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Japan's New Growth Strategy to Create Demand and Jobs

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ABSTRACT/ RÉSUMÉ

Japan's New Growth Strategy to create demand and jobs

The New Growth Strategy aims to create demand and jobs through regulatory reform and fiscal measures. The Strategy focuses on key challenges, notably climate change and population ageing, which can be turned into sources of growth. Given Japan's precarious fiscal position, it is essential to co-ordinate spending related to the Strategy with the medium-term fiscal plan, in part by increasing the emphasis on regulatory reform. Such measures should cover the entire economy, rather than being limited to the seven areas identified in the Strategy. Among those areas, effectively promoting green innovation will require market-based instruments to place a price on carbon, preferably through a mandatory and comprehensive emissions trading system, to promote private investment, accompanied by a range of other policies. Achieving deeper economic integration with Asia depends on reducing support for agriculture to facilitate more bilateral and regional trade agreements, while bringing down barriers to foreign direct investment and foreign workers. Policies to expand venture capital would help launch innovative firms.

This Working Paper relates to the 2011 *OECD Economic Survey of Japan* (www.oecd.org/eco/surveys/Japan).

JEL classification: Q54, F13, I18

Keywords: Japan, Japanese economy, New Growth Strategy, regulatory reform, green growth, climate change, health-care reform, Asian economic integration, free trade agreements, Economic Partnership Agreements, foreign direct investment, immigration, regional development, financial sector.

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La Nouvelle stratégie de croissance du Japon visant à stimuler la demande et l'emploi

La Nouvelle stratégie de croissance a pour objectif de stimuler la demande et l'emploi par le biais de la réforme de la réglementation et de mesures budgétaires. Elle met l'accent sur des enjeux fondamentaux, notamment le changement climatique et le vieillissement de la population, qui peuvent devenir des sources de croissance. La situation budgétaire du Japon étant délicate, il est primordial de coordonner les dépenses liées à la stratégie avec le plan budgétaire à moyen terme, en partie en privilégiant la réforme de la réglementation. Ces mesures devraient intéresser l'ensemble de l'économie, et non être limitées aux sept volets définis dans la stratégie. S'agissant de ces derniers, pour promouvoir efficacement l'innovation verte, il faudra utiliser des instruments fondés sur le marché pour instituer une tarification du carbone, de préférence dans le cadre d'un système obligatoire et complet d'échange de droits d'émission, afin d'encourager l'investissement privé, parallèlement à diverses autres mesures. Pour parvenir à une intégration économique plus étroite avec l'Asie, il importe de réduire le soutien à l'agriculture de manière à faciliter la multiplication des accords commerciaux bilatéraux et régionaux, tout en éliminant les obstacles à l'entrée des investissements directs étrangers et des travailleurs étrangers. Des mesures destinées à accroître le capital-risque favoriseraient la création d'entreprises innovantes.

Ce Document de travail se rapporte à *l'Étude économique de l'OCDE du Japon*, 2011 (www.oecd.org/eco/etudes/japon).

Classification JEL : Q54, F13, I18

Mots clés: Nouvelle stratégie de croissance, réforme de la réglementation, croissance verte, changement climatique, réforme des soins de santé, intégration économique en Asie, accords de libre-échange, accords de partenariat économique, investissements directs étrangers, développement régional, secteur financier.

TABLE OF CONTENTS

Tables

Figures

Boxes

JAPAN'S NEW GROWTH STRATEGY TO CREATE DEMAND AND JOBS

By Randall S. Jones and Byungseo Yoo[1]

1. Japan launched a New Growth Strategy in June 2010 that focuses on demand-led growth to achieve a strong economy, robust public finances and a solid social security system. It aims at boosting demand and employment by turning problems, such as climate change and population ageing, into opportunities for growth. Demand is to be stimulated by fiscal measures, including spending, tax measures and public lending, and the revision of regulatory and institutional frameworks. The Strategy differs from the reform efforts by past governments, which emphasised supply-side measures to boost productivity, and it argues that these reforms worsened unemployment and exacerbated income inequality. The Strategy's target is to boost Japan's potential growth rate to a 2% annual pace over the next decade in real terms and to achieve a nominal GDP growth rate of 3% by overcoming deflation. It also aims to reduce the unemployment rate to below 4%.

2. The Strategy identifies seven areas for growth: green innovation, health care and the financial sector (each of which were addressed in chapters in the 2009 *OECD Economic Survey of Japan*), Asian economic integration, local revitalisation, the innovation system, and employment and human resources. After an overview of the Strategy, this paper analyses policies in the first five areas. The last two issues are discussed in the 2011 *OECD Economic Survey of Japan's* chapters on education (Chapter 4) and the labour market (Chapter 5).

Overview of the New Growth Strategy

3. The weaker prospects for export-led growth in the wake of the global crisis highlight the need for a new growth model. Between 2002 and 2007, Japan achieved its longest expansion of the post-war era, with exports and business investment driving growth at a 2% annual pace. However, buoyant exports failed to ignite a self-sustaining expansion based on domestic demand. While exports grew at an annual rate of almost 10% between 2002 and 2007, private consumption growth was far behind at around 1%. Dependence on external demand left Japan especially vulnerable to the collapse of world trade in the wake of the global financial crisis. Looking ahead, demand from the United States and other industrialised countries may be constrained as firms and households continue to deleverage, while China's imports from Japan are unlikely to sustain the 14% annual average growth rate of 2000 to 2008. Moreover, the realignment of exchange rates since the crisis is less conducive to export-led growth in Japan.

Seven growth engines and 21 strategic projects

4. New sources of growth, led by domestic demand, are therefore essential to reduce Japan's reliance on exports. The government estimates that the Strategy will create around 123 trillion yen of demand (26% of 2009 GDP) and nearly 5 million jobs (8% of employment) by 2020 in green innovation, "life innovation" focused on health, Asian economic integration, and tourism and regional development

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1. Randall S. Jones is head of the Japan/Korea Desk in the Economics Department of the OECD and Byungseo Yoo is a senior economist on that Desk. This paper is based on material from the *OECD Economic Survey of Japan* published in April 2011 under the authority of the Economic and Development Review Committee (EDRC). The authors would like to thank Andrew Dean, Robert Ford, Vincent Koen and Satoshi Urasawa for valuable comments on earlier drafts. Special thanks go to Lutécia Daniel for technical assistance and to Nadine Dufour and Pascal Halim for technical preparation.

(Table 1). The government expects this additional demand to boost the growth rate by around 1 percentage point, enabling Japan to achieve 2% average annual growth in real terms through the decade.

Table 1. Creation of new demand and employment by area

Area	Demand creation (Trillion yen)	Job creation (Thousand)
Green innovation (environment)	50	1 400
Life innovation (health)	50	2 840
Asian economic integration	12	190
Tourism and regional development	11	560
Total	123	4 990

Source: The Government of Japan (2010c), *The New Growth Strategy: Blueprint for Revitalising Japan*.

5. Meeting the increased demand requires supply-side measures to lift Japan's supply potential from the 0.8% annual growth rate that is the baseline for the 2010s in the Strategy. The rate is to be boosted by 0.7 percentage point by increased labour inputs and higher productivity. *First*, the negative impact of a shrinking population on labour supply is to be offset by raising the participation rates of women, young people and the elderly. *Second*, labour productivity growth is to be accelerated by accumulating additional human capital through improvements in education and vocational training.[2] In addition, Japan will place more emphasis on the development of science and technology, including making more use of information and communication technology (ICT), to increase efficiency. Total R&D spending is targeted to increase from an already high 3.8% of GDP in 2008 to over 4% by 2020 through tax and expenditure measures.[3] Finally, eliminating the output gap, which the government estimates at 5% in 2010, would provide an additional 0.5 percentage point of growth per year, thereby achieving the 2% target.[4]

6. The Strategy includes 21 projects (Table 2), with an implementation timetable for each through FY 2013 and targets to achieve by FY 2020. The selection of projects was based on three criteria; *i)* their impact on demand and employment; *ii)* their degree of priority in essential fields; and *iii)* their ability to achieve significant results with limited financial resources. In order to accelerate implementation, the "New Growth Strategy Realisation Promotion Council" was established in September 2010, chaired by the prime minister, with current participants including relevant ministers, the governor of the Bank of Japan, business and labour representatives, and private experts.

The New Growth Strategy and regulatory reform

7. The Strategy, which was announced at the same time as the Fiscal Management Strategy (see the 2011 *OECD Economic Survey of Japan*), calls for creating new demand partly through fiscal measures, making it important to co-ordinate the two strategies. This will be challenging, given the central government's commitment to keep primary spending (*i.e.*, excluding debt repayment and interest) from FY 2011 to FY 2013 below the FY 2010 initial budget and its difficulty in achieving its promise of significant cuts in "wasteful spending". Consequently, spending will have to be reallocated in line with the priorities of the Strategy. In the draft FY 2011 budget, around 1.7 trillion yen (2.4% of general account primary spending) was allocated to implement the Strategy. It is necessary to clearly spell out the budgetary consequences of the Strategy for the coming decade.

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2. In 2009, labour productivity per hour of work in Japan was 27% below the average of the upper half of OECD countries, suggesting ample scope for increasing it (OECD, 2011a).

3. According to the OECD measure, Japan is the fourth highest with R&D spending of 3.4% of GDP.

4. The OECD Secretariat estimates the gap at 2.2% in 2010, providing less scope to boost the growth rate.

Table 2. Key areas and projects in the New Growth Strategy

	7 strategic areas	21 national strategic projects
Demand-side policies	1. Green innovation	1. Introduce a feed-in tariff system to expand the renewable energy market
		2. Use the Future City Initiative to promote the use of eco-products and services
		3. Revitalise forestry and raise the self-sufficiency ratio to over 50%
	2. Life innovation	4. Expand options for patients by quick provision of new drugs and devices
		5. Establish Japan's position globally as a provider of high-quality medical care
	3. Asian economic integration	6. Make Japan a major player in exports of infrastructure systems
		7. Cut the corporate tax rate and promote Japan as an Asian industrial centre
		8. Foster global talents and increase the number of talented foreign personnel
		9. Strengthen the competitiveness of domestic firms by making Japanese standards global ones and increasing Japan's role as a content provider
		10. Promote economic partnerships, particularly with Asian countries
	4. Tourism and local revitalisation	11. Create global strategic special zones and promote full "open skies"
		12. Make Japan a tourism-oriented nation and attract 25 million visitors annually
		13. Double the size of the market for existing housing and remodelling of housing
		14. Open public facilities to the private sector and promote projects using private-sector partnerships
Supply-side policies	5. Science, technology and IT	15. Create "leading graduate schools" to enhance international competitiveness
		16. Promote the use of ICT in the government and provide broadband to all households by 2015
		17. Increase R&D investment to at least 4% of GDP
	6. Employment and human resources	18. Integrate childcare and kindergartens and develop quality childcare
		19. Create a "National Vocational Qualifications" system and a "Personal Support Service" for the poor
		20. Establish a new system of volunteer activity and charitable giving
	7. Financial sector	21. Create an integrated exchange for securities, financing and commodities

Source: The Government of Japan (2010c), *The New Growth Strategy: Blueprint for Revitalising Japan*.

