

ETHOS



Civil Service College
Singapore



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EDITORIAL

A recent article in *THE ECONOMIST*¹ portrays the public sector as pathologically inured to the productivity-enhancing initiatives that have transformed the private sector – although Singapore seems to buck the trend against OECD benchmarks. The general discourse on boosting productivity – be it the application of technology, worker retraining, or process reengineering – has likewise been targeted at businesses and employees rather than at governments. This is surely a pity: beyond the necessary tedium of due diligence and regulatory oversight which prevents (or could have prevented) systemic crisis, the public sector in any advanced country is a tremendous repository of information, expertise, energy and goodwill that, if judiciously applied, could multiply the efforts of all players in creating value for their respective fields.

The key is to better understand the evolving value proposition of the public service. Where there is a clear sense of how the public sector contributes to national outcomes, the considerable mechanisms of state can be cogently directed towards appropriate ends: whether it be to reduce barriers to productive activity, to channel

resources to promising new sectors, or to unlock potential value by making infrastructure and information more widely available.

Bureaucracies may well have a tendency to rigidify along their functional structures if not much more than staid goalkeeping is expected of them. This however need not be the natural state of a vigorous, value-generating public service. Permanent Secretary Chan Lai Fung from the Ministry of Finance envisions a Government 2.0 spirit in which boundaryless, agile and expert task forces marshal whole-of-government resources towards national outcomes, in fruitful partnership with the private sector (page 5). A survey of large-scale collaborative projects in the Singapore Public Sector (page 11) and new insights into the emergent phenomena of collaborative networks (page 19) offer lessons on how pan-sectoral initiatives could yield even more productive results. The rise of new data-driven industries (page 27) could see the public sector become the critical provider of a new factor of production: ubiquitous information. These developments are more than thought experiments – they are at the forefront of thinking about how governments can contribute

to national growth: as an active participant in the value creation process, or by opening up whole new value streams for others to tap.

The emphatic importance of being clear about national goals and the larger purposes of growth informs the insights of Jesus Felipe, who offers further suggestions on how the public sector can enhance Singapore's national productivity (page 35), and of Harvard Professor Dani Rodrik, who sees room in a globalised world for small nations to be savvy and selective about their developmental choices (page 51). South Korea, also a case study in directed development, seems to be mobilising its national energies in order to establish a firm niche for itself in an Asia-led future (page 56). Highlighting the many ways in which governments play a vital role in the health of market economies, Donald Low and Wu Wei Neng from the Centre for Public Economics also point out the limits of intervention (page 42). While public policy cannot account for all variables, David Skilling argues that a balanced and managed approach to risk under increasingly complex conditions can itself be a source of competitive advantage in a volatile world (page 60). A more resilient nation, better prepared for uncertain conditions whether economically, socially or otherwise, is in a stronger position to brave the frontiers

where the next wave of growth might be found.

Also in this issue: an account of Western Australian public service reforms to engender greater flexibility, accountability and streamline interagency operations (page 66). Ron Haskins from the Brookings Institution finds the emphasis on personal responsibility in Singapore's social policies a strong contributor to national resilience (page 73). Drs Jeremy Lim and Clive Tan examine how the principles underlying Singapore's healthcare policies are expressed in the structure of the healthcare industry (page 81).

I wish you a stimulating read.

Alvin Pang
Editor, ETHOS

NOTE

1. March 17, 2011.



Chan Lai Fung

Government 2.0: Pursuing National Productivity through Collaborative Networking

A new model of connectedness and collaboration in Government could transform the creation and delivery of public value.

The Singapore Public Service is not short on examples of Whole-of-Government (WOG) initiatives that help improve the productivity of not just the Government but also that of the private sector. That we have been able to pull off so many of them is a testament to the quality of our Public Service. At the same time, we are a long way off from being a truly Connected and Collaborative

Government. Being connected and collaborative are ideals that the Public Service should have no difficulties subscribing to. Why then is it often so hard to operate collaboratively?

WHY COLLABORATION IS HARD WORK

The reality is that WOG collaboration entails many challenges. Most WOG projects are *slow* moving, with the pace set by the slowest member of the group.

They also tend to be *cumbersome*, often requiring agreement, coordination and standardisation among multiple agencies. *Standardisation* may mean having to make painful adjustments to processes that people are used to. Often, *no agency wants to take the lead*, which entails the additional trouble of organising everyone and bringing them into line. If left solely to the agencies, a number of WOG projects may never have taken off.

If a WOG project could result in significant benefits or savings for the agencies, they might still be prepared to deal with the hassle of participating in it. For many other such projects, however, the benefits do not accrue directly to the agencies. Instead, the benefits accrue to the whole of Government, or nationally, although the cost is borne by the agencies. In these instances, it may not appear to make sense for agencies to be part of the WOG project, which often entails additional work, budget and headcount requirements, and management attention. While money can buy headcounts, it is far harder to commit the experienced management necessary to handle WOG projects adequately. Some WOG initiatives may also require us to centralise a function for improved efficiency, which means agencies would have to give up certain functions, resulting in a *loss of control*, perhaps over future cost, quality,

direction or corporate identity, that the agency may prefer to retain. Other agencies may feel that they could get more mileage or recognition from doing things on their own. These are all legitimate concerns.

OPTIMISING FOR NATIONAL OUTCOMES, NOT FOR GOVERNMENT EFFICIENCY

Many WOG collaborations also involve difficult trade-offs among competing objectives. Take the example of visa control to enhance our security. More visa control may diminish our attractiveness as a tourist destination. How do we strike a balance? If we optimise at the WOG level, both the Singapore Tourism Board and the Immigration & Checkpoints Authority will have to give a little. Giving a little is usually not the problem. The issue becomes more difficult when one or more parties have to make significant concessions to achieve some WOG objectives.

It is also possible to optimise at the WOG level, and yet sub-optimize at the national level. Take the example of the Public Trustee's Office (PTO) which handles the small estates of people who have passed away. To determine who is entitled to the estate, applicants need to show proof of their relationship to the deceased. Spouses have to produce their marriage certificates. But this

information is already available from the Registry of Marriages (ROM). A simple link-up between PTO and ROM would obviate the need to ask for the documents. However, if the PTO and ROM were to optimise based on just the Government's interest, they may not see a need to incur the effort and cost to have an electronic link-up. Why take on an additional regulatory burden for the Government when the burden can be borne by applicants? The natural incentive is for the Government to shift the regulatory burden to citizens or the private sector. But we have to remember that our goal is to optimise at the national level. We should do what would make the most sense nationally, not what is expedient or even efficient for the Government.

Beyond regulation, the Government also has a role in improving national productivity by helping companies grow their top-line. Initiatives such as OneMap and the proposed Data.gov.sg are aimed at sharing more public sector information with the private sector, to help them to be more innovative and productive. We are also exploring how resources in our polytechnics and Institutes of Technical Education (ITEs) could be made available to support the continuing education and training of workers. All these could mean a lot of additional work for the Public Service –

We should do what would make the most sense nationally, not what is expedient or even efficient for the Government.

to look at what we have, what can be shared, how the resources can be shared, and attendant issues including handling potentially large volumes of requests and suggestions from individuals and companies, once we start to engage them. If we were to look purely at the Government's own costs and benefits, we may end up not doing very much. But this will also mean that we would be sub-optimising at the national level. On the other hand, concerns over the lack of resources and the capacity to cope are real and have to be addressed.

A NEW APPROACH TOWARDS A CONNECTED AND COLLABORATIVE GOVERNMENT

What can we do to bring us closer to the ideals of a Connected and Collaborative Government? Drawing on Mark Moore's Strategic Triangle framework,¹ we should simultaneously address the issues of public value, support and capacity.

Public Value

Public officers must have a clear sense of our ultimate mission and purpose. It is not to maximise value for our

own organisations, but to maximise public value. It is not to advance our agency's interests, but WOG interests, and ultimately Singapore's interests.

If we can embrace this mindset, we are less likely to sub-optimize at the agency level, and more likely to optimise at the WOG and national level. What did not use to make sense to us at the agency level may now make a lot more sense if we factor in wider interests. We may find it a little easier to bear with the pain of having to move at the pace of the slowest member or having to make painful adjustments. We will find ways to re-prioritise and eke out the necessary management bandwidth for WOG initiatives, as we currently do if we are told that something is important enough.

Support

How can we support and develop such a mindset? Public sector leaders must first embrace this mindset ourselves, and reinforce it through words and action, not just pay lip service to it. Given that whatever does not get measured, does not get done, perhaps WOG collaboration could be a new appraisal quality, since teamwork is already assessed. Since it is very difficult to get volunteers to take the lead for WOG initiatives, we should also find ways to recognise those who are prepared to step up to the plate and

take the lead in such projects.

We can also give support through the provision of funding, as the Ministry of Finance has done in the past to catalyse various WOG efforts such as the Action Community for Entrepreneurship (ACE), OneMap and the setting up of the Singapore Centres. More can be done.

We have to confront agency anxieties about losing control over cost and quality. These are the same concerns of agencies each time we decide to outsource a function. When we outsource to an external party, we can use contractual agreements to mitigate some of these concerns: we can write in rights and obligations, with penalties for non-performance; the contracts would have a dispute resolution clause. For WOG collaborations, there is no formal transactional relationship, no binding contracts, and seemingly no formal recourse if things do not work out. But even though we may not have formal dispute resolution mechanisms, there are ways for disagreements to be settled, often through the escalation of issues to higher levels. To give confidence to agencies to work together, we must be prepared to step in at the highest levels to resolve difficult issues when they arise.

We can put in place top-down directives and formal structures, but that would not be enough. To grow

and sustain a collaborative culture, we also need informal structures and ground-up support. We need more informal collaborative networks such as Communities of Practice (COP) to encourage public officers to come together to share knowledge and perspectives across the WOG and to tackle WOG problems together. There are currently several COPs in the Public Service, in the areas of organisational development, learning design, Smart Regulation and so on. If they are effective, COPs can help public officers build networks, communication and trust – all critical ingredients to the Public Service becoming a more connected, collaborative and creative Government.

Capacity

We need to help our public officers develop some basic skills to deal with differences and difficult trade-offs inherent in many WOG initiatives. Successful WOG collaboration requires high levels of inter-personal and organisational sensitivity, particularly for agencies taking the lead in collaborative projects. We need to develop the capacity to readily acknowledge others' contributions, and give credit where it is due. Even if credit is not due, we can be generous and magnanimous. Interestingly, one of the leadership values that top Chinese cadres

are expected to display is what they call “心胸广阔”, which broadly translates to being “big-hearted”. It is the opposite of being petty and calculating. For us to have a collaborative mindset, we need to display much of the same spirit.

Public officers also have to learn the skills of managing trade-offs. They can benefit from picking up some skills taught in negotiation courses such as “focusing on interests, not positions”, and “inventing options for mutual gain”.² In managing trade-offs, we need public officers to adopt a solution-seeking mindset, and be flexible and creative enough to invent options as opposed to adopting an all-or-nothing stance.

There may be fears about being overwhelmed if we take a more collaborative approach with the private sector. But, increasingly, this is the new environment that we have to work in. The Infocomm industry has coined the term “Web 2.0”, commonly referring to web applications that facilitate information sharing and collaboration. We should look at nurturing a Government 2.0 environment with similar characteristics. Australia has, in fact, set up a Government 2.0 Taskforce. Among other aims, the Taskforce examines how public sector government information can be made more accessible and usable to promote innovation. One of its terms of reference is to encourage “the active collaboration

of anyone wishing to contribute and collaborate with the public sector”.


In this Government 2.0 environment, the call and demand on our resources can be huge. But our response cannot be to continually increase budget and headcount. For example, when we make available more non-sensitive information through the Data.gov.sg initiative, it could lead to a huge number of requests to release other types of information. We may not be able to give the same time and attention to every query and request, but we can develop filters and customised responses for the vast majority of requests that may come in, giving greater attention only to the more meritorious requests. In a Government 2.0 environment, we need to develop the mechanisms and capacity to cope with the increased demand on our time and resources. But we cannot hold back from engaging and collaborating with external parties just because we fear we cannot cope.

CONCLUSION

The biologist Lewis Thomas once pointed out that “the survival of the fittest is not a battle where the strongest and most dominating will prevail, but where those who cooperate best with others will.” His insight is very apt in our context. Singapore, given our small size, is clearly not the strongest nor

the most dominating. But can we, as a Public Service, make up for this lack by cooperating and collaborating well as a WOG and with others?

In a Government 2.0 environment, we need to develop the mechanisms and capacity to cope with the increased demand on our time and resources.

Jack Welch coined the word “boundarylessness”. He described it as “the idea that will make the difference between GE and the rest of world business in the 1990s”. For us, could “a Connected and Collaborative Government” be the idea that will make a difference between Singapore and the rest of the world? 

This article was adapted from a presentation delivered at the Public Service Staff Conference 2010, held in July 2010.

NOTES

1. Moore, Mark Harrison, *Creating Public Value: Strategic Management in Government* (Cambridge, Mass: Harvard University Press, 1995)
2. From *Getting to Yes: Negotiating Agreement without Giving In*, first published in 1981 by Roger Fisher and William L. Ury.



Kharina Zainal

Reviewing Whole-of-Government Collaboration in the Singapore Public Service

Findings from a 2010 survey offer ways to improve collaboration among government agencies.

UNDERSTANDING WOG COLLABORATION

Governments today have had to adopt Whole-of-Government (WOG) thinking as a matter of necessity, as public issues become increasingly more complex and multi-dimensional. Such an approach allows governments to tap on diverse knowledge, viewpoints and ideas from across the public sector, with officers from different agencies coming together to broaden and deepen policy development, and to deliver services

to citizens in more synergistic ways. On the basis that the whole is greater than the sum of its parts, concerted and coordinated WOG efforts can achieve greater outcomes than the most competent individual agencies working alone. If well executed, a WOG strategy is a powerful source of competitive advantage for governments – one which, furthermore, is not easy to replicate.

True WOG collaboration requires agencies to make their vertical organisational structures permeable so

that learning, communication, analysis and decision-making processes can take place across organisational boundaries. While structures and processes supporting WOG collaboration are key, what is more important is that public officers across all levels of government believe in the value of operating as one government in the work they undertake.

It is worth pointing out that WOG collaboration does not always yield a better outcome: In instances where the cost of collaboration outweighs the benefit of doing so, the task is better assigned to a specific agency. Examples include areas where an organisation's deep functional or technical expertise could be weakened as a result of collaboration, or when collaboration is foisted on officers who are not yet ready to fully embrace the spirit and substance of a collaborative approach.

THE CURRENT STATE OF WOG COLLABORATION

In early 2010, the Ministry of Finance (MOF) and the Public Service Division (PSD) commissioned the Lee Kuan Yew School of Public Policy (LKYSPP) and the Nanyang Business School (NBS)¹ to take stock, assess and review the state of WOG collaboration in the Singapore Public Service.² It was intended to give greater clarity to the term "WOG collaboration" as applied in the Singapore Public Service, identify supporting factors as

well as impediments, and recommend strategies to improve collaboration among government agencies.³

WOG COLLABORATION IN SINGAPORE: WHAT WORKS

Drawing from its observations, the study, started in July 2009 and completed in September 2010, identified five approaches which could enhance WOG collaboration in the Singapore Public Service.

1. Pursue disciplined, rather than directed collaborations

Most major, large-scale WOG collaborations to date have been directed top-down from senior government and public sector leadership. Directed collaborations as such are likely to face two challenges. First, some officers may have been appointed or co-opted to join the project rather than collaborating out of conviction. Second, there is an assumption that the ones directing the project have all the necessary information and knowledge to see it through, which could overburden the project sponsor. Both of these limitations could result in less optimal outcomes for WOG collaboration.

While there will always be a place for directed projects, mature WOG collaboration calls for a more disciplined yet decentralised approach,

where officers possessing the necessary skills, experience and interests become naturally inclined to come together to work as a team without close direction from their superiors. This self-selection process also leads to better team dynamics since members share a common goal, with a greater willingness to resolve conflicts when they arise. Positive experiences of working with one another will also build reciprocity, trust and therefore better relationships among officers for future collaborations.

2. Move from resource allocation to resource leveraging

Teams working on WOG projects may require additional resources in order to achieve desired outcomes. Recognising this, central agencies such as MOF and PSD have steered agencies towards better collaboration by granting additional funds or human resources towards WOG projects. The alternative is for agencies to redirect what existing resources they can spare, which means WOG projects have to compete with agencies' own projects for priority and limited resources. This is likely to result in less than optimal resource allocation and outcomes.

To get out of this bind, the government bureaucracy will need to be more permeable and allow a freer flow of resources. Agencies would then

be better able to leverage the most appropriate resources to tackle complex issues, capitalise on emerging trends and create new markets. Such resource leveraging would allow expertise, physical assets and intellectual properties to be quickly redeployed and recombined in innovative ways, allowing the whole Public Service to overcome administrative constraints and enjoy new economies of scale. Given that such an approach would require a degree of flexibility and give-and-take, an environment of mutual trust and strong social networks would need to exist among public officers collaborating towards shared, long-term goals.

3. Establish processes, not just structures

Both temporary and permanent inter-agencies structures such as task force steering and review committees, have been useful platforms, bringing officers together to brainstorm, discuss and work on WOG projects. To support these structures, there must be clear processes to facilitate the way officers work with one another. These processes should allow seamless communication, information sharing, decision-making and approval within the team. In the WOG study, interviewees often highlighted that it was not the lack of structures, but the lack of processes that impeded collaborative efforts.

WOG Collaboration Study

The WOG Collaboration Study classified all WOG efforts undertaken in Singapore to date into six types.

1. Strategic Issues

These are central government planning projects where no single agency has the knowledge or resources to deal with on its own. Such projects map out long- and medium-term strategies, or review existing strategies to ensure continued relevance. Project outcomes provide coherence and guidance to agencies across Government involved in the subsequent implementation of more detailed plans. In efforts of this nature, leadership is key to ensure that strategic issues are identified and then coordinated in a WOG manner.

Examples: Inter-ministerial committees on Security, Climate Change and Population.

2. National Projects

These are mostly one-off events of significant national interest and where Singapore's global reputation is at stake, and to which Singaporeans beyond the public sector have pledged time or resources in support. Given the prominence of such pan-national efforts, leadership and participation are

relatively smooth-going. Issues, if any, arise only in the background during actual ground implementation, arising from the sheer scale and scope of the endeavour.

Examples: Hosting of the Singapore F1 Grand Prix and the Youth Olympic Games (SYOG); setting up of the Integrated Resorts.

