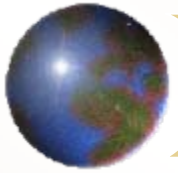


***International Migration of Talent and Home Country
Development: Towards a Virtuous Cycle***

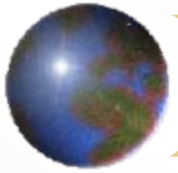
***Yevgeny Kuznetsov
Senior Economist
Knowledge for Development Program***

***Workshop on Intellectual Capital
Paris, June 30, 2006***



Structure of Presentation

- 1. Setting the scene**
- 2. New trends in technological development of middle-income economies**
- 3. Why Diasporas of highly skilled?**
- 4. Diasporas and home-country development: a virtuous cycle?**
- 5. Diaspora networks: conceptualization**
- 6. Policies and programs to trigger and sustain the virtuous cycle**
- 7. Conclusions**



1. *Setting the scene*

Two vivid trends in middle-income economies (Argentina, Brazil, Russia, South Africa, Mexico, India, Armenia etc.)

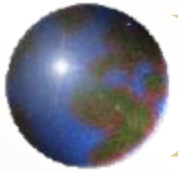
1. Promising (but insufficient) changes in national innovation systems. Many good elements already exist. The problem is **critical mass**.

2. Growing international mobility of talent
Rapidly growing Diasporas of highly skilled

In the past, these two developments resulted in vicious cycle – brain drain problem

Central question is this:

Can these two developments reinforce each other in **virtuous cycle**? If so, how?



2. *New trends*

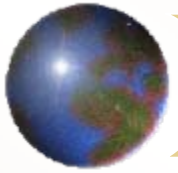
Metaphor of development as jig-saw puzzle

Many good elements already exist:

- Many good firms ('first movers')
- Many promising/ successful initiatives
- Highly skilled professionals abroad
- Yet critical mass of rapid sustained growth is slow to emerge: frustration (the promise is there but it is very elusive)

The problem: how to achieve critical mass in 5-8 years

- Countries which achieved that: Asian high performers
- Countries which have made substantial progress: China, Chile, India, Hungary



2. *New trends*

Fostering a new generation of technology alliances between middle-income and development economies

A big change is underway:

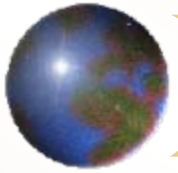
Two new trends:

1. Dramatic restructuring of how corporate R&D are performed (from in-house to elaborate outsourcing). Newly industrialized countries emerging as a preferred location for outsourcing

❖ India, China, Russia and EU accession countries as new locations to outsource corporate R&D

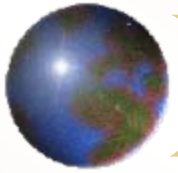
2. Emergence of transnational 'brain circulation networks'

❖ Global hunt for talent: dramatic transformation of Silicon Valley.



2. New trends

- **Firms now go where the talent is residing.**
- **China and India are two major beneficiaries of these two new trends. Because of this, they emerging superpowers.**
- **But also countries with advanced human capital, such as Russia and Brazil .**
- **Can middle income capture these new opportunities?**



2. *New trends*

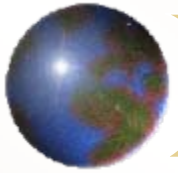
- **Can middle-income countries capture these new opportunities?**
- The opportunity needs to be defined with the help of prominent expatriates working for major multinationals (GE, Intel, AMD) and technology-intensive-firms abroad
- Objective I: *Outsource R&D and technology generation to middle-income economies*
- Objective II: *Create trans-border brain circulation networks involving technology firms in home countries and developed economies*



3. *Why Diasporas of highly skilled?*

People are crossing borders in record numbers:

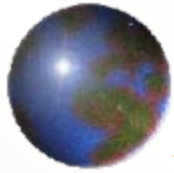
- Each year between 2 million and 3 million people emigrate
- Affects both developed and developing countries
- The majority are going to just four host countries: USA, Germany, Canada and Australia
- Remittances (the money migrants send to their home countries): more than \$100 billion a year
- At least 50% more than total official development assistance



3. Why Diasporas of highly skilled?

Market for highly skilled (knowledge) workers will become even more globally integrated

