

Foreign Investment in Emerging Economies

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Summary

Emerging economies can create the conditions to allow a portion of their wealth to be created in a hard currency. This can be accomplished by adopting the US dollar and euro as legal tender, in addition to the local currency. Foreign capital investments from multinational enterprises need not convert to the local currency. This shields a portion of the economy from fluctuations in the exchange rate. It also removes a number of risks to foreign investors that are associated with currency exchange.

Further measures by the governments of developing countries can stabilize the economy by attracting and keeping productive foreign capital, and guard against excessive speculation on their currency. Short-term foreign debt by domestic investors can be discouraged, and banned for domestic banks. And with a floating local currency, the government will have no need to borrow foreign currencies for short terms.

It is possible for an independent central bank to be equipped with sufficient instruments for monetary policy to maintain the level of liquidity in the economy for maximum growth and employment without price escalations. The central bank can also regulate the domestic banking system, and be the effective lender of last resort for all three legal tender currencies.

Systems-Thinking provides a more complete and detailed understanding of the interplay between the market participants, the processes, and system structures. With this understanding, measures can be designed that stabilize emerging economies and enhance their capacity to create wealth. Such measures are also beneficial to foreign investors, by dramatically reducing the threats of currency devaluations, inflation, and economic crisis. Further, the proposed measures empower the citizens of those countries, and bring political stability.

Introduction

In the 1990's, a number of factors caused a sudden inflow of foreign capital into the emerging economies of Asia, Latin America, and Eastern Europe. Low returns at home, induced capital from developed countries to search for higher growth potentials in developing countries. But a series of financial crises, that began with Mexico in 1994 and continue to this date with Argentina, have awakened the world to potential global threats of dimensions that were unimaginable before.

Starved of capital for centuries, the emerging economies simply do not have the kind of financial institutions that are needed for today's fast paced, broadly distributed, and tightly inter-connected capital flows. Private capital flows can overwhelm desperate attempts of any government at managing its currency exchange rate. And growing at the speeds that are both demanded and facilitated by the global free market, the emerging economies find themselves either in a flood or a drought of liquidity.

And then we saw how closely interdependent we have all become. Over-capacity in Asia drops prices in U.S.A. Financial crisis in Thailand spreads to neighboring countries. Turmoil in Asia moves capital to fly to the safety of U.S. equity markets, raising portfolio values. A crisis in Russia triggers one in Brazil.

It seems that whatever we do turns out to be the wrong thing to do. We want to promote free movement of capital so it is used most efficiently, and in doing so we trigger widespread disruptions. We want the emerging economies to develop and generate wealth for their poor masses, yet the very people we wish to help suffer most. We want to promote global trade for the good of all, yet our best intentions imperil all.

This problem has received due attention both in governmental policy making bodies, and in academia. The literature cited in the Bibliography of this paper is but a small sample of attempts to understand and learn from our perplexing experiences.

This paper attempts to apply principles of Systems-Thinking to the problems faced by multinational enterprises (MNE) that invest in emerging economies. Like any business venture, MNE subsidiaries in developing countries are expected to draw a business plan and follow it. In particular, being located in an emerging economy with huge growth potentials, the Subsidiaries are expected to show positive growth in revenues and profits every year, and strengthen their Parent Company's positions in those markets. Yet they face tidal waves of economic boom and bust that leave them either with insufficient capacity or excess capacity. Rather than commanding a stable ship in calm waters, they are constantly surfing the waves.

The purpose of this paper is to examine what insight Systems-Thinking offers to help better manage foreign investments in emerging economies. In the next section we examine the economic principles of such cases. This is to uncover the underlying causes of financial crisis and instability in emerging economies. We will then look at some fundamental principles of Systems-Thinking. This follows with a review of the principles of system design and system

management, with focus on the interactions between foreign investors and the host economies. From these principles, we will draw measures that both the investors and the host countries can take to stabilize their respective systems, and avoid instability.

Economic Principles of Foreign Investment in Emerging Economies

Emerging economies, such as the countries of Asia, Middle East, Africa, South America, and Eastern Europe, have not developed industrially due to political problems. They thus have a great potential for economic growth, with untapped natural and human resources, and demand for consumer goods. This creates a win-win opportunity: foreign investors from developed countries can profit from economic growth by investing capital and technology, and the emerging economies can raise their standard of living by modernizing their industrial and agricultural production.

Foreign investors face a number of risks when investing in emerging economies. These are: transactional risks, income risks from operation, income risks from financing, and accounting risks due to fluctuations in the rate of exchange of the local currency. They also face political risks, inflation risks, bank instability, and legal risks.

Foreign investors operate in the context of their host country. The business enterprise that foreign investors establish becomes a sub-system of their global enterprise, and a sub-system of the host economy. In the case of the emerging economies, the context is unstable and unpredictable. This limits the level of exposure that multinational enterprises (MNE's) are willing to assume by investing in the emerging economies. Thus both MNE's and the developing countries are prevented from taking full advantage of the win-win opportunities.

Foreign capital, in the form of loans and investments, also pose threats to the developing countries. Countries such as Mexico, Brazil, Thailand, Russia, Indonesia, and Korea have suffered severe financial crises with currency devaluations and sudden drops in purchasing powers. Such crises hit the poor particularly hard, because developing countries do not yet have adequate safety nets to allow their citizens to weather economic dislocations.

A review of the economic principles of foreign investment in emerging economies identifies the common sources of financial and political instability, and help design measures that would reduce the associated risks to both parties.

The crises in Asia and Latin America in the 1990's were caused by:

- Excessive current account deficit, coupled with fixed or managed exchange rates. When a country becomes a net importer, it needs foreign capital inflows to bring its Balance of Payment (BOP) to zero, or the value of its currency drops. And if it tries to maintain the value of its currency, the country needs adequate reserves of hard currency. When foreign investors see that a country has a negative BOP, a fixed or managed exchange rate, and insufficient hard currency reserves, they anticipate devaluation, and so withdraw their funds, thereby initiating the crisis.
- Excessive inflation. Without an independent central bank, and without targeted monetary policy instruments, growth becomes untamed and inflation becomes inevitable, with all its ensuing economic dislocations.
- Excessive private sector debt in hard currency with short terms.