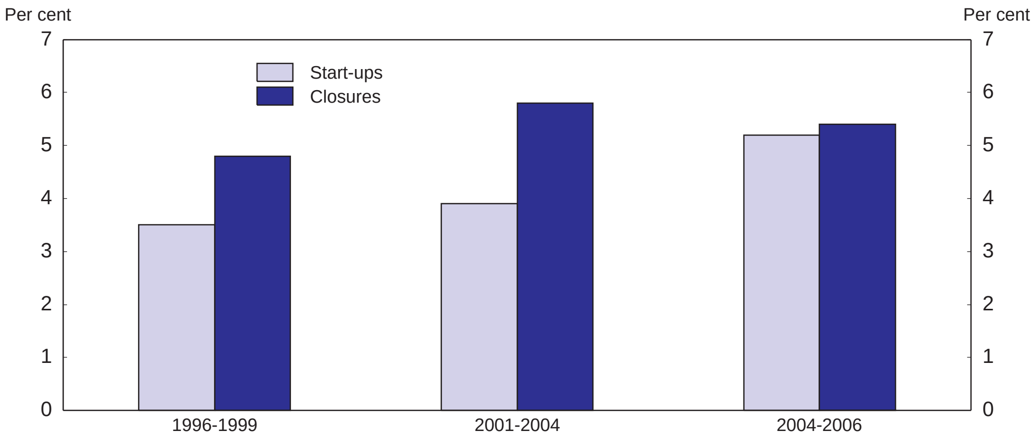
8. Given the fiscal situation, the Strategy will need to focus more on regulatory reform rather than on costly fiscal measures. While the Strategy criticises past reforms for "excessive market fundamentalism", such policies have provided important gains to consumers. The Cabinet Office estimated that regulatory reform raised consumer surplus by 17.6 trillion (3.5% of GDP) between 1995 and 2005.[5] The key to effective reform is to eliminate entry barriers and reduce barriers to trade and foreign direct investment (FDI) in all sectors, not just those targeted in the Strategy. Such reforms would raise productivity at existing firms and promote the creation of new enterprises, thereby boosting wages and profits. Such supply-side reforms to boost productivity are more important than ever, as employment in 2020 will in all likelihood be less than in 2010, given the projected 10% drop in the working-age population. Achieving the 2% real growth target implies that labour productivity growth would have to rise well above the 1% average annual rate of the past decade. However, labour productivity in many of the targeted sectors, such as long-term care and forestry, is relatively low (Government of Japan, 2010c), making it important to boost productivity in all sectors through regulatory reform. The decision in January 2011 that "regulatory reforms in particular will be more vigorously promoted as policy tools to advance the New Growth Strategy" (Government of Japan, 2011) is certainly welcome.

5. The largest gains were achieved in service industries that experienced significant deregulation, notably electricity, trucking and telecommunications (Cabinet Office, 2006).

9. Although business start-up rates in Japan have risen since the 1990s (Figure 1), they remain low compared to the 11.6% rate in the United States (Mukoyama, 2009) and below the firm closure rate in Japan. Compared to other countries, firm creation in Japan is complicated, time-consuming and costly. According to the *Doing Business 2011* report, Japan ranks 98th out of 183 countries in the difficulty in starting a business and 29th out of OECD countries (Table 3).[6] Moreover, Japan's ranking has fallen sharply from 44th in 2007. The high cost of business start-ups is especially harmful, given that new firms are a major source of productivity growth, notably in dynamic industries that are better placed to adopt new technology. Regulatory reform is particularly crucial for the service sector, where productivity growth has lagged behind that in manufacturing in recent years.[7] Given that services account for 70% of output and employment, policies to accelerate productivity growth in this sector should be a priority. Regulatory barriers to entry in network industries remain much more restrictive than in other OECD countries (Figure 2). In sum, a key shortcoming of the Strategy is the lack of emphasis on firm creation. On the other hand, Japan ranks first in the ease of closing establishments.

Figure 1. Business start-ups and closures of establishments

As a per cent of existing establishments



Source: Ministry of Internal Affairs and Communications, *Establishment and Enterprise Census*, 2006.

10. An easing of entry barriers should be accompanied by strengthening competition policy. In 2009, the Japan Fair Trade Commission (JFTC) launched 104 investigations, resulting in 24 cease-and-desist orders, ten warnings and 66 cautions. Although no criminal accusations were filed, the JFTC issued surcharge payment orders to 89 enterprises totalling 54.3 billion yen ($667 million), a record high. Several measures are necessary to strengthen competition policy. *First*, administrative fines, which are relatively low compared with other countries and with the potential gains from violating the Anti-Monopoly Act (AMA), need to be increased to strengthen the deterrent effect. Although the level of fines was raised 50% in 2009 on leading firms in cartels, they remain low overall. *Second*, explicit exemptions from the AMA in a wide range of business areas and special treatment of SMEs, which play a dominant role in the service sector, need to be scaled back. *Third*, the large number of trade associations should not be allowed to limit competition.

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6. The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law

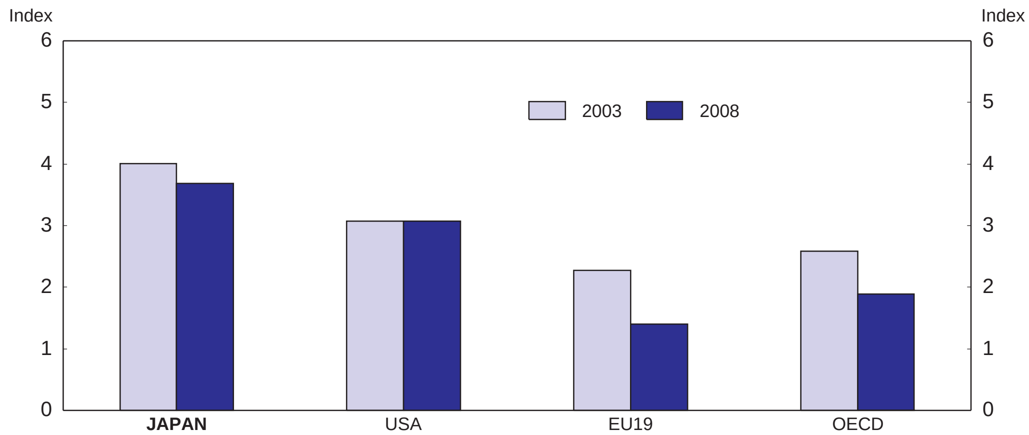
7. The annual growth rate of labour productivity in the service sector was 0.7% during 2000-06, while the rate in manufacturing was 4.1%. For a discussion of policies to boost labour productivity in Japan's service sector, see the 2008 *OECD Economic Survey of Japan*.

Table 3. Ease of starting and closing a business in OECD countries

	Starting a business					Closing a business
	World rank	Procedures (number)	Time (days)	Cost (% of income per capita)	Minimum capital (% of income per capita)	World rank
New Zealand	1	1	1	0.4	0.0	16
Australia	2	2	2	0.7	0.0	12
Canada	3	1	5	0.4	0.0	3
United States	9	6	6	1.4	0.0	14
Ireland	11	4	13	0.4	0.0	9
United Kingdom	17	6	13	0.7	0.0	7
France	21	5	7	0.9	0.0	44
Denmark	27	4	6	0.0	26.0	5
Slovenia	28	2	6	0.0	45.0	38
Iceland	29	5	5	2.3	12.0	17
Belgium	31	3	4	5.4	19.6	8
Finland	32	3	14	1.1	7.9	6
Norway	33	5	7	1.8	20.0	4
Hungary	35	4	4	8.2	10.2	62
Israel	36	5	34	4.3	0.0	40
Estonia	37	5	7	1.9	25.7	70
Sweden	39	3	15	0.6	14.7	18
Portugal	59	6	6	6.5	34.1	21
Korea	60	8	14	14.7	0.0	13
Chile	62	8	22	6.8	0.0	91
Turkey	63	6	6	17.2	9.9	115
Mexico	67	6	9	12.3	9.2	23
Italy	68	6	6	18.5	10.1	30
Slovak Republic	68	6	16	1.9	22.2	33
Netherlands	71	6	8	5.7	52.4	11
Luxembourg	77	6	19	2.1	23.8	45
Switzerland	80	6	20	2.1	27.2	41
Germany	88	9	15	4.8	0.0	35
Japan	**98**	**8**	**23**	**7.5**	**0.0**	**1**
Poland	113	6	32	17.5	14.7	81
Austria	125	8	28	5.2	53.1	20
Czech Republic	130	9	20	9.3	30.9	32
Spain	147	10	47	15.1	13.5	19
Greece	149	15	19	20.7	22.3	49
Average		**5.7**	**13.5**	**5.8**	**14.8**	

Source: World Bank (2010), *Doing Business 2011*.

Figure 2. Regulatory barriers to entry in network sectors[1]



1. Includes electricity, gas, airline, rail, telecommunications and post. The index scale is from 0 to 6, with 0 the least restrictive.

Source: OECD (2010b), *Going for Growth, 2010*, OECD, Paris.

Policies in the New Growth Strategy by sector

Green growth and innovation

11. The Strategy targets the creation of 50 trillion yen of new demand and 1.4 million new jobs through the development and diffusion of green technologies, as well as to meet Japan's objective to reduce greenhouse gas (GHG) emissions by 25% by 2020 relative to 1990.[8] The objective is premised on the establishment of a fair and effective international framework that includes ambitious targets for all major countries. More specifically, the Strategy aims to: *i)* promote the spread of renewable energy through feed-in tariffs and investment in smart grids; *ii)* encourage green buildings and public transport; and *iii)* revitalise forestry (Table 2). In December 2010, the Ministerial Committee on the Global Warming Issue announced a package that includes the development of a feed-in tariff system, a CO_2 tax and an emissions trading system, and a "Green Innovation Strategy" to develop environmental and energy technologies. Achieving a substantial reduction in emissions requires shifting the economic structure towards lower-carbon activities, thereby creating new opportunities for investment and employment – so-called "green growth".

Creating a clear price for carbon through market-based instruments

12. To cut emissions and encourage innovation and investment, a top priority is market-based instruments to put a clear and credible price on carbon. The price signal is needed as early as possible to kick-start private-sector innovation in green growth, helping to make it a source of new growth and employment. It would not be profitable to invest in R&D and deploy new green technologies in the absence of a clear price for carbon, though government measures to promote R&D could also play a role in addressing market imperfections. The key should be to establish market instruments, preferably by creating a mandatory Emissions Trading System (ETS) based on cap-and-trade that is as comprehensive as possible (Box 1).

8. The "Basic Act on Global Warming Countermeasures", submitted to the Diet in October 2010, also sets a long-term goal to cut Japan's emissions by 80% relative to the 1990 level by 2050.

Box 1. Emissions trading systems (ETS) and carbon taxes: the pros and cons

An ETS based on cap-and-trade and a carbon tax are the main instruments for putting a price on GHG emissions. Both meet the efficiency criteria, as they encourage emitters to adopt abatement solutions that cost less than the level of the tax or permit price, thereby ensuring that the least-expensive abatement options are fully exhausted. Both also reduce the current demand for energy and make the price of renewable energy sources more competitive. Furthermore, the two instruments give strong incentives for monitoring and enforcement by the authorities and, assuming that the permits are auctioned, generate revenues that can be used for fiscal consolidation or for reducing taxation on labour, thereby increasing efficiency.

The EU emission trading scheme that began in 2005 has developed considerable market size with an increased number of participants. Similar systems are now either in place or under development in most OECD countries. Carbon taxes have existed for a number of years in a few countries, including Sweden. More recently, some countries, notably Iceland and Ireland, have decided to introduce carbon taxes as part of fiscal consolidation.

A carbon tax has some advantages; it is easy to adopt from a technical standpoint, has lower transaction costs and guarantees the maximum and minimum cost, although the optimal tax rate can change over time. In comparison, an ETS is generally more costly to implement, mainly due to its more complex design. However, once start-up costs are overcome, it has a number of clear advantages. *First*, an ETS can secure a more targeted level of emission reduction than a carbon tax. Indeed, there is less certainty about the amount of emission cuts associated with a certain level of tax, and thus it may require several iterations to achieve the desired emission reductions. *Second*, an ETS facilitates linkages with foreign carbon markets, which could lower the cost of reducing emissions in Japan. Moreover, such linkages could lead to a common world price on carbon that would level the playing field for energy-intensive firms whose competitiveness might otherwise be affected by different carbon tax policies in different countries (OECD, 2010c). This would help alleviate concerns related to the international competitiveness of domestic firms. *Third*, the participation of firms in the market for permits creates a constituency for maintaining the system. *Fourth*, unlike a carbon tax, a trading scheme does not need to be adjusted for inflation or growth.