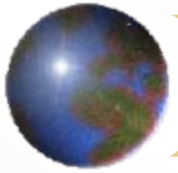
- Developed countries are actively seeking high level skilled workers and facilitating their integration to labor market
- Increasing brain drain is bigger problem for developing countries. Need to train brain drain into brain gain
- Growing far-flung Diasporas from developing countries



3. Why Diasporas of highly skilled

In many countries, Diasporas played a critical role
In knowledge-based growth: China, India, Ireland,
Israel

- Providers of venture capital, trade networks:
- Indian experience
- Sources of knowledge:
- Chinese approach to attract back high level migrants
(Specialized technology parks)



3. Why Diasporas of highly skilled?

Passions fuelling interests: harnessing social energy

Passions: intrinsic motivation

Sense of duty, desire to 'repay', get involved in home country in spite and against many a myriad of obstacles which exist)

Interests: responding to incentives

Professional incentives; profitability



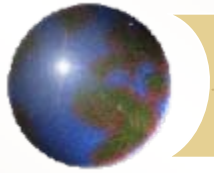
3. Why Diasporas of highly skilled?

Numbers are significant

Total Number of Expatriates in OECD Economies

	Total number of expatriates	Of which highly skilled (%)
China	1,649, 711	39,6
India	1,928,199	51,9
Brazil	351,878	31,7
Argentina	266,070	37,8
Mexico	8,431,381	5,6
Chile	200,366	33,0

Source: Adapted from OECD, 2005

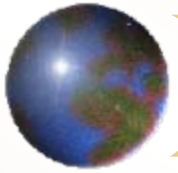


3. A 'Rich Country dilemma'

Two very different agendas

- **Migration of skilled (tertiary educated)**
- **Migration of low skilled**

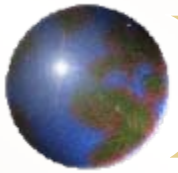
Remittances (including collective remittances) are hugely important for poverty reduction but not for the development of home country communities. There is a tendency to confuse poverty reduction with development