- Euphoria on the part of the lenders and investors to ride the growth wave, and the rush to the exit when the bubble burst. Some investors such as pension funds have a legal obligation to withdraw their money when the indices change. Others would then get into a competitive race: he who exits first, recovers most.
- Contagion. When lenders and investors saw economic problems in one country, they quickly downgraded all other nations in the same category. Contagion was as much in the mind of lenders and investors as in the markets themselves.
- Tight Liquidity. In a crisis, market risk, credit risk, and political risk would all blend together to discourage capital inflows.
- Misguided IMF stabilization package. A successful stabilization and restructuring package cannot be imposed on an emerging economy that lacks adequate domestic regulations. It is best to focus first on stabilization, and then phase in large-scale restructuring of the economy.

Emerging economies derive a number of benefits from foreign investments. They improve their balance of payments, increase their exports and earn more hard currencies, reduce imports and save more of their hard currencies, reduce unemployment and improve their fiscal position, and improve their access to higher technologies. However, they suffer when foreign capital comes in and they suffer again when it leaves.

When foreign capital, loans or investment, is converted into the local currency, the value of the local currency rises. This makes imports cheaper, but it also makes exports less competitive. The influx of foreign capital fuels speculative investments, raises inflation, and hurts the purchasing power of the lower income segment of the population. And when foreign capital is converted back to hard currency for repatriation, the value of the local currency drops, making imports more expensive, and reducing the confidence of foreign lenders and investors, thereby encouraging more capital flight. This leads to a financial crisis, again with widespread hardship among the lower income population.

Typically emerging economies have excessive current account deficits due to the need to import industrial products and equipment. With their large flows of imports and exports, their trading sector is a large part of the total economy. Therefore they are particularly susceptible to fluctuations in exchange rate. Should the exchange rate drop, the cost of imports rises and domestic producers also raise prices, causing inflation. This prompts the government to increase interest rates so as to stem capital flight, and tame the inflation. But higher interest rates discourage domestic borrowing and investment, causing unemployment and economic decline.

They have excessive short-term foreign currency borrowing which they need to shore up their volatile currency. This is particularly the case if the country has a fixed or managed exchange rate. A fixed exchange rate is appealing to emerging economies because it persuades domestic producers and labor of the government's commitment to keep inflation in control. They are then less likely to raise prices and wages, and so inflation stays in control. It also makes the currency more attractive to foreign capital. However a grossly overvalued currency with fixed exchange rate causes a current account deficit, which eventually forces devaluation. A fixed exchange rate

that is set too high, causes an increasing trade deficit, which invites an attack on the currency, a loss of foreign exchange reserves, and the inevitable corrective fall in the exchange rate. To reduce the current account deficit, the currency must be devalued to make exports cheaper and imports more expensive.

When an emerging economy pegs its currency to the US dollar, it is assuming that it can maintain its inflation and rate of interest at the same levels as those in the U.S.A. If it runs a higher rate of inflation or lower rate of interest, then capital will flow to the U.S.A., and the currency has to be devalued. Even though developing countries have surplus labor and natural resources, productivity is low due to lack of training, equipment, infrastructure, and institutional structures. To become more productive, they first have to invest heavily, hence the inevitable inflation.

Emerging economies typically do not have sound financial regulatory systems and trained banking and stock market regulators. This makes the banking systems shaky. They also lack accounting regulations for reporting of financial statements, and bankruptcy laws for the orderly restructuring of failed enterprises.

Another source of instability in emerging economies is poor monetary policy. It is widely recognized that the central bank should be independent from the political bodies so it can control the supply of money for maximum growth and employment with stable prices. But the countries lack the culture of separation of powers and the necessary institutions to coordinate and implement policies. Without an independent central bank to stabilize prices, inflation rises, and the emerging economy suffers from capital flight. To keep domestic capital from leaving, and to compensate foreign investors for holding on to their local currency accounts, the country has to raise the interest rates. This discourages borrowing, lowers the velocity of money, slows the creation of money by banks, dries liquidity in the economy, and deprives the economy from growing at its full potential. Only an independent central bank can coordinate monetary and fiscal policies with the government for a steady sustainable growth.

The emerging economies did not expand as fast as the advanced economies because of restricted access to capital. In such countries, capital is concentrated in the hands of the privileged few. Business enterprises tend to be either very large, or very small. As a result, financial intermediaries favor lending to the larger enterprises, with the reasoning that the business enterprise by the virtue of its size is a safer borrower. Should the enterprise fail to be profitable, the government would guarantee its loans since allowing it to fail would harm the economy. As a result, small and medium size companies are deprived from capital for investment and growth. This was the case in South Korea before the crisis. Following the crisis, the government made its financial support conditional on restructuring of the conglomerates, with the divestiture of some parts to raise capital.