3. Programmes Sponsored by Central Agencies and Ministries

The two central agencies in Government, PSD and MOF, may make use of their influence and central control over manpower and financing to steer other agencies towards specific public sector priorities. Agencies involved (particularly coordinating agencies) are usually provided with additional resources to pursue specific programmes. Coordinating agencies also assist in facilitating dialogue among the other participating agencies.

Examples: World.Singapore strategic planning exercise; setting up of Centres of Excellence¹ in the Public Service.

4. Self-driven, Inter-organisation and Peer Initiatives

Organisations on their own may approach one another to share resources,

pursue mutually beneficial projects or resolve common problems. Most of these efforts are bilateral and the result of existing social networks nurtured over time.

Examples: The Singapore Sports School (MOE and MCYS); promotion of arts and culture (MICA, STB and PA); Gardens by the Bay (URA, NParks and STB).

5. Technological Platforms for Better Organisational Efficiency

Projects driven by efficiency and common functional requirements across agencies. Agencies may make use of common ICT infrastructure and applications to improve productivity. This is most effective when participation agencies themselves are convinced of the benefits of getting involved.

Examples: Vital.Org, SG-SPACE and TradeNet.

6. Human Resources Programmes for Networking

Programmes intended to communicate common values, and promote an exchange of perspectives among participants. Many public officers are also drawn to these programmes for opportunities to network with their peers within the Service.

Examples: Foundation courses for new public officers; milestone programmes; policy forums.

NOTE

1. Teams promoting collaboration and use of best practices around a specific area (e.g. urban planning and government procurement) for better results.

ABBREVIATIONS

MCYS: Ministry of Community Development, Youth and Sports

MICA: Ministry of Information, Communications and the Arts

MOE: Ministry of Education

MOF: Ministry of Finance

NParks: National Parks Board

PA: People's Association

PSD: Public Service Division

STB: Singapore Tourism Board

URA: Urban Redevelopment Authority

4. Think customer and citizen needs, not agency priorities

For effective WOG collaboration to take place, officers need to think of outcomes in terms of customer and citizen requirements rather than just their agencies' functional scope. This will enable officers to define problems and design products and services more holistically, instead of trying to coordinate fragmented service offerings at the back end. A customer-oriented mind-set – particularly with the overarching goal of bettering the lives of Singaporeans – would also help in balancing WOG goals with individual agency mandate and goals.

5. Empower officers to solve problems without escalation

The most common form of conflict resolution in WOG projects today is to escalate the matter to higher authorities for resolution. While such hierarchy-based processes do work in the short term or in critical situations, WOG project teams should be empowered to resolve operational issues at the working level. Even if formal approval is still needed, members should be able to engage freely in discussions, without fear of reprisal from their superiors – not only to achieve better outcomes, but to build a stronger collaborative spirit that will enhance the group's overall performance and WOG results.

TOWARDS A MORE CONDUCTIVE WOG ENVIRONMENT

The Singapore Public Service has done much to make WOG collaborations work, despite the many challenges of working together across multiple administrative boundaries, organisation priorities and complex public issues, with evidence that the planning, coordination and execution of WOG initiatives have steadily improved with time. These successes lay the necessary groundwork of expertise, experience and trust for more elaborate collaborative initiatives in future. The study makes several recommendations for developing a more conducive public sector environment in order to enhance and sustain Singapore's WOG efforts.

Establish WOG-Compliant Institutions and Rules

Some level of central planning for WOG collaborations is already undertaken by the central agencies of MOF and PSD, as a matter of operational necessity, but there is still a lack of clear ownership for the planning, coordinating, tracking and documentation of WOG collaborations in the service. A dedicated WOG office could act as a central point for all government agencies planning to work or are already in WOG projects, help eliminate duplication, track the progress of on-going collaborations, mediate when

disputes arise, and serve as an important source of institutional memory for earlier collaborative strategies.

Rewards and recognition frameworks should also take into account the nature of WOG collaborations. Officers on secondment to collaborative projects can be recognised for good performance in cross-agency initiatives, for instance, through a formal cross-agency feedback system.⁴ At the agency level, KPIs should be rationalised to reflect joint outcomes so that agencies involved can be duly recognised for their contributions to national goals.


Develop Organisational Capabilities

The ability to work in cross-agency teams should not be assumed as a given. The WOG study cited the value of T-shaped managers: leaders who combine deep specialist expertise with broader perspectives, who are able to transcend traditional hierarchical roles to contribute across organisational lines, but are nevertheless still committed to their agency's performance. Training programmes could be developed to help officers work more effectively in WOG teams; officers with a bent for collaborative work could be identified and nurtured early in their careers.

Nurture a WOG-Ready Culture

Many interviewees spoke of the need to inculcate a long-term WOG culture in the Public Service, in which individual officers are motivated and committed to think and work in WOG terms across agency boundaries. While this will require concerted effort over time, officers at all levels can be given ample opportunities to socialise so that they can begin to establish their own networks, build trust and be better equipped to work across agencies.

Public sector leaders have an especially important role to play: in their formal and day-to-day interaction with colleagues, they should exemplify the characteristics of WOG, and walk the talk. They help nurture a psychologically safe environment in which a culture of collaboration can take root, where public officers feel confident about sharing their thoughts and question assumptions without prejudice.

Strategic social networks and communities should be developed among agencies with high incidence of collaborations. In the process, key connectors, influential brokers and experienced WOG role models in the public sector community at all levels of the Service can be identified. These key figures will be highly influential in moving the public sector forward towards more effective collaboration. 

Kharina Zainal is Principal Researcher at the Centre of Governance Leadership whose works focus on organisational development and social policies.

NOTES

1. Professor Neo Boon Siong from the Lee Kuan Yew School of Public Policy (LKYSPP), National University of Singapore and Professor Boh Wai Fong from the Nanyang Business School (NBS), Nanyang Technological University.
2. The concept of a Whole-of-Government approach was first introduced to the Singapore Public Service in the early 1990s.
3. The study spanned over a year with officers from the Ministry of Finance, Public Service Division and Civil Service College working closely with the research team from LKYSPP and NBS. A total of 65 interviews were conducted with senior officers (deputy directors and above) from 8 ministries and 10 agencies, whose job scope involved working closely with counterparts from other agencies within the Public Service.
4. The Infocomm Development Authority employs a cross-agency feedback system for its officers seconded to other agencies.



John Lim

Networked Governance: Why It Is Different and How It Can Work

John Lim outlines strategies and implications for policymakers seeking to build and leverage the full power of collaborative networks.

The “top-down versus bottom-up government” debate has become largely irrelevant, the consensus being that traditional top-down government is increasingly ineffectual in today’s context. The discourse has instead turned to how governments can make that transition, and thrive in a new environment in which collaboration and networking are the norm. Consequently, policymakers

around the world are now experimenting with novel ways of collaboration that bring together diverse stakeholder groups and provide more integrated and holistic responses.

Taking a network approach to public governance implies an increased reliance on (typically more informal) networks as a way to mobilise and engage citizens and organisations in the development, implementation, and monitoring of

public policy. The rise of network governance and the new collaborative ethos of public institutions points to a more fundamental transformation and proliferation of the network paradigm, which Castells termed “the rise of network society”.¹

The key driver in the emergence of the network society is technology – primarily new information and communication technologies – although it is important to bear in mind that all new forms of societal organisation are only conditioned, not determined, by technology. Society shapes technology according to the needs, values, interests and identities of people who make use of it, and because political systems are largely dependent on the inputs from the public spaces of socialised communication for their conversion of demands into collective decisions, the political decision-making process is also transformed by the rise of the network society.

NETWORK GOVERNANCE – A NEW PARADIGM FOR GOVERNMENT

The rise of the network society changes not only the nature of public discourse and opinion formation, but also the form and content of concrete decision-making, policy development and implementation. Bang & Esmark argue that nation-states are being replaced

by network states, which are “states embedded in local, regional, and global networks of governance hailed as necessary to meet the challenges of increased complexity, connectedness, and globalisation”.² Such governance networks vary considerably in terms of the level of formalisation, stability and inclusiveness, but a common characteristic is the involvement of non-state actors from the private and third sector as stakeholders and partners in policy management and implementation. The reconfiguration of the political system according to the ethos of good governance based on the network paradigm thus calls for a re-evaluation of the relationship between government and its stakeholders. As Bang & Esmark (2009) note:

“The only reasonable approach to the rise of network ethos and network organisation in public governance is a clear refusal of the idea of the network state as a helpless victim of network society. The reorientation of steering and coordination from programmes of conventional democratic polity to the stakeholder and partnership programmes of governance intrinsic to network governance is not simply a necessary or functional response to economic globalisation, technological innovation, complexity, and wicked policy problems... Rather it is to be regarded as the core of a more fundamental transformation from a disciplinary society to a control society in

which states, or at least governments, are key innovators and benefactors.”³

MAKING NETWORKED GOVERNANCE WORK

A common misconception with policymakers is that collaboration with external stakeholders implies a process of democratic public consultation involving resource-draining feedback solicitation, and sorting through half-formed ideas and perennial complaints. The fact is that collaborative participation can be structured, selective and designed to be productive; dialogue can often be highly specialised, technical and closed (see sidebar).

New forms of societal organisation are only conditioned, not determined, by technology.

Unfortunately, while policymakers may seek to use more collaborative arrangements, they often still expect outcomes and processes that are consistent with the traditional, comfortable forms of working. Klijn⁴ concludes that – given existing efforts, including attempts to involve stakeholders in the designing of policy – interactive governance does not always foster more cooperation among stakeholders, nor does it necessarily

facilitate better solutions or more democratic processes.

One critical reason for these failures arises from the tension between the horizontal accountability of these interactive governance mechanisms and the vertical accountability involved in the procedures of classical representative democracy. As such, an important factor to consider is the management efforts that go into collaborative processes, since they are complex and not easy to manage with traditional governance instruments. Unless policymakers understand what it means to work through network structures, they will continue to develop traditional policies and adopt management techniques that run counter to the positive results expected of networked arrangements.

Power and Trust

For a start, policymakers need to appreciate the nature of power in a network structure. As each member of a network is an independent entity, typical forms of authority do not work well, even if some actors have more formal power than others (in terms of resources or political clout). In fact, rather than relying on contractual arrangements, network structures depend on informal exchanges based on interpersonal relations. This calls for new modes of leadership which centre primarily on

Making The Net Work: Three Models

NOVECK: "COLLABORATIVE DEMOCRACY"⁵

Approach

Technology can help solicit and gather relevant expertise from large numbers of self-selected peers working together in groups.

How it works

Noveck offers 10 ways to support collaborative decision-making across a range of activities:

1. Ask the right questions: The more specific the question, the better targeted and more relevant the responses will be.
2. Ask the right people: Self-selection, along with baseline participant requirements, lets relevant expertise flow to the problem.
3. Design the process for the desired end: Methodologies used should be chosen to achieve clearly defined goals.
4. Design for groups, not individuals: "Chunk" the work into smaller problems that can be easily distributed to members of a team, who can then work in short productive bursts.
5. Show the group back to itself: If people perceive themselves to be part of a mini-movement, they will work more effectively together across a distance.
6. Divide the work: Map out available tasks and roles, and let participants choose their own.
7. Bubbling-up: Solicit solutions broadly, and allow people to rate submissions for relevance and usefulness.
8. Make policies, not websites: Don't count on technology alone: redesign internal processes in response to opportunities for collaboration.
9. Pilot new ideas: Use pilot programmes, competitions and prizes to generate innovation.
10. Focus on outcomes, not inputs: Design practices to measure success towards desired goals.

MALONE, LAUBACHER & DELLAROCAS: "THE COLLECTIVE INTELLIGENCE GENOME"⁶*Approach*

Basic building blocks in appropriate combinations enable the wisdom of crowds to be harnessed successfully in enterprises such as Wikipedia and Threadless.

How it works

A framework of "principal genes" which addresses four basic characteristics of a decision-making system:

What is being done?

- "create" – generate something new
- "decide" – assess/choose alternatives

Who is doing it?

- "hierarchy" – assigned by authority
- "crowd" – voluntary performance

Why are they doing it?

- "money" – direct or expected gain
- "love" – intrinsic satisfaction of task
- "glory" – peer recognition

*How is it being done?**How-Create*

- "collection" – independent contributions
- "contest" – a small set of solutions needed
- "collaboration" – interdependent parts

How-Decide (Group Decision)

- "Voting" – group commitment matters
- "Averaging" – decision based on statistics
- "Consensus" – agreement is feasible
- "Prediction market" – based on evolving data

How-Decide (Individual Decision)

- "market" – choices motivated by money
- "social network" – non-profit, peer-based choice

Together, these form a "collective intelligence gene-table" that can help in designing appropriate systems for each task, with many possible combinations of suitable traits.

For example, collective intelligence systems that rely on the "crowd", "love" and "glory" genes often explicitly feature opportunities for recognition, e.g. "top contributor" lists or performance-based classes such as "Power Seller" on eBay or "Top Reviewer" on Amazon. Getting the motivational factors wrong is often the single greatest factor behind failed efforts to launch new collective intelligence systems.

KREBS & HOLLEY: "NETWORK WEAVING"⁷

Approach

Collective intelligence is only as good as the people contributing to it. "Network weaving" nurtures the network community, allocating scarce resources and maintaining the network's overall health.

How it works

Unmanaged networks tend to form many small and dense clusters with little or no diversity (the classic "old boys' network"). Everyone in the cluster knows what everyone else knows, but not what is going on outside. While this density and commonality can make for strong working groups, parochialism and resistance to change can build, greatly limiting the possibility for new ideas and innovations.

A vibrant community network is generally built in four progressively adaptive and resilient phases:

Scattered fragments

Most communities start as small, isolated, emergent clusters organised around common aims. If these fragments do not organise further, the community remains weak. An active leader called a "network weaver" is needed to create interactions between them.

Single hub-and-spoke

Network weavers begin to serve as a hub, connecting individuals and clusters which can collaborate or help expand the network. Power and vulnerability are concentrated in the hub/weaver.

Multi-hub small-world network

As network information grows, complementary clusters join up and support one another. The central weaver begins to groom new weavers to take over network building and maintenance. When the various weavers connect with each other, a more robust multi-hub community forms.

Core/periphery

In the final phase, a core of key community members act swiftly on relevant new ideas, while a periphery (consisting new members, bridges to diverse communities elsewhere, and unique resources outside the community) provides access to ideas and information not currently prevalent in the network.

a facilitator or broker role. In addition, for the network to be effective, members must be able to trust each other to work to their mutual benefit.

Traditional policies and management techniques run counter to the positive results expected of networked arrangements.

While trust is not easy to build, there are two characteristics of network structures that may mitigate these constraints. First, the formation of a network structure means that at least some of the members recognise they are not able to achieve their purposes on their own, and that all action is thus interdependent. Second, many of the participants may already know each other and may have formed pockets of trust before the network structure was formed. These pockets of trust can be capitalised on through effective management strategies.

Risk and Indicators

Inter-organisational arrangements often depend on cooperation and coordination as their primary mode of operation because they entail low risk and an acceptable level of comfort. These


processes usually involve sharing of information, maintaining the autonomy of individual departments, and maintaining the ability to deliver services as usual. There is a desire to continue to tightly control what occurs in the network structure. Furthermore, government often expects it will be able to see traditional results, and see them quickly. The difficulty is that the types of results that occur through network structures have to do more with changing relationships and perceptions, which are more intangible than generating traditional programmes and numbers. Managing expectations and having the right indicators are thus critical to the survival of network structures.

There are, unfortunately, few definitive outcome measures that can conclusively demonstrate the effectiveness of a programme designed to work in a network structure among government agencies. If this deficiency persists, the true benefits of the network structure (that is, systemic change, relationship-building, innovative operating procedures and community inclusion) could be seen as less significant than it deserves. The reality is that the way governments work today is not conducive to changing traditional processes because of the risk involved. Network structures are unique responses to very complex, messy, wicked problems that

New modes of leadership
centre primarily on a
facilitator or broker role.

do not lend themselves to business as usual. Policymakers must realise that their key role in a network environment is to lay the foundation for members to operate with the authority they need, and then get out of the way.

Start Small

With greater experience and working knowledge of the benefits of network structures, as well as an understanding of what outcomes can be expected, decision makers may be more prepared to make changes – at the margins, initially, but in ways which could enable fuller network structures to emerge as a means to address more intractable issues. Allowing longer timeframes for evaluation, putting emphasis on integration rather than simply delivery of services, changing perceptions about each other's contribution to the whole, and recognising the value of relationship-building – these signal a promising start to new ways of working together. 

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Cheryl Chung

The Age of Big Data

Data-driven activities and smart systems could power a quantum leap in productivity and innovation.

We are entering an age of big data. In a 2008 feature article highlighting the impact that massive data capture and storage has already had on science, medicine, business and technology, Wired Magazine Editor-in-Chief Chris Anderson argues that the growth of data will enhance opportunities to find new answers to fundamental questions. “In the era of big data,” Anderson points out, “more isn’t just more. More is different.”¹ Similarly, in a 2010 special

report on smart systems,² *The Economist* suggests that “data, and the knowledge extracted from them, may [become] a factor of production in their own right, just like land, labour and capital.” Could data be the new oil: fuelling the next major wave of productivity gains and economic growth?

WHAT’S DRIVING THE AGE OF BIG DATA?

The age of big data is primarily being driven by two trends – Technological Development and Data Democratisation:

Technological Development: Data has become more useful

Technological developments in recent years have enhanced our ability to Collect, Store, Analyse, Present and Optimise data – driving up data value, improving decision-making and changing consumer behaviour at different segments of the value chain (see Figure 1).

Collect

An IBM Study in 2009³ predicted that “information that was previously created by people will increasingly be machine-generated – flowing out of sensors, RFID tags, meters, actuators, GPS and more. Inventory will count itself. Containers will detect their contents. Pallets will report in if they end up in the wrong place.” This significantly simplifies the

data collection process. We are now producing more information than we have the ability to store.

