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**Seeking a new balance in the regional integration of the Asia-Pacific
region**

Session 1

**Role of regional integration in ensuring stable supply of resources (energy,
minerals, food etc) parts and industrial materials**

Don't Stagnate, Innovate

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“New balance in the regional integration of the Asia-Pacific” and “stable supply” are clear reminders of the Great East Japan Earthquake, and it is impossible not to begin by acknowledging both the scale of the disaster and the impact on those directly affected. While it is important to provide a dispassionate analysis of the triple disaster, this must accompany and not supplant genuine human sympathy (and help) for those on whom the losses fell most heavily.

This is especially important to me because as an economist I am uncomfortable with attaching importance to “stable supply”. I have done enough academic management to know that any management appreciates a good deal of stability, at least for itself if not for those who are managed. But economists are more concerned with economic progress and that inevitably means change. Schumpeter was right to emphasise “creative destruction” as characteristic of economic progress – the new, improved and more productive supplants what previously existed. The pursuit of stability can be stultifying.

Our starting point was not “stability” but “stable supply”. However, that merely reminds me of the starting point for innumerable courses in elementary economic literacy which would start with sets of propositions which are self-evident only to economists. The list associated with the textbook by Gregory Mankiw is

- 1 People Face Tradeoffs
- 2 The Cost of Something is What You Give up to Get it
- 3 Rational People Think at the Margin
- 4 People Respond to Incentives
- 5 Trade Can Make Everyone Better Off
- 6 Markets Are Usually A Good Way to Organise Economic Activity
- 7 Governments Can Sometimes Improve Market Outcomes
- 8 A Country's Standard of Living Depends on its Ability to Produce Goods and Services
- 9 Prices Rise When the Government Prints Too Much Money

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10 Society Faces a Short-Run Tradeoff between Inflation and Unemployment

While that of the Federal Reserve Bank of Minneapolis is

- 1 There is no such thing as a Free Lunch
- 2 Thinking Incrementally
- 3 Markets Co-ordinate Consumption and Production
- 4 Relative Price Changes Guide Decision-making
- 5 Trade Promotes Growth
- 6 Markets Can Fail

Implicit in these, and explicit in some alternative formulations, is a statement something like “substitutes everywhere”. I became very conscious of it my first major research project which was a study of the impact of the innovation of railways.¹ There is little doubt that railways had a bigger impact on economic growth than any other nineteenth century innovation, and yet that impact was much smaller than traditionally thought. There were substitutes even for railways.

The economic instinct is therefore to conjecture that even for a disaster as great as the Great East Japan Earthquake, supply will certainly be interrupted but substitutes will soon be available.

Contemporary economies are different from those in which railways were an innovation. In particular, supply chains are more visible and they cross national boundaries. International economic interdependence, while a longstanding feature for many economies – the modern New Zealand economy developed as a matter of international opportunity and local adaptation – has become more intense, sufficiently so as to justify the term “globalization” despite its well-known limitations, especially the possibility of overlooking continued concern with local identity. Globalization involves more intense international communication and changes in the relative importance of specific geographical linkages, but the most important way in which modern globalization differs from earlier international interdependence is that links between producers and consumers have been supplanted by links among producers. Modern supply chains have been created. I began my studies with classic descriptions by people like Folke Hilgerdt and J.B. Condliffe of typical trade being the exchange of manufactures for food and raw material; we became aware that from the 1950s the fastest growing segment was the exchange of manufactures for manufactures, often within a conventional sector; now we are aware of the importance of trade in intermediate products. And modern ICT means that the firms engaged in this trade are closely connected – they form a supply chain.

We are probably all familiar with calculations of the number of national economies involved in producing a “world car”. But even economic commentary, let alone political and journalistic discussion, allows too little for the impact of supply chains. IDE in Tokyo and the WTO have compiled² a database of trade patterns taking account of trade in intermediate goods. The effect is dramatic. The US deficit with

¹ *Railways and Economic Growth in England and Wales, 1840-1870* (Oxford: Clarendon Press, 1970) The pioneering work was R.W. Fogel *Railways and American Economic Growth* (Baltimore: Johns Hopkins, 1964).