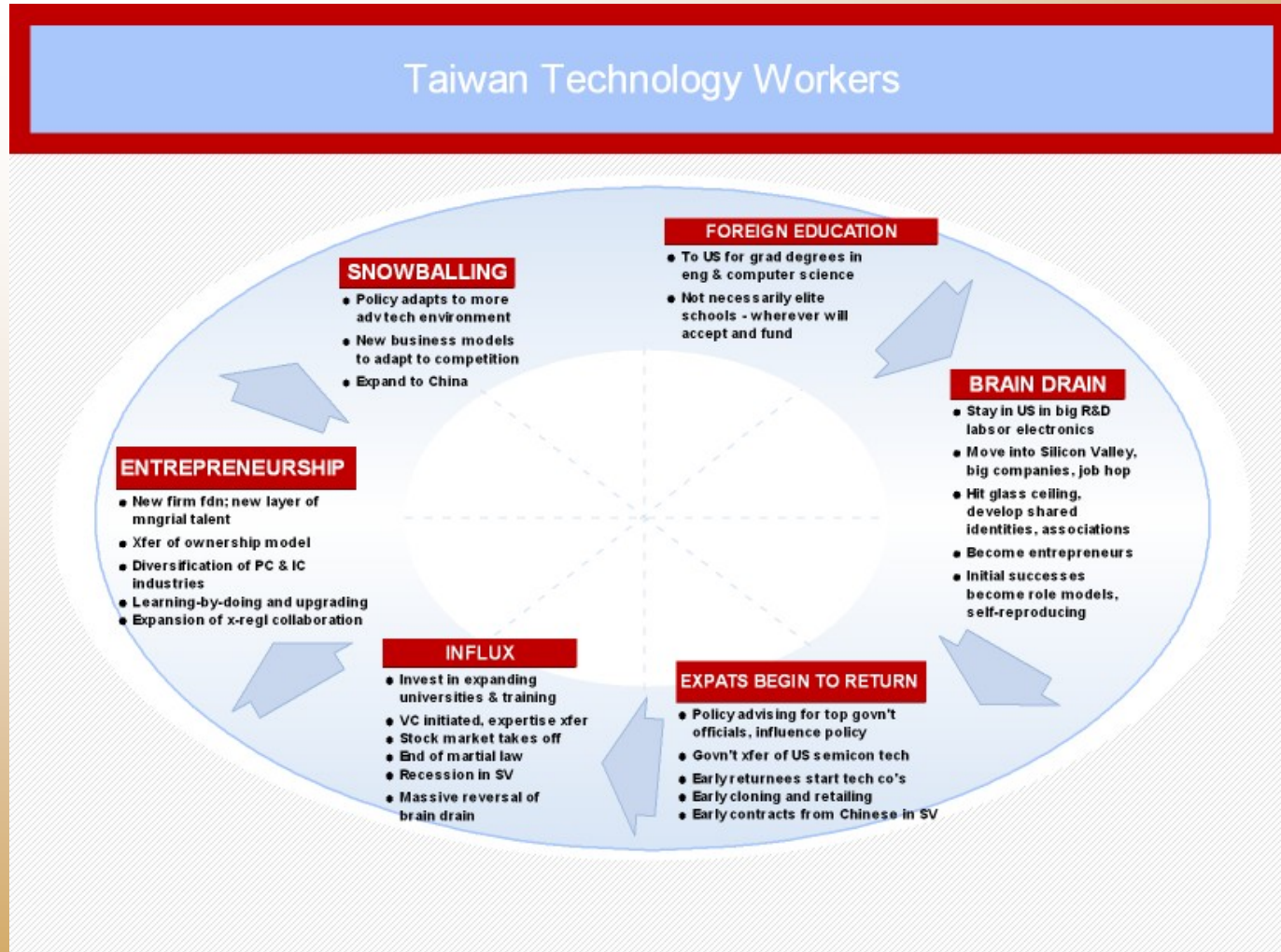
4. *Towards a virtuous cycle*

Emergence of venture capital industry in Taiwan

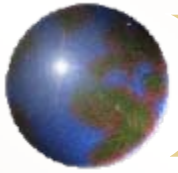
- Massive foreign education and brain drain in the 60's and 70's
- Industry and financial sector dominated by large firms. Culture of risk-taking and experimentation virtually non-existing
- Silicon Valley as a role model: successful entrepreneurs from Diaspora and the government decide to promote venture capital industry
- First venture capital fund is established. Government contributes to equity. Expatriates reallocate to Taiwan to manage the Fund. Diaspora in Silicon Valley open up market
- Demonstration effect of the success triggers establishment of other funds



4. Towards a virtuous cycle



Source: Annalee Saxenian, University of California, Berkeley



4. *Towards a virtuous cycle*

Is it the number's game?

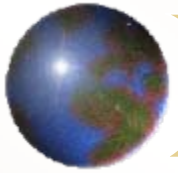
Do countries need large numbers of the Diaspora of talent to generate the Taiwan' type dynamics?

No. Small Diasporas of highly skilled can be very productive as well.

Example: ChileGlobal: a network of about 100 successful professionals of Chilean origin in the US, Canada and Europe

Tangible contributions of ChileGlobal:

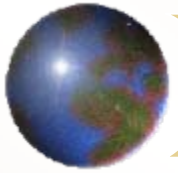
- ❖ co-founding of high-tech firms in Chile (example: Interlink)
- ❖ Synopsis creates a software development center in Chile (Raul Camposano – Chief Technology Officer of Synopsis – is a member of ChileGlobal)



5. Conceptualization

Diaspora networks as search networks

1. Diaspora as an extension of home country
2. An Archimedean lever to trigger change: as a device to identify and link good exceptions
3. As a device to institutionalize exceptions: a way to sustain change
4. As a problem-solving device: 'Six Degrees of Separation'
5. Antennas to build shared strategic vision of the future



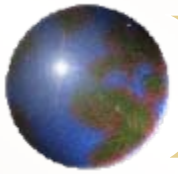
5. Conceptualization

1. Diaspora as continuation of the home country

- **Reflects heterogeneity of the home country population and institutions**

- **A mirror of the home country: reflect all its idiosyncrasies but also reflects the home country's potential (e.g. open ended comments about themselves in a survey of Argentines abroad reminded me of Borges and Cartasar, perhaps not as eloquent but just as vivid)**

Precisely because Diaspora is part of the home country, it can be a powerful vehicle to trigger and promote change in the home country



