States with the economic equivalent of Heisenberg's Uncertainty Principle (1927) that analyzed the "uncertain relationship" between position and momentum (mass times velocity). In economic terms, "governance" can be substituted for "position" and "commercial activity" can be substituted for "momentum". This relationship has profound implications for such fundamental notions as causality and the determination of the future behavior.

Economic development requires an accurate diagnosis of the initial governance structure and subsequent evolutionary iterations to ensure that incentives are proportionate to commands for the current level of commerce, and are relevant to the path-dependent business culture. Yet as Heisenburg posited, the simultaneous measurement of two conjugate variables—such as the governance structure and the level of economic activity—entails limitations on the precision of the measurement for each variable. Therefore the more precise the measurement for the commands and incentives for a given governance structure, the more imprecise the measurement for a given level of commercial activity, and vice versa. The more commands imposed on an economy in an attempt to attain predictive

capability, the less resilient the system, the greater the risk of systemic failure, and the greater the incentive to conduct business in GAAMA Markets. As more incentives are employed to recapture activity conducted in the "shadow economy"; less predictive capability can be ascribed to the normative governance system.