² *Trade patterns and global value chains in East Asia: From trade in goods to trade in tasks* (IDE-JETRO and WTO, 2011)

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China becomes little more than 10% of that with Japan, and about a quarter of those with Korea and Germany. Conventional bilateral balances are misleading.

The impact of supply chains is not only intense but also complex. They are related to “just-in-time” manufacturing – essentially a process of managing logistics to demanding standards in order to economize on the cost of holding stocks, but also a way of ensuring that process manufacturing does not become presiding over routine but is attuned to solving problems since every interruption of production is a crisis. Interruptions certainly followed the Tohoku earthquake and tsunami but consistent with my instinct about substitutes, most supply chains found alternative supplies reasonably quickly, and more important, the effect was from just-in-time manufacturing rather than cross-border supply chains. Had more Japanese products relied only on Japanese suppliers the impact they experienced would have been *greater*, not less; producers elsewhere who relied on Japanese suppliers would clearly have had less impact if their suppliers had been located elsewhere but where will the next earthquake occur?

It is worth reflecting on why just-in-time manufacturing was adopted. Improved logistic management permitted economizing on the costs of holding stocks. Managers of production processes were given an incentive to achieve high intensity in reliability – any interruption of the flow of materials or of production processes would quickly become a crisis. Productivity is increased.

The connection with cross-border processes is simply the standard argument for free trade – relaxing constraints on production decisions permits greater total production. We know all the qualifications to this, essentially the issues of distribution and possible consequences of learning³, but supply chains do not change what is essentially a mathematical argument. They nevertheless create some new considerations.

Interdependence within the production process increases the importance of precision of specifications – interoperability is indispensable. Substitutability encompasses products but not production processes. Maintenance of supply chains reduces the possibility of substitution at least in the short run. Maintaining a supply chain through longterm relationships among interdependent suppliers has the same effect.

Cross-border supply chains generate importance in this context for regional integration and economic diplomacy. Regional integration reduces the significance of national boundaries, but there is more than one kind of regional integration. Reduction of tariffs still has some significance although much less than in the past, There is no debate now that economic integration necessarily involves “regulatory cohesion”, the current favoured phrase for what used to be “behind the border” issues and then in APEC the “Leaders’ Agenda for Implementing Structural Reform”. In the East Asian Summit processes, but less prominent in APEC although not entirely absent there, are regional cooperation in infrastructural development and a focus on narrowing development gaps. Central to “regulatory cohesion” no matter how widely conceived

³ “Introduction” to G. R. Hawke (ed.) *Free Trade in the New Millennium* (Wellington: Ministry of Foreign Affairs and Trade for NZ Institute of International Affairs, 1999), pp. 9-29

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is a set of issues relating to standards. It is especially important for the impact of regional integration on innovation and so on its ability to deliver increased living standards. Questions of standards and intellectual property regimes are central to how innovation is encouraged or constrained.

Standards have a long history within trade diplomacy. It used to be allocated to “technical barriers to trade” and left to specialists. They have now moved to centre stage. The issue of food safety attracted attention to standards intended to ensure consumer protection, but much more than food is involved. (Perhaps most obvious is the safety of electrical equipment.) The issue for trade diplomacy remains distinguishing genuine concern for consumer safety from disguised protection of domestic producers and other political interest groups. “Sound science” is the principal instrument. It is like “peer review” to academics – it has a comforting familiarity but we also know that there is enormous tension between honest discussion as a protection against error and game playing as a device for self-promotion. And we do not have any better weapon than transparency.