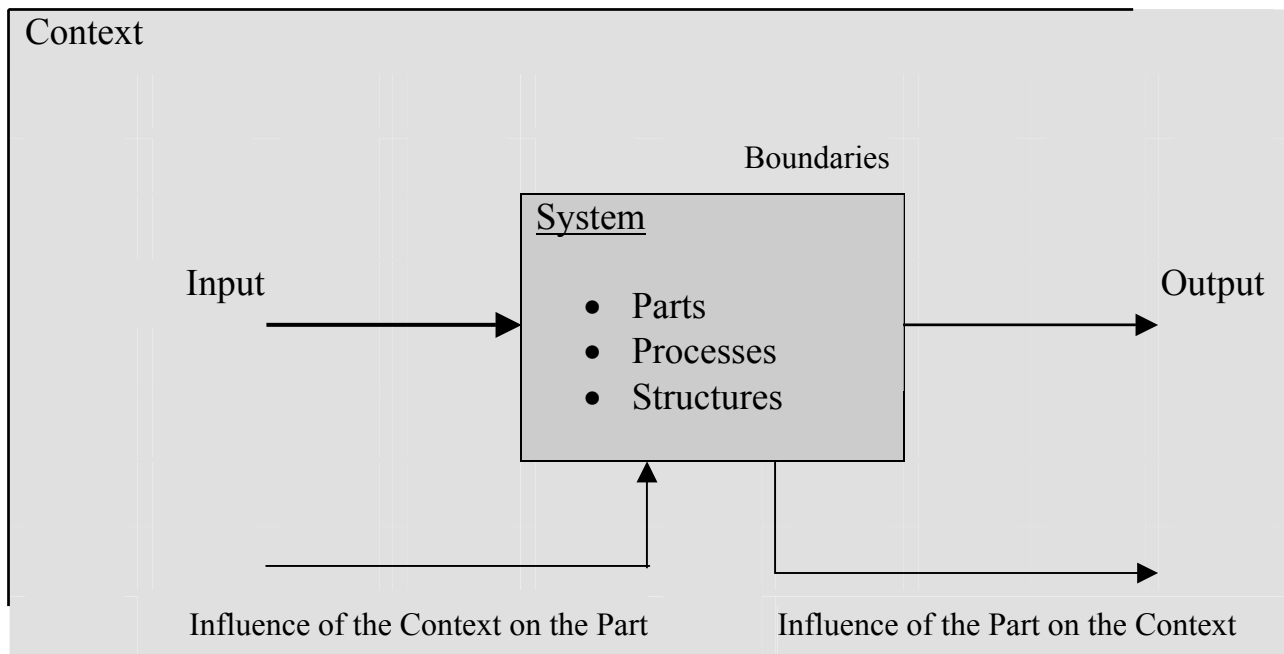
With GDP growth potentials of 5% to 10%, developing countries experience very fast rates of growth in wealth. Fast growth inevitably means uneven growth. Thus, although everyone becomes richer, some become richer at a faster rate than others, and hence the disparity between rich and poor widens, with rising political tensions and instability.

Emerging economies therefore have a great incentive to attract and keep foreign investments. They have to find a way of reducing the risk to foreign investors, while at the same time maintaining the stability of the economy. In the next section of this paper, we will review the principles of Systems-Thinking. We will then examine how to apply these principles, and look at some strategies that emerging economies can adopt to both encourage foreign investment and at the same time mitigate its destabilizing effects, and some strategies that MNE subsidiaries can use to maximize profits while maintaining stability and growth.

Systems Thinking Principles

Systems-Thinking is a worldview: a way of seeing reality. In contrast to the fragmentary worldview, which sees reality as a collection of disconnected objects, Systems-Thinking sees reality in terms of events taking place in segments of space. It recognizes objects as parts of systems, but also recognizes process, structures, and the context in which events happen.

A system is a segment of space where a parcel of matter is altered. We can represent a system in a diagram as shown below.



Input is the parcel of matter that is changed into the Output by the System. The change takes place through a series of Processes as interactions between Parts of the System. Structures are stable parameters of the System that affect the processes. The System, being a segment of space, has boundaries, and itself is a part of a larger system as its Context. The Context influences the Part, and Part influences the Context.

A MNE subsidiary in an emerging economy is a system. It takes capital, and produces profits. It takes raw material, labor, and equipment, and produces goods and services for the consumption of others. It is a part of two contexts at the same time. As a subsidiary, it is a part of the Parent Company. And being located in a developing country, it is also a part of that country's economy. The Parent is a sub-system of the home country, and both the home country and the host country are sub-systems of the global economy.

Seeing reality in terms of systems provides a more complete understanding. It makes us instantly aware of the relationships between the various systems and their sub-systems, and the processes within each. In particular, it makes us aware of structures, and the critical role they play in shaping the processes. The Subsidiary has some soft structures, and some hard structures. The company's buildings and equipment are its hard structures. Its processes have to be designed such that they can be accommodated by these hard structures. Its culture, incentive systems, rules and procedures, and the laws of the land where it operates are its soft structures. These also impact its processes. As in any large human system, the culture and the incentive systems are powerful soft structures.

Structures of the context are imposed on the systems within it. So the structures of the Parent Company are imposed on its Subsidiary. Similarly, the structures of the Home Country are imposed on the Parent, and those of the Host Country on the Subsidiary, and the structures of the global economy on both the Home and the Host countries.

These principles tell us that there are only 4 ways to change any system. We can change the parts, the processes, the structures, or the context. There are three distinct levels of improvement that any business organization system can consider for its operations: System Management, System Design, and Global System Design.

System management involves optimizing the processes of the organization, and making the best use of the available assets and existing structures. It means delivering the expected level of profit efficiently.

System design means changing the system structures and its assets. It means changing the objectives for which the system was previously designed. For a company, this means making changes to the technology, or the markets that the company serves, or re-organizing its operations.

Global system design means making a change in the context in which the system functions. It means revising the effectiveness and efficiency objectives of the context of the system. The government of the country where a business operation is located can either impede or facilitate creation of wealth by the policies that it adopts. MNE subsidiaries have a collective interest in lobbying, advising, and guiding the government to build institutions that help stabilize the economy.

Depending on where we see the cause of a problem to lie, we can design a solution, which includes some combination of these 3 levels of performance improvements. And recognizing the inter-connection between various systems, we can test our proposed solution for any unintended adverse effects.