5. Conceptualization

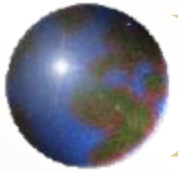
2. As a device to identify and link exceptions: an Archimedean lever to **trigger** change

Our individual propensity to sustain change follows a familiar Bell curve (normal distribution). Exceptions matter:

-- the 'worst' 10%: these individuals would not change under any circumstances

-- the best 10%: 'sticky people': those would push change under any circumstances. First movers driven by intrinsic motivation

Networks of talent abroad allow to identify the best 10% ('sticky people') both abroad **and in the home country** and (crucially!) link them together. That creates an Archimedean lever to trigger change



5. Conceptualization

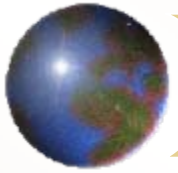
3. As a device to institutionalize exceptions: a way to sustain change

Exceptions matter but what about the rest of us?

‘Good enough’ 40% of other individuals – ‘emerging role models’ start to link with each other as well. That is about mainstreaming and institutionalization of change

Example: Chilean CORFO bringing experts from the ChileGlobal to evaluate project.

Performed repeatedly every year (and with different members of ChileGlobal) this would allow to create a new organizational routine and open up domestic innovation system

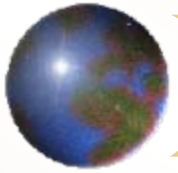


5. Conceptualization

4. ‘Six Degrees of Separation’: Diaspora networks as problem-solving networks

A solution is just ‘two phone calls away’ (a rule of thumb of the Mexican network of talent abroad)

E.g.: an electronic engineering company in Scotland that design, test and manufacture innovative condition monitoring systems, received, within a day of requesting, a full days advice on how to agree a licensing deal with large US blue chip company at a crucial stage of negotiations. Global Scot network allowed to identify relevant members and experts outside the network the members knew and trusted almost instantly



5. Conceptualization

5. Constructing shared vision of the future

A shared vision is a long-term strategic vision with which various strata of society can identify with and bet on their future

Diaspora members are ideally positioned to trigger shared vision processes

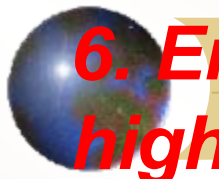
E.g.: Scotland process to develop a strategic vision of biotechnology cluster. Could have commissioned a report to McKinsey (more expensive but less messy). Instead, a process was initiated where Global Scot members such Chairman of Monsanto played a leading role

E.g. Armenia 2025



6. Emerging models of mobilizing Diasporas of highly skilled: lessons from other countries

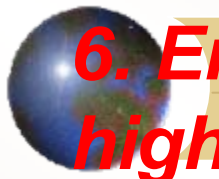
- Most government initiatives to establish 'brain gain' networks have failed
- A lot of initial enthusiasm which dissipates.
E.g.: Red Caldas of Colombia
- Major lesson: Expatriate networks need to generate transactions (demonstration effects), people get tired of discussion
- New sources of promising experience: South Africa, Armenia



6. Emerging models of mobilizing Diasporas of highly skilled: lessons from other countries

Why Diaspora initiatives tend to fail?

- **Easy to start: a lot enthusiasm**
- **More difficult to maintain momentum: enthusiasm tends to evaporate**
- **A need to produce win-win situations for everybody**



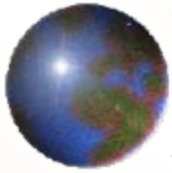
6. Emerging models of mobilizing Diasporas of highly skilled: lessons from other countries

Two types of initiatives:

-- Diaspora initiatives: organize Diaspora to promote interests of migrants abroad

Social events, conferences: let Diaspora members get to know each others

-- Create networks of talent to generate projects
More humble objective. Start from accidental successes (serendipity) and create institutionalised network.
Expatriate network as project development facility



6. Roles of prominent members of the Diasporas/ Emerging models of Diaspora mobilization

1. Top executives model – India

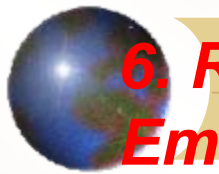
Indian executives in major multinationals influenced investment decisions to outsource knowledge-intensive operations to India: *Technology and R&D outsourcing networks*

2. Mentoring/ Venture capital model – South Africa, Korea, Taiwan, Israel

Managers and owners of European start-up firms of South-African origin work South African start-up to develop and finance commercially viable projects: *Venture capital networks*

3. Diaspora members as investors – greater China ('Bamboo network')

Diaspora members know reality of home countries well and have access to risk-mitigation strategies. Personal trust between members of *cross-border investor networks* reduces transaction costs.