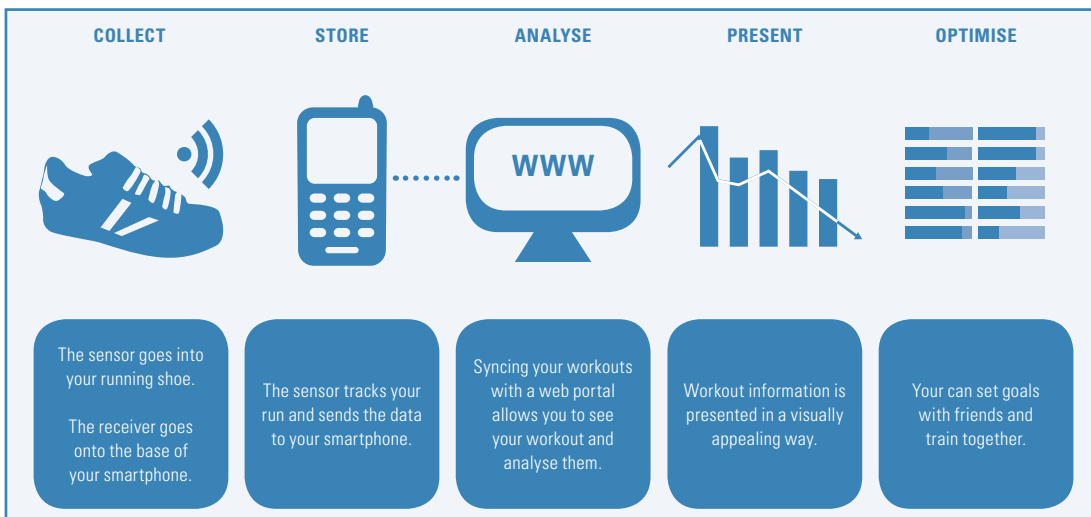
Store

Google’s DJ Collins has suggested that “organisations, like Amazon, Sun and even Google, are demonstrating the amazing benefits in scale and interoperability that come through moving data storage into the cloud”.⁴ Merrill Lynch⁵ estimates the volume of cloud computing market opportunity would amount to US\$160 billion in 2011.

Analyse

Companies are making significant strides in data mining and database management, suggesting that smart systems will become increasingly prevalent. For example, IBM has launched

FIGURE 1. THE DATA VALUE CHAIN



a campaign called “Smarter Planet”⁶ to intelligently interconnect the many systems that keep the modern world running. They envision that digital technology will make energy, transport, cities and other areas more synergistic, responsive and adaptive.

Present

In the age of big data, as the amount of data collected and in need of analysis rises, we can also expect that new tools to present and visualise this data will emerge. Geoff McGhee, an online journalist specialising in multimedia and information graphics, was awarded a 2009-2010 John S. Knight Journalism Fellowship at Stanford University to study data visualisation.⁷ He explained that, “Journalists are coping with the rising information flood by borrowing data visualisation techniques from

computer scientists, researchers and artists. Some newsrooms are already beginning to retool their staff and systems to prepare for a future in which data becomes a medium.”

Optimise

Having more data is only interesting to the extent that you can make better decisions and change behaviour with relevant information. In his book, “The Numerati”,⁸ Stephen Baker suggests that a “mathematical modeling of humanity... will manipulate our behaviour – how we buy, how we vote, whom we love – without our even realising it.”

Data Democratisation: Data has become more accessible

Some cities, including London, New York and San Francisco, have begun to open up their public service databases,

FIGURE 2. DEMOCRATISING DATA CREATES VALUE FOR INDUSTRY AND INDIVIDUALS



making large amounts of public data freely available to citizens.

Having more data is only interesting to the extent that you can make better decisions and change behaviour with relevant information.

IBM, among many other companies, has built a web-based application called City Forward that takes in data from 50 cities. These trends towards unlocking public data could well change the way that local governments, in particular, are organised. Instead of being a collection of departmental silos, public agencies could come to act as task-specific computing platforms. Most services, from payment systems to traffic information, could be provided as a single consolidated version to be used across all departments – or by private firms that want to offer their own urban applications. As Glen Allmendinger, President of Harbour Research, suggests, “more openness should be good for innovation, not just in terms of the information itself but how it is handled.”⁹

HOW WILL BIG DATA CHANGE THE GAME?

1. Big data requires new capabilities

In “The Numerati”, Stephen Baker posits

the rise of “a new math intelligentsia” who would analyse the data trails we create and build accurate models to predict our behaviour. Some precursors of this trend are already evident in the retail sector, with supermarket chains mining customer loyalty card data to target advertising and stimulate impulse purchases.

“I keep saying the sexy job in the next ten years will be statisticians.”

– Hal Varian,
Google Chief Economist¹⁰

As we enter a world where data is increasingly free and ubiquitous, industry leaders such as Google Chief Economist Hal Varian believe that the ability to find, process, understand, and extract value from relevant data will become ever more important. Indeed, just as computer engineering was the desirable job of the 1990s, Varian believes that the statistician will be the most sought after professional of the next decade. We already see this increased demand for data-crunching capabilities reflected in employment data. The US Bureau of Labour Statistics lists Numerati-type jobs amongst the fastest growing and highest paying.

2. *Big data creates new industries*

In an age where there is a homogenisation of product and technological offerings across industries, differentiated business processes are among the last few sources of competitive advantage. We see this reflected in a significant increase in IT spending on business analytics and optimisation.¹¹ Technology futurist, Paul Saffo has postulated that soon “many companies will suddenly discover that their main business is data.”¹² Indeed, two data crunchers discovered this in the late 1990s, and founded Google. According to Stephen Baker,

“For the age we’re entering, Google is the marquee company. It’s built almost entirely upon math, and its very purpose is to help us hunt down data. Google’s breakthrough, which transformed a simple search engine into a media giant, was the discovery that our queries – the words we type when we hunt for web pages – are of immense value to advertisers. The company figured out how to turn our data into money.”¹³

In the age of big data, we are likely to find a new wave of sophisticated computing and mathematical techniques and tools being embraced by mainstream businesses. More and more data-driven companies will disrupt incumbent industries in the same way that Google has disrupted the advertising industry.

New data-driven industry mash-ups will also be created. In recent years,

we have already seen how biomedicine and wireless technology have converged to create a booming remote-health-monitoring market which enables individuals and clinicians to better monitor changes in an individual’s physiological condition in order to better understand and manage their health. The industry is expected to more than double to \$7.7 billion a year by 2012.¹⁴

3. *Big data uses new methods*

After successfully sequencing the human genome, Craig Venter went from sequencing individual organisations to sequencing entire ecosystems. In 2003, enabled by high-speed sequencers and super computers that statistically analyse the data they produce, Venter started sequencing much of the ocean, retracing the voyage of Captain Cook. In 2005, he started sequencing the air. In the process of data-crunching and analysing correlations, he discovered thousands of previously unknown species of bacteria and other life forms, and advanced the frontiers of science more than most other scientists of his generation.

In recent years, we have seen a shift away from hypothesis-based research methods. Through the Cluster Exploratory (CluE) programme, the US National Science Foundation now funds researchers to use software and services running on a Google-IBM

cluster to explore innovative research ideas in data-intensive computing. Access to highly effective internet-scale applications powered by massively scaled, highly distributed computing resources are likely to fuel advances in science and engineering.

HOW CAN SINGAPORE SUCCEED IN THE AGE OF BIG DATA?

In a report on “A Vision of Smarter Cities: How Cities can Lead the Way into a Prosperous and Sustainable Future”,¹⁵ the IBM Institute for Business Value explained that cities are based on a number of core systems composed of different networks, infrastructures and environments related to their key functions: city services, citizens, business, transport, communication, water and energy. However, these systems are not discrete. Instead, they interconnect in a synergistic fashion that reaches towards optimum performance and efficiency. These core systems, in effect, become a “system of systems”. For better system performance, cities adopt new technologies to become “smarter”.

We might take a leaf out of Seoul's experience. Over the last 10 years, Seoul has become a hotbed of early adopters, and global powerhouses from Microsoft to Cisco Systems to Nokia use it as a laboratory. While Seoul took the considerable risk of being out front in an

untested field, it has demonstrated the potential gains to the city government, as well as its citizens, from being an early adopter of the “smart city” strategy.¹⁶

Seoul is not the only example. In many major cities, large portions of stimulus packages are being spent on smart city infrastructure projects, and some have made smart systems a priority of industrial policy. Urban centres in China are a good example of this: for instance, without an infrastructure enhanced by digital technology, Beijing knows that it will be difficult to provide the country's newly urbanised population with enough food, transport, electricity and water.

Singapore needs to develop new numerati capabilities in its people and businesses.

Singapore too aspires to be a “smart city”, a living laboratory of sustainable urban solutions that are scalable and exportable. How can Singapore succeed in the age of big data? To start with, Singapore needs to develop new numerati capabilities in its people and businesses, to seed new data-driven industry mash-ups and encourage the adoption of data-driven business solutions and methods.

FIGURE 3. LIVE SINGAPORE! AN OPEN PLATFORM TO TURN REAL-TIME DATA IN REAL-WORLD APPLICATIONS



Live Singapore! closes the feedback loop between people moving in the city and the digital real-time data collected in multiple networks. It gives the data back to the people who themselves generate it through their actions, allowing them to be more in sync with their environment as well as to make decisions based on information that reflect the actual state of their city.


To achieve this, LIVE Singapore! consists the development of an open platform for the collection, the

combination, fusion and distribution of real-time data that originate from a large number of different sources.

The platform is not aimed at one single application; instead it rather resembles an ecosystem and a toolbox for real-time data that describes urban dynamics. Building on this platform, a community of developers can build multiple applications in a joint effort which harnesses the creative potential of citizens in extracting new value from real-time data.

Another interesting area might be urban applications using real-time data. LIVE Singapore!,¹⁷ a research project funded by the National Research Foundation and developed by MIT's Senseable City Lab, gives us some clues about how this might look like.

LIVE Singapore! is in its research phase, but we should already consider how Singapore could scale up such open platforms to become “a system of systems”, with real-time data dissemination and broader application development. We can begin to imagine a Singapore of the next 10-20 years where data-driven activities form the basis of a new, truly knowledge-based growth industry: deep data-crunching and analytics capabilities could drive growth in other industries like healthcare and clean technology; Asia's top numerati could come here to work on leading-edge urban applications of real-time data; private companies could collaborate with the public sector to turn Singapore into a living laboratory, developing data-driven applications that enhance standards of living around the world.

What else might Singapore be able to achieve in the coming age of big data? 

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Jesus Felipe

That Elixir Called Productivity: Ten Implications for Singapore

What can the public sector do to ensure broad and inclusive growth?

WHAT IS PRODUCTIVITY AND WHY DO WE CARE ABOUT IT?

Productivity – the ratio of output to an input and therefore an indicator of whether we are doing more with the same – is one of the most elusive and misunderstood concepts in economics. It is linked to the notions of technical progress and profitability, but these are not synonymous.¹ The problem with productivity is that its measurement is not a simple issue² and that its determinants, both at the firm-level and

external to it (the environment), are not well understood.³ Moreover, the role of government encouraging productivity growth is unclear. Nevertheless, its importance is crucial since economic models conclude that long-run growth (what economists call *steady state*) is determined by productivity. As differences in labour productivity aggregate level explain most of the differential in GDP per capita around the world, it is considered key to achieving higher living standards.

WHAT CAN GOVERNMENTS DO TO ADVANCE PRODUCTIVITY GROWTH?

Clearly, there is no generic formula that guarantees permanent success, and no quick to-do list. However, there are some areas that a country like Singapore should pay close attention to:

1. The regulatory environment matters

It is important to understand that governments cannot intervene, affect, or act upon the firm-level determinants of differences in productivity. On the other hand, there is room for governments to influence labour productivity by acting upon the environmental determinants. Although we do not know which factors affect productivity growth the most (i.e. their quantitative impact), the generic recipe is to continue fostering undistorted competition, to deregulate what is incorrectly regulated, and to promote flexible input markets.

The question is, what types of reforms would be most effective? Reforms, if decided upon, should be very well targeted to tackle very specific issues. Pagés (2010) provides a discussion of policies for productivity and offers a simple check list of “what to do”:

- Make productivity a central theme of the public discourse
- Disseminate the effects of policies on long-term productivity
- Incorporate business and labour into the policy debate

- Invest in developing the capacity of the state and adopt long-term policies
- Involve entities that guarantee credibility
- Anticipate the indirect consequences of reforms on political actions

2. Do not get over-fixated with productivity (or competitiveness)

While productivity matters, the correct variable for purposes of cost-competitiveness analyses should be unit labour costs: the ratio of nominal compensation to labour productivity. However, empirically, researchers have failed to find a statistically significant inverse relationship between the growth in unit labour costs and output growth.⁴

3. Growth only makes sense in the broader context of what Singapore wants to be as a nation

A clear answer to this question for the next decades will help chart the path for the future and then the role of productivity growth. The recommendations of the Economic Strategies Committee (2010) do indicate directions, e.g. “Make Singapore a distinctive global city and endearing home”, “Make Singapore a leading cultural capital”, and “Provide the best quality of life in Asia”. Today, most governments are evaluated based on their performance, not on their ideology. As a consequence, Singapore

should gauge its performance not by the rate of labour productivity growth (or even of GDP growth), but by its ability to deliver key services and to provide its citizens with what they need to live a decent life: enough food, adequate shelter and health services, a well-paying job, elimination of poverty, modernisation of the economy, employment for all those who want to work, leisure and family time and a good education. This is a much more complex and challenging set of objectives.

Singapore should gauge its performance not by the rate of labour productivity growth (or even of GDP growth), but by its ability to deliver key services and to provide its citizens with what they need to live a decent life.

In Felipe (2010), I argue that the objective of public policy should be to achieve *inclusive growth*, defined as “growth with equal opportunities”. This has three components: (a) Effective delivery of public goods and services, e.g. health, education, water, power, especially for the poor; (b) Elimination of inequalities; and (c) Achievement of full, productive and decent employment.

It is in this broader context that labour productivity, as a tool and not as an end in itself, matters and should be understood for policy purposes.

4. Long-term growth is about structural change

Economic models conclude that, in the long run, overall growth is determined by the growth rate of productivity. From a policy perspective, it is very useful to understand long-run growth as a process of structural change, defined as the shift of resources across sectors of the economy, from sectors of lower productivity into sectors of higher productivity. Structural change also implies the creation of new sectors and an increasing diversification and sophistication of the production and export structures. In the last decades, the most successful economies in the world, including Singapore, have been the ones that have been able to induce fast structural change.⁵

5. Change involves displacement

The relationship between employment creation/destruction and productivity growth is a complex one, akin to a love-hate relationship. On the one hand, without structural change it would be very difficult to achieve sustained growth. On the other hand, structural change entails significant labour reallocation across sectors, whereby

old jobs are constantly being destroyed and new ones created. It is impossible to coordinate this process. Moreover, if productivity in some sectors increase, while demand for new goods and services reaches a saturation point, an imbalance arises. The consequence is unemployment. To solve this imbalance, a market economy needs to be constantly generating new products/services to absorb the labour displaced by sectors that have achieved the saturation point.

6. What matters is jobs for the people

Many governments have realised that unemployment and underemployment bring about enormous economic and social illnesses and waste (Felipe 2010). Today, Singapore enjoys a state of quasi full employment. This should not be taken for granted. Macroeconomic policies need to be redirected towards the achievement of full employment on a permanent basis. Furthermore, Singapore needs to create employment for the people it has, and not for the people it wishes it had.

7. Trainability matters more than educational levels

Education is a fundamental human right that should not be compromised. However, this does not imply that all citizens should obtain a PhD. The public debate on education is often confused,

and should shift to *trainability on the job*. While Singapore needs to be able to generate and retain a sufficient number of highly qualified professionals with tertiary and postgraduate education to support its manufacturing and services sectors, as well as its attempt to succeed it into the advanced biotechnology and biomedical sciences (e.g. Biopolis), most of the jobs being created today do not demand at least 20 years of formal education (PhD level). Most of the jobs created are in wholesale and retail trade, tourism, or transportation: these jobs require excellent and qualified professionals with secondary and vocational education, not doctorates.⁶

Education beyond the level required to perform these jobs adequately can lead to a problem of *overeducation* (Mehta et al. 2010). Trainability, on the other hand, is the ability to learn fast on the job and to adapt to changing circumstances and to the environment. Productivity in many workplaces could increase substantially by simply reorganising the way work is conducted in many offices and factories. To achieve this, one does not need more years of formal education, but good on-the-job training mechanisms. This requires a very flexible and innovative educational system coupled with an efficient interface with the business community.

8. Foster strategic collaboration between public and private sectors

The key lies in understanding the role that each of the two sectors has to play, and the inputs that each has to provide. While the role of the private sector and what motivates it is straightforward, that of the public sector is more controversial. The public sector has to provide public inputs such as basic infrastructure and address market failures that prevent private investment, in particular when they entail *information* (e.g. incentives to enter a new market and defer uncertainty costs) and *coordination* (e.g. the provision of an airport for the development of the hotel industry). Singapore excels in these areas, and coordination between its private and public sectors is outstanding, in comparison with that of many other countries around the globe.

Singapore needs to create employment for the people it has, and not for the people it wishes it had.


9. Follow your capabilities and find niches

Thinking of new sectors and how to move ahead should be a function of one's own capabilities, as development is path-dependent. This suggests three things for Singapore. First, Singapore is the largest transshipment port in the world

and has one of the best (if not the best) airports in the world. This translates into a large stock of accumulated capabilities in the area of logistics. Singapore should continue developing (and excelling in) the *complex* services that these activities provide.⁷ Second, if Singapore wants to succeed in the advanced technology sectors (e.g. biomedical), perhaps it should study how countries like Switzerland have developed outstanding capabilities in infotechnologies, nanotechnologies, clean technologies, and in biotechnology, medical services and pharmaceuticals. Switzerland has been able to develop a superb culture of innovation based on outstanding SMEs and linkages between research and firms. Excellent tertiary education matters to excel here. Third, after five decades *depending* on multinationals (especially in the electronics sector), Singapore has not been able to develop its own indigenous and world-class champion in manufacturing. This is particularly obvious in the electronics sector.⁸ To remedy this deficiency, Singapore should encourage the development of startups and the transfer of technology among universities and companies. Activities that should be supported are those:

- subject to increasing returns to scale
- with high-income elasticity of demand
- produced under conditions of imperfect competition

10. Be aware of constraints

In the same way that Singapore must know and nurture its strengths and advantages, it should equally be aware of its constraints and limitations. In particular, Singapore as a city-state with a very open economy will always have to be vigilant of the international environment, and in particular the region in which it operates; it must always take into account its perennial land constraint; it should keep track of the changing structure of its population, and be aware of the potential pressures brought about by immigration. 

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NOTES

1. For an entrepreneur, technical progress refers to the introduction of machinery or processes that increase *profitability*. Entrepreneurs act under competitive pressure to be the first to adopt a profit-rate increasing technology. As individual entrepreneurs race to adopt more profitable technologies, they raise labour productivity in their sector and set in motion forces that raise wages as well. When economists speak of technical progress, they also refer to the introduction of machinery or processes, but often focus on its impact on aggregate growth, and study questions such as how its introduction affects labour (wage rate) and capital (profit rate).