In sum, a comprehensive cap-and-trade ETS appears to be the better option than a carbon tax to control carbon emissions in Japan, despite the initial start-up costs. However, given that an ETS works best at the level of relatively large emitters, even a comprehensive ETS may exclude certain sectors, notably households and offices. Taxation, on the other hand, is the instrument of choice for small and diffuse sources such as households, farmers and small businesses, thus leaving scope for a carbon tax to co-exist with an ETS. It is important, though, to minimise overlap and complicated interactions between an ETS and a carbon tax that would raise uncertainty about the overall outcome (OECD, 2006b). In particular, the two instruments should be set to minimise differences in the explicit and implicit carbon prices across sectors (De Serres *et al.*, 2010).

13. The use of market instruments – an ETS or a carbon tax – equalises marginal abatement costs across emitters, thereby enabling cost-effective emission abatement to achieve the reduction target. Such an approach is thus favourable for growth. While such policies take time to implement, a firm commitment to a time schedule for the introduction of a price on carbon would start to trigger green innovation in advance. In addition, introducing market instruments could generate additional revenue that would contribute to fiscal consolidation, thus reducing the need for increases in taxes that have a more negative impact on growth. The revenue that could be raised from auctioning permits is substantial; if all industrialised countries were to cut their emissions by 20% by 2020 relative to 1990 levels by using an ETS with full permit auctioning, the proceeds generated in 2020 could be as high as 2.5% of GDP on average across countries. In the case of Japan, the potential revenue is estimated at 1.4% of GDP, assuming Japan achieves its 2020 target of a 25% reduction in emissions (OECD, 2010c).

14. Japan's Kyoto Protocol commitment is to cut greenhouse gas emissions by 6% over 2008-12 relative to 1990. Emissions rose 1.7% between 1990 and 2008 despite various government policies to promote R&D and the use of energy-efficient products and regulations to increase energy efficiency, which help to reduce emissions (see the 2009 *OECD Economic Survey of Japan*). However, Japan's efforts to reduce emissions thus far have relied primarily on voluntary measures, largely in the manufacturing sector,

without binding commitments and price signals. A trial ETS was launched in 2008 and, by July 2010, had around 600 participants, which had set targets. The government found no major problems in the trial ETS, although it needs some improvements related to target setting, monitoring and verification. The Basic Act on Global Warming Countermeasures, introduced in the Diet in 2010, would have required the establishment of the legislative framework for a cap-and-trade ETS within one year of its enactment, although it did not specify the date for launching the ETS. However, the Act has not yet been approved (Table 4).

Table 4. Taking stock of structural reforms: improving policies to address climate change

Recommendations in the 2009 *OECD Survey of Japan*	**Actions taken or proposed by the authorities**
Continue efforts to achieve a comprehensive, fair and effective international agreement for the post-Kyoto framework that includes all developed and major developing countries.	Japan continues to promote agreement on a fair and effective international framework with ambitious targets for all major economies, as Japan's 2020 target is contingent on such an agreement.
Price-based instruments	
Shift from voluntary measures to market-based instruments to achieve GHG emission reduction targets in a cost-effective way.	A bill to require the creation of a legislative framework for a cap-and-trade ETS was submitted to the Diet in 2010 and is still under discussion. A Ministerial Committee is examining the impact of an ETS.
Put a price on carbon emissions by introducing a mandatory and comprehensive cap-and-trade ETS to provide a clear signal to market participants to make appropriate investment decisions.	The trial ETS is still in operation.
Implement a carbon tax in areas not covered by the ETS.	The government announced a plan to raise the tax rate on fossil fuel products, including oil and coal, in October 2011.
Use auctions to allocate the ETS permits and link Japan's ETS with those in other countries.	No action taken.
Expand the number and amount of projects in a streamlined and upscaled CDM with a high level of environmental integrity, while avoiding the diversion of ODA funds.	The total number of CDM projects approved by the government increased from 486 at the end of FY 2008 to 617 at the end of FY 2009.
Non-price instruments	
Rely on performance-based regulation and, in areas where price instruments are ineffective, technology-based standards.	No action taken.
Improve energy efficiency policies, such as the Top Runner Programme, in the short run, while phasing them out as market-based instruments become effective.	Cooling-only type air conditioners were excluded from the Programme in 2009.
Promote the innovation and diffusion of energy-saving and abatement technologies by supplementing private-sector R&D with public investment focused on infrastructure and basic research and by sharing the risk with the private sector.	The Science, Technology and Innovation Strategy Headquarters was created in 2010 to improve the R&D budget process, strengthen public-private participation and increase basic research capabilities.
Use transparent and efficient instruments to support the development of renewable energy in the short run, while relying on the pricing of GHG emissions in the long run	An expansion of the feed-in tariff system to all electricity from renewable energy sources was announced in 2010 and is expected to be implemented in 2012.

15. The Strategy also includes new or strengthened regulation to help create new demand for more energy-efficient products and green technologies. For example, higher energy standards for buildings and vehicles would create demand for products to conform to regulations. However, the use of regulation is the optimal policy tool only in areas where price instruments are ineffective. When regulations are necessary, it is important to ensure that they are targeted and efficient (OECD, 2010c).

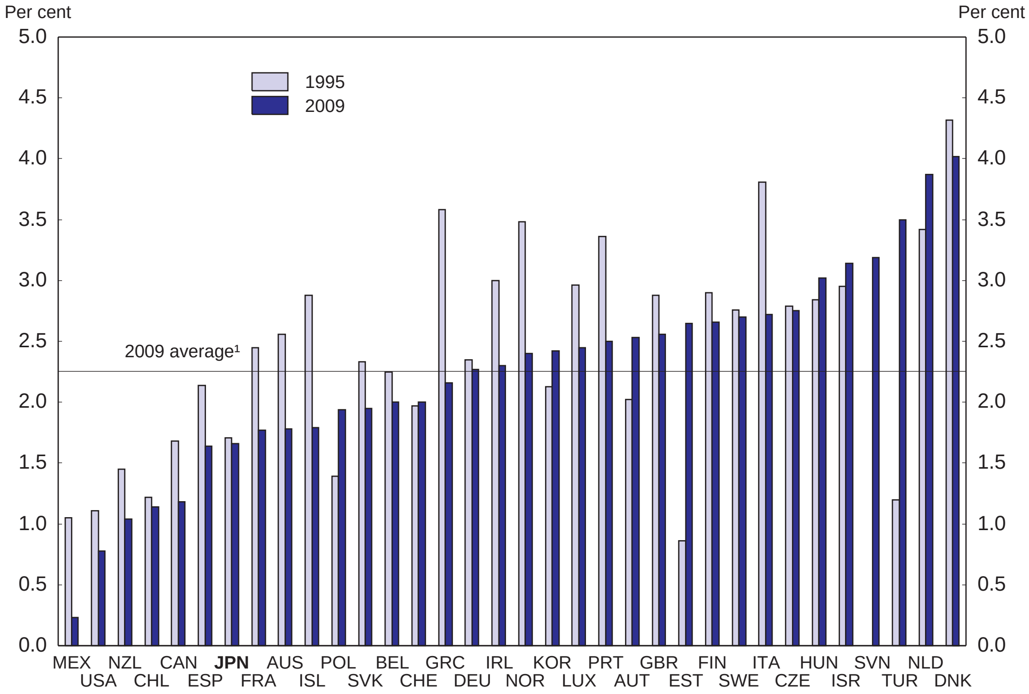
Making greater use of environmentally-related taxes

16. Japan has large scope to increase environmentally-related taxation; the revenues from such taxes amounted to only 1.7% of GDP in 2009, the seventh lowest in the OECD area (Figure 3). Moreover, the share has remained constant since 1995. Well-designed taxes put a price on the environmental damage, thus helping to overcome the externality problem by encouraging consumers and firms to invest in green

solutions to reduce their costs. In addition, taxes can provide significant revenues for fiscal consolidation, while avoiding the negative impact associated with direct taxes on Japan's growth potential.

Figure 3. Revenues from environmentally-related taxes

Per cent of GDP



1. While the arithmetic average is 2.3%, the weighted average is 1.6%.

Source: *OECD/European Environment Agency Database on instruments for environmental policy*.

17. Instead of raising environmentally-related taxes, Japan has recently expanded tax benefits and subsidies on environment-friendly products (see the 2011 *OECD Economic Survey of Japan*). Taxes on energy-efficient cars were reduced or eliminated in 2009 and favourable tax treatment will continue until 2012. In September 2010, the government extended the eco-point system for energy-efficient home electric appliances and housing until March and December 2011, respectively. This system gives points to the purchasers of such goods, which can be exchanged for other goods and services. While such policies were useful to stimulate the economy, tax benefits on environment-friendly activities are generally a poor substitute for taxing activities with negative externalities. Especially considering the weak fiscal position in Japan, policy should focus on taxing harmful activities rather than subsidising good ones. The planned introduction of a CO_2 tax will impose an additional levy on fossil fuels such as coal, natural gas and crude oil, but the amount to be generated – 0.2 trillion yen (0.2% of general account revenues) – is quite small, suggesting the need for additional measures. Taxes are more effective when levied as close as possible to the source of environmentally-damaging activities and set at an adequate rate. Of course, the higher the level of the tax, the greater are the incentives for innovation. However, it should be noted that the predictability of the rate and the overall credibility of the policy framework also play an important role (OECD, 2010l).[9]

9. Japan's experience with charges on SOx emissions in 1974 illustrates this point (see OECD, 2010l).

Developing and deploying renewable energy sources

18. Greater use of renewable energy sources is another component of the Strategy for creating new demand related to green growth. The share of renewables in total primary energy supply (TPES) in Japan was only 3.2% in 2009, less than half of the OECD average of 7.3% (IEA/OECD, 2010), suggesting significant scope for further development. An IEA study estimated the realisable potential contribution of renewables in Japan in 2020 at 244 TWh, equivalent to 24% of total electricity generated in 2009, when their actual contribution share was only 10% (IEA/OECD, 2008). In particular, Japan has relatively large potential in hydropower (116 TWh), wind (35 TWh), solid biomass (28 TWh) and solar photovoltaics (26 TWh). Moreover, Japan has the highest number of patents related to renewable energy (OECD, 2010f).

19. In order to promote the development and deployment of renewables, the Strategy calls for the introduction of feed-in tariffs, which oblige electric utilities to purchase electricity from almost all renewable energy sources at a fixed price.[10] This approach was included in the December 2010 decision by the Ministerial Committee on the Global Warming Issue, as noted above. At present, electric utilities buy only surplus electricity from solar photovoltaics. The Ministry of Economics, Trade and Industry (METI) expects that the feed-in tariff system will increase the use of renewable energy sources by 32 to 35 TW (more than 10% of total capacity in 2010) and reduce CO_2 emissions by 24 to 29 million tonnes (2% of total CO_2 emission in 2008) within ten years of its introduction.