However, just as supply chains have brought globalization within production processes, so the main issue about standards is now within business. Standards define “fitness for purpose” and facilitate compatibility and interoperability. However, Standards and Intellectual Property regimes are intimately connected. While some standards may be public goods, many are private property. We learn a great deal by considering the situation of China. Many in China must have been startled when after succeeding in entering the WTO, they found that their participation in the international economy was governed by lawyers and litigation. “Chinese firms typically pay foreign patent holders 20-40 percent of the price of each cell phone made in China; 30 percent for each PC; and 20-40 percent for each CNC machine tool.” (CNC is computer numerical control.) The Chinese value added share is usually estimated at 10-15% - Asian subcontractors of multinationals do better than domestic firms.⁴ The demands for adjustment are enormous. One of the three competing 3-G standards is protected by than 2000 patent families comprising more than 6000 patents from 50 companies and consortia. A smart phone involves hundreds of standards coming from dozens of standards-setting organizations – camera, video, web browser, PDA, Wifi etc. Smart phones are the field for 8000 patents held by 41 companies.⁵ Furthermore, “the challenge for standardization now is no longer technology alone. Equally important is the challenge to standardize the interactions of people who create and use the technology within these networks, In other words, standards need to be developed for the work practices and business routines that enable these networks to grow and adjust to changing requirements of technology and markets.”⁶ We read American complaints about stolen intellectual property but the biggest engine of change in the Chinese Intellectual Property regime is the challenge to legitimate Chinese business - legal Chinese handset producers are under attack from illegal producers of Shanzhai handsets.⁷

⁴ Dieter Ernst *Indigenous Innovation and Globalization: The Challenge for China's Standardization Strategy* (UC Institute on Global Conflict and Cooperation and East-West Center, June 2011), p. 51

⁵ Ernst, p. 44

⁶ Ernst, p. 45

⁷ Ernst, p.82; An earlier example of the same process by which the balance of interests between tolerance of imitation and protection of intellectual property moved in favour of the latter is

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In any case, we hear far less about commitments by firms and the governments of advanced economies to ensuring “Fair, Reasonable and Non Discriminatory” access to standards and patents that are essential for China’s continuing development. “Technology transfer” is still widely understood as it was used in the 1960s, to refer to vehicles for official aid. It now relates to the terms of participation in international supply chains.

There is a tension between standards and innovation. Standards can freeze technology. That can be an incidental by-product of the search for “fitness for purpose” and interoperability. Or it can be the deliberate result of firms seeking competitive advantage by manipulating access to intellectual property. Hence an international regime for managing Intellectual Property and Standards is an essential component for economic integration. But it is no easy task. Any idea of a uniform international intellectual property regime has to be complex. For most economies, economic development is a matter of catching up with the frontier. In poor countries, a weak IPR regime is optimal – to encourage dissemination; utilization of knowledge invented abroad should be preferred to incentives for innovation. Advanced economies will naturally prefer stronger IPR regimes. That can be derived as an abstract argument, or it could be deduced from the economic history of many countries, including the US, not known for its ready adoption of European copyright agreements in the nineteenth century. It is not surprising that patents and intellectual property issues are among the issues proving to be contentious in the TPP negotiations,⁸ but it will be even more problematic when considered in conjunction with China’s participation in moving from TPP to FTAAP.⁹

It is easy to think that the existing American, European and Japanese provisions for standards and patents constitute the international system. But there are actually many national systems, and we have to facilitate their reconciliation rather than seek simply to supplant them with those of one of the major economies. Furthermore, we have to accept that there can be no international norms or systems which do not involve some Chinese participation. Only now are Chinese engineers entering “informal social peer group networks” which are especially important. Chinese firms are only now beginning to assume leadership roles in international organizations.¹⁰

In particular, Chinese rhetoric about the primacy of economic development is not merely “aspirational” – it is the starting point of national strategy. It leads into an intention to use “indigenous innovation” as a means for economic development. There are then many tensions to be managed. The place of information security relative to participation in global networks is one – the idea of controlling the internet to preserve the political elite is a debased view of a much more complex issue. The promotion of

discussed in David Clayton “Trade-offs and rip-offs: Imitation-led industrialization and the evolution of trademark law in Hong Kong” *Australian Economic History Review* 51(2) (July 2011), pp. 178-98. The same story can be told in terms of U.S. economic history.

⁻¹ Claude Barfield “The TPP: A model for 21st century trade agreements?” *East Asia Forum* 25 July 2011.