2. Labour productivity is generally derived by dividing the somewhat misleadingly termed “volume of output” by total employment (or hours worked) in a sector (or in the economy). To calculate capital productivity, economists sum up the book values of capital, often based on dubious assumptions. In the 1930s, economists thought that there should be a way to devise an index of multifactor or total factor productivity, such that the denominator would not be only labour or capital, but both. During the 1940s, 1950s and 1960s economists devoted a great deal of time to this issue both theoretically and empirically. I will not discuss this literature here for reasons of space. This is a complex subject. The interested reader can see Felipe (2006, 2008).

3. Syverson’s (2010) recent survey sheds some light on the determinants of productivity and provides a framework for understanding inter-firm productivity differences. He summarises a wealth of literature and classifies the determinants into two groups: (i) factors that operate primarily within firms and under the control of the management; and (ii) factors external to the firm. These operate indirectly through the environment by affecting producers’ willingness and ability to harness factors that affect firms.

4. See Fagerberg (1988, 1996); Felipe and Kumar (2011).

5. See Felipe et al. (2010) for an analysis of the relationship between development and structural transformation.

6. Lutz et al. (2008) provide empirical evidence on the importance of primary and secondary education.

7. See Abdon et al. (2010) for an analysis of economic complexity. Singapore is the 19th most complex economy in the world, out of a total of 124 countries.

8. Felipe et al. (2010) show that the problem with the electronics sector is that while the different activities in this cluster are very well connected to one another, and this has allowed countries like Singapore to diversify and to increase the sophistication of its exports, the sector is not particularly well connected to more sophisticated activities outside the cluster.

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Donald Low and Wu Wei Neng

Government and Markets in a Well-Functioning Economy

The central question for governments is not whether but how to intervene in markets to ensure their proper functioning.

The financial crisis in 2007–2009 prompted a major rethink of the relationship between the state and markets. Dispelling the myth that competitive markets and self-interested individuals alone are sufficient to ensure efficient outcomes or stable economies, the crisis emphatically demonstrated how unregulated, unfettered markets can fail in ways that undermine even the most advanced economies.

One key lesson from the crisis is that

markets often need proper government supervision and regulation to function efficiently. This understanding becomes all the more important as markets become increasingly complex and sophisticated – not just in finance, but also in areas as diverse as healthcare and energy.

STATE AND MARKETS: A BRIEF HISTORY

The evolution of economic thought in the past 200 years has profoundly influenced our notions about the right

balance between states and markets. In the 18th and early 19th centuries, the writings of Adam Smith, David Ricardo and others attributed economic growth to the operation of the “invisible hand” of markets. Relying only on prices to allocate resources and ration demand, markets ensured that the interactions between a multitude of agents – each making economic decisions based only on his self-interest – resulted in outcomes more efficient than what central planners can achieve. Markets benefited society at large, with no requirement for active state intervention beyond the provision of a few public goods, such as law and order.

One key lesson from the crisis is that markets often need proper government supervision and regulation to function efficiently.

This *laissez faire* thinking reigned unchallenged throughout the late 19th and early 20th centuries, until the Great Depression. British economist John Maynard Keynes (1883–1946) argued that markets were inherently uncertain, and if left on their own, could self-depress rather than self-correct. Government intervention was necessary to boost aggregate demand during periods of high unemployment. This

“Keynesian Consensus” recommending activist economic policies eventually came to shape the policies of Western governments from the 1950s to 1970s. It was premised on the ability of governments to manage aggregate demand and maintain full employment without causing inflation.

But the consensus began to fray almost as soon it achieved the heights of intellectual dominance in the West. Friedrich Hayek (1899–1992) and Milton Friedman (1912–2006), among others, believed that the government’s ability to affect real outcomes was transient at best and harmful at worst. They argued that the costs of government failure often outweighed those of market failure, and that the state’s clumsy interventions in the market – by depriving people of choice and responsibility – could do more harm than good. The experience of *stagflation* (the combination of inflation with high unemployment) in the 1970s also raised serious doubts about the Keynesian proposition that activist government policies were both possible and desirable. These ideas greatly influenced economic reforms in the Thatcher and Reagan administrations and led to the privatisation of nationalised industries, tax reductions to reduce the burden on businesses, curbs on union power, deregulation and the promotion of competition, and more

broadly, a reduced role for government in the economy throughout the 1980s and 1990s.

In the 1990s and early 2000s, a greater awareness of the social and economic costs of unrestrained capitalism and of the inability of unfettered markets to deal with externalities and market failures led to more nuanced views on the appropriate state-market relationship. Economists such as Amartya Sen, Joseph Stiglitz, Paul Krugman and Dani Rodrik emphasised the critical *interdependence* of governments and markets, in which one could not function properly without the other.

While acknowledging the indispensable role of markets and prices to signal scarcity and allocate resources between competing claims, these economists and others also emphasise situations in which the unregulated interactions between economic agents can produce outcomes that are less than socially desirable. The existence of “market failures” provides a *prima facie* case for the Government to improve outcomes through specific interventions. Market failures can generally be classified into four categories:

- **Informational failures** occur when people or firms do not have sufficient information or are uncertain about future costs and benefits, and consequently cannot

form stable or rational expectations about the future. In other instances of informational failure, one part of the market (e.g. the seller) has more information than another (the buyer), leading to outcomes where the party that is information-disadvantaged is unable to make decisions that are in his own interests.

- **Missing markets** occur because prices do not always reflect the full costs or benefits to society. When markets fail to price in the external or spillover effects of one’s actions, it can lead to outcomes that are privately optimal but socially sub-optimal. Unregulated markets will tend to over-produce and over-consume goods with negative externalities (e.g. air or noise pollution); they will also tend to under-produce goods with positive externalities (e.g. public health). There will also be under-provision of public goods such as national defence, which are non-excludable and non-rival, and hence almost impossible for commercial producers to charge users for.
- **Coordination failures** occur when actions that are rational for an individual are irrational collectively. For instance, it is rational for individual fishermen to catch as many fish as possible, but if all fishermen did this, the fishery

would collapse. This is known as the “Tragedy of the Commons”. These coordination failures are the primary reason why challenges such as global warming are so difficult to resolve.

- **Monopoly power** occurs because barriers to entry are significant enough to deter new firms from entering the market, hence entrenching a dominant position for the incumbent firm. In many occasions, this dominant position is preserved through anti-competitive practices such as predatory pricing and dumping. Without competitive pressure, the incumbent firm has far fewer incentives to keep prices low, provide an adequate supply and improve its products.

HOW GOVERNMENT CAN HELP MARKETS FUNCTION BETTER

The fact that market economies mostly function well might appear to be a vindication of the effectiveness of unfettered markets and Adam Smith’s “invisible hand”. Hundreds of thousands of highly differentiated products and services are readily available to consumers. To serve these consumers, firms, banks and other financial intermediaries are linked through a highly developed and sophisticated system of investment, production and

distribution chains. This well-oiled system seems to run on autopilot in response to the forces of demand and supply, mediated only through prices. There is no central intelligence – neither is there a need for one – to guide or coordinate the activities of market economies.

What is often under-appreciated, however, is that well-functioning markets are embedded in a larger environment that creates the necessary conditions for their effective operation. Markets do not function as well without a certain degree of macroeconomic stability, trust and confidence that contracts will be honoured, measures to curb monopoly power, and wide acceptance of markets. These preconditions for markets to work well are achieved through establishing the right institutional conditions.

Institutions are the rules that govern and shape human interactions; such rules underpin all functioning societies and economies. Four categories of institutions, based on the work of economist Dani Rodrik, are recognisable in the most advanced economies:

- **Market-enabling institutions**, such as the rule of law, secure property rights and independent judiciaries, provide economic agents with the tools for conflict management and for the recognition of rights and responsibilities. They enable dispute

resolution and the enactment of long-term contracts. Without such institutions, the economy would be little more than a bazaar.

- **Market-regulating institutions**, such as competition commissions, provide a check on the abuse of market power, improve the extent to which market prices accurately reflect social costs and benefits (for instance, through the taxation of goods which produce negative externalities), and ensure that there is sufficient competition to prevent firms from abusing whatever monopoly power they may have.
- **Market-stabilising institutions**, such as fiscal rules and independent central banks, reduce volatility in markets and the economy. The central bank also serves as a lender of last resort to prevent self-fulfilling banking crises due to panics. In a similar vein, fiscal rules that limit the Government's ability to spend contribute to macroeconomic stability.
- **Market-legitimising institutions** are those that enhance and maintain public support for market economies. They redistribute income, provide social insurance, and are an important source of social stability. These institutions are conducive to long-term development because they help to give citizens a stake in economic development.

PRINCIPLES FOR EFFECTIVE GOVERNMENT INTERVENTION

Institutions matter because markets are embedded in a larger social and political environment; good institutions help set the rules and norms which are conducive for economic development. However, policymakers must ensure that these institutions and interventions do not “squeeze out” the effective operation of markets. Very often, the central question for governments is not state versus markets, but *how* governments should intervene in markets.

Based on the relative strengths of government institutions and markets, it is possible to establish a set of principles that policymakers could consider when designing or taking into account interventions:

Do no harm. Governments can make mistakes and should know its limits. There are some things that states must provide – e.g. secure property rights and national defence. However, it is useful to remember the cautionary note by *Financial Times* commentator and economist Martin Wolf that “the mechanism of the state is at least as defective as that of the market. Throughout history, it has been far more so.”¹ Governments should set themselves a high burden of proof that their interventions

Market-Compatible Interventions: Examples from Singapore

The most successful examples of government interventions are those which harness the strengths of markets and the price system, along with specific and targeted government action. Interventions which go with the grain of market incentives, which make use of price signals, and which augment and complement markets instead of replacing them tend to work much better than interventions based on coercion or command.

Industrial Policy: Intervening to Develop New Capabilities

In Singapore, activist industrial policies have been judiciously used to increase the technological sophistication and value-add of the economy, and to accelerate the rate of technology transfer from developed economies. Rather than being a mechanism for picking winners, as is the case in many countries,¹ industrial policy is seen as a way of developing new *capabilities* to generate and sustain economic growth. Nonetheless, the central informational problem with industrial policy remains: how do we know we are making the right bets?

A good illustration of Singapore's approach is the Cluster Development Fund (CDF), established in 1993 under the Economic Development Board (EDB) to address gaps in industry clusters, extend partnerships with MNCs, and support

promising local enterprises. The CDF operates on at least two market principles. The first is that the investments made using the CDF are expected to be *commercially viable*. Investments are required to generate a minimum target return. Second, projects are undertaken on a *co-investment* basis with the private sector, the idea being that the project is more likely to be commercially worthwhile if the private sector is willing to commit resources to it. CDF investments have helped to kick-start a number of new growth industries in Singapore such as wafer fabrication and pharmaceuticals.

Seen in this light, industrial policy in Singapore does not crowd out the private sector. Neither does it replace the disciplining force of markets or shelter firms from competition. Instead, it is a way of developing new capabilities more quickly than the economy would on its own. Just as importantly, industrial policy helps to address the Missing Market problems (such as firms' inability to capture the full benefits from early R&D and training investments due to spillovers and poaching of trained staff by competitors) that may prevent the emergence of a new industry.

Vehicle Ownership and Usage: Intervening to Manage Externalities

Negative externalities created by vehicles – congestion and pollution – can impose

a significant economic cost on society which individual car owners do not take into account in their private decision-making. Consequently, land-scarce Singapore employs extensive measures to curb the ownership and usage of private vehicles, adhering strictly to the market principle of “pricing the externality”. This is most apparent in the widespread use of congestion charging [known as Electronic Road Pricing (ERP) in Singapore]. Under the ERP system, motorists are charged each time they drive past an ERP gantry during operational hours, with prices adjusted based on traffic conditions.² By pricing the externalities that motorists cause, the ERP system helps to keep traffic congestion at manageable levels.

Similarly in managing vehicle ownership, Singapore also encourages vehicle owners to take into account the wider social costs they create. In addition to the conventional tool of registration fees (in effect, a Pigouvian tax), new vehicle buyers must also obtain a 10-year permit (called a “Certificate of Entitlement”) to own their vehicles. The number of permits that are available is fixed by the Government and the price of the permit is determined by auction. By setting vehicle quotas and pricing them through a bidding system (somewhat akin to a cap-and-trade system), the Government effectively appropriates the rent that would otherwise have become profits for car dealers.

Healthcare and Retirement Savings: Intervening to Support Individual Responsibility

In many countries, healthcare and pensions are financed heavily by taxes. As populations age, these pay-as-you-go systems can run into financing difficulties. Health and pension systems that are mainly financed by taxes also face problems of moral hazard or over-consumption: consumers are less likely to be prudent in their healthcare decisions if they do not bear a significant part of the costs. Workers have less incentive to save for their retirement if they are guaranteed a certain level of pension benefits in their old age.

To deal with these issues, Singapore’s health and pension systems follow the market-based principle of individual responsibility. Healthcare in Singapore is never free: patient co-payment discourages over-consumption and sharpens incentives for Singaporeans to look after their own health and be prudent in their healthcare choices. To help Singaporeans meet their healthcare bills, a compulsory medical savings scheme – Medisave – requires Singapore workers to put aside a portion of their wage incomes in a personal account earmarked for hospitalisation (and some other medical) costs. Medisave preserves the individual’s freedom of choice of healthcare provider and hospital ward type. In short, individual responsibility is coupled with individual choice.

To support individual responsibility in retirement savings, Singapore operates a

CHART 1: WORKFARE INCOME SUPPLEMENT: MAKING WORK PAY**“Laissez faire” Approach**

- Leave labour markets alone; labour markets should be as flexible as possible
- Government interventions will distort relative wages and individual behaviours
- Distrust of governments, e.g. government assistance schemes will be prone to fraud, abuse and rent-seeking
- Social safety nets have to be financed by taxation, which entail deadweight losses
- Emphasises individual effort

Traditional “Welfare” Approach

- Government’s role is to redistribute incomes aggressively
- Extensive interventions in the economy to tax incomes and wealth; high levels of social spending
- State insures citizens against a wide range of risks, e.g. unemployment, illness and disability, etc.
- Universal benefits, usually at high replacements ratios, for broad segments of the population
- Emphasis is on equalising outcomes and creating an egalitarian society

Singapore’s “Workfare”


- Government helps to “make work pay” by supplementing low wages
- Benefits aimed at low-wage workers most affected by global competition
- Retains emphasis on work and individual responsibility
- Redistributes incomes, but in an efficient, incentive-compatible way
- By working through labour markets and price signals, we reduce the risks of moral hazard

mandatory save-as-you-earn social security system known as the Central Provident Fund (CPF). Under the CPF system, all employees in Singapore are required to contribute a certain percentage of their incomes. Employers are also required to contribute to the individual savings accounts of their employees. Significantly, the CPF system is fully-funded; other than paying interest on accounts and occasional CPF top-ups, the Government does not incur any cost in running the CPF system. This discourages any notion that retirement benefits are public goods provided by the state, and helps to ensure that population ageing does not create an ever-larger fiscal liability for the state.

Workfare: Intervening to Support Low-Income Singaporeans

While the CPF system helps to promote self-reliance and individual responsibility, it is clearly not intended to be a tool for redistribution. How then does Singapore deal with growing income inequality? Besides ensuring good education

opportunities for all Singaporeans, the recently-introduced Workfare Income Supplement (WIS)³ operates through the price system, i.e. wages. Under the WIS, older workers who are earning low wages are provided a wage supplement that can be as high as 20% of their income.

Tying government transfers to work circumvents the incentive problem associated with traditional cash transfers to the unemployed, while also providing the Government an incentive-compatible way of redistributing incomes. Chart 1 highlights the key differences between Singapore’s workfare system and traditional *laissez faire* or welfare state approaches. 

NOTES


1. At its worst, industrial policy can become a vehicle for corruption and rent-seeking if not properly implemented.
2. Traffic conditions are benchmarked to vehicular speeds within the optimal ranges of 45-60 km/h for expressways and 20-30 km/h for arterial roads.
3. The WIS was introduced in 2007 and enhanced in 2010 in response to increasing income inequality, which in turn was attributed to skill-based technical change and low-wage competition from abroad.

are more likely than not to improve market outcomes.

Mimic markets, and ensure the right incentives. The Singapore Government generally prefers to support and augment the proper functioning of markets, and to use price-based interventions (e.g. an externality charge) rather than through command-and-control measures such as outright prohibitions. By working through markets and prices, the Government maintains incentives for people to economise on scarce resources and to take into account the externalities they are creating.

Intervene surgically. Effective interventions target the market failure specifically, and minimise “collateral damage” from unintended impacts. The WIS scheme deals with widening income inequality by raising the wages of low-wage workers in a “surgical”, targeted manner. These limited interventions are more efficient than those that distort relative prices (such as measures to depress the prices of certain goods) or those that require large-scale government involvement to monitor and enforce.

Be prepared to rethink the case for government interventions.

Finally, governments should take a pragmatic, adaptive and learning-by-doing approach when determining the right state-market balance. Technologies and market conditions change. Areas that required government intervention in the past may no longer require it, or may require it in a different form. The Singapore Government’s approach has generally been a non-ideological one. In many areas of public policy, its role has evolved significantly. For instance, in the areas of electricity generation and telecommunications, the state no longer owns and operates these utilities but performs a regulatory role. 

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NOTE

1. Wolf, Martin, *Why Globalization Works* (USA: Yale University Press, 2004)



A Discussion with Dani Rodrik

Global Growth, Local Governance

Smart globalisers should retain room for manoeuvre in a globalised economy, argues Harvard's Rafiq Hariri Professor of International Political Economy.

What has the world learned from the financial crisis?

We have learnt – or relearnt – one very useful lesson, which is that markets are not self-regulating, self-stabilising nor self-legitimising. In order for markets to function, they need to be complemented by a broad range of effective non-market institutions, governance structures, and supervised by mechanisms to ensure accountability and legitimacy. Financial regulation, supervision, consistency and coherence in fiscal policy: all of these are still necessary.

The problem is that this may lead to the wrong implication – that just because we have realised that we need these institutions, the way to go about it is to create them globally: this is neither a practical nor desirable agenda, partly because globally negotiated governance tends to be very limited, based on the lowest common denominator of what is possible, and dominated by the needs of the largest players and most vocal groups. The best and most sound financial regulations are likely to be

those based on domestically determined and implemented rules, which will differ from country to country, and for good reasons.