Strategic planning means re-designing a system for specific goals. We can design a company for maximum effectiveness, so it generates the most possible profits. Or, we can design it for maximum efficiency, so it generates the highest return on investment. Or, we can design it to become self-regulating, or self-designing, or self-adapting. Systems-Thinking broadens our

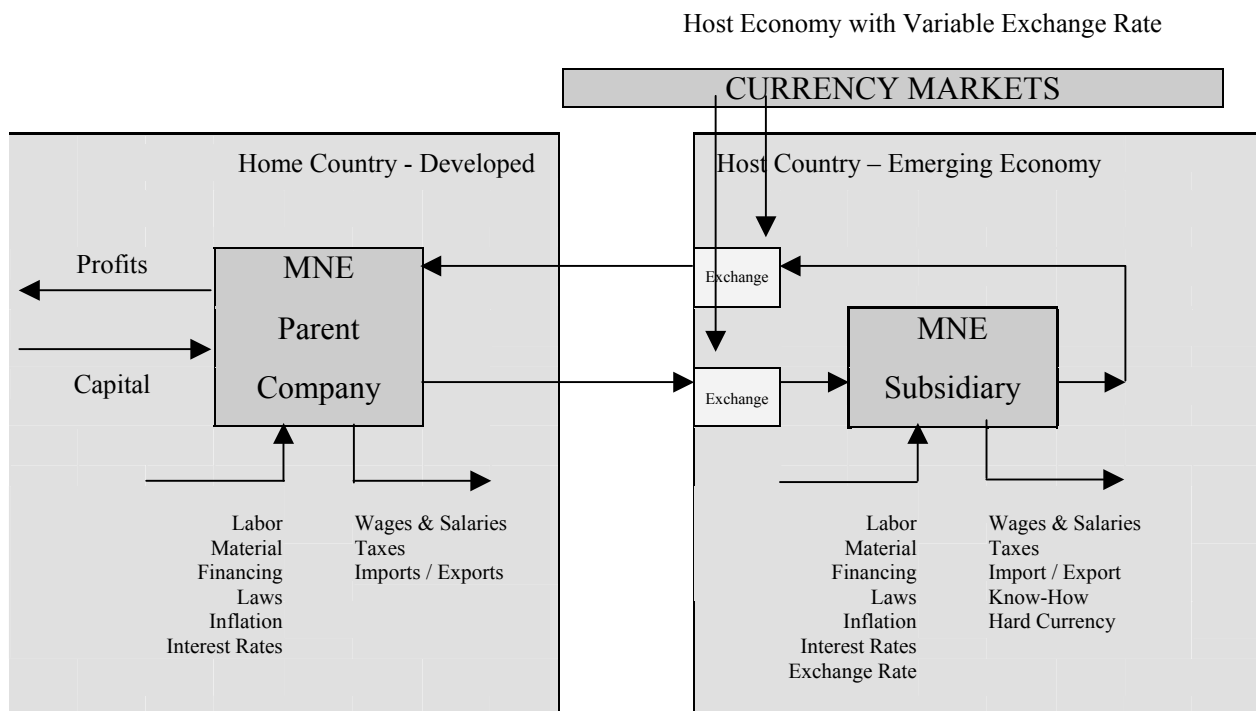
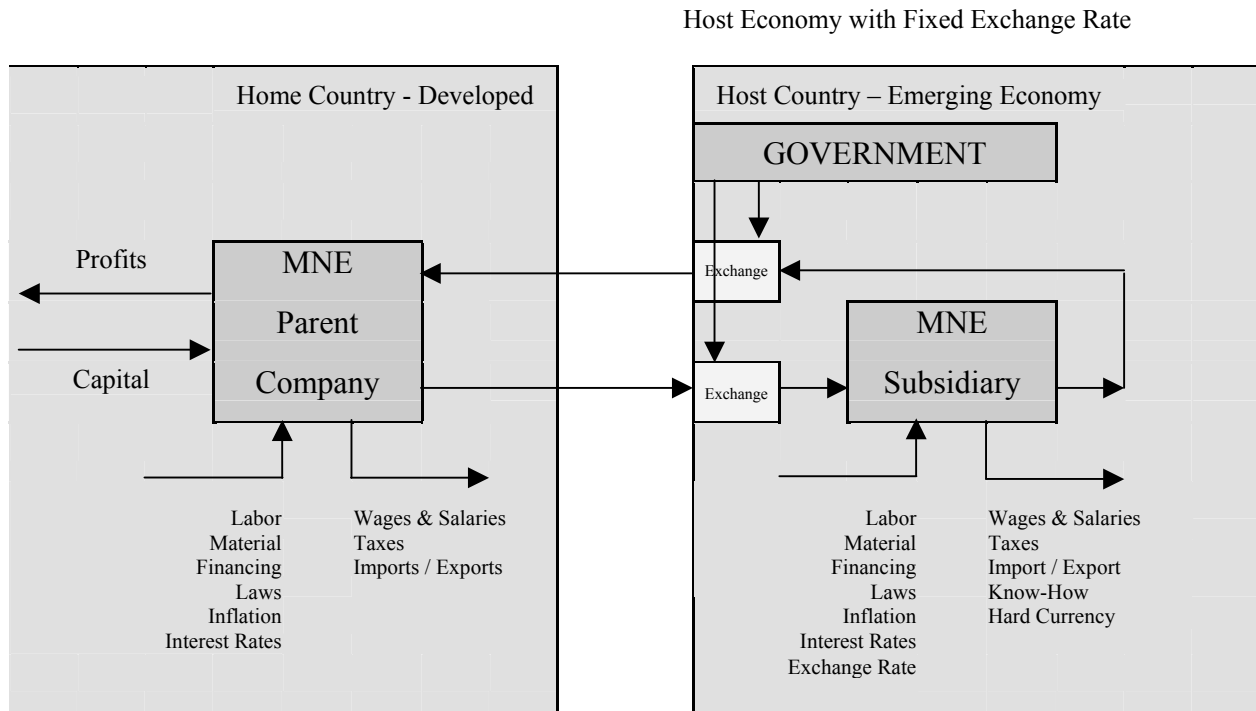
vision in both scope and horizon. It brings us to define a hierarchy of objectives for our organization, and from that derive a structure of objectives which includes both the needs of the organization and its mission. We can follow this technique to better define the objectives of a company. We can also use it to define the objectives of the country that hosts the company.