6. Roles of prominent members of the Diasporas/ Emerging models of Diaspora mobilization

4. Setting new strategic direction/ identification of new opportunities – Israel, Armenia, India

Diaspora members identify niches: translate global opportunities into business projects: *scanning networks*

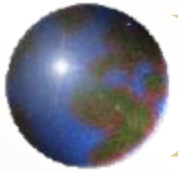
(e.g. ‘Armenia 2025’: four detailed scenarios of Armenia’ development, an about \$2 mln. study by McKinsey – *was done for free thanks to top executives of Armenian origin in McKinsey*)

5. Return of talent model – China, Korea

Incentives (like special technology parks in China) for the talent to come back: *brain circulation networks*

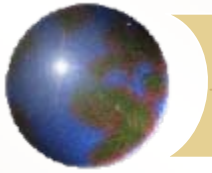
6. A model of basic outsourcing – Armenia

Successful Diaspora members who ‘made it’ send back outsourcing contracts to firms back home: *outsourcing networks*



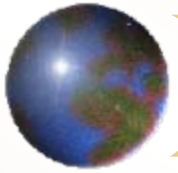
5. Example of Greater China: Transnational Venture Capital Networks

- Networks bring together Silicon Valley and high tech industries of the world and Greater China
- New immigrant entrepreneurs build professional and social networks
- From brain drain to brain circulation:
- Taiwan has been very successful in tapping into the market and technical knowledge of Chinese Diaspora. Has also set up very strong incentives to repatriate many.
- China is also beginning to do this. Is attracting many to high tech centers set up throughout China. Is even attracting Taiwanese born Diaspora to set up and manage high tech industry in China.



6. *Global Scot*

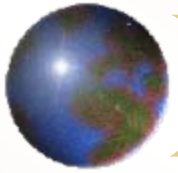
- A program to manage enthusiasm to get involved of about 850 high-placed Scots all over the world
- A part of Scottish Enterprise – Scottish Economic Development Agency
- A program with annual budget of about 300 thousand pounds
- A highly successful network of expatriate professionals due to a diversity of early success stories



6. *Pragmatic Diaspora Initiatives*

Paradox of Diaspora Initiatives

- ❖ **Individual champions** ('padrinos') are indispensable to **initiate** Diaspora initiatives
- ❖ Capable **organizations** in home countries are critical to **sustain** it (e.g. GlobalScot a network of 800 influential Scots all over the world is successful thanks to Scottish Enterprise)
- ❖ A paradox: to utilize **Diasporas** one needs **capable** institutions at home
- ❖ **Pragmatic** initiatives: relying on individual champions to develop institutions



6. Diaspora initiative: institutionalizing existing informal Diaspora networks

- Informal Diaspora networks already exist.
- Objective, as always, is ‘critical mass’: getting from spectacular exceptions to an institutionalized procedure of reaching to influential Mexicans abroad.
- Building such a critical mass means creating an exclusive club of ‘overachievers’ and defining specific commitments from them. A spirit of exclusivity is the key here.
- India has done it, Armenia is doing it right now and Mexico should and could set an example for the whole of Latin America.

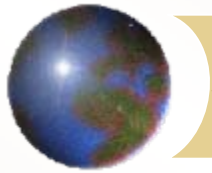


6. Emerging models of mobilizing the Diaspora: it is already happening in our economies

The challenge is to nourish the following agents:

- A small group of dedicated overachievers is the key: these champions act a springboard for tangible projects
- A small secretariat of paid professional staff serves a system integrator to transform ideas to projects
- Broader network of professionals abroad who participate with ideas,

Decision-making power, and (less important) funding.



7. Conclusions

1. Diasporas can be very useful for home countries but to develop their potential, concerted effort is required. This concerted effort takes time.
2. In the **short term**, individual champions and tangible success stories (demonstration effects) are the key
3. In the **longer-term**, institutions of the home countries are the key (Diasporas are not a panacea)
4. Focus on **pragmatism**: **relying on individual champions to develop institutions**