Instead, what we need to think about is how to create traffic rules to prevent regulatory arbitrage and other spillovers that may undermine the soundness of these individual sets of rules – that is a very different kind of thinking from how the world is going about it right now by trying to pursue a global governance agenda.

What issues are potential causes for concern in the post-crisis global economy?

I worry that there has been a steady loss of legitimacy and credibility in our existing trade arrangements: reflecting a steady divide between what the elites and the common people feel, as well as a reluctance on the part of the elites and economists to accept that there is a core of legitimate grievance that is not simply a matter of ignorance and narrow self-interest.

For instance, the question of global multinationals (MNCs) throws these tensions into sharp relief. MNCs want to have common global standards because this is an efficient way to reduce the cost of doing business across borders, for the same reason that international banks want global financial standards and not nationally determined ones. This would not be a big issue if everybody in domestic economy were as equally mobile as the multinationals. As a result, there is a very big divide in most modern societies between groups that perceive themselves as globally mobile and therefore view their opportunities and remuneration as set by what is happening in the world (i.e. capitalists and highly-skilled professionals), and the vast majority of most people, who are not globally mobile and whose livelihoods are determined by what happens in the domestic economy.

There has been a steady loss of legitimacy and credibility in our existing trade arrangements.

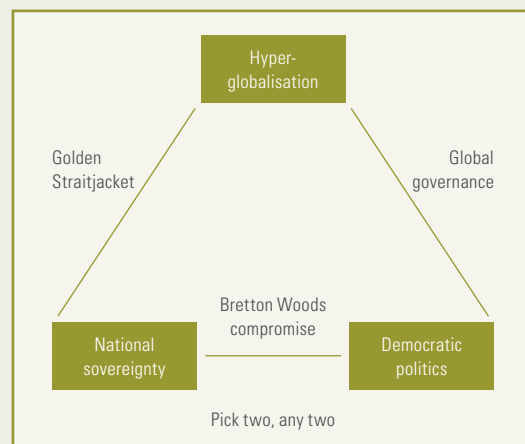
The tension is due to the fact that democratically-led governments have to pay attention to the skilled professionals and capitalists, yet also have to listen to

the mass majority of the electorate who are not as mobile.

The issue is that if you resolve this tension systematically and routinely in the direction of the interests of the mobile class and the multinationals, you will have a big problem on your hands. The obstacle today is how to rework the bargain, instead of what governments have been doing – which is to cave in to the multinationals and say we have no alternatives or we will lose these multinationals. The situation becomes a golden straitjacket. But I think this is not a sustainable path for healthy democracies, and is a source of the legitimacy problems I have pointed out.

FIGURE 1. THE POLITICAL TRILEMMA OF THE WORLD ECONOMY

Source: Dani Rodrik



Democracy, national sovereignty and global economic integration are mutually incompatible. Pick two of the three, but never all three.

How can global institutions play a role?

The issues of international trade,

international finance and the global economy are very different from those of climate change, terrorism or health pandemics. With climate change, each country pursuing its own narrow interests will lead to global disaster; with world trade, however, if you let countries pursue policies that are best for them, the aggregate collectively is not a bad outcome, but a healthy global economy where countries are growing, there are moderately open policies and the world is prospering as a whole.

Clearly there are issues, such as the global macroeconomic imbalance, that call for some element of global coordination: because each country cannot independently pursue its own current account target, nor can every country pursue its own exchange rate target independent of others. Nevertheless, I would not like to see institutions such as the WTO move towards being a global setter of standards. Instead, the agenda should be more about creating mutually consistent policy space, rather than about negotiation of market access which is much more diluted in terms of potential benefits.

Nevertheless, there are good reasons why we need to preserve room for economies to have their own independent monetary and fiscal policy: the business cycle is unlikely

to be perfectly synchronised; there are differences in labour market and product market structures across different countries, which will mean different trade-offs; and different countries will have different preferences for inflation.

To what extent can small, open economies negotiate the terms of globalisation relative to their domestic needs?

There is no need to buy into the discourse that globalisation is an imperative in the face of which we have no choices. Globalisation is a man-made concept: while technological progress has indeed made it easier to move goods, transfer funds and make transactions in ways that make us more globally integrated, how it determines policy is a social and political construct. To what extent and on what terms are you integrated into the world economy?

There are good reasons why we need to preserve room for economies to have their own independent monetary and fiscal policy.

Countries which are smart globalisers have always left some room for themselves to manoeuvre. For example, Sweden is not a member of the Eurozone and its flexibility in controlling its own

exchange rate has been a great boon to them in recovering from the crisis.

There is the question of how much globalisation to accept and what is being given up in return.

In terms of labour markets, there is the question of how much globalisation to accept and what is being given up in return. The countries that have been the most successful in avoiding dramatic problems in this area are countries that have had very self-conscious domestic provisions alongside their globalisation strategy, such as the Nordic countries and Singapore, where policies for social redistribution and other provisions help moderate some of the underlying tensions. Of course, there will still be tensions: Taxing labour to reduce demand is inefficient; at the same time, globally mobile professionals are more able to avoid the taxation which is needed to fund social safety nets. The erosion of the tax base becomes an issue.


Clearly, a small country can still have a domestic economic development strategy or industrial policy, as well as its own levels of social provision: Singapore today would be very different if it had not chosen to do so. Being a small country does change

the trade-offs: for instance, in terms of industrial policy, you do not have the capability to have a very wide portfolio of large experiments; therefore you would want to try to select investments, projects and industry niches that are on average smaller in size than those of a larger country to still have a reasonable spread – otherwise you are gambling too much on a few big projects. Unless the industry you have chosen to invest in has very strong scale economies, smaller countries can find success in niches where they need not be overshadowed by the efforts of larger countries.

What principles should policymakers adopt when planning for economic development in a globalised world?

First, it helps to have very concrete goals and targets to avoid losing sight of the real objectives as you go along, not necessarily because you might miss your targets, but to be clear about the intentions for pursuing certain policies, and how best to account for results relative to what you are trying to achieve.

Evaluate whether economic interventions on balance have been of benefit to society.

Second, I think it is very important from time to time to conduct a social cost benefit analysis and try to figure out if an overall social surplus has been generated for a given investment that has been made. I would be cautious about expressing success with measures such as total foreign investment, or in terms of technology, or employment, because these are not the ultimate objectives for society. A social cost benefit analysis will help policymakers focus on the fundamentals, and to evaluate whether economic interventions on balance have been of benefit to society. More of that should be done. 

His new book *The Globalization Paradox* was published by Norton in early 2011.

*This article was adapted from discussions in Singapore with Professor Rodrik in January 2011, when he spoke on *The Globalisation Paradox* and *The Return of Industrial Policy*.*

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Lee Chor Pharn

Five Reasons Korea is the Future

South Korea is ahead of the curve in technology, design, and the market.
Could it also be a leading architect of Asia's future development path?

1. KOREA'S ECONOMY IS BEATING THE ODDS

For a long time, the South Korean economy was dismissed as being “stuck in the middle” – it fell short of Japan on quality and could not hope to match China on price. However, South Korea did well after the global financial crisis, registering only a single sequential quarterly decline during the downturn, and returning to 3% growth by the third quarter of 2009. Production and consumption returned to pre-crisis levels within three quarters. Amid a 12.2%

drop in the global real trade volume, South Korea's exports bucked the trend with a slight increase; indeed, South Korean companies actually increased market share during the crisis.

Ironically, South Korean companies have benefited from occupying the supposed middle ground between quality and price. In the post-crisis era, consumers the world over have turned cautious, adopting a new mantra of “value for money”. South Korean companies are well positioned to capitalise on this new ethos, with products that represent

an optimal trade-off: decent quality at affordable prices.

2. KOREA'S CHAEBOLS ARE REINVENTING THEMSELVES

Since the Asian Financial Crisis a decade ago, many of South Korea's traditional chaebols have successfully restructured themselves to become frontrunners of change in the global economy, and are now venturing beyond their traditional strongholds of consumer electronics and automobiles into non-traditional industries to deliver "value for money". A good example is Korea Electric Power (KEP), South Korea's only electricity utility. KEP won a UAE deal in 2010 delivering a no-frills nuclear power package that beat established Western and Japanese vendors. The 10-year long project is expected to have a positive effect on the Korean economy for the next 50 years by creating economic value of about US\$40 billion, and 110,000 jobs.

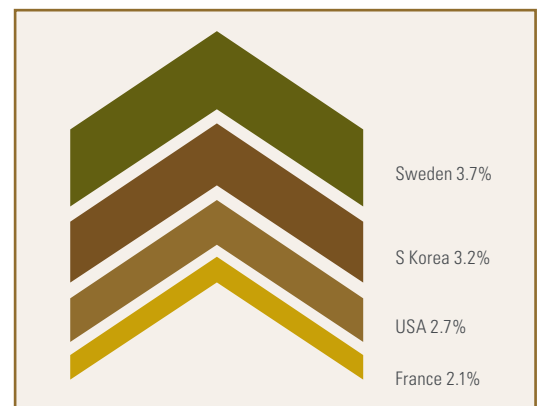
Why have chaebols done well in the new economic environment? The vertically integrated structure of chaebols makes them well suited to delivering new services and products that require rapid deployment and coordination across many industries. In these markets, it is not brand new technology, but the speed of rollout that gives them a competitive advantage. *The Economist* (March 2010) described the

skills needed in this business as running a "digital sashimi shop" – the trick is to get products so swiftly to market that they do not lose their freshness. South Korean companies span many key sectors – telecoms, energy, logistics, property, payment and other related industries – and so can mobilise sister companies to deliver a vision quickly.

3. KOREA INVESTS HEAVILY IN DESIGN

Beyond speed and coordination – traits which could quickly be copied by firms in China and elsewhere – South Korean companies have an additional recipe for market success: they are making the most of the mash up between technology and design.

FIGURE 1. GROSS DOMESTIC EXPENDITURE ON R&D AS % OF GDP



Already, South Korea spends 3.2% of its GDP on research and development – among the highest levels of investment in the world. At the same time, its investment in design has also been

substantial: it boasts of 230 design schools (more than the US), and major supporting institutions such as the Korea Institute of Design Promotion.

This investment is paying off. For example, in 2008, according to FT,¹ half of the most talented emerging designers chosen to be honoured in Gen Art's Fresh Faces fashion exhibition were South Korean or Korean-Americans. At Parson's The New School of Design in New York, nearly a third of all students are Korean.

Chaebols such as LG and Samsung, who have their own design institutes, have been sweeping international design awards. In the prestigious iF design rankings² awarded by International Forum Design in Hannover, Germany, Samsung is ranked first in the world – ahead of second-ranked Apple. LG is ranked eighth, ahead of German design legends BMW, Miele and Gaggenau.

4. KOREA IS REVOLUTIONISING FUTURE CITIES

Korea is emerging as a testing ground for creating templates for new cities. The boldest example is Cisco Systems' project to create New Songdo city from scratch, with completion due by 2015. It is the largest private real estate deal in history, designed to emit only a third of the greenhouse gases of a typical metropolis its size and to run as a "smart city". This is Cisco's way of getting out

of the network plumbing business and into offering cities as a service. With Asia needing hundreds of new cities in this decade, this plug and play model is attractive: Cisco has announced plans to eventually roll out 20 new cities across China and India, using New Songdo as a template.

5. KOREA IS PUNCHING ABOVE ITS SIZE

For food security reasons, the South Korean state has been directing the chaebols to buy up overseas farmland; South Korea is now the largest buyer of overseas farmland in the world.³

Furthermore, South Korea's current President Lee Myung-Bak has declared he wants to move his country from "the periphery of Asia into the centre of the world,"⁴ turning Korea's geographic disadvantage – its small size wedged between giant neighbours – into a geopolitical advantage. Asia today is economically interdependent but not politically integrated. Against a backdrop of steady American decline coupled with China's rise, Korea is testing the limits of its future role as a platform to integrate East Asia. For example, it is setting an aggressive pace for a China-Korea-Japan trilateral free trade agreement (FTA); the secretariat will be set up in Seoul in 2011. Beyond the trilateral FTA, South Korea's aspirational goal is a full Asian free-trade zone, with an Asian

monetary system centred in Northeast Asia – a vision which, if realised, would diminish the role of ASEAN +3 and the East Asian Summit.

South Korea's Lee administration is also pushing for a slew of FTAs with the US, the European Union, Peru, Colombia, Canada, Australia; as well as hosting world events such as the G20 Summit in November 2010. South Korea's Ministry for Foreign Affairs strategically lobbies for Korean faces to head international institutions, cementing the country's role as a central deal-maker. Korea's development model is being positioned within Asia as a dynamic hybrid alternative to both China's mighty command economy and Japan's no-growth economy – part free market, part state-controlled – but with more freedom for market forces, political dissent and innovation.

IS KOREA THE FUTURE FACE OF ASIA?

Observers have noted that Japan suffers from “Galapagos syndrome” i.e. its successful business models have difficulty travelling beyond Japan's domestic fetishes. Could Korea be subject to the same limitations? Due to a limited domestic market, South Korea has taken inspiration from Japan but in fact fashions its business models for export: typically targeting China, which is able to further refine it along

the price-quality curve to scale for its domestic market.

China has so far announced 17 mega-city region plans, each of which portrays a prosperous, export-oriented, technologically advanced society with a hybrid market-state economy like today's South Korea. If China succeeds even part of the way towards these plans, there may well be multiple “Koreas” within the decade. This will have implications on the economic and political landscape: Might these mega-city regions be economic heavyweights that demand their own FTAs? Will the centre of youth culture and Asian identity shift? How should ASEAN, and Singapore, be positioned to take on the momentum generated by South Korea in the creation of Northeast Asian institutions and growing cultural influence? What is our place in a future of multiple Koreas? 

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NOTES

1. Christopher Graves, global CEO of Ogilvy Public Relations Worldwide, in “Designing a distinctive national brand”, *Korea 2020: Global Perspectives for the Next Decade*, ed. Barton, Dominic (Random House Korea, 2010)
2. See Endnote 1.
3. According to www.grain.org
4. Barton, Dominic (ed.), *Korea 2020: Global Perspectives for the Next Decade* (Random House Korea, 2010)



David Skilling

Risk and Resilience in a Changing World

A structured approach to managing risk and building resilience is a significant competitive advantage in a more volatile world.

GOVERNMENTS WILL FACE AN INCREASINGLY TURBULENT GLOBAL ECONOMY

After the relatively benign global economic environment of much of the past 20 years, the past few years suggest that the global economic environment is moving into a more volatile and uncertain period. Over the past few years, we have observed greater volatility in trade and capital flows, as well as GDP, commodity prices and exchange rates. The recent global financial and economic crisis has further reminded countries, particularly those with relatively

open economies, that they are significantly exposed to variation in global economic performance.

There are structural forces driving this increased volatility. Globalisation has led to more significant uncertainty for countries, governments, corporations and households. There is also risk and uncertainty associated with the pace of technological change, new sources of global competition, the price and availability of core commodities, and so on.

Furthermore, there is significant, and perhaps unprecedented, uncertainty

on many dimensions of global economic policy – such as those relating to external imbalances, fiscal consolidation, (simultaneous) concerns about inflation and deflation, and the future role of the US dollar.

This increased background uncertainty and volatility is exacerbated by the tectonic changes that are occurring in the global economy. The world is coming to the end of 200 years of Western economic dominance, the multilateral institutions such as the WTO are declining in influence, and the Washington Consensus, which placed free markets at the core of economic policy, faces real competition.

Periods of structural change are often coincident with periods of elevated risk and uncertainty. The US National Intelligence Council recently noted that “Historically, emerging multipolar systems have been more unstable than bipolar or unipolar ones...the next 20 years of transition to a new system are fraught with risks.”¹

This is not to say that there are no substantial growth opportunities, particularly in emerging markets. There are strong fundamental forces at work – demographics, urbanisation, technology, productivity catch-up – that provide some confidence that economic growth rates will be robust in these markets. But the distribution

of possible outcomes is likely to be significantly wider.

For small- and medium-sized countries – say countries with populations of 20 million or less – which tend to be more reliant on the global economy, this uncertainty and volatility could well have a significant impact on economic performance. At a national level, countries are exposed to changes in investor sentiment and the withdrawal of capital, to the security of supply of food and other commodities, as well as variation in export demand from key markets. For households, this national risk exposure can cause employment risk, variation in the balance in retirement savings accounts, and so on.

In response, issues of risk and resilience will become an increasingly important dimension of economic policy. Risk exposure, and the allocation of risk within an economy, should be a deliberate focus of policy.

THE SIZE AND NATURE OF A COUNTRY'S RISK EXPOSURES CAN BE DELIBERATELY SHAPED BY THE GOVERNMENT

At a global level, the external risk exposures of many countries has increased substantially due to an intense process of global economic engagement. At the same time, there has been a general tendency to remove sources of protection against these shocks, in

the pursuit of greater flexibility and efficiency. For example, capital controls have been largely removed, and the provision of social insurance has been reduced for households.

There has been a general tendency to remove sources of protection against shocks, in the pursuit of greater flexibility and efficiency.

So over the past few decades, the overall level of resilience has declined. Governments, corporations, financial institutions and individuals have taken on more risk in the belief that financial innovation allowed for increased risk exposure to be borne efficiently. Some evidence does suggest that there was a significant transfer of risk from governments and companies to households.

There is now a broadly-held view that this process may have been pushed too far. Indeed, a growing number of governments are taking steps to build national economic resilience to the global economy. For example, several governments have introduced capital controls and begun to intervene in exchange rate markets to curb excessive movements; long term contracts for energy and food supply are increasingly

common; there are also attempts to rebalance the economic structures of economies that have been unduly reliant on either consumption or exporting to Western markets.

Of course, many economies in the Asian region too have been going down this path for the past decade or so, accumulating substantial foreign exchange reserves in order to protect themselves against foreign capital movements. But in general, governments seem less inclined to accept existing exposures to global markets and more inclined to take deliberate action.

So how should governments respond to the increased risk environment and build resilience into the economy? As a general proposition, risk should be treated as a deliberate subject of policy. Specifically, there are three steps that governments should consider taking (similar in spirit to the analysis that a corporation would seek to undertake).

First is to understand the size and nature of the risk exposures that are faced by the country through a formal national risk exposure assessment. In a more turbulent economic environment, understanding the most material risk exposures, and the key drivers of these risks, becomes very important.

Second, once these risks are understood and sized, to determine which risks to take on, and which to seek

to avoid or manage. Do the risks that are absorbed generate an appropriate return; is the economy on the “efficient frontier” in terms of the relationship between the level and resilience of its growth? Even small, open economies have options in terms of shaping their portfolio of risk exposures.