⁹ A similar argument can be developed relating intellectual property rules and attractiveness to FDI. Cf Hodaka Morita “FDI and Technology Spillovers Under Vertical Product Differentiation” *APEC Economies Newsletter* Vol.15 No. 08 (September 2011)

¹⁰ Ernst, p.52

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innovation as a protective device versus participation in global innovation processes is another. China's efforts to reconcile "indigenous innovation" with globalization are strained by the simple inability of government regulations to keep up with technical change.

Standards and IP are only one aspect of the challenge to regional integration of ensuring a stable supply of resources. Ensuring that regional integration proceeds with rules about the movement of natural persons that facilitates cross-border trade in services is also important, and there are other dimensions which could be pursued. But the link to "stable supply of resources" is always through facilitation of cross-border business rather than through centralized concerns with supply management.

The connection to "Seeking a new balance in the regional integration of the Asia-Pacific region" also demands some subtle analysis. Despite my compassion for the victims of the Great East Japan Earthquake, I do not see any strong claim for a "new balance" between productivity advance and security of supply. Rather the recovery of the devastated region should be sought through its participation in innovation – as has been sought in the responses of research institutes. There are, of course, issues about balancing the future and the present in the context of climate change, nuclear waste, and disaster preparedness, but they have not changed.

Where I see a new balance as most required is in willingness to update thinking about regional integration so as to avoid outdated distinctions such as separating "technical barriers to trade" from the economics of cross-border business. It also involves discarding outdated thoughts of helping national SMEs to reach final consumers in export markets, and utilising the ERIA research which suggests that SMEs which participate in international supply chains, often with some overseas ownership, are likely to be more innovative. More specifically, as ERIA exploits its strength in using micro-studies to explore macro-trends, it has found positive links between innovation and exporting at the firm level, and that foreign ownership is usually positive for innovative activity.¹¹ The operations of cross-border supply chains promote productivity gains and therefore increased living standards. Traditional thinking about promoting discrete *national* activity is outdated.

Whether integration is sought through Asia Pacific institution or Asian processes, it will encompass not only traditional market access but a number of aspects of regulatory cohesion. Asian processes are likely to have a greater focus on infrastructure development and a greater commitment to narrowing development gaps. Just as "technology transfer" now relates more to the terms of participation in supply chains than to programmes of instruction within Official Development Assistance, so narrowing development gaps will result from adaptation of supply chains to local circumstances and energizing of innovation throughout supply chains rather than from traditional aid. Reflections such as these make one think that political gridlock in the US and the rigidity of US "trade" diplomacy dominated by Washington lawyers and industrial lobbyists will give supremacy to Asian over Asia-Pacific institutions.

In particular, I expect that there will be some rebalancing away from western-oriented negotiations to Asian consensus building. In Taipei almost exactly a year ago, I argued

¹¹ ERIA activity report to Regional Institutes Network, Bangkok, August 2011.

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that “While the origin of APEC is also contested, the strongest argument is that the key driver was a desire to link West Pacific and East Pacific – North-East Asia, South-East Asia and America, not just geographically but reconciling Asian processes of consensus building and western notions of reciprocity supported by binding commitment and monitoring. Managing the tension between consensus and commitment has been an enduring theme throughout the history of APEC.”¹² Events in the last year have surely pointed towards questioning the western emphasis on concepts such as binding, agreements, monitoring and verification, and sanctions. While many observers continue to express scepticism of “voluntary cooperation” and consensual objectives and peer review,¹³ nobody could have even the slightest acquaintance with recent events in Europe and continue to hold an unqualified preference for black-letter negotiated agreements.

I conclude that even in the face of major natural disasters, we should look to regional economic integration to promote innovation in the face of protectionism especially protectionism which is pursued through intellectual property and standards regimes.

¹² “Business Opportunities in a World of Variable Economic Integration” presentation to the symposium, The Assessment on the WTO’s Doha Round for Economic Growth, Chung-Hua Institution for Economic Research in Taipei, Taipei, November 25th~26th, 2010.

¹³ e.g. Jacob Funk Kirkegaard “Europe’s role in global economic governance” *East Asia Forum* 26 July 2011