Having defined the objectives of an organization, we can then design its structures such that they become tools, and not barriers. Systems-Thinking brings us to learn from our experiences that tools can become barriers, and barriers can be used as tools. And this highlights the significance of designing the right structures, both for the company that we manage, and for the country that hosts its operations. And it highlights the importance of keeping the structures to a minimum, so as to allow maximum flexibility in setting the processes.

The book, “POWER – The Modern Doctrine”, by the author of this paper, provides a detailed explanation of Systems-Thinking and its broad applications. In this paper we apply Systems-Thinking principles to the problems that a MNE subsidiary faces in an emerging economy, and derive solutions for those problems.

System Design – System Management

The situation of a multinational business enterprise investing in an emerging economy can be represented in a system diagram as shown below.



The input into the Parent Company is capital from the shareholders, and its output is profits for them. The input into the Subsidiary is capital investment by the Parent Company, and its output is profits. The Parent, operating in a developed country experiences different influences from its context than its subsidiary that operates in the context of an emerging economy. And the influence of the Parent on its context is also different from that of the Subsidiary.

An emerging economy as a context for foreign investments imposes much higher risks than are present in a developed country. Laws in emerging economies may be less complete and more erratic than those in developed countries. Bankruptcy laws, banking regulations, and coherent fiscal and monetary policies are either absent or inadequate. Inflation rate in an emerging economy is typically high and erratic, given the country's fast rate of growth and high exposure to exchange rate fluctuations. Interest rates are typically higher due to the higher demand for capital to fuel the higher growth rate. And the exchange rates are more erratic due to shaky confidence of the investors, caused by political and economic instability.

The value of the Parent to the Home economy is in providing employment, paying taxes, and contributing to the exports. The Subsidiary has a much higher value to the Host economy. It does more for the Host economy than providing employment, paying taxes, and contributing to exports. It also provides technology transfer and training to the local workforce, and brings in valuable hard currency both by its initial investment, and through its exports.

The Parent Company takes the obvious higher risks of investing in the emerging economy so as to take advantage of its growth potentials. As is the case with developed countries in general, the home country market is either saturated or close to it. The company's product is therefore already in the maturity phase, with little potential for growth in the home market.

Thus the structure of objectives of the Subsidiary becomes:

Need: Maximize Profit

Mission: Stability &
Growth

But the host country offers both threats and opportunities:

Opportunities: Establish presence as the main supplier in the market

Threats: Political instability
Exchange rate fluctuations if the host country has a floating currency
Sudden currency devaluation, and economic crisis, if the host country has a fixed exchange rate
Economic recession
Bank failures
Unpredictable availability of supplies

Law enforcement and government agencies biased in favor of local businesses
Local competition copying proprietary technology
Competition from other foreign companies

These threats are largely related to the host country, as the context in which the subsidiary operates. Only the government of the host country can take adequate measures to reduce the first 7 of these threats. The subsidiary can reduce the impact of currency fluctuations through buying futures or hedging. But such operations have costs associated with them, and they do not provide total protection of value.

MNE subsidiaries have the added complexity of being integrated both into the parent company and the host country. They have to contend with 4 separate structures imposed upon them. As a subsidiary, they have to abide by all the internal rules and regulation of the parent company, some of which may totally be out of place for the culture and conditions of the host country. The home country imposes its laws and procedures on the parent company, that in turn imposes them on its subsidiaries abroad. For example, a U.S. parent company has to follow U.S. accounting rules, and prepare its financial statements in accordance with GAAP (Generally Accepted Accounting Practices), GAAS (Generally Agreed Accounting Standards), and FASB (Financial Accounting Standards Board). Thus the parent company has to consolidate the financial results of its subsidiaries abroad, where accounting measures such as inventory and sales are not necessarily the same as in U.S. And of course the MNE subsidiary has to abide by all the rules and regulations of the host country, and its own developed internal rules and regulations.

Clearly, the MNE subsidiaries in emerging economies have limited options in designing their operations and structures to guard against the many threats. The situation calls for optimization through redesigning of the context. In a given developing country, all MNE subsidiaries have a common interest to lobby the government to take steps aimed at political and economic stability. Optimization of the context by the government facilitates optimization of the operations of all MNE subsidiaries.

Fortunately, the MNE subsidiaries have a potential ally in the government of their host country. Governments of developing countries have a great incentive to facilitate the success and growth of foreign investors. The government's structure of objectives is:

Needs: Reduce unemployment,
 Increase tax revenues,
 Increase exports to reduce its balance of payment short falls,
 Accumulate hard currency reserves for defending its currency,
 Increase foreign capital inflows to improve its balance of payment and
 finance the building of infrastructure,
 Increase the productivity of its workforce.

Mission: Protect and promote the individual sovereignty of its citizens through:

1. Facilitating private transactions,
2. Enforcing private contracts,
3. Providing for common security, and
4. Managing common resources.

Therefore there is a win-win opportunity for MNE subsidiaries and the government of the developing country that hosts their operations. Measures that promote political and economic stability are beneficial to any developing country that adopts them. Such measures are also beneficial to all foreign investors. And any developing country that stabilizes its economy first, would have an advantage over others in attracting and keeping foreign investors.

A stable currency helps foreign capital that is engaged in productive enterprises, producing goods and services for the domestic market and for exports. A stable currency also helps the domestic economy by guarding against inflation, and preventing spiral increases of wages and prices. In addition, a stable currency saves the country's scarce foreign reserves from being spent to ward off speculative attacks.

This means that both the government of the developing country and the MNE subsidiaries that it hosts would suffer from foreign capital that is engaged in speculation. An unstable currency is detrimental to both parties. Governments of developing countries should take measures that attract and keep productive foreign capital, and keep away speculative foreign capital.