20. An alternative approach, an "electricity certificate system", is used in a number of OECD countries, including by Belgium, Italy, Norway, Poland, Sweden and the United Kingdom (OECD, 2011b). This system requires electricity producers to purchase certificates equivalent to a certain proportion of their sales, thus creating a demand for certificates. Producers of electricity from renewable energy sources receive an electricity certificate for every megawatt-hour of electricity produced, thereby creating a supply for certificates. The price of the certificates depends on supply and demand and, in turn, on the size of the quota obligation. A major advantage of the certificate system is that it is market-based, as producers can choose among several technological options, thus encouraging innovation in technologies that have the lowest cost. In contrast, feed-in tariffs, which support renewables via a guaranteed price (that may vary by technology), do not necessarily encourage investment in technologies with the lowest costs. Empirical analysis shows that electricity certificate systems have a larger impact on innovation in renewables than feed-in tariff systems (Johnstone *et al.*, 2010), making it the preferred choice for Japan as well.

21. The Japanese authorities expect the renewable energy-related market to reach 10 trillion yen (2% of 2010 GDP) by 2020. The policy target is to raise the use of renewables to 10% of TPES by 2020, according to the Strategic Energy Plan released in June 2010. In addition to an electricity certificate system, achieving the target requires an effective and efficient policy design based on four principles (IEA/OECD, 2008):

- Remove non-economic barriers, such as administrative hurdles, obstacles to grid access, poor electricity market design, lack of information and training, and social acceptance issues.
- Establish a predictable and transparent support framework to attract investment.
- Introduce transitional incentives that decrease over time to foster and monitor technological innovation and move technologies quickly towards market competitiveness.

10. According to METI's draft, purchase prices are to be gradually reduced from 48 yen/kWh for solar power and 15 to 20 yen/kWh for other types of renewable electricity. The contract periods are to be set at ten years for solar power and 15 to 20 years for the others. The maximum monthly burden for households ten years after introduction is estimated at between 150 and 200 yen ($1.84 and $2.46) per month.

- Take account of the impact of large-scale penetration of renewable energy technologies on the energy system in terms of cost efficiency and system reliability.

22. The government should develop a flexible framework that increasingly applies market principles as a renewable energy technology advances (OECD, 2010c). Picking winners by providing government support for specific technologies is risky as it may lock in technologies that will not be economically efficient, given that the evolution of technology is difficult to predict. In sum, achieving a smooth transition towards a mass market for renewables will require a profound evolution of markets so that renewable energy technologies can compete with other energy technologies on a level playing field.

Removing fossil fuel subsidies and tax expenditures

23. Another priority is to remove subsidies to and tax exemptions for fossil fuel-based energy consumption and production. An OECD study found that closing the gap between domestic and international fossil fuel prices could cut GHG emissions in the subsidising countries by as much as 30% relative to a business-as-usual baseline by 2050, and by 10% globally (Burniaux *et al.*, 2009). In the early 2000s, Japan shut down its last domestic coal mines, thus bringing an end to several decades of subsidised production. However, Japan continues to subsidise business activities related to fossil fuels, such as the exploration, refining and promotion of natural gas use, with the goal of securing a stable energy supply. Such subsidies amounted to 46.2 billion yen (0.1% of general account tax revenues) in FY 2007 (Table 5), a considerable amount considering that Japan does not produce oil. In addition, exemptions from excise duties are widely applied to fuels used in agriculture, forestry, fishery, mining, petrochemicals and manufacturing, and for heating (OECD, 2010h). Phasing out inefficient fossil fuel subsidies, in line with the G20 initiative, is an important step in putting the correct price on carbon to promote green innovation.

Table 5. Energy subsidies in Japan

Outlays in FY 2007 in million yen

Subsidy name	Purpose	Budget amount
Natural gas exploration subsidy	Promote natural gas exploration by mining companies	907
Subsidy for oil refining technology programmes in oil-producing countries	Promote joint research with oil-producing countries on oil-refining technologies	9 925
Oil prospection subsidy	Support geological surveys abroad	1 812
Oil-refining rationalisation subsidy	Assist the development of advanced oil-refining technologies	12 457
Oil product quality assurance subsidy	Support analysis of test-purchased petroleum products and development of analysis techniques	1 898
Subsidy for reform measures for petroleum product distribution	Assist business diversification and other structural reform measures by oil distributors	12 442
Large-scale oil disaster prevention subsidy	Support the construction and maintenance of oil fences and their transport in emergencies	800
Promotion of natural gas use subsidy	Help private firms convert coal-burning facilities to natural gas-burning ones	6 005
Total		46 246

Source: OECD (2010h), *OECD Environmental Performance Reviews: Japan*.

Health-care reform

24. The Strategy wants to transform health and long-term care from a financial burden on public finances into "growth-driving industries". The objective is to make Japan a "health-care superpower so people will live longer, healthier, and have more children" by promoting the entry of private firms, expanding basic and clinical R&D to develop new pharmaceuticals and medical devices and attracting

foreign patients by making Japan a centre of medical tourism. In addition, the "drug lag" and "device lag" – the delay between their introduction in world markets and their entry into Japan – is to be resolved, as recommended in the 2009 *OECD Economic Survey of Japan* to broaden the range of options to patients (Table 6). Finally, the Strategy calls for strengthening health and long-term care insurance to lessen anxiety about the future, thereby raising spending and cutting saving.

25. There is scope to expand the quality and quantity of health care, as spending is relatively low despite Japan's comparatively elderly population. However, health-care policy should focus on outputs rather than inputs, and ensure that additional spending is cost-effective. Costs have been contained by requiring relatively high co-payments by patients and by controlling medical fees. However, as the government finances 86% of health-care spending, a sharp increase in outlays under the current framework would have a severe negative impact on public finances. To avoid higher fiscal costs, extra demand would, therefore, need to be concentrated in services and drugs not covered by the National Health Insurance (NHI), which is limited to providing what is considered to be "necessary and adequate" care to the entire population. Achieving the Strategy's goal to create 10% of GDP in new demand would require a structural transformation of the health and long-term care frameworks. At present, the scope for expanding services not covered by the NHI is limited by the ban on "mixed billing": patients that combine new medicines or treatments that are not included in the prescribed treatment of a certain illness in the NHI with services that are included must pay not only the cost of the additional treatments but also the cost of services normally covered by the NHI. Expanding the scope of mixed billing, as recommended in the 2009 *OECD Economic Survey of Japan*, would encourage more health spending while providing higher quality care to patients (Table 6). However, this would come at the cost of equality, an important priority in Japanese health care.

26. The other objectives of the Strategy – promoting the entry of private firms, reducing the drug and medical device lag, expanding long-term care and encouraging medical tourism – will be difficult to achieve under the current framework. *First*, for-profit firms are prohibited from establishing hospitals or long-term care centres. In practice, this regulation prevents the use of equity financing and slows restructuring through M&As. In any case, the scope for competition is limited by the fact that prices are fixed by the government and citizens cannot choose their health insurer. *Second*, the goal of resolving the problem of the drug and medical device lag will require a comprehensive approach of reducing the cost of clinical trials in Japan, accepting more results from other countries and ensuring that reimbursement levels are appropriate. *Third*, hospitals still play a major role in providing long-term care, which is profitable for them, but inefficient. Shifting long-term care away from hospitals toward more appropriate institutions and home-based care requires reforming the fee schedule and more closely monitoring the classification of patients in hospitals. *Fourth*, the international market for medical tourism is extremely competitive. Moreover, Japan already faces a shortage of doctors, with only 2.2 per thousand population, well below the OECD average of 3.2.

Asian economic integration

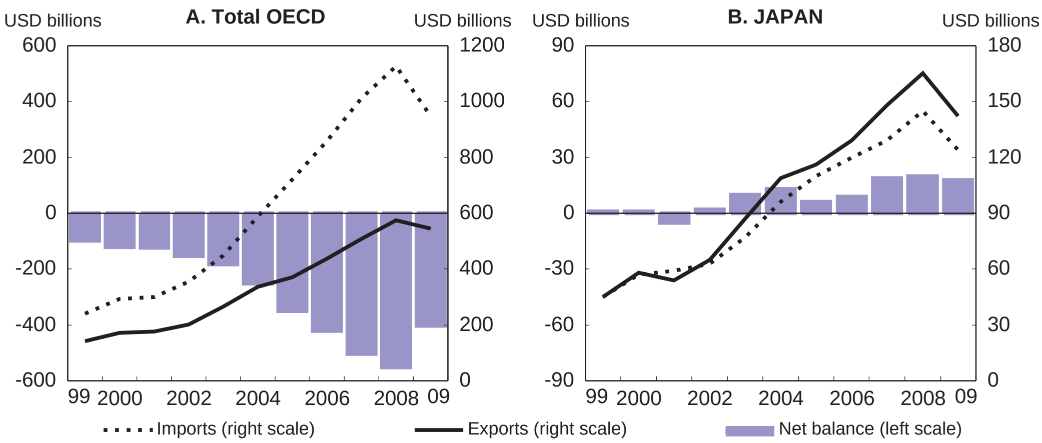
27. The Strategy emphasises increased economic integration with the Asian region through economic partnerships agreements (EPAs) and the establishment of a Free Trade Area of the Asia-Pacific (FTAAP) by 2020, an idea proposed in 2006 by the Asia-Pacific Economic Co-operation. Such an agreement would build on on-going regional initiatives, such as ASEAN+3, ASEAN+6 and the Trans-Pacific Partnership (TPP), among others. The Strategy also has an objective of doubling the flow of people, goods and money by 2020 by reducing trade barriers, lifting restrictions on foreign investment and liberalising the movement of people into Japan. Other specific strategic projects in the area of Asian economic integration include boosting exports of packaged infrastructure systems, reducing corporate taxes to enhance the competitiveness of firms operating in Japan, increasing acceptance of highly-skilled foreign personnel and promoting the adoption of Japanese standards as international norms.

Table 6. Taking stock of structural reforms: improving health care to limit costs and raise quality

Recommendations in the 2009 *OECD Survey of Japan*	Actions taken or proposed by the authorities
Containing the growth of spending and financing it efficiently	
Promote the shift of long-term care away from hospitals toward more appropriate mechanisms using the fee schedule and closer monitoring of the classification of patients in hospitals.	The government is trying to increase the number of beds in nursing homes by 160 thousand over FY 2009-11. The reimbursement of medical-care costs for long-term care patients in acute-care beds is now based on their daily medical status.
Improve the payment system by reforming the Diagnosis Procedure Combination, extending the case-mix based approach more broadly and modifying the reimbursement for outpatient care to reduce the number of consultations.	No action taken.
Expand the use of generic medicine, for example by moving towards making them the standard for reimbursement.	The FY 2010 fee revision introduced rewards for pharmacies in which generics account for more than 25% to 30% of their sales and for medical institutions where generic use is high.
Use monetary incentives, notably higher tobacco taxes, to encourage healthy ageing.	The tobacco tax rate was boosted by 3.5 yen per cigarette in October 2010.
Introduce gatekeepers to reduce the number of unnecessary consultations with specialists.	No action taken.
Implement electronic billing to reduce administrative costs.	The adoption rate reached 82.5% as of July 2010.
Consolidate health insurers to reduce administrative costs and increase quality, while strengthening effective competition for the Social Insurance Medical Fee Payment Fund.	No action taken.
Implement steps to collect and analyse hospital performance data.	In FY 2010, the government launched a programme to financially assist hospital associations that analyse their members' quality performance and publish such indicators.
Relax the rules that prevent equity finance to facilitate the restructuring of the hospital sector.	No action taken.
Implement reform initiatives to address the fragmentation of insurers.	The revision of the National Health Insurance Law in May 2010 will allow the setting of a standard premium rate in a prefecture.
Shift toward general tax revenue to finance health care for the elderly to avoid unduly increasing labour costs.	No action taken.
Enhance the quality of health care	
Shorten the drug and medical device lag by reducing the cost of clinical trials in Japan, accepting more overseas results and ensuring that reimbursement levels are appropriate.	The drug lag is to be resolved by allowing patients to use unapproved drug and medical devices in selected medical institutions, in conjunction with treatment included in the NHI.
Expand mixed billing to make treatments not yet covered by public health insurance more affordable, while addressing the inequality in premium payments in promoting equality.	No action taken.
Addressing the imbalances in the health-care system	
Set fees based on rigorous cost and productivity studies.	No action taken.
Reconsider wide usage of measures linking medical university education and the assignment of the working place of doctors.	No action taken.
Addressing the imbalances in the health-care system	
Improve compliance in paying premiums.	No action taken.
Ensure that low-income households – even those not qualifying for public assistance – receive health insurance benefits.	No action taken.
Increase the participation of non-regular workers in employee-based social insurance systems.	No action taken.