Third, strengthening the risk-bearing capacity of the economy by increasing the ability of the government and households to bear risk, and ensuring that risk is allocated to parts of the economy which can bear and manage that risk most efficiently (individuals, corporations, government).

These second and third steps are related: the amount of risk that is efficient for a country to absorb depends in part on the risk-bearing capacity of the system. The investments that are made in strengthening the risk-bearing capacity of the system make more sense to the extent that it allows the country to take on additional risks that generate an appropriate return (or reduce the costs of existing risk).

In general, large companies have more developed approaches to thinking about risk than do governments. However, given the changing global economic environment, governments need to be thinking more intensively about their risk exposures, how to shape this exposure, and how to build risk-bearing capacity.

Singapore is perhaps better placed than many governments in addressing issues of risk and resilience because of existing policy settings that give it a flexible economy, a managed exchange rate system, and substantial reserves. But there is scope for further progress to be made in terms of managing emerging exposures and building resilience, particularly among households.

EFFICIENT RISK MANAGEMENT IS AN IMPORTANT SOURCE OF COMPETITIVE ADVANTAGE

There are, of course, better and worse ways to manage risks. One way to reduce risk exposure, for example, might be to disengage from the global economy – although this would come at a significant economic cost. And many are concerned that current attempts by governments to manage the risks associated with the current crisis (through deficit financed spending), will reduce the resilience of the economy and make a future crisis more likely and more costly.

Countries that build resilience efficiently will generate a competitive advantage, relative to countries that do not manage risk well. There are two sources of this advantage. First, external shocks will have less of a negative effect on individuals, corporations and governments. Second, there will be greater potential for these more resilient

economies to take on additional risks, where these are growth enhancing, at lower cost. In other words, resilience pushes out an economy's "efficient frontier", which maps the trade-off between growth and volatility.

Not all protection against risk necessarily depresses economic performance. Arguing that bearing risk is important for sharpening incentives and that nothing ought to be done to manage this exposure is like arguing that investors should select the highest return portfolio irrespective of risk considerations, a strategy that few would follow. The challenge is to manage risk, resilience and growth in an integrated way.

Not all protection against risk necessarily depresses economic performance.


Indeed, there can be a complementary relationship between the provision of insurance and innovation and risk-taking. Consider, for example, limited liability companies, one of the fundamental institutional underpinnings of modern capitalist economies. The security provided to shareholders by limited liability – that they will not be exposed to claims beyond their investment if their

company floundered – has unlocked enormous sums of capital and put it to productive use.

The challenge is to manage risk, resilience and growth in an integrated way.

This notion is also common in the context of finance. Diversification allows investors to pool risks and reduce the overall risk of the investment. Indeed, a key function of capital markets is to allow investors to better engage in risk-sharing, by offering liquidity and diversification opportunities. This increases the attractiveness of risky projects to investors and accelerates investment and growth. The historical record shows that greater risk-sharing opportunities provided by financial development sparked economic take-off.

The challenge is to manage risks and build resilience in a way that does not compromise the growth potential of the economy. There are several ways in which this can be achieved: for example, encouraging self insurance (e.g. unemployment insurance accounts), promoting household savings, and ensuring that private insurance markets are working well. Singapore's emphasis on using asset-based methods of providing household assistance provides a good platform to build on.

In sum, managing risk and building resilience need not require the insulation of the economy from the forces of change. Indeed, it can create a more efficient economy with higher levels of growth, innovation and risk-taking. In Joseph Schumpeter's famous metaphor, cars can go faster because they have brakes. In a world that will become more risky and turbulent, adopting a structured and systematic approach to risk and resilience will pay dividends. 

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NOTE

1. National Intelligence Council, *Global Trends 2025: A Transformed World*, November 2008.



Alan Barrett and Chris Stansbury

Modernising Public Sector Management: Recent Reforms in Western Australia

Legislative changes pave the way for greater public sector accountability,
flexibility and collaboration.

INTRODUCTION

The New Public Management agenda of “less government” in the 1980s and 1990s has given way to a renewed focus on public value, accountability, efficiency and effectiveness in public administration, and multipartite collaboration.¹ The insights of Public Value Theory have informed important new perspectives such as those offered by Mark Moore² and the evolving New Synthesis project being developed by Jocelyne Bourgon.³

Greater collaboration with the third sector, citizen co-production and new models for networked governance have become important aspects of current public management thinking.

In this spirit, a newly-elected Western Australian Government embarked in late 2008 on two key initiatives as part of its electoral commitment to public sector reform⁴ to improve public sector productivity, and to promote a more integrated approach to public service

delivery. One key initiative was the establishment of an Economic Audit Committee (EAC) to undertake a comprehensive and reform-oriented audit of public sector service delivery arrangements.⁵

THE EAC REPORT: A CONTEXT FOR CHANGE

The EAC's final report in November 2009⁶ covered a number of themes, including "Modernising Public Sector Management", for which the EAC concluded that the Western Australian (WA) public sector:

- Faced significant challenges in building and sustaining a skilled and capable workforce for the future in the face of a tightening labour market and increasing service demands;
- Was not sufficiently agile and flexible;
- Tended towards risk avoidance over risk management; and
- Was driven by compliance rules and processes that were seen to be impediments to responsiveness, collaboration and innovation.

To address these issues, the EAC proposed a reform vision for the WA public sector in which:

- Agencies take a long term view about service needs and labour supply, actively plan for the future

composition and profile of their workforce, and make increased use of underutilised sectors of the labour market, such as people with disabilities, indigenous people and older workers.

- Agencies strive for continual improvement in service delivery and productivity to deliver benefits to the Western Australian community.
- The compliance regime provides managers with the freedom and skills to manage in flexible, innovative and responsive ways while promoting and ensuring the highest standards of conduct, integrity and professionalism.
- A diverse workforce is comprised of talented people who act responsibly, are accountable for their actions and are proud to serve the community of Western Australia.

In parallel with the Economic Audit programme, the Government acted on a second key commitment by establishing a Public Sector Commission. Announced in September 2008 as an important step in enhancing the independence, professionalism and integrity of Western Australia's public service, the role of the Public Sector Commission (PSC) was to focus on:

- Public sector leadership;

- Building the capacity of the public sector;
- Evaluating performance of the public sector;
- Developing public sector management policies and practices;
- Public sector reform; and
- Advancing the diversity and accountability agenda.

The PSC took over a number of public sector management functions previously administered by the Department of the Premier and Cabinet. The Public Sector Commissioner, a member of the EAC, oversaw reform of the regulatory environment for public sector management and administration.

REGULATORY REFORMS RELATED TO PUBLIC SECTOR MANAGEMENT

Recommendations from the Economic Audit process informed the PSC's development of a Public Sector Reform Bill. Enacted as the Public Sector Reform Act 2010, the new legislation provides for several key regulatory changes:

1. Strengthening the public sector management framework by simplifying oversight structures

A new statutory office of the "Public Sector Commissioner" combines the public sector management functions

of the Minister for Public Sector Management and those of the Commissioner for Public Sector Standards. This new office is empowered to issue mandatory "Commissioner's Instructions" to public sector agencies and employees in matters related to public administration and human resource management. The Commissioner also enjoys statutory independence to perform his functions (apart from a limited number of functions subject to Ministerial direction) and reports independently to Parliament on broader governance, administration and management issues, beyond compliance with standards.

2. Removing unnecessary prescription to disciplinary arrangements

The complex, restrictive and highly prescriptive disciplinary provisions in the previous Public Sector Management Act 1994 have been streamlined. High-level directives ("Commissioner's Instructions"), which can be amended in case of future reforms without Parliamentary assistance, replace the former arduous three-stage process. "Improvement actions" (such as counselling or training) have become an additional alternative to disciplinary action where appropriate and disciplinary

action can now be taken against former employees.

3. Enhance employment flexibility to support responsive administration

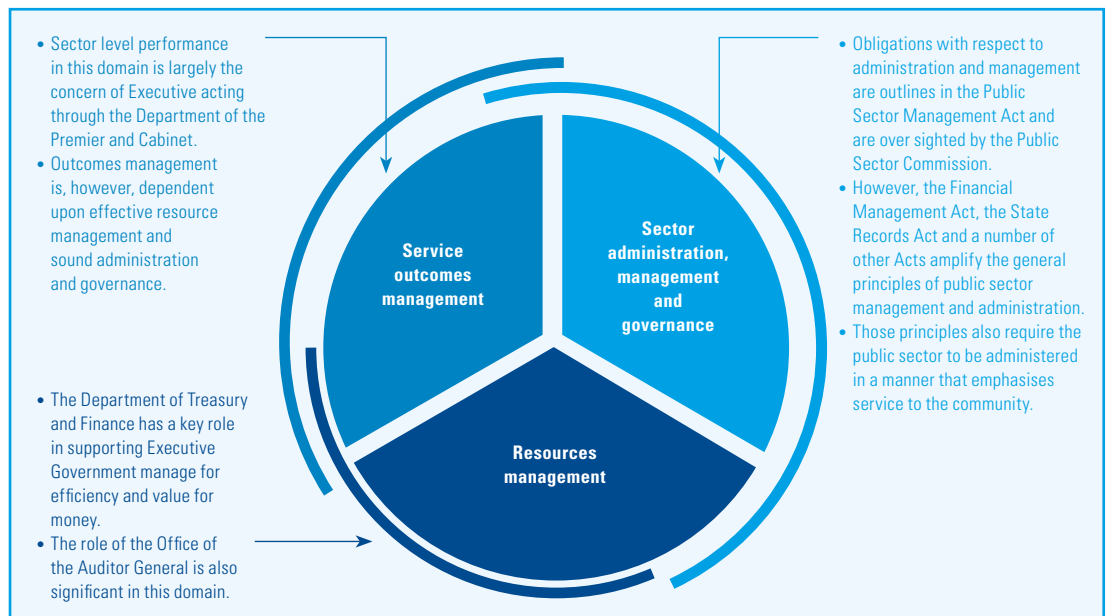
Changes introduced by the Reform Act, designed to increase flexibility and mobility in public sector employment, make it possible for public sector officers to hold more than one position and for a Chief Executive Officer (CEO) to delegate authority to a person that is not an employee (subject to certain controls). In addition, new standards in human resource management allow appropriately qualified, highly suitable and successful officers to be

appointed to certain positions under a merit selection scheme, without having to participate in an open competitive selection process. These changes would support agencies in implementing “joined up” and collaborative service delivery models, and aid recruitment for highly specialised positions and regional appointments.

4. Measuring public sector performance

The Public Sector Reform Act 2010 expands the monitoring and reporting function undertaken by the Public Sector Standards Commissioner from its previous legislative focus on compliance

FIGURE 1. THE OVERLAPPING ROLES OF CENTRAL GOVERNMENT DEPARTMENTS IN MANAGING AND EVALUATING DIFFERENT ASPECTS OF PUBLIC SECTOR PERFORMANCE



with Human Resource Standards and Ethical Codes, to a broader consideration of the state of public sector administration and management⁷ across the sector, including areas administered by other agencies. Work is underway with these other central government agencies to devise a common accountability map, in order to develop a shared conceptual framework for measuring, monitoring, reporting and managing sector-wide performance. Much of this evaluative work is in progress. A 2010 State of the Sector report⁸ includes a maturity model for measuring an agency's, and the sector's, overall capacity to administer and manage particular governance areas. This new approach to monitoring and reporting the state of public administration and management is in its infancy and continues to evolve.

OTHER MODERNISATION AND REFORM INITIATIVES

Beyond legislative reform, the Economic Audit also advocated the development of policy capability and leadership capacity in the WA public sector. Accordingly, the PSC, with a division devoted to Capability and Development, also plays a key role in promoting and facilitating skills- and capacity-building in the public sector workforce.

Workforce Planning

The PSC sees robust workforce planning as a priority, particularly for agencies with a large front line service delivery workforce (e.g. health, education, police). To help facilitate this work, the Commission produced the publication *Strategic Directions for the Public Sector Workforce 2009-2014* (SDPSW). This document points to both legislative and system level changes required to modernise the public sector, involving areas such as:

- Streamlining recruitment;
- Improving workforce planning;
- Engaging the diversity of the community in public sector employment;
- Optimising flexibility in employment arrangements;
- Addressing regional workforce challenges; and
- Building the capacity and the productivity of the sector.

A reference group of key employers is now working across the WA public sector to build on the foundation of the Public Sector Reform Act 2010 through practical initiatives and information sharing. Priority areas are improving the quality of workforce data and building modelling and planning skills.

The Economic Audit also recommended development in a number of areas such as leadership, policy formulation, procurement, contract management, project management, service brokerage and evaluation. While it is clear that all the Central agencies have roles to play in nurturing such capabilities across the sector, the PSC is supporting this effort with training needs and capability gap analyses to ensure that future training programmes can be effectively targeted against identified gaps and priorities.

Mobility and Leadership

The PSC is promoting a range of strategies to support enhanced mobility, as a goal in its own right but also as a way of building a whole-of-sector leadership perspective, and as a means of stimulating improved collaboration. Reforms to human resource standards are therefore seen as crucial. The Commission is also considering a talent management system that can help identify opportunities for senior officers to share their skills and experience in different strategic and operational environments.

Human Resource (HR) Management Capability Profile

Addressing the need for better HR management support for CEOs of public sector organisations, the PSC is developing a Human Resource


Capability Framework, based on the Australian Human Resources Institute Model of Excellence and complementary to its current Leadership Capability Profiles. The PSC consulted with more than 160 CEOs and executives, and about 400 HR practitioners during the development of the framework to ensure that it represents core capabilities that are essential to supporting effective human resources management into the future. To support its implementation, the Commission is also developing learning resources and a range of development strategies.

CHALLENGES AHEAD

The Western Australian public sector faces many challenges in supporting growth in the economy while responding to its socioeconomic effects on the diverse state community. Not only must the sector adapt quickly to new policy, service and regulatory challenges, but it must do so at a time of rapid demographic change. Such change affects both the demand for different public sector services and also the availability of the very skills that are needed to sustain and enhance services. This imperative requires innovation both in public sector services and in agency administration and management.

The challenge for the new Public Sector Commissioner in 2011 and

beyond will firstly be to establish the foundational elements of the reform agenda, and to develop appropriate support strategies so that the public sector can derive maximum benefits from the changed regulatory environment. He will need to do so in a way that promotes good decision-making at the agency level, enhances flexibility without compromising accountability and streamlines compliance without diminishing essential oversight.

The further and more critical challenge will be to measure the success of these key reforms at both the agency and sectoral level, and assessing the extent to which the new regulatory framework is making a positive difference to the efficiency, effectiveness and overall productivity of the WA public sector and to the lives of Western Australians. 

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Dr Chris Stansbury leads the Evaluation and Reporting Branch of the Performance and Oversight Directorate in the Western Australian Public Sector Commission, and is responsible for overseeing the monitoring

and evaluation framework for the WA public sector.

NOTES

1. Value for Money in Government, Public Administration after New Public Management, OECD publishing, June 2010.
2. Moore, Mark Harrison, *Creating Public Value: Strategic Management in Government* (Harvard University Press, 1995)
3. Bourgon, Jocelyne, *A New Synthesis in Public Administration*, <http://www.ns6newsynthesis.com/whatweare>
4. In the 2008 elections, a minority Liberal-National Conservative Government led by Colin Barnett replaced the Labour Party which had governed Western Australia for 7 ½ years. As part of its electoral platform, the Barnett government committed to improving the efficiency, effectiveness and productivity of the public sector, and also sought to promote a more integrated approach to service delivery including enhanced cross-agency and cross-sector partnerships involving private and community sectors in service delivery. See: Partnerships Forum. <http://www.dpc.wa.gov.au/Publications/EconomicAuditReport/Pages/PartnershipForum.aspx>
5. The brief given to the Committee by the Treasurer was to review the financial performance, management and service delivery standards of government agencies, examine the structure of government agencies and suggest options for greater accountability and transparency. See: State Government of Western Australia: Media statements: <http://www.mediastatements.wa.gov.au/Pages/WACabinetMinistersSearch.aspx?ItemId=130793&search=2009-10>
6. The Economic Audit Committee final report and related information is available via: <http://www.dpc.wa.gov.au/Publications/EconomicAuditReport/Pages/Default.aspx>
7. The regulatory framework for monitoring and evaluating and managing public sector performance expands across a number of central government agencies including the Department of Treasury and Finance (DTF) (*Financial Management Act 2006*), the Independent Office of the Auditor General (*Auditor General Act 2006*) and the new Public Sector Commissioner (PSC) (*Public Sector Management Act 1994 and the Public Sector Reform Act 2010*). They are also articulated through the Outcome Based Management Guidelines and Model Annual Reports published by DTF and the Annual Report Framework published by the PSC.
8. The 2010 SOTS report is available via: http://www.opssc.wa.gov.au/Documents/Reporting/State_of_the_Service_reports/State_of_the_Sector_Report_2010.pdf



Opinion

Ron Haskins

Social Policy in Singapore: A Crucible of Individual Responsibility

The co-Director of the Brookings Center on Children and Families explains why he finds Singapore's social policy remarkably effective.

An important achievement of the capitalist democracies is the creation of policies and programmes that put a human face on capitalism.¹ To use a word popular in Europe, these nations have found ways to balance capitalism with solidarity. Solidarity is the principle that the people of a nation, often operating through their government, accept some responsibility for helping fellow citizens (and even non-citizens) avoid destitution and enjoy some of the fruits of modern economies. There are substantial differences across the capitalist democracies in both the nature and the impacts of their solidarity programmes, but they all provide public help for the elderly, the unemployed, the sick or disabled, and the destitute.² These four groups are at risk of poverty or worse because their ability to work and support themselves and their families is impeded by age, infirmity, or difficulty finding a job. It is

not unusual at any given time for 40% or more of the individuals in a capitalist country to fall into one or more of these four work-inhibiting categories.³ Thus, without solidarity programmes that express the commitment by society to help the troubled, a capitalist nation – even a productive and affluent one – could have high levels of poverty, suffering, and even early death.