Also, given scarce resources of developing countries in relation to their investment needs, it helps to distinguish between *Soft Infrastructure* and *Hard Infrastructure*.

Soft Infrastructure includes structures such as the education system, the banking system, the legal system, and systems for regulating the equity markets. Soft infrastructure does not require massive capital expenditure for its creation. All that is needed for building soft infrastructure is good planning. Fortunately for developing countries, they have a number of successful models for such systems in developed countries that they can copy with some adaptation to local needs.

Once a developing country has its soft infrastructure in place, it is in a better position to attract foreign capital for building its hard infrastructure such as roads, railroad, power plants, and ports.

In the next section of this paper, we will define measures that any developing country can take to build its soft infrastructure, and at the same time facilitate the profitability and stability of its business enterprises, both domestic and foreign.

A Systemic Approach for Emerging Economies

A. Measures to be Taken by the MNE

1. MNE Parent Company should adopt a longer term for its business plans in emerging economies. The Parent should recognize that growth is disruptive. The high growth potentials of an emerging economy means that it will experience high levels of social and economic dislocations, in proportion to the rate of growth. This makes emerging economies unstable, and that economic instability may lead to political instability. The Parent cannot treat its subsidiary in an emerging economy the same as it treats its divisions at home.
 - The management team of the Subsidiary requires maximum flexibility in setting their own internal rules and procedures, so they can best adapt to the local customs, conditions, and opportunities.
 - The Subsidiary requires higher levels of reserves than divisions at home for surviving sudden economic downturns and investing for equally sudden economic booms.
2. MNE subsidiaries to recognize that a hungry market cannot be fed in a year or even in 5 years. It takes perhaps 20 years to bring the level of consumption of an emerging economy for the company's products to the same level of the home economy that is developed. In that time period, the company's products will go through many revisions, redesigns, and generations of change. Planning the capacity is hazardous. Too much capacity built too fast risks sitting idle, sapping the company's financial resources. Better to be flexible, and this means being conservative.
3. The Subsidiary is best advised to expand its operations in the depth of an economic downturn. This is when prices are at their lowest, and schedules have the best chance to be met. In addition, this is the best time to re-train employees, train new employees, re-tool and refurbish equipment, and introduce new products.

B. Measures to be Taken by the Government

Emerging economies can generate a part of the national wealth in a hard currency. This would shield a portion of the economy from the hazards of exchange rate fluctuations, and also reduce the risks to foreign investors. The following measures would help achieve this.

1. Adopt the US dollar and euro as legal tender, in addition to the local currency. Allow all residents, domestic and foreign, to hold bank accounts in all three currencies.
2. Establish a Currency Exchange Market (CEM) for authorized trading of all world currencies. Traders to be authorized to buy the local currency from any source, but sell the local currency only to local banks and registered foreign investors. This is to

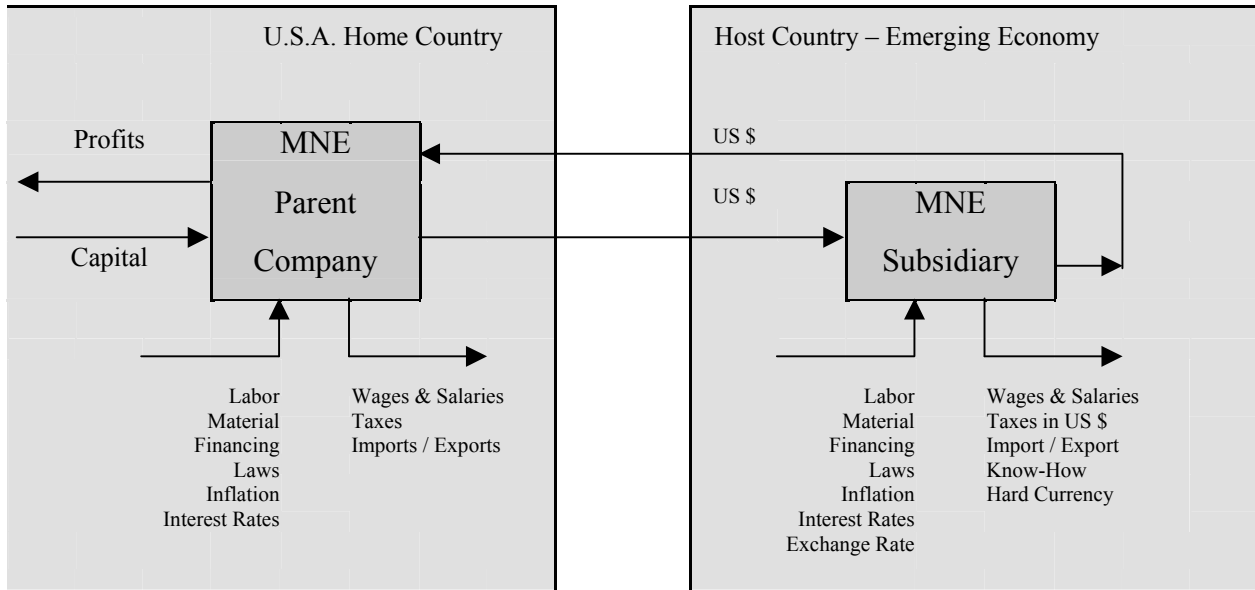
discourage speculation in the local currency in large sums. Limit the volume of trade in local currency per transaction, and per individual client over a set time period. Larger volume transactions to require verification that the funds are for conducting business transactions, and not for currency speculation. Approval of the larger volume transactions in the local currency would also set the time period for the settlement to 5 or more business days. This is to allow the banks time to adjust their currency requirements.

3. Local exporters, paid in foreign currencies, can convert their funds to any of the three currencies at their local bank or the CEM. Local importers can convert their funds in any of the three currencies to the currency they need for trade at their local bank or the CEM. The banks can convert their currencies through the CEM, or keep portions of their assets in US dollars and euros.
4. Allow the local currency to float. This leaves the option of intervention open, without making it necessary and predictable. And this flexibility of intervention guards the currency against speculative attacks.