28. Japan has been one of the countries that has benefited most from the rapid growth in Asia, particularly China. Indeed, the share of Japan's exports to China, including Hong Kong, China, doubled from 12% in FY 2000 to 25% in FY 2009. Japan has maintained a bilateral trade surplus with China, in contrast to the large and growing deficit of the OECD area with China (Figure 4). There appears to be a clear division of labour between Japan and China, as Japanese exports tend to be higher value-added products. Further integration of Japan in the world economy would produce significant economic benefits, as demonstrated by economic theory and history. The gains are likely to be particularly large for Japan given that the level of import penetration, the stock of inward FDI and the share of foreign workers are all the lowest in the OECD area. However, the Strategy's strong focus on Asia is misplaced in an increasingly globalised economy. It is important to look beyond Asia, despite its buoyant growth performance, as an over-emphasis on one region would cause Japan to miss opportunities in other parts of the world.

Figure 4. Merchandise trade with China[1]



1. Including Hong Kong, China.

Source: *OECD Economic Globalisation Indicators Database*.

Expanding free trade agreements with major trading partners

29. Increasing Japan's openness to trade is a key priority to strengthen competition and promote the diffusion of new technology, thereby raising productivity and creating new products and demand. Given the time necessary to complete multilateral trade agreements like the FTAAP and the WTO Doha Development Agenda, it is important to push ahead with EPAs. Japan enacted its first EPA with Singapore in 2002, followed by agreements with nine other countries, of which six were in Asia, plus an agreement with ASEAN (Table 7). In addition, Japan concluded EPA negotiations with Peru in 2010 and signed an EPA with India in February 2011.

30. Japan was one of the few countries in the world at the beginning of the 21st century without any bilateral or regional trade agreements. The EPAs currently in effect accounted for around 16% of Japan's trade in 2009. Even if the agreements with Australia, India and Peru were implemented, the coverage would rise to only 19.6% for exports and 24.1% for imports. In contrast, Korea's Free Trade Agreements, including those recently signed with the United States and the European Union, account for 45% of its exports and 35% of its imports. Moreover, the utilisation rate of EPAs in Japan is low. According to a 2009 survey of Japanese firms trading with Chile, Mexico and Malaysia, the share using the EPA ranged

from 12% for Malaysia to 33% for Mexico.[11] The main obstacles to using EPAs include the limited amount of trade with those countries, the difficulty in obtaining the certificate of origin required by the EPA and the small gap between the Most Favoured Nation tariff rate and that under the EPA. Consequently, the number of firms reporting that the EPA increased costs (9.1%) was larger than the number reporting higher profits (7.5%) (Table 8). Nearly one-third of firms said that the EPA had no clear impact. To make EPAs more effective in expanding trade, Japan should negotiate agreements with its major trading partners and aim at removing all barriers to trade rather than just reducing tariff rates, which are already low in general. In addition, the cost of obtaining the certificate of origin should be simplified.

Table 7. Japan's Economic Partnership Agreements

Country	Status	Share of exports in 2009 in per cent		Share of imports in 2009 in per cent	
		Total	Agriculture	Total	Agriculture
Singapore	Took effect in 2002	3.6	1.4	1.1	0.6
Mexico	Took effect in 2005	1.2	0.1	0.5	1.2
Malaysia	Took effect in 2006	2.2	1.3	3.0	0.8
Chile	Took effect in 2007	0.2	0.1	1.0	5.5
Thailand	Took effect in 2007	3.8	3.7	2.9	4.5
Indonesia	Took effect in 2008	1.6	1.7	4.0	6.0
Brunei	Took effect in 2008	0.0	0.0	0.6	0.0
Philippines	Took effect in 2008	1.4	0.8	1.2	2.1
ASEAN[1]	Took effect in 2008	13.8	11.1	14.2	15.3
Switzerland	Took effect in 2009	1.1	0.5	1.1	0.6
Vietnam	Took effect in 2009	1.1	2.1	1.3	1.2
Sub-total		**16.3**	**11.8**	**16.8**	**22.6**
Peru	Negotiations were concluded in 2010	0.1	0.1	0.3	1.5
India	Signed in February 2011	1.1	0.8	0.7	1.4
Australia	Negotiations are underway	2.1	0.7	6.3	12.4
Total		**19.6**	**13.4**	**24.1**	**37.9**

1. Includes Cambodia, Laos and Myanmar, in addition to the other ASEAN countries shown individually.

Source: *OECD International Merchandise Trade Statistics Database*.

Table 8. Effects of Economic Partnership Agreements

Percentages of responses in a survey of Japanese firms trading with Mexico, Malaysia and Chile

	Mexico	Malaysia	Chile	Average
Increase in exports	12.5	9.9	5.9	8.7
No change in exports	34.7	20.9	19.6	22.7
Increase in profits	4.2	14.4	2.0	7.5
No change in profits	9.7	8.8	3.9	6.9
Increase in costs	12.5	11.0	5.9	9.1
No change in costs	4.2	6.6	3.9	5.1
No clear effect thus far	27.8	24.2	35.3	29.5

Source: Takahashi and Urata (2009).

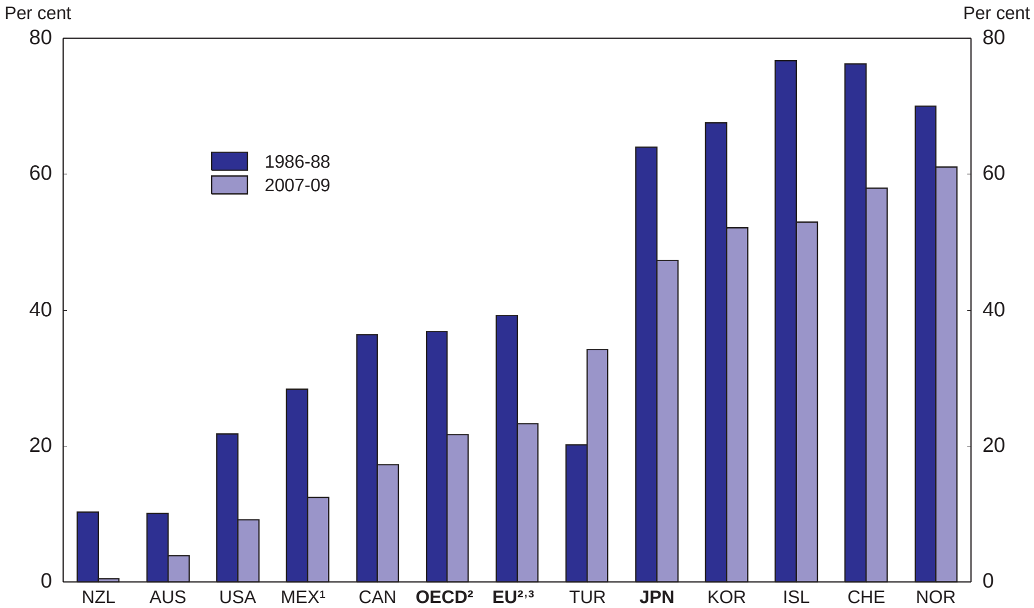
31. A major obstacle to increasing Japan's participation in comprehensive trade agreements is its high level of border protection for some agricultural products, including rice. In the negotiations with

11. This survey, by the Research Institute of Economy, Trade and Industry (RIETI) and the Japan Chamber of Commerce and Industry (JCCI), included 1 688 companies in Osaka, Kyoto, Kobe, Tokyo and Nagoya.

Mexico, for example, pork, beef, chicken and oranges were major obstacles.[12] Although the level of agricultural support, which includes border protection, has fallen from 64% of the value of agricultural production in 1986-88 to 47% in 2007-09, as measured by the Producer Support Estimate (PSE), it is still one of the highest in the OECD area and more than twice the OECD average (Figure 5). Moreover, the share of the most distorting types of support, *i.e.* those based on output and variable input use, accounted for 90% of the PSE. The share of the least distorting support, which does not include a requirement to produce, is less than 1%. Due to agricultural policies, prices received by farmers were 1.7 times higher than world prices in 2007-09, thus imposing heavy burdens on consumers (OECD, 2010a). A more market-oriented agricultural policy in Japan is a necessary condition for negotiating comprehensive trade agreements and raising productivity in agriculture. In addition to scaling back the level of support, its composition should be shifted away from policies based on output and towards direct support to farmers. Introducing a more market-oriented agricultural policy and expanding bilateral EPAs are essential to prepare for the FTAAP.

Figure 5. International comparison of Producer Support Estimate for agriculture

Per cent of gross farm receipts



1. For Mexico, 1986-88 is replaced by 1991-93.

2. Austria, Czech Republic, Finland, Hungary, Poland, the Slovak Republic and Sweden are included in the OECD total for both time periods and in the EU for 2007-09. The OECD total does not include the non-OECD EU member states.

3. EU12 for 1986-88 and EU27 for 2007-09.

Source: OECD (2010a), *Agricultural Policies in OECD Countries 2010: At A Glance*.

32. The Basic Policy on Comprehensive Economic Partnerships, announced in November 2010, acknowledged that Japan is falling behind other countries in establishing high-level EPAs. Japan will therefore step up its efforts to conclude the ongoing EPA negotiations with Australia, resume the currently suspended Japan-Korea EPA negotiations and promote regional economic partnerships such as the China-Japan-Korea FTA and the Comprehensive Economic Partnership in East Asia (CEPEA). In addition, Japan

12. In the end, Japan increased import quotas for these products, rather than removing tariffs, as is required in FTAs that are consistent with WTO rules. While Mexico opened its market to all imports from Japan, Japan opened its market to only 84% of imports from Mexico (Kawai and Urata, 2010).

is to begin consultations concerning the TPP with the member countries, according to the Basic Policy. It acknowledged that agriculture is the sector most likely to be negatively affected by trade agreements and promised to first reform that sector. Indeed, a recent study estimated that the fall in output for primary industries in Japan, including agriculture, resulting from the FTAAP would be the largest among Asian and Pacific countries (Kawasaki, 2010).[13]

33. The newly-created headquarters to promote agricultural reform will announce policy directions in June 2011, followed by a medium and long-term action plan in late 2011. The aim will be to shift the burden of maintaining domestic production, currently borne by consumers, to taxpayers by introducing transparent fiscal measures. Efforts to improve the productivity of agriculture will have limited impact as long as the sector is protected from competition. Reforms that force farmers to operate in a more open and competitive environment would exploit Japan's advantages, such as its educated labour force and technological capacity (OECD 2009a). Successful reform depends on achieving a nationwide social consensus based on political leadership (Box 2). However, the goal of the new headquarters, as well as the Strategy is not just to promote high-level EPAs but also to increase Japan's food self-sufficiency ratio. The ratio may tend to fall as a result of regional integration that increases Japan's openness to low-cost food imports.