In addition to public spending on the unfortunate, capitalist nations invest heavily in human capital programmes which help people develop their knowledge and skills to become economically productive and financially independent. The most fundamental and most expensive of these programmes is education at the pre-school, elementary, secondary and post-secondary levels. The specific policies and programmes vary across nations, but education and other human capital programmes are universally regarded as vital to

efficiency and economic growth.⁴ These programmes also promote the solidarity principle because they offer opportunity for advancement to everyone. Smart and hardworking people regardless of background have many opportunities to get ahead in capitalist democracies. On the other hand, family factors and structural factors in society can be so difficult to overcome that no nation has achieved complete equality of opportunity. Even so, the capitalist democracies have achieved substantial economic mobility, in large part because a significant portion of the cost of education is borne by taxpayers. Thus, due to the productivity of capitalist economies and the aim of citizens and their governments to provide equality of opportunity, many children of poor and low-income families receive educational benefits that their parents could not afford.

Recent work by Irwin Garfinkel and his colleagues shows that if all expenditures on social programmes and education are combined, many capitalist democracies in Europe and Scandinavia spend over 35% of their Gross Domestic Product (GDP) on these programmes. Even the US, often assailed as a laggard in social spending and solidarity, spends 32%.⁵ Clearly, promoting both solidarity and opportunity are primary goals of the capitalist democracies and they put their money where their mouth is.

In the case of Singapore, which gained independence peacefully in 1965 after over a century of British colonial government and a few years as part of federated Malaysia, three wise policy decisions were made early on that have had continuing influence on Singapore's ethos and social environment.

Capitalist democracies
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portion of the cost of education
is borne by taxpayers.

The first was to emphasise education. By 1965, it was already evident that education would be key to a nation's economic progress and wealth.⁶ An educated workforce was becoming increasingly important for employment and productivity in trade, finance, technology and manufacturing; education and creativity could also prompt economic innovation. Consequently, the early leaders of newly independent Singapore emphasised public education.⁷ Primary education in Singapore is universal and free; both secondary and pre-university education are heavily subsidised and virtually free for low-income families; and undergraduate

education is also highly subsidised for students from low-income families.

As a result, Singapore is among the world's leaders in educational achievement. Singaporean children's scores on international achievement tests are astonishing. In 2007, for example, on the Trends in International Mathematics and Science Study (TIMSS), Singaporean children scored second (of 36) and third (of 48) countries respectively on 4th and 8th grade math and first on both 4th and 8th grade science.⁸ The US by comparison did not score higher than eighth on either test for either grade and finished eleventh on both 4th grade math and 8th grade science. In addition, nearly 97% of Singaporean men and about 93% of Singaporean women are literate (and most of the permanent residents are bilingual), and about a third of the permanent residents have university degrees, a figure that more than doubled over the previous decade.⁹

The second fruitful decision by Singapore's early leaders, made over a period of years preceding and following independence, was to build the nation's social policy around pensions, healthcare and housing. Unlike most capitalist nations, Singapore established a pension system in the 1950s based on defined contributions rather than defined benefits. The crucial difference between defined benefit and defined-contribution plans

is their respective allocation of risk. Governments that promise to provide their citizens with defined benefits are at great risk of insufficient long-term financing such that benefits due can exceed contributions owed, which at some point leads to bankruptcy of the entire system and perhaps even of the government. This problem has plagued nearly every government-sponsored defined benefit plan in the world, primarily because of rapid increases in life expectancy and an unexpected slowdown in population growth.¹⁰ Indeed, many nations have been forced, often under emergency conditions, to refinance their pension system by increasing contributions, reducing benefits, or both.¹¹

Establishing its pension system around the central principle of individual ownership is consistent with Singaporean society's emphasis on individual responsibility.

By basing its pension system on defined contributions, the Government of Singapore avoided these problems. Thus, Singaporeans and their employers pay into personal accounts under the Central Provident Fund (CPF); the

funds in the account are invested; the remainder of funds in the account can be withdrawn, or used to purchase a life annuity, upon retirement. Part of the money paid into the fund is also used to help pay for medical expenses, or as a source of borrowing to finance a home or other approved investments. The Government's roles are to require regular contributions to the account, administer the accounts, make the investment decisions or provide approved opportunities from which participants can select their own investments and, from time to time, contribute excess government funds into the accounts, providing account owners with a kind of windfall bonus. The individual's role is to make contributions, to make decisions about investment of funds in their account (within limits established by the Government), and to withdraw funds only for major purchases such as a home.

There are numerous advantages to a defined-contribution pension scheme, which amounts to enforced savings.¹² Establishing its pension system around the central principle of individual ownership is consistent with Singaporean society's emphasis on individual responsibility. Not surprisingly, interviews show that Singaporeans like the fact that they own their own account and do not have to share it with others.¹³ Another

major advantage of enforced savings is that individuals have a source from which they can borrow at reasonable rates to make major purchases such as homes. Given that health expenses are paid for out of a separate section of the individual accounts, it seems likely that individuals and families are aware of how much their healthcare costs: perhaps the most fundamental aspect of using the market to control medical costs, and something that many other nations have failed to do.¹⁴ The role of the CPF in teaching individual responsibility and self-reliance must be counted as a considerable advantage of Singapore's pension system.

A nation's social policy should be judged on more than the percentage of its GDP devoted to social programmes.

The decision to base government-supported pensions on defined contributions 30 or 40 years ago could be made to seem like the Government was erring on the side of social policy that was too conservative. But today, with government pension systems all over the world in need of cash infusions and with the solvency of entire governments at risk because of flawed pension fund financing, Singapore's decision to

base their pension system on defined contributions looks better and better.

The third emphasis of Singaporean social policy is housing, now administered by the Housing Development Board (HDB), which is responsible both for overseeing the construction of public housing and the sale of units to the people of Singapore. The result is that 81% of the population is served by the Government's housing programmes; 79% of households own their own apartments and 2% rent from the Government.¹⁵ A key public priority during the early years of post-independence nation-building was to help the population obtain decent housing and in this way bind them to the Government and to the nation. Whether housing actually achieved this purpose is difficult to measure, but there is no question that this policy created a nation of homeowners¹⁶ and avoided the growth of slums and the incidence of homelessness that plague many other capitalist countries.¹⁷ As a foreign observer, I think any fair reckoning of housing policy in Singapore would have to conclude that it has been a success – and again I would emphasise the role of the CPF in providing a sound home financing mechanism that has encouraged choice and individual responsibility.

Over the years since independence, the Government of Singapore has

gradually expanded its social policy to include wage subsidies for low-income workers, child care programmes, work training and other programmes. But education, enforced savings for retirement and other purposes, and housing remain the cornerstones of Singaporean social policy.

Like the standard criticism of defined-contribution pension plans, the standard criticism of somewhat minimalist social policy such as that which characterises Singapore is that it does not cover enough risks and actual problems faced by the poor, the elderly, and the sick and disabled. As we have seen, European, Scandinavian and North American countries spend around 35% of their GDPs on social programmes. Although a comparable figure on total social welfare spending is not available for Singapore, the Government of Singapore spends only 16.7% of its GDP on all its programmes, a figure that is less than half as much as European and Scandinavian programmes spent just on social welfare.¹⁸

But a nation's social policy should be judged on more than the percentage of its GDP devoted to social programmes. Sociologists and anthropologists constantly remind us about cultural differences, so perhaps we should grant that a nation's social policy is conditioned by the cultural

values of the society that created and sustains the government. In the case of Singapore, similar in many ways to the US, the culture is one that emphasises individual responsibility as a necessary precursor to government responsibility. In Singapore, solidarity begins with a nearly universal commitment to individual, family and community responsibility. Reading government documents that describe the goals of Singapore's social policy is like reading speeches of conservative politicians in the US criticising government spending on social programmes, and arguing that individuals and families should do more to support themselves. Here is a recent mission statement of Singapore's Ministry of Community Development, Youth and Sports (MCYS):

The three core principles that underlie [the Ministry's] responses to the range of social challenges are:

- (i) Self-reliance and social responsibility;*
- (ii) Family as the first line of support; and*
- (iii) The Many Helping Hands approach.¹⁹*

The MCYS focuses on organising its activities and spending its resources on programmes designed to promote personal, family and community responsibility. Note the emphasis on "Many Helping Hands". The idea of

helping hands is that "volunteer welfare organisations and grassroots bodies" work with Government to implement the safety net. Again, the emphasis on private responsibility is emphasised, in this case by Government providing social assistance through volunteer and grassroots organisations.


As a foreign observer who has spent more than three decades participating in the formulation of federal social policy in the US and studying the enactment, implementation and impacts of social policy in the US and Europe, I see a great deal to admire and emulate in Singapore's social policy. Its education system is one of the world's finest and produces young students of world-class achievements; its defined contribution pension plan and government discipline in managing the system have helped Singapore avoid the type of financial crisis that threatens the solvency of the pension funds of many nations and plays a major role in developing individual responsibility in its citizens; its housing policy has led to huge rates of home ownership and virtually no homelessness; and its health policy has produced a healthy and long-lived population without threatening government solvency. Its legislation on child care, wage subsidies, and employment and training programmes for low-income workers has created a system that provides economic

opportunity for all; and its emphasis on self-reliance and family and community responsibility has inculcated self-reliance and a minimal dependency among its citizens. It is little wonder that the World Economic Forum recently determined that Singapore is the world's third most competitive nation, ahead even of the US.²⁰

It might make sense for Singapore to focus even more resources on high-quality pre-school programmes, especially for children from low-income families.

There is, of course, always room for improvement. It might make sense for Singapore to focus even more resources on high-quality pre-school programmes, especially for children from low-income families. It might also prove worthwhile to provide greater work support in the form of child care and wage subsidies to low-income workers. Fairness would also be advanced if Singapore did more for its guest workers, especially by focusing more attention on their housing.

But none of these suggestions should detract from the achievements of Singapore in creating one of the best educated, most disciplined, and most self-reliant populations in the world.

These great achievements have provided the foundation on which a social and economic miracle has been built. 

A former White House and congressional advisor on welfare issues, Ron Haskins co-directs the Center on Children and Families at the Brookings Institution in the US. An expert on pre-school, foster care, and poverty, he was instrumental in the 1996 overhaul of national welfare policy.

NOTES

1. In the past year, I have had the opportunity to spend several days in Singapore and a month at the Social Science Research Center Berlin. While in Germany, I studied programmes by which the US and Europe attempt to impose work requirements and use other incentives to encourage work rather than dependency on public programmes. The ideas expressed in this paper were developed in large part during my trips to Singapore and Germany.
2. Garfinkel, Irwin, Rainwater, Lee and Smeeding, Timothy, *Wealth and Welfare States: Is America a Laggard or Leader?* (London: Oxford, 2010); Esping-Andersen, Gosta, *The Three Worlds of Welfare Capitalism* (Princeton, NJ: Princeton, 1990); Castles, Francis G., *The Future of the Welfare State: Crisis Myths and Crisis Realities* (London: Oxford, 2004)
3. The figure for the US was 40.9% in the summer of 2009; for the elderly, the figure approached 100%; for children under age 18 the figure was 50%. Based on special analysis of the Survey of Income and Programme Participation performed by Richard Bavier and sent to the author on 13 September 2010. Figures in the European and Scandinavian democracies are almost certain to be higher than those of the US.
4. Goldin, Claudia and Katz, Lawrence R., *The Race between Education and Technology* (Cambridge: Harvard, 2008)
5. Garfinkel et al., p. 50. The UK, the US, Belgium, Italy, Germany, and the Netherlands are the countries that spend over 30% of the GDP on social and education programmes.
6. See Endnote 4.
7. For reasons that are not altogether clear, but probably include close and mutually-supportive family structures and traditions that place a high value on study and learning, most Asian ethnic groups excel in achieving high levels of education and, as a result, high levels of economic productivity. In the US for example, Asians achieve higher levels of education and average family income than any

other ethnic group (including whites of European origin). According to data from the US Census Bureau, in 2009, 47.7% of Asians as compared with 26.0% of non-Asians had a four-year college degree; 18.2% of Asians as compared with 8.9% of non-Asians had a graduate or professional degree. In 2007, the median income of Asian families was \$76,606 as compared with \$61,355 for all families and \$64,427 for white families. See US Census Bureau, "Educational Attainment in the United States: 2009", Detailed Tables, <http://www.census.gov/population/www/socdemo/education/cps2009.html>; US Census Bureau, "The 2010 Statistical Abstract, Income, Expenditures, Poverty, & Wealth", Table 681. "Money Income of Families – Median Income by Race and Hispanic Origin in Current and Constant", (Washington, DC: Author, 2007), http://www.census.gov/compendia/statab/cats/income_expenditures_poverty_wealth.html

8. Patrick Gonzales and others, *Highlights from TIMSS 2007: Mathematics and Science Achievement of US Fourth and Eighth-Grade Students in an International Context* (Washington, DC: National Center for Education Statistics, 2009), <http://nces.ed.gov/pubs2009/2009001.pdf>

9. Singapore Department of Statistics, "Changing Education Profile of Singapore Population", presented at *Conference on Chinese Population and Socioeconomic Studies: Utilizing the 2000/2001 round Census Data*, Hong Kong University of Science and Technology, June 19-21, 2002, <http://www.singstat.gov.sg/pubn/papers/people/cp-education.pdf>

10. Life expectancy has jumped by almost a decade since 1960 in many nations, including Germany, the Netherlands, the US and the UK. In Singapore, in 2007, the birth rate was at an all-time low of 1.24 children per woman of childbearing age – the 28th year in a row that the birth rate in Singapore remained below the replacement rate of 2.5 children per woman of childbearing age; see World Bank Database, "World Development Indicators: Life Expectancy at Birth, Total (Years)", SP.DYN.LE00.IN (<http://databank.worldbank.org/ddp/home.do> [July 2010]); Mydans, Seth, "A Different Kind of Homework for Singapore Students: Get a Date", *New York Times*, 29 April 2008, p. A9

11. In the late 1970s and early 1980s, the Social Security Trust Fund in the US was running so low that a financing crisis seemed imminent. Thus, in 1981, President Reagan and Congress appointed a blue-ribbon commission headed by Alan Greenspan to make recommendations on how to reform Social Security so payments from the trust fund could continue. The Greenspan Commission recommended adding newly hired federal workers to the programme (which would boost tax revenues), subjecting a part of Social Security benefits to taxation (which would also boost revenues), increasing implementation of previously scheduled payroll tax increases, and delaying cost-of-living adjustments from June to December each year. Congress enacted these changes and also passed an increase in the full retirement age beginning in 2000. See Greenspan Commission, *Report of the National Commission on Social Security Reform* (January 1983), <http://www.socialsecurity.gov/history/reports/gspan.html>

12. The major criticism of defined contribution plans is that individuals bear nearly all the risk. Critics argue that the government should share the risk, but at least pension fund insolvency will not threaten the financial stability of the entire pension system – or indeed the entire government.

13. Sherraden, Michael, "Provident Funds and Social Protection: The Case of Singapore", *Alternatives to Social Security: An International Inquiry*, eds. Midgley, James and Sherraden, Michael, (Westport, CT: Greenwood Publishing Group, 1997), pp33-60; Sherraden, Michael and others, "Social Policy Based on Assets: The Impact of Singapore's Central Provident Fund", *Asian Journal of Political Science*, 3 (2) (1995), pp112-133, <http://www.informaworld.com/smpp/content~db=all~content=a789141937>

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15. Centre for Governance and Leadership, "Overview of the Social Safety Net", Civil Service College, Singapore, 2008.

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Jeremy Lim and Clive Tan

Strategic Orientations in Singapore Healthcare

Medical doctors Jeremy Lim and Clive Tan unpack the principles underlying Singapore's healthcare policy, and examine how these are reflected in cost and delivery structures.

Health systems around the world range in strategic orientation from the United Kingdom National Health Service (NHS)'s approach of free healthcare at the point of consumption, to the United States of America's private insurance driven model. Singapore's approach, most saliently articulated in five principles on Affordable Healthcare in a 1993 White Paper, is a combination of strong government intervention through both

provision and payment, and aggressive use of market mechanisms. Singapore's unique healthcare regime is premised on a few key ideological pillars, which can be expressed in terms of two broad themes: financing and delivery.

HEALTHCARE FINANCING

Healthcare financing in Singapore is strategically oriented towards three broad aims:

The five principles from the Singapore Government White Paper on Affordable Healthcare, October 1993 are:

- a. To nurture a healthy nation by promoting good health.
- b. To promote personal responsibility for one's health and avoid over-reliance on state welfare and medical insurance.
- c. To provide good and affordable basic medical services to all Singaporeans.
- d. To rely on competition and market forces to improve service and raise efficiency.
- e. To intervene directly in the healthcare sector when necessary where the market fails to keep healthcare costs down.

1. Maximal Value for Society Over the Individual

Professor Bryan Caplan has argued that unlike the US, where pragmatism has often meant “going along with public opinion and openness to political compromise”, the Singapore brand of pragmatism is about “judging policies based on their actual consequences, not their popularity. Pragmatism is virtually a synonym for ‘utilitarianism’”.¹

In healthcare, this has meant striving for maximum value. Indeed, some readers may remember the banner that once hung in the College of Medicine Building describing the Ministry of Health (MOH) mission as building the “World’s Most Cost-Effective Health System”.

The Singapore Government has hence not been afraid to make unpopular decisions such as denying coverage for the breast cancer drug Herceptin®. *The Straits Times* columnist Chua Mui Hoong,

writing about her diagnosis of breast cancer while in the US, wrote candidly: “If I had been diagnosed with cancer in Singapore, the chances are higher that I would be dead today.” She went on to explain that “in Singapore, access to promising but expensive treatments are sometimes curtailed on grounds of ‘cost-effectiveness’ and to keep health-care costs down”.²

We must get maximum value for what we spend on healthcare. To do so, we will need to trade off competing needs and allocate more resources for cost-effective treatments that yield the best outcomes.

– *White Paper on Affordable Healthcare, 1993*

The decision to not include Herceptin® is consistent with the purpose of the Standard Drug List which is a “list of clinically relevant and cost effective drugs considered as basic therapies that

are essential for the management of common diseases afflicting the majority of our population”,³ and reflects a population-based “greatest benefit for the greatest number” approach to public policy.