With the value of the local currency floating, foreign suppliers will be discouraged from accepting it as payment for their products. They would then demand US dollar or euro for payment. Local importers would have to ensure that hard currencies are available at reasonable prices before committing to purchase. Thus the balance of payment problem is resolved at the point of import transactions, and the government is relieved from having to make any adjustments. Depending on the prices at which the local economy can supply hard currencies, a balance between importation and local production will be reached, and the balance of payment becomes self-regulated.

With the value of the currency floating, local businesses hesitate to assume short-term foreign currency debts. And foreign lenders are equally discouraged from extending such loans. This relieves the government from any concerns about the potential costs associated with a drop in the value of its currency. And so it can intervene more to exploit opportunities than to guard against threats.

5. Foreign investors can conduct their business transactions in either US dollars or euros or the local currency, as they wish. They can buy the raw materials, pay for the labor, and sell their products in any of the three currencies. But they will have to choose one of the three currencies as the basis for their accounting, financial statements, and reporting. And they will pay their taxes in the same currency. A US company will have the option of choosing the US dollar as its official currency. Even though it can operate in any of the three currencies, its financial statements will be in US dollars and so the accounting risks of exchange rate fluctuations will be eliminated. The company pays its taxes to the host country in US dollars. The systemic representation of the company will be as shown below.



The company is thus exposed to the risks of exchange rate fluctuations only to the extent it uses the local currency for its purchases. Such risks, which are dramatically reduced, can be further reduced through buying options.

For all practical purposes, the wealth created by the Subsidiary is in the same currency as that created by the Parent. Here, the Subsidiary is creating wealth in US dollars, and by extension, the host country produces this wealth in US dollars. And to that extent, a portion of the host economy is shielded from fluctuations in the value of its currency.

6. Remove all restrictions on capital flows. When capital is free to leave, it comes in. By eliminating the need for short-term foreign debts, and safeguarding against speculation, a free flow of capital becomes safe. It is likely that some domestic holders of hard currencies might transfer their funds abroad. Such sums will be negligible compared with foreign investment that will come in for the prospects of higher growth.
7. Enact Registered Capital Accounts (RCA) for each citizen, and open an account for each new born. Allow tax-exempt deposits up to a level in the RCA's by the individual or its employer. The deposit can be in the form of the employer's treasury stocks, as gain-sharing bonus. Allow use of the funds tax-free for home purchase, investment, training, college education for children, payment of medical bills, and retirement. Allow banks to maintain the RCA's, manage taxation of taxable withdrawals, and offer investment options to the account holders.
8. Make the Central Bank (CB) independent from other branches of government. Mandate the CB to: promote growth and employment while maintaining price stability, to supervise banks, and to regulate government borrowing from abroad. The CB to

intervene in the local currency exchange market as it deems necessary and feasible. To regulate the supply of money, the CB will have 4 main instruments for monetary policy:

1. Surcharge on inter-bank funds borrowings.
2. Variable Luxury Sales Tax on luxury consumer products such as expensive jewelry, yachts, cars and homes. Depending on the rate of increase of the consumer price index, the CB will set the Luxury Sales Tax: 5% normal, 15% max. when inflationary pressures are building, and 2% minimum when trying to encourage consumption.
3. Store and release of two accounts: the National Reserve Fund and the National Investment Fund. The National Reserve Fund is to be used for balancing the budget in periods of economic slow down when tax revenues drop. This saves the government from having to borrow from the private sector, and prevents an accumulation of a national debt. Further, it allows private sector funds to be spent on capital investments to help stimulate the economy. The National Investment Fund is to be used for building infrastructure.
4. Level of tax-exempt deposits by individuals in their RCA's.

At its discretion, the CB regulates the level of liquidity in the economy with any combination of these 4 monetary policy instruments. At the onset of rising inflationary pressures, the CB may opt to increase the Luxury Sales Tax from 5% to 10%, and raise the level of tax-exempt contributions to RCA's for lower income individuals. This discourages consumption of high priced items, as well as discretionary spending on consumer goods. As deposits in the RCA's increase, money is diverted from consumption into investment, thus countering inflation. The Luxury Sales Tax to be collected by the Treasury department, and placed in a Capital Distribution Fund, which can be released only by the CB. As funds accumulate, liquidity is removed from the economy, countering inflation further. Should inflationary pressures continue to mount, the CB can increase the Luxury Sales Tax from 10% to 15%, and ask the government to appropriate certain sums for deposit in the National Reserve Fund and the National Investment Fund, thus removing more liquidity from the economy. Release of funds from these two accounts is another monetary policy instrument, and so is at the discretion of the CB. Only if inflationary pressures continue to mount despite these measures, need the CB raise interest rates. Thus the economic activity can be slowed without undue hardship to lower income families, and without stifling capital investment.

As economic activity slows, the government collects less tax revenues, and runs the risk of a budget deficit. Using funds from the National Reserve Fund is a fiscal policy instrument, and at the discretion of the government.

And when inflation is tamed and the economy needs a few boosts, the CB can reverse its tightening measures, in the reverse order in which they were taken. The first measure to boost the economy can be lowering of the interest rates. Thus interest rates need to increase only moderately, and only for a short period of time. Further boosts to the economy can come from lowering the Luxury Sales Tax rate, and releasing funds from

the Capital Distribution Fund, and the National Investment Fund to increase liquidity in the economy. The manner in which the funds thus released by the CB are spent is a fiscal policy instrument, and at the discretion of the government. Thus we have coordinated fiscal and monetary measures, without blurring the separation between the CB and the government.

As the economy goes through a cycle of boom and bust, lower income families are saved from undue hardship, and will come out with more capital than they had before. This protects them from hazards of economic dislocations, and allows them to take advantage of investment opportunities as they arise.