Box 2. Managing the reform process: lessons from the OECD's study on *Making Reform Happen*

The New Growth Strategy blames Japan's failure to adequately implement past reforms on a lack of political leadership. The OECD's *Making Reform Happen* (OECD, 2010e) found a lack of political leadership to be a key problem preventing successful reform in a number of countries, along with a variety of other factors:

- An *electoral mandate* is the most important factor promoting reform. A mandate for agricultural reform in Japan is difficult given the over-representation of rural areas in the Diet. Indeed, the number of voters in some urban districts is up to five times greater than in some rural districts.
- Obtaining a strong mandate requires *effective communication*. Successful reforms have usually been accompanied by consistent and co-ordinated efforts to persuade voters and stakeholders of the need for reform and, in particular, to communicate the costs of failing to reform.
- *Sound public finances* are strongly associated with progress in reform.
- Policy reforms must be underpinned by *solid research and analysis*. The OECD study suggests that an evidence-based and analytically-sound case for reform serves both to improve the quality of policy and to enhance its prospects for adoption.
- *Appropriate institutions* are necessary to make the transition from decision to implementation of reform.
- *Unified leadership* is critical. The OECD study points to the importance of government cohesion in support of reform. On the other hand, a government that is not united in support of a reform proposal will send out mixed messages, allowing opponents to exploit its divisions.
- Successful structural reforms often take *time and several attempts*. The more successful reforms examined in the OECD study generally took several years to prepare and adopt, and far longer to implement. In contrast, many of the least successful reform attempts were undertaken in haste.

13. According to this study, the FTAAP will boost real GDP of the APEC economies on average by 1.9% through trade liberalisation measures and by 0.4% through trade facilitation measures, respectively. The real GDP gain in Japan will be 1.1% in total, with the two factors contributing 0.9% and 0.2%, respectively.

- It pays to *engage opponents of reform*. While consultative policy processes do not always prevent conflict, they pay dividends over time, not least by creating greater trust among the parties involved.

- *Concessions to potential losers* need not compromise the essentials of the reform. It is often possible to assist groups that will be negatively affected by a reform without contradicting its overall aims. The questions of whether, when and how to compensate losers from reform require careful consideration.

The OECD's study suggests that cross-national studies and international policy dialogue can speed up the process of "policy learning", enabling governments to learn from one another and thus avoid repeating the mistakes of others. In the case of Japanese agriculture, the lack of an electoral mandate, the differing views of some government ministries and the difficult fiscal situation are important obstacles to successful reform.

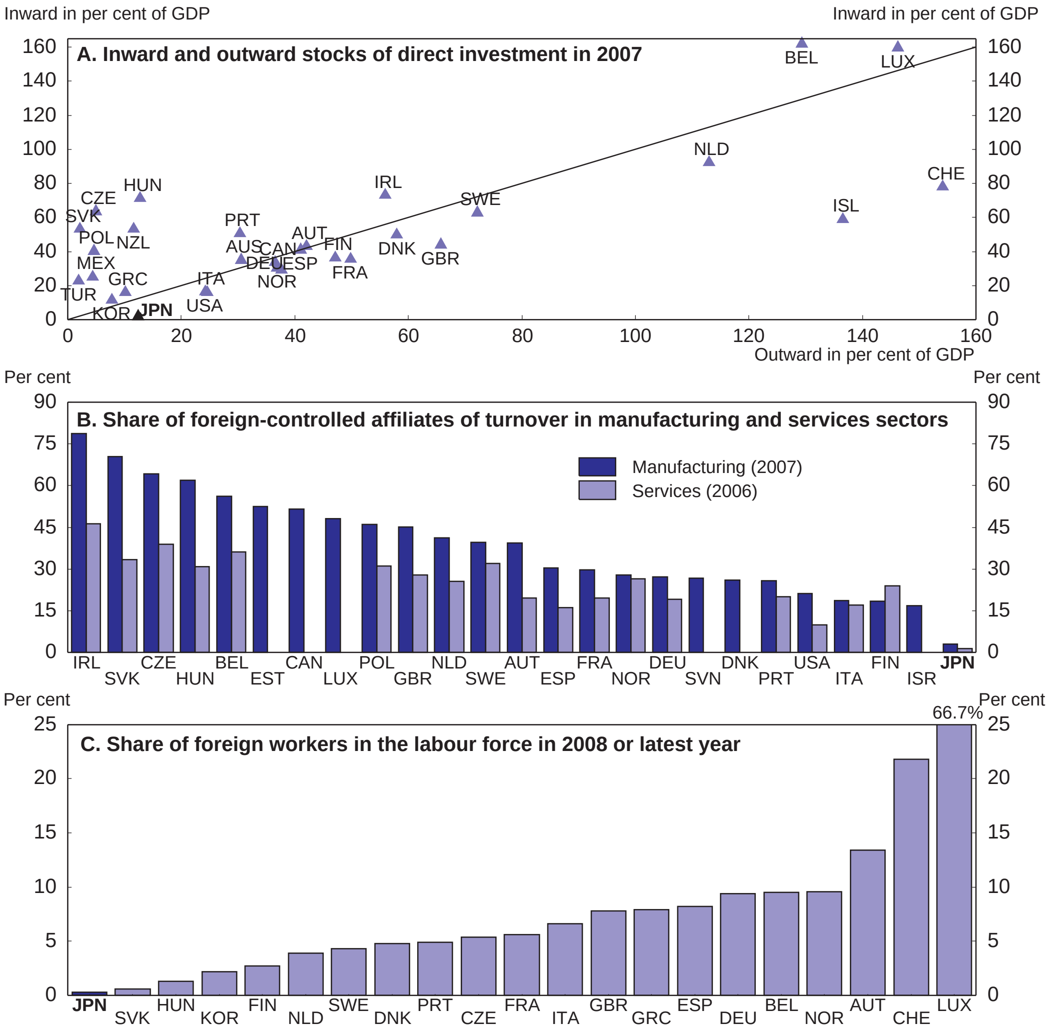
Improving the climate for inflows of foreign direct investment in Japan

34. FDI has become an increasingly important driver of economic integration as multinational enterprises implement global strategies. Worldwide FDI flows have grown faster than output over the past two decades. However, the inward stock of FDI in Japan was only 3% of GDP in 2007, the lowest in the OECD area (Figure 6). Consequently, the share of foreign-controlled affiliates was only 3.1% of total turnover in manufacturing, and 1.4% in services, both the lowest in the OECD (Panel B). One objective of the Strategy is to "invite foreign firms that bring high value-added products and services into Japan and double employment by foreign firms" by ensuring smooth flows of people, goods and funds. In addition, tax preferences are planned to induce firms to set up their Asian headquarters and R&D centres in Japan. In November 2010, the government announced the "Inward Investment Promotion Programme" to accelerate FDI as well as domestic investment by establishing the "world's best investment environment". The programme includes the corporate tax cut, economic partnerships with major countries, deregulation of investment procedures and incentives, such as preferential tax treatment and subsidies.

35. Greater FDI inflows would be beneficial, given the high level of total factor productivity, profitability, capital investment and spending on R&D by foreign affiliates in Japan compared to domestic firms (OECD, 2006a). An OECD study found that FDI spillover effects, defined as an increase in the productivity of domestic firms resulting from the presence of foreign firms, are strongest in the service sector. Given Japan's low productivity in services, the benefits of inward FDI are likely to be particularly important. Openness to trade is positively correlated with the stock of FDI in OECD countries. In addition, there is a significant and positive correlation between a country's trade openness and the gains it reaps from a foreign presence, reflecting two factors. *First*, openness to trade attracts relatively more productive foreign firms whose efficiency stimulates domestic firms to improve their productivity in order to compete. *Second*, the more intense competition resulting from openness to trade induces greater knowledge transfers from multi-national enterprises to their affiliates in order for them to compete (OECD, 2008). In sum, trade liberalisation is important to encourage inflows of FDI to Japan and to maximise the resulting benefits.

36. The low level of FDI in Japan is also explained by explicit barriers to FDI inflows. According to the OECD's FDI restrictiveness index, Japan is the fourth-most restrictive country in the OECD area, and has higher barriers than India (Figure 7). The index, which covers 22 sectors, measures: *i)* foreign equity limits; *ii)* screening and prior approval; *iii)* restrictions on foreign personnel; and *iv)* other restrictions on the operation of foreign-controlled entities. Japan has the strongest equity restrictions on foreigners in the OECD area, while other types of restrictions are relatively low. By sector, Japan is more restrictive in primary industries (which are almost completely closed), manufacturing, transport and telecommunications than the OECD average (OECD, 2010i).

Figure 6. Economic globalisation indicators



Source: OECD (2010g), *OECD Economic Globalisation Indicators*.

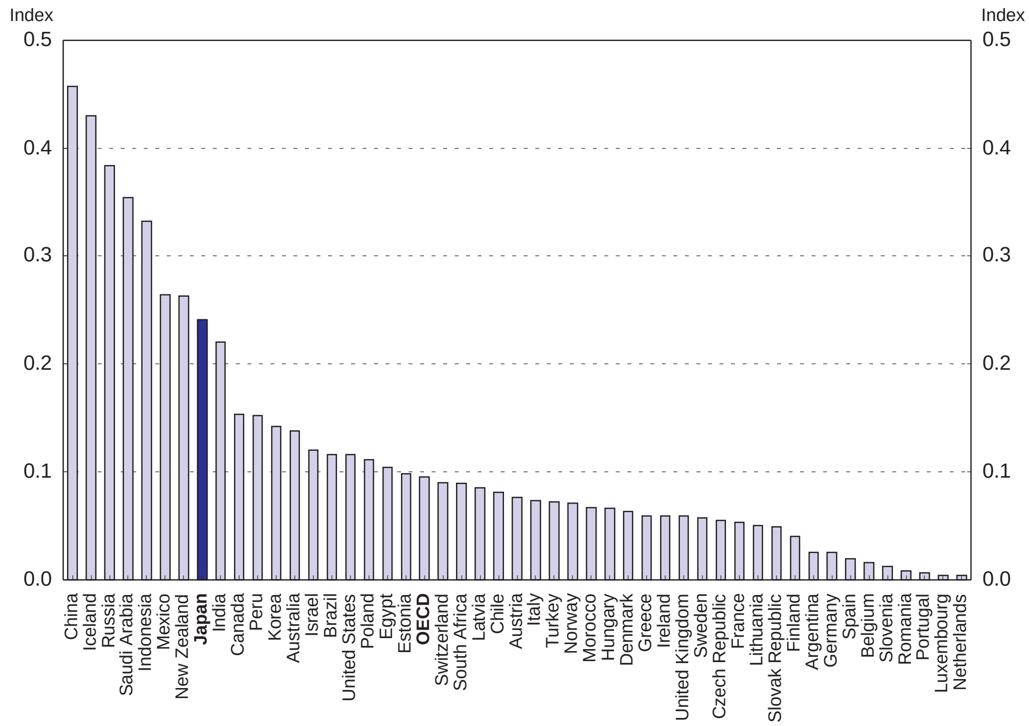
37. A comprehensive approach is essential to promote greater FDI inflows into Japan, including: *i)* removing restrictions on FDI; *ii)* fully opening the M&A market to foreign firms; *iii)* accelerating regulatory reform in product markets, notably by removing entry barriers for foreign and domestic firms, in particular in health care, education, transport, electricity and professional services; *iv)* reducing the corporate income tax rate;[14] *v)* negotiating comprehensive EPAs with major trading partners to increase openness to trade; and *vi)* improving the business climate by making the labour market more flexible and simplifying administrative procedures. Such an approach would help offset some inherent disadvantages of investing in Japan, which, according to a poll of senior business executives. include the language (30%), culture (12%) and the particularity of the market (10%) (Ernst & Young, 2008).

14. The FY 2011 tax reform proposed reducing the rate by 5 percentage points to 35% in FY 2011. However, such a rate would remain high relative to other Asian economies, such as Korea (24%), China (25%), Taiwan, China (19%) and Hong Kong, China (16%).