A similar approach is taken in surgical procedures. For example, percutaneous aortic valve replacement, first carried out in France in 2002, is a safer procedure as compared to open valve replacement for patients with prior open heart surgery. In Singapore, percutaneous aortic valve replacement is offered to patients who are “assessed to be high surgical risk and not suitable for conventional aortic valve replacement”.⁴ However, government funding is currently not available to cover the costs of the artificial valve and patients undergoing the procedure are instead funded through philanthropic donations.⁵ The National Heart Centre actively raises funds for such patients through its Heart2Heart Fund, citing the imperative of bringing “proven and viable treatment modality to our patients at affordable cost”.⁶

II. Personal versus Collective Responsibility and the Principle of Co-Payment

Personal responsibility involves maintaining one’s own health through appropriate lifestyle choices. Singapore’s policy position is that “the provision of free

healthcare at point of consumption wrongly incentivises over-consumption by patients”⁷ and Singapore has deliberately distanced itself from the NHS approach adopted by the British. In fact, one year after gaining self-government from British colonial rule, Singapore introduced a co-payment of \$0.50 for outpatient consultations with an additional \$0.50 surcharge for Saturday consultations.⁸

MediShield today is designed deliberately to avoid first-dollar coverage and in fact has relatively high deductibles and a further co-payment to avoid over-consumption encouraged by third party payments. Medisave minimises the out-of-pocket case component but maintains the philosophy of personal responsibility since Medisave is personal-to-holder, unlike insurance, which is based on risk pooling.

III. Targeted versus Indiscriminate Subsidies

The affordability of healthcare is a relative concept dependent on personal resources. Singapore has targeted subsidies to those most in need of them, through an escalating series of measures over the years. The introduction of **different ward classes** with varying levels of amenities and corresponding subsidies, and longer **waiting times** in polyclinics and public hospital specialist clinics were efforts to encourage

patients to choose higher levels of service and hence lower subsidies, thus conserving subsidies for lower-income Singaporeans. However, as medical costs continue to escalate, Singaporeans are increasingly turning to public healthcare regardless of personal finances. In 2005, an Information Paper released by the Ministry of Health reported that 22.1% of Singaporeans in the highest income group elected for inpatient care in a B2 or C class ward.⁹

“There is no free healthcare. Every healthcare service is eventually paid for by the patient, either through taxes, or reduced wages. Ultimately, patients and their families pay for the bills.”

— Minister for Health, March 2010

On 1 January 2009, Singapore implemented **means testing** for inpatient services in the public hospitals to “enable lower-income patients to enjoy more subsidies than higher-income patients”,¹⁰ effecting a tiered subsidy depending on personal income and type of residence. This approach to public policy is by no means confined to healthcare and similar philosophies guide decisions in public housing, where eligibility for grants available to first time owners is based on household incomes.

HEALTHCARE DELIVERY

1. Enabling a Healthcare Market

Healthcare infrastructure in Singapore, as with most other countries, is subject to substantial government planning through the levers of land release, regulation of health professionals and differential financing of public and private sector providers. That said, Singapore does not reject a market model outright and typically begins from a default position of governmental intervention “when necessary where the market fails to keep healthcare costs down”.¹¹ Intervention is not to reinforce a *laissez faire* approach to the market but rather to put in place mechanisms to ensure proper functioning.

An example of this approach would be mitigating information asymmetry; initiatives such as placement of hospital bill sizes online, making public results of patient satisfaction surveys and issuing of clinical quality information papers improve information availability, allowing consumers to make more informed choices. The National Electronic Health Records agenda may also be considered not only as a patient safety instrument but also a pro-market measure. Electronically captured and transferrable clinical data is akin to the portability of mobile phone numbers in the information communications sector – they lower the barrier to

changing providers. They are also a mechanism to capture clinical quality data electronically for risk adjustment and subsequent public release, further narrowing the information gap.

“The key to a sustainable healthcare system is to de-politicise healthcare, minimise market distortions and allow healthcare to function as normally as other economic activities.”

– Minister for Health, March 2010

II. Community-Based Provision of Healthcare Wherever Possible

Citing the rise in aging and chronic disease in his 2009 National Day Rally speech, Prime Minister Lee Hsien Loong called for the strengthening of community-based medicine, or what he referred to as “step-down care”. “Step-down care means slow medicine: community hospitals, nursing homes, GPs doing more work, home care – people taking care of sick people at home. Organised properly all this can provide competent, appropriate care especially for the elderly patients.”¹²

The MOH has since made ambitious plans to emphasise the role of community providers such as community hospitals, nursing homes, family physicians and home care providers. This movement is akin to London’s healthcare trans-

formation – guided by the seminal document “A Framework for Action” which articulates cogently “The hospital is not always the answer” and “Most people are best cared for by community services”.¹³ The maxim for London is “localise where possible, centralise where necessary” and this, too, is the approach Singapore is moving towards.

The acute hospitals will always play a crucial role in the healthcare ecosystem. That said, the coming years will see hospital-based care positioned more as a transient phase in resolving a patient’s complex or acute healthcare issues.

III. “Many Helping Hands”

The paradigm behind the concept of “Many Helping Hands” is a society self organising to support the less fortunate. It is about empowering the public to engage both directly in service provision and indirectly through philanthropic donations, which at the same time helps to strengthen the “social fabric” of Singapore. “Many Helping Hands” is closely related to the community-based provision of healthcare, as the intermediate and long-term care (ILTC) sector today is mostly made up of not-for-profit providers who “do an excellent job but they will need government help to deal with more elderly patients”.¹⁴ This “government help” was clarified subsequently by Ms Yong Ying-I,

Permanent Secretary of the Ministry of Health, in a *Straits Times* interview where she described a future in which not-for-profits focused on pastoral activities and fund-raising while partnering with government hospitals for clinical service delivery.¹⁵ Today, this model is being realised through partnerships such as the ones between Tan Tock Seng Hospital and Ren Ci Community Hospital, as well as Singapore General Hospital and Bright Vision Hospital where the medical directors are seconded from the acute hospitals.

Hence the “Many Helping Hands” approach is not envisaged to be a messy potpourri of small and poorly-organised non-profits, but rather strategic partnerships between established, large healthcare providers and nimble non-profits more closely attuned to ground needs. Each would bring their respective strengths and knowledge to create agile, locally-oriented but professionally driven pairings which can better serve community and national needs.

Preventive Health Orientation

Preventive health has been widely encouraged through subsidised national programmes such as the National Immunisation Programme, Breast Screen Singapore, Cervical Cancer Screen Singapore and more recently, the Integrated Screening Programme,

as well as general exhortations to lead a healthy, balanced lifestyle.¹⁶

From a medical perspective, preventive health also involves comprehensive chronic disease management and patient engagement and empowerment. In these areas however, Singapore does not do as well: Singapore has “one of the highest incidence rates of end-stage renal disease in the world”,¹⁷ and of the newly diagnosed kidney failure patients, more than half are secondary to poorly controlled diabetes.¹⁸ Amongst diabetics, two-thirds are undiagnosed¹⁹ although this has come down to slightly less than half.²⁰ Why doesn’t Singapore do so well? In many countries which do better than Singapore in preventive health, governments often generously fund screening and other population health initiatives and take special effort to ensure accessibility to such services. These government interventions are premised on the understanding that health services for well persons are often under-utilised due to the lack of symptoms and low personal prioritisation. Hence healthcare providers must strive to remove as many barriers as possible to access, be they financial, geographic or simply a lack of appreciation of the importance of preventive health.

Singapore’s financing philosophy is based on personal responsibility and

co-payments, leading to imposition of charges even on basic preventive health services such as mammogram screening for breast cancer, which is priced at \$50 in polyclinics. Does this deter participation? Academics believe so.^{21,22} Perhaps given that recruitment and compliance remain “major challenges”,²³ the concerns over moral hazard should be overcome. The application of the principle of personal responsibility may be less appropriate in preventive health; mammography is reported to be unpleasant and painful and even if offered without charge, it is doubtful that women would over-use the service.

CHECKLIST FOR STRATEGIC CONGRUENCE

It is possible to condense a checklist of strategic considerations, consistent with Singapore’s core national healthcare objectives, for assessing any healthcare initiative:

1. What is the societal value created?
2. Does this initiative promote personal responsibility?
3. Are the subsidies in this programme reaching the people who need it the most?
4. Does this initiative strengthen competition and enhance market conditions in healthcare?
5. Can this initiative be provided in and by the community?

6. How does this support community participation and social engagement?

This checklist could be useful as a guide to analysing healthcare initiatives which warrant review, or new ones which may be proposed; the explicit documentation of these considerations can heighten awareness of the underlying mental models influencing policy decision-making in healthcare.

Proposed initiatives that depart significantly from these considerations should trigger robust discussion; at the same time, they may also signal the need to review the basic structure and thinking underlying the healthcare system. Such national introspection is healthy and vital to continued sustainability in terms of economic results and healthcare outcomes. How much a society should spend on healthcare, which areas and functions should take priority and so on are difficult issues in and of themselves; Former Health Minister Khaw has expressed that these are questions “for society at large to answer”;²⁴ a clear and transparent articulation of the principles that guide healthcare design and delivery, as is attempted here, should greatly facilitate resolution of any public debate.



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Dr Clive Tan is a medical officer with the Singapore Armed Forces. He completed his Masters in Public Health from Johns Hopkins Bloomberg School of Public Health. His research interests include public health policy, healthcare financing and emergency preparedness. The views expressed in this article are his own.

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Khoo Ee Wan

Understanding Managerial Derailment

What causes promising executives to underperform,
and how can organisations intervene in time?

Although considerable efforts have been spent on leadership development research exploring the reasons for success in managerial or executive roles, about half of all managers nevertheless fail. This suggests that a more holistic perspective to understanding leadership is needed, one with a greater focus on understanding why leaders fail.

The term “derailment”, drawing on the metaphor of a train coming off the track, is commonly used to refer to talented managers who enjoyed much

success early in their career but then have their advancement involuntarily stalled, or are demoted or fired when they fail to perform to expectations. In essence, derailment indicates a lack of fit between an individual and the evolving demands of the job and the organisation. It is not the same as “plateauing” or voluntarily deciding to opt out of further advancement.

Derailment is of concern to any organisation as the consequences can be considerable, especially at the executive and senior management

levels where the impact is greater. Such adverse consequences include: not meeting organisational outcomes, loss of organisational reputation, breeding of dysfunctional cultures and irresponsible or unethical behaviours, as well as the decreased psychological well-being of those adversely affected by derailed managers.

DERAILMENT DYNAMICS

There are four key dynamics leading to derailment:

1. An Early Strength Becomes A Weakness: The very same skills, characteristics and qualities that enable an individual to excel and enjoy success early in his career may become liabilities when he reaches managerial positions and does not develop new skills to balance these early strengths that may no longer be adequate in addressing new job demands. A diligent, conscientious, task-focused individual contributor who is accustomed to achieving results independently may find it harder to build relationships and work through teams or subordinates as he advances up the organisational hierarchy.

2. A Flaw Eventually Matters: Everybody possesses shortcomings or undesirable qualities; for managers, commonly cited ones include arrogance, narcissism, passive-aggression and

scepticism. It is estimated that most executives have two to three flaws, which may only surface after a period of prolonged interaction. Some flaws may initially be compensated for by other personal strengths but then become less acceptable as the individual is promoted to higher levels of responsibility. For example, a manager who is intellectually sharp and results-oriented, but at the same time, is arrogant, short-fused or abrasive might be identified as someone with long-term potential based on his strengths. However, his lack of interpersonal skills may limit his effectiveness in managing teams and working through people to deliver results in more senior positions.

3. A Flaw Surfaces Under Extreme Or Unexpected Challenges: A manager may face unexpected challenges brought by changes in the organisation's operating environment (such as economic downturns, crisis situations or legacy problems within the organisation), causing deficiencies to surface under pressure.

4. Becoming Victims of Their Own Success: Managers who enjoyed great success early and easily may develop an unrealistic sense of superiority and infallibility which affects their judgement and receptivity to alternative ideas or feedback from others. Threatened by the possibility of

failure, some managers may resort to tried-and-true but ineffective solutions rather than embarrass themselves by experimenting with new strategies that may fail. As a result, they fail to adapt to meet the evolving demands of complex new situations.

Lack of interpersonal skills may limit effectiveness in managing teams and working through people to deliver results.

WHEN DOES DERAILMENT HAPPEN?

The derailment dynamics described imply an interplay of situational and individual factors: managers typically possess some individual qualities that put them at risk for derailment, and these are most likely to surface in stressful situations. Situational factors that contribute to possible derailment occur at three levels – organisation, job and person.

Organisational Dynamics

Organisational cultures set the context for success and define what qualities are considered strengths or weaknesses. Hence, derailment qualities vary from organisation to organisation, context to context.

In addition, organisations with dysfunctional cultures, those that are intolerant of failure, or which have unbalanced reward structures that focus on outcomes regardless of processes, are more likely to encourage the display of dysfunctional behaviours that are linked to the likelihood of derailment.

Furthermore, success at different levels of the organisational hierarchy requires different behaviours, skills and perspectives as job responsibilities shift. When there is a lack of proper succession management, managers are more likely to find themselves being promoted to jobs for which they are not prepared in terms of experience and competence.

In particular, young talents who are fast-tracked may be at higher risk of derailment. Despite assuming positions of formal authority, they may have yet to develop the necessary knowledge, interpersonal and communication skills, emotional maturity, informal relationships and resource networks that would allow them to manage others effectively.

Furthermore, organisations often require managers to deal with transitions, such as a change of role or assignment or a new supervisor. While these challenging transitions contribute to skill-development by building a broader base of experiences, difficulty in managing the demands of a transition has been a strong predictor of derailment.

Job Dynamics

Derailment implies a misfit between a manager and his job. In broad terms, the manager's job could be described as getting results through other people. At lower and middle managerial levels, the focus is on providing task-based leadership and sound technical skills to enable one's unit to complete tasks and obtain results efficiently. Hence, those who derail at this level tend to lack these job-critical qualities. Managers who have poor interpersonal skills that prevent them from establishing good working relationships with their supervisors or subordinates are also likely to derail.

Young talents who are fast-tracked may be at higher risk of derailment.

Higher up the organisational hierarchy, a successful manager has to develop a greater repertoire of skills in order to respond to the evolving demands of the job, such as developing and promoting a vision, recruiting and retaining talented people and motivating a team. Managers have to effectively garner support and resources for their initiatives. Those who do not possess the necessary intellectual skills such as strategic thinking and ability to make high quality decisions, and

the skills or willingness to adapt will face difficulty coping with the demands of working within a larger sphere of diverse functions, and a fast-paced and dynamic environment.

Managing strong teams and working well with others are key aspects of successful managers. Thus, managers at risk of derailment are those who are unable to build, direct and motivate their team, or are unable to teach and develop their team. Managers lacking the necessary interpersonal skills to build and maintain relationships, resolve conflicts or establish consensus across boundaries may be at risk of derailment as their job responsibilities become ever more complex and dependent on teamwork across boundaries.

Personal Factors

Personal circumstances may inadvertently lead to derailment at work. Some individuals lack the passion for managerial roles but accept them as the only way to advance in their careers, while others no longer see meaning in their work. A lack of commitment, coupled with inadequate managerial skills, may eventually lead to performance problems and derailment.

Stress and fatigue – the result of unfamiliar and more demanding job responsibilities as one moves up the organisational hierarchy – are also

prime reasons why people underperform or behave in counterproductive ways. An individual's life-stage and level of maturity is another factor that may result in challenges being faced at work, and increase the likelihood of derailment. Other major events in one's personal life, such as family-related issues or a major illness, could also have a temporary or long-term impact on performance.

MINIMISING DERAILMENT

Research provides insight on how managerial derailment can be minimised.

1. Consider potential derailment factors in the selection of talent

Current selection processes typically focus on evaluating applicants against a list of organisational- and job-relevant competencies. Emphasis should also be given to overplayed strengths, significant limitations, or other personal qualities, such as inability and unwillingness to adapt and other key derailment factors. The assessment process should seek to have a holistic understanding of the strengths and limitations of the applicants and consider the extent/severity and likely impact of these flaws in selection and promotion decisions. Consideration should be made of the individual's self-awareness (or lack of) and the likelihood of any flaws being

overcome over time with the right development interventions.

2. Have a holistic leadership development approach that helps managers identify and manage their risk of derailment

Leadership development has traditionally focused on exploring what makes leaders successful. This may well be inadequate. It is important to take a holistic approach that helps managers be aware of their own shortcomings and derailment risk factors so that they can better manage their own behaviours and personal development.

Furthermore, research has consistently shown managers to be less aware of their own risk of derailment than others perceive. Tools such as self-assessment questionnaires and 360-degree surveys can help managers become more aware of their own potential derailment factors, and development interventions such as coaching, action learning and targeted on-the-job assignments with appropriate feedback and self-reflection are useful in helping managers address their own shortcomings. In addition, when individuals are faced with difficult personal circumstances, it is important for both managers and supervisors to recognise the potential negative impact on performance, and also for the organisation to be supportive of managers in such situations.

3. Design appropriate on-boarding programmes to manage transitions

Successions are significant transitions that may become tipping points leading to derailment. Hence, a better succession process would help organisations minimise potential derailment among its managers. More work could also be done to design and implement relevant on-boarding programmes for managers in new roles, to help them understand the current and future job demands, acquire the necessary skills, and provide them with the necessary support and resources during career transitions. For example, challenging assignments could be better designed or the individual could be given greater support, so that there are more positive outcomes for the individual and, at the same time, a lower risk of derailment.

4. Better manage and develop young, fast-tracked managers


In the Singapore Public Sector, a sizeable proportion of young, fast-tracked managers are identified as potential public sector leaders early in their careers. Such managers may be at risk of derailment if they become victims of their initial career success. A more deliberate focus may be needed to help these managers be self-aware and adaptable so that they understand the potential derailment risk, and work

towards developing greater leadership effectiveness in order to improve their likelihood of succeeding as public sector leaders in the longer term. In addition, though talented, the relative youth of these managers may mean that they require specially-tailored developmental opportunities to compensate for their lack of on-the-job and life experience necessary to be effective in managerial roles in diverse workplaces and complex situations.

Research has consistently shown managers to be less aware of their own risk of derailment than others perceive.

FURTHER QUESTIONS ON DERAILMENT

Most research on derailment relies on post-hoc explanations provided by the colleagues of the derailed manager. A key limitation of such a methodology is that people's perceptions of the manager may be biased by the fact of his derailment. Thus, longitudinal studies of managers may help to provide another perspective on the qualities that are most closely associated with derailment. Furthermore, since most findings are based on studies in western cultures, it would be useful to tease out the most relevant situational dynamics

and individual qualities that tend to lead to derailment in the unique context of the Singapore Public Sector. 

This article is based on the findings of a research study undertaken in 2010 by Khoo Ee Wan and Caithlin Tham of the Centre for Leadership Development, Civil Service College. The full research report, together with the references, can be accessed at www.cld.gov.sg

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Erratum

Under the “Advisory Committee” published in ETHOS Issue 8, August 2010, Mr Benny Lim’s designation should have read “Benny Lim (Chair) – Permanent Secretary, Ministry of Home Affairs”.

The publisher apologises for the error.



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