9. The Treasury Department collects tax revenues in the local currency, US dollars, and euros. Taxes collected in the US dollars and euros are turned over to the CB, who in turn credits the Treasury Department with sums in local currency at the prevailing rates of exchange. Thus all government expenditures, budgeting, and reporting will be in the local currency. Should the government need to make purchases abroad, it can then buy hard currencies for its needs from the Currency Exchange Market.

This mechanism ensures a number of economically positive trends.

- 1) The CB becomes an accumulator of the two hard currencies. This gives the CB the capacity to intervene in the Currency Exchange Market, when it sees it appropriate.
 - 2) This also gives the CB the capacity to act as lender of last resort for loans extended by banks in US dollar and euro.
 - 3) It forces the government to become fiscally conservative.
 - 4) It ensures that the supply of the local currency is regulated, and tied to the CB's reserves of hard currencies.
10. Regulate the banks through the CB. To gain the confidence of foreign investors, adopt the US banking regulations. Bar the banks from investing in securities. Real estate assets of the banks to be appraised at the lowest value in the previous 10 years. This is to save the banks from the risks of real estate speculations. This reduces the financing available from banks, and forces the investors in real estate to use more of their private funds for financing their purchases, and hence moderates price escalations. Bar banks from assuming short-term foreign debts. Require banks to maintain reserves at the CB: higher reserve rates for dollar and euro deposits. The reserve rate for dollar and euro to vary depending on the reserves held by CB.
 11. The CB can be the lender of last resort for the local currency, since it can print the local currency in sufficient quantities to satisfy demand, should there be a run on the banks. Thus banks can create money by extending loans in the local currency, proportionate to their reserves at the CB. This increases the velocity of money and hence the GDP (Gross Domestic Product) with a given supply of money in circulation.

If the banks can extend loans also in US dollars and euros, the economy could generate an even higher GDP. Such loans could be used by MNE subsidiaries that do most of their business transactions in these currencies. Domestic firms could also use the loans to finance imports of capital equipment. The capacity of the banks to issue loans in US dollars and euros depends on whether they have a lender of last resort for these currencies.

The CB can also be the lender of last resort for loans extended by banks in US dollars and euros, even though it cannot print these currencies. For this to happen, the CB is to begin by requiring from banks 100% reserves on their deposits in these currencies. Therefore, banks begin with no capacity to make loans in these currencies. As the CB accumulates US dollar and euro reserves, it can gradually lower the reserve requirements for the hard currency deposits, perhaps from 100% to 95%. This allows the banks to extend loans in the two hard currencies, and still be safe from possible default by borrowers and demand from depositors. In time, depending on the CB's reserves, the reserve requirement for the two hard currencies can be gradually reduced, although it is unlikely that it would ever reach the range of 10%-15% for deposits in the local currency.

12. Make the Judiciary independent from other branches of government. Thus investors, both local and foreign, will have the confidence that the laws of the land will be enforced, and so their property enjoys the full protection of the law.
13. Enact bankruptcy laws that allow orderly restructuring of failed private enterprises. To gain the confidence of foreign investors, adopt the bankruptcy laws of U.S.A.
14. Adopt the same accounting practices of U.S.A. for preparing financial statements, and reporting of financial data.
15. Insure bank deposits through a corporation similar to FDIC (Federal Deposit Insurance Corporation) of U.S.A.
16. Regulation securities by adopting the same regulations of SEC (Securities and Exchange Commission) of U.S.A.
17. Adopt the UCC (Uniform Commercial Code) of U.S.A. as the commercial law of the land.

These measures will no doubt take some time to establish and put into practice. This is nothing short of a major restructuring of the financial institutions. In addition, a large number of banking regulators and supervisors need to be trained for the system to function as expected.

The effort would certainly be worthwhile. An emerging economy that follows these practices would have a major advantage over others in attracting long-term foreign direct investment. Such a country would then enjoy rapid economic growth, low unemployment, a swelling middle class, and both economical and political stability.

Conclusion

Systems-Thinking is aptly suited for understanding complex international financial relationships. It brings us to consider complex interactions in terms of flows between systems. This helps us to understand the interactions in terms of a series of processes, each with a trigger and a set of consequences.

Systems-Thinking can be applied in understanding the interactions of a MNE subsidiary with a developing country as the host of its operations. It clearly shows the interdependence between the Subsidiary as a system and the emerging economy as its context. It demonstrates the many threats that exist to the profitability of the Subsidiary, and that these cannot be overcome unilaterally.

More importantly, Systems-Thinking makes both MNE subsidiaries and the host economy to consider their long-term objectives. This brings them to take steps that progressively promote their capacity to generate wealth. Each party is thus reminded of its full set of needs, and at the same time is prompted to define its mission for the long-term. Thus they are saved from pursuing short-term gains that result in long-term pains. And there, in defining their missions, they come to see their long-term interdependence.

Many of the threats facing MNE subsidiaries in emerging economies are related to the conditions of the host countries, and so can only be addressed by the governments. A number of measures can be taken by the governments of emerging economies to improve their political and economic stability, which in turn allow foreign investments to thrive. Such measures do not require large capital investments by the developing countries. These measures build the soft infrastructure of the country. And once in place, these measures attract and keep foreign investments for building hard infrastructures and for producing goods and services for both the domestic market and exports.

The proposed measures have a number of positive features:

1. They attract productive foreign investment, and keep away speculative foreign capital, thereby stabilizing and enhancing the value of the local currency.
2. They do not require large capital expenditures to institute.
3. They are structural changes that are of enduring value, and will serve the developing country well into the future, and well after it becomes a developed country.
4. They operate on the principles of free market economy, relying on sovereign individuals to make self-serving choices that also serve their context as a whole.
5. They make the developing economy self-regulating and self-stabilizing, allowing maximum growth and employment without the risks of high inflation or currency devaluation.

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