Promoting the inflow of foreign workers to Japan

38. The Strategy calls for doubling the number of highly-skilled foreign personnel in Japan by 2020. Foreign residents with work permits for high-skilled occupations totalled 212 thousand in 2008, accounting for only 0.3% of the total labour force, the lowest in the OECD area (Figure 6, Panel C). This low level reflects the fact that foreign workers are restricted to one to three years of employment in Japan, although permits can be renewed. Although the stock of foreign workers increased by around 10% between 2004 and 2009, the inflow of foreign workers has declined by more than one-half since its peak in 2004, and net migration to Japan has been close to zero in recent years. In contrast, net migration accounted for 59% of population growth between 2002 and 2006 on average for OECD countries (OECD, 2010d). Many countries have followed a more welcoming stance to immigrants during recent decades, in part as they are expected to help cope with future demographic problems (OECD, 2009d) and to increase labour inputs, given that migration tends to be highly concentrated in the 15-to-39-age group (OECD, 2010d).

Figure 7. The OECD index of restrictions on FDI



Source: OECD (2010i), *OECD's FDI Restrictiveness Index: 2010 Update.*

39. Liberalising restrictions on the inflow of foreign labour to Japan would have a number of positive effects. *First*, it would facilitate Japan's inclusion in high-level EPAs, given that labour mobility has been a key issue in EPA negotiations with some ASEAN countries (OECD, 2006a). *Second*, it would encourage inflows of FDI by expanding the supply of skilled labour. Indeed, a lack of internationally-qualified experts in some areas has been cited as an obstacle to FDI in Japan (EBCJ, 2004). *Third*, greater inflows of foreign workers would boost the supply of highly-skilled workers and productivity growth. Japan ranks as one of the top five OECD countries in terms of its attractiveness for future migration, based on economic and demographic factors (OECD, 2010d). As the working-age population in Japan is projected to fall by 17% by 2030, more decisive measures to reduce barriers to immigration and attract skilled foreign workers are needed to address labour shortages. In particular, long-term nursing care is one area where shortages

are likely, given population ageing. The Strategy's objective of increasing the number of foreign students from 123 thousand to 300 thousand by 2020 (see the 2011 *OECD Economic Survey of Japan*) could help attract highly-trained foreign workers if measures to improve their integration in the labour market after graduation were taken.

Regional development

40. Regional revitalisation through tourism, housing investment and agriculture is one of the seven areas in the Strategy, reflecting concern about depopulation and deteriorating economic conditions in regional towns and rural areas. Japan is one of the most geographically-concentrated countries in terms of GDP and population. Rural areas have a greater concentration of elderly persons, reducing their economic dynamism. Strategic projects to revitalise regional areas include: *i)* establishing new special zone initiatives that include fiscal support; *ii)* boosting the annual number of foreign visitors from 7 million in 2009 to 25 million by 2020 by easing tourist visa requirements, particularly for the Chinese, and creating appealing tourist attractions; *iii)* doubling the size of the market for existing homes and promoting housing investment and remodelling; and *iv)* encouraging public-private partnerships to manage existing infrastructure and provide new facilities.

41. The Strategy states that past regional development policies have "failed to foster regional individuality and autonomy", prompting the government to launch a "regional sovereignty strategy" in June 2010. Japan should emulate the shift in the regional policy paradigm in OECD countries from equity to efficiency, focusing more on competitiveness and growth (OECD, 2010k). Moreover, policies in many countries have changed from top-down, aid-based, investment-oriented, and targeted at designated problem regions to a programme-based approach that targets the entire country and is based on co-operation between different levels of government (Yuill *et al.*, 2008).

Improving the special zone system and enhancing decentralisation

42. The Special Zones for Structural Reform are geographic districts established at the initiative of local governments or private firms in which special regulatory reform measures are allowed. The zones act as a testing ground for reforms that can be later introduced at the national level, while contributing to regional development in the short run. The zones do not involve any fiscal support, such as tax exemptions or subsidies. By the end of 2009, 672 of the 4 858 reform proposals had been accepted (Table 9), either on a nationwide basis (451) or in a special zone (221), suggesting that this approach has been successful. However, the progress in achieving nationwide reform has weakened the incentive for local governments to propose special zones, as the expansion to the rest of the country ends the benefit to local economies. Moreover, many of the most attractive ideas for zones have already been taken. Consequently, the number of proposals for special zones has dwindled in recent years. In response, the policy emphasis has shifted towards regional revitalisation by allowing local governments to retain the special measures longer before extending them nationwide. However, the uneven application of regulation across Japan creates distortions in resource allocation. Thus, it is important to maintain the initial policy objective of nationwide regulatory reform.

43. The use of Special Zones for Structural Reform will be further discouraged by the introduction of two new types of zones in FY 2011:

- "Comprehensive Global Strategic Special Zones" to create an internationally-competitive business environment in certain areas.

- "Comprehensive Special Local Revitalisation Zones" for agriculture, tourism and culture, the environment and social entrepreneurship to solve social problems.

Both will provide special tax breaks, subsidies and financial support from the government, which are likely to attract interest from local governments. However, the government should note that this initiative is more typical of developing countries. While special zones have some benefits, for example in India, where they help to overcome obstacles such as poor infrastructure and high levels of regulation (OECD, 2007b), they appear less appropriate in an advanced country, such as Japan. Public financial assistance to one zone may crowd out other regions, limiting the net benefit for the country as a whole. Moreover, such incentives tend to encourage rent-seeking behaviour by local governments, which should instead focus on measures to improve their business climate and promote innovation.

Table 9. The special zone initiative

	Total number of proposals	Total number of reforms implemented	Of which: those implemented in special zones	Of which: those implemented nationwide
2002	426	204	93	111
2003	1 269	222	83	139
2004	642	80	18	62
2005	539	41	12	29
2006	643	34	5	29
2007	606	42	3	39
2008	285	18	1	17
2009	448	31	6	25
Total	4 858	672	221	451

Source: Office for the Promotion of Special Zones for Structural Reform.

44. Many OECD countries have utilised regional innovation clusters – geographic concentrations of interconnected businesses, suppliers, and universities – to drive regional competitiveness (Mura *et al*., 2010). In the past, Japan's programmes in this regard tended to favour national innovation objectives and had less local involvement. Programmes were primarily top-down initiatives, as the selection was made by central government officials and followed the strategic lines set out in national policy for industry and science (OECD, 2007a). However, in 2010, Japan adopted a new approach that promotes regional innovation through clusters, including two national-level programmes; *i)* the New Competitive Cluster Project Start-ups, led by METI, to support SMEs in specific fields; and *ii)* the Regional Innovation Cluster Programme, directed by the Ministry for Education, Culture, Sports, Science and Technology, centred around key universities to promote greater university-industry collaboration. Given the importance of clusters to a particular region's economy, the cluster programmes require stronger involvement by the local authorities, who are better-placed to develop a sound and realistic vision of a development path through innovation.

45. More fundamentally, it is essential to allow local governments more autonomy. Enhancing the role of local governments would increase the emphasis on regions' individual characteristics and strengths, thereby promoting regional development through a more flexible, customised and bottom-up approach to policymaking. The government should also accelerate its regional sovereignty strategy of transferring more autonomy to local governments by increasing local tax revenue, reducing ear-marked grants and expanding block grants, and abolishing the regional offices of the national government, in line with the recommendations of the 2005 *OECD Economic Survey of Japan*. However, no legislation has been implemented thus far. Increased authority and finances for local governments should be accompanied by an upgrading in their capacity and quality.

Reform in the financial sector

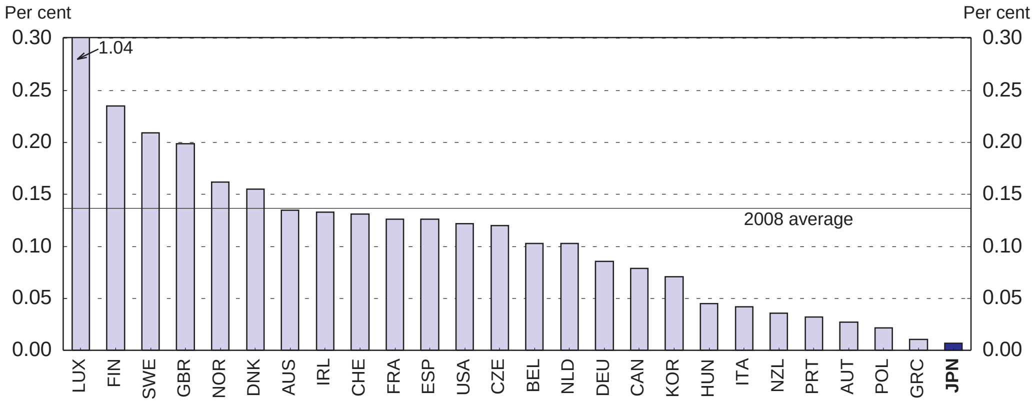
46. The Strategy also includes reforms in the financial sector to support the real economy and to develop the sector itself. To achieve the latter goal, the government wants to make Japan's financial sector

a "main market and main player in Asia", in part by integrating the exchanges handling securities, financing and commodities. An efficient financial sector is also needed to reallocate resources in favour of the priorities identified in the Strategy, such as green growth and health. To implement the Strategy, the government "will urge private-sector financial institutions to make active efforts, so that national financial assets will be effectively invested into growth sectors and regions". In addition, it will promote the use of public financial institutions and the Fiscal Investment and Loan Programme (FILP) for this purpose.

47. Government efforts to push private funds into specific sectors may distort the distribution of capital. In addition, increasing the role of public financial institutions and the FILP, the so-called second budget, which is about one-fifth the size of general account spending, is problematic. Rather than funnelling funds through the public sector, it would be better to reduce the role of public-sector lending. In addition, it is important to follow through on the privatisation of Japan Post, as recommended in the 2009 *OECD Economic Survey of Japan* (Table 10). This would help increase the availability of financing for high-risk investment, which is essential to spark entrepreneurship in newly emerging sectors, such as green growth. The low rate of firm creation in Japan and the relatively small size of firms appear to reflect problems in the credit market (Mukoyama, 2009). In particular, the amount of venture capital investment in Japan, a key source of funding for innovative firms and technological start-ups, is the lowest as a share of GDP in the OECD area (Figure 8). Targeted tax measures and the provision of greater information to potential investors through a database containing the investment performance records of venture firms would help develop this market. In addition, it is important to broaden eligible collateral for securitisation to include intellectual property (IMF, 2010).

Figure 8. Venture capital investment in 2008

Per cent of GDP[1]



1. Data for Japan are for 2006.
Source: OECD (2010j), *OECD Science, Technology and Industry Outlook, 2010*.

48. With the prompt policy response to the crisis and the economic recovery, the profitability of financial institutions has improved. Beyond the crisis responses, improving the regulatory architecture in the financial sector is essential to limit its vulnerability to crisis, as well as to achieve the Strategy's objective of sustaining growth and developing the financial sector as a growth industry. International discussions including Japan in the context of the BIS, the G20 and Financial Stability Board have led to agreement on key elements of a global reform package that includes the definition and the minimum required levels of bank capital (BIS, 2010). In Japan, the Financial Instruments and Exchange Act was revised in 2010 to improve the stability and transparency of the financial system, thus protecting investors. At the same time, it is important to address unresolved challenges. The return on equity for regional banks has been consistently low in recent years, suggesting an overbanking problem. Consolidation among

regional banks should accelerate. In addition, with the economic recovery, it is important to reduce the scale of guarantees for SME loans and relax the government's policy of encouraging banks to lend to SMEs, which create moral hazard risks and may slow restructuring in this sector. At the same time, reforms to promote entrepreneurship and increase venture capital would help develop a more dynamic SME sector.

Table 10. Taking stock of structural reforms: improving the efficiency of the financial sector

Recommendations in the 2009 *OECD Survey of Japan*	Actions taken or proposed by the authorities
Emergency measures taken in response to the crisis should be phased out as the economy normalizes	
Reduce credit guarantees on SME loans, while curtailing their coverage and raising their premiums.	The credit guarantee system for SMEs was further expanded by temporary legislation in December 2009.
Scale back loans by public financial institutions.	The government requested public financial institutions to revise their loan terms to facilitate financing for SMEs. The fiscal packages in September and October 2010 provided support for SMEs through public financial institutions and credit guarantees.
Reduce purchases of equities using public money that are aimed at supporting the stock market.	The Banks' Shareholdings Purchase Corporation bought another 449 billion yen of equities between March 2009 and June 2010. The BOJ purchased 388 billion yen of equities between February 2009 and April 2010, but has since stopped buying.
Improve the regulatory framework to increase the resiliency of the banking system against shocks	
Upgrade the corporate governance of financial institutions through improved supervisory guidelines.	The supervisory guideline was revised in March 2010 to ensure the consistency of compensation and risk management.
Enhance the transparency of securitised products to promote the stability of these markets.	The revised supervisory guideline ensures the traceability of underlying assets of securitised products.
Improve quality and fairness in the rating process by credit rating agencies, in part through rules that prevent conflicts of interest.	The 2009 revision of the Financial Instruments and Exchange Act established rules to promote quality and fairness and prevent conflicts of interest in the rating process.
Reform rules on capital adequacy to reduce their pro-cyclicality without unnecessarily harming banks' growth potential.	Japan is actively participating in an international effort to achieve financial reforms, including Basel III.
Reduce banks' holdings of equities.	The volume of equity holdings in domestic banks has fallen from 33 trillion yen in March 2006 to 21 trillion yen in March 2010.
Increase the efficiency of the financial sector	
Improve the taxation of financial income to make it fair and neutral and upgrade financial education to promote the development of capital markets.	In FY 2011, the 10% tax rate on dividend income was extended again for two years. The Japanese Individual Savings Accounts (a tax- exemption scheme for small investments) will be introduced in 2014.
Accelerate the privatisation of public financial institutions to reduce distortions and over-banking.	No action taken.
Encourage economies of scale in regional financial institutions to reduce costs and improve profitability.	Six cases of consolidation among regional banks were implemented between July 2009 and May 2010.
Abolish entry barriers to financial institutions in agriculture to boost efficiency in finance and agriculture.	No action taken.
Ensure that preferential regulatory treatment of regional financial institutions does not result in moral hazard.	No action taken.
Remove obstacles to the use of reverse mortgages to reduce liquidity constraints facing the elderly.	No action taken.
Promote defined contribution pension schemes to remove obstacles to labour mobility and enhance financial autonomy.	No action taken.

Conclusion

49. The New Growth Strategy should play a positive role in promoting strong, sustainable and balanced growth in Japan, which would also help address the serious fiscal problem. However, it overlooks the importance of fostering entrepreneurship and a business-friendly environment in all sectors, not just the growth areas chosen by the Strategy. It is essential to identify structural and regulatory reforms that would encourage economy-wide investment and job creation. Creating a framework that spurs investment and hiring by firms will determine whether the Strategy's goal of boosting Japan's real growth rate to 2% can be achieved. Given the very limited scope for increasing government spending, the Strategy should emphasise regulatory reform. Any additional outlays should be integrated in a clear and credible medium-term fiscal plan to ensure Japan's long-run fiscal sustainability. Specific recommendations to improve the Strategy are summarised in Box 3.

Box 3. Summary of recommendations for Japan's New Growth Strategy

Improving the overall framework of the Strategy

- Carefully monitor the fiscal implications of the Strategy to ensure its coherence and consistency with the Fiscal Management Strategy and the needs of prolonged fiscal consolidation.
- Focus on accelerating regulatory reform, particularly in services, to encourage private investment.
- Promote entrepreneurship and a more business-friendly environment, particularly by reducing the administrative burden on start-ups.
- Strengthen competition policy by increasing fines on violators of the Anti-Monopoly Act (AMA) and reduce exemptions from the AMA, including the special treatment of SMEs.

Creating new demand

Green growth

- Set a price on carbon emissions by introducing market-based instruments, preferably a mandatory and comprehensive cap-and-trade ETS, thereby providing a clear price signal to encourage green-growth investment.
- Make greater use of environmentally-related taxes, particularly by introducing a carbon tax in areas not covered by the ETS, while ensuring the predictability and credibility of the tax framework.
- Encourage the development of renewable energy resources by removing non-economic barriers and creating a predictable and transparent support framework. The best option would be an electricity certificate system, with incentives that decrease over time.
- Phase out inefficient fossil fuel subsidies in line with the G20 initiative in order to ensure an appropriate price for carbon.

Health-care reform

- Shorten the drug and medical device lag by reducing the cost of clinical trials in Japan, accepting more overseas results and ensuring that reimbursement levels are appropriate.
- Expand mixed billing to make treatments not yet covered by public health insurance more affordable.

- Promote the shift of long-term care away from hospitals toward more appropriate institutions and home-based care using the fee schedule and closer monitoring of the classification of patients in hospitals.

Asian economic integration

- Accelerate the negotiation of comprehensive Economic Partnership Agreements with major trading partners and participate in the Trans-Pacific Partnership.
- Scale back the high level of agricultural protection and shift its composition away from price support towards direct support to farmers to facilitate regional economic integration.
- Improve the climate for FDI inflows by further liberalising trade, lowering barriers to investment and ownership, accelerating reforms of administrative procedures and relaxing labour regulations.
- Liberalise controls on immigration to allow more foreign students and highly-skilled workers in Japan.

Regional development

- Encourage use of the Special Zones for Structural Reform, focusing on nationwide regulatory reform, and ensure that any new special zones result in significant net benefit for the whole country.
- Allow local governments more autonomy and provide them with greater financial resources to promote regional development, including the creation of innovation clusters.

Reform in the financial sector

- Promote the supply of risk money, such as venture capital, for R&D and innovative business start-ups through policy measures to stimulate this market, which is relatively inactive in Japan.
- Scale back the size of public financial institutions, thereby reducing the flow of savings to the public sector and enhancing the availability of funds for venture business and new start-ups.
- Follow through on the privatisation of Japan Post.
- Reduce credit guarantees and relax the government's policy of encouraging financial institutions to increase lending to SMEs, with the economic recovery.

BIBLIOGRAPHY

Burniaux, J., J. Chateau, R. Dellink, R. Duval and S. Jamet (2009), "The Economics of Climate Change Mitigation: How to Build the Necessary Global Action in a Cost-Effective Manner?*", OECD Economics Department Working Papers*, No. 701, OECD, Paris.

BIS (2010), "Group of Governors and Heads of Supervision Announces Higher Global Minimum Capital Standards", 10 September, Basel, http://www.bis.org/press/p100912.pdf.

Cabinet Office (2006), "On the Relationship of Recent Progress in Regulatory Reform to Productivity", *The Evaluation Report of Structural Reform*, No. 6, Tokyo (in Japanese).

De Serres, A., F. Murtin and G. Nicoletti (2010), "A Framework for the Green Growth Strategy", *OECD Economics Department Working Papers*, No. 774, OECD, Paris.

Ernst & Young (2008), *Japan Attractiveness Survey 2008*, Tokyo.

European Business Council in Japan (EBCJ) (2004), *Trade, Investment and the Reform Nexus*, Tokyo.

Government of Japan (2010a), *On the New Growth Strategy,* Tokyo.

Government of Japan (2010b), *The Basic Policy on Comprehensive Economic Partnerships,* Tokyo.

Government of Japan (2010c), *The New Growth Strategy: Blueprint for Revitalising Japan,* Tokyo.

Government of Japan (2011), *On "Realizing the New Growth Strategy 2011"*, Tokyo.

IEA/OECD (2008), *Deploying Renewables: Principles for Effective Policies*, IEA/OECD, Paris.

IEA/OECD (2010), *Energy Balances of OECD countries*, IEA/OECD, Paris.

IMF (2010), *Japan: 2010 Article IV Consultation – Staff Report*, IMF Country Report No. 10/211, IMF, Washington, D.C.

Johnstone, N., I. Hascic and D. Popp (2010), "Renewable Energy Policy and Technological Innovation: Evidence Based on Patent Counts", *Environmental and Resource Economics*, Vol. 45.

Kawai, M. and S. Urata (2010), "Changing Commercial Policy in Japan During 1985-2010", *ADBI Working Paper*, No. 253, Asian Development Bank Institute, Tokyo.

Kawasaki, K (2010), "The Macro and Sectoral Significance of an FTAAP", Economic and Social Research Institute, Tokyo.

Mukoyama, T. (2009), "On Establishment Dynamics in the United States and Japan", *Monetary and Economic Studies*, November, Bank of Japan, Tokyo.

Mura, M. and B. Katz (2010), *The New "Cluster Moment": How Regional Innovation Clusters Can Foster The Next Economy*, Brookings Institution, Washington, D.C.

OECD (2006a), *OECD Economic Survey of Japan*, OECD, Paris.

OECD (2006b), *Political Economy of Environmentally Related Taxes*, OECD, Paris.

OECD (2007a), *Competitive Regional Clusters*, *OECD Reviews of Regional Innovation*, OECD, Paris.

OECD (2007b), *OECD Economic Survey of India*, OECD, Paris.

OECD (2008), *OECD Investment Policy Perspectives, 2008*, OECD, Paris.

OECD (2009a), *Evaluation of Agricultural Policy Reforms in Japan*, OECD, Paris.

OECD (2009b), *OECD Economic Survey of Japan*, OECD, Paris.

OECD (2009c), *OECD Science, Technology and Industry Scoreboard, 2009*, OECD, Paris.

OECD (2009d), *The Future of International Migration to OECD Countries*, OECD, Paris.

OECD (2010a), *OECD Agricultural Policies 2010: At A Glance*, OECD, Paris.

OECD (2010b), *Going for Growth, 2010*, OECD, Paris.

OECD (2010c), *Interim Report of the Green Growth Strategy: Implementing Our Commitment for a Sustainable Future*, OECD, Paris.

OECD (2010d), *International Migration Outlook: SOPEMI 2010,* OECD, Paris.

OECD (2010e), *Making Reform Happen: Lessons From OECD Countries*, OECD, Paris.

OECD (2010f), *Measuring Innovation: A New Perspective*, OECD, Paris.

OECD (2010g), *OECD Economic Globalisation Indicators*, OECD, Paris.

OECD (2010h), *OECD Environmental Performance Reviews: Japan*, OECD, Paris.

OECD (2010i), *OECD's FDI Restrictiveness Index: 2010 Update*, OECD, Paris.

OECD (2010j), *OECD Science, Technology and Industry Outlook, 2010*, OECD, Paris.

OECD (2010k), *Regional Development Policies in OECD Countries*, OECD, Paris.

OECD (2010l), *Taxation, Innovation and the Environment*, OECD, Paris.

OECD (2011a), *Going for Growth, 2011*, OECD, Paris.

OECD (2011b), *OECD Economic Survey of Sweden*, OECD, Paris.

Takahashi, K. and S. Urata (2009), "On the Use of FTAs by Japanese Firms: Further Evidence", *Discussion Paper* 09-E-028, The Research Institute of Economy, Trade and Industry (RIETI), Tokyo.

World Bank (2010), *Doing Business 2011*, Washington, D.C.

Yuill, D., M. Ferry and H. Vironen (2008), "New Policy Frameworks, New Policy Approaches: Recent Regional Policy Developments in the EU and Norway", *EoPRA Paper* 08/1, University of Strathclyde, Glasgow.

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