

Japan's Fixed Assets Tax in Context(2)

Andrew DeWit

Current Tax Rates

As the figure “Fixed Asset Tax Rates by Category of Municipality, FY 2015” indicates, most of the municipalities levy the FAT at the standard rate of 1.4%. An increasing number of those with populations under 50,000 levy at rates above 1.4%, but none of Japan’s municipalities impose a levy close to or, let alone over, the 2.1% limit that was abolished in 2004.

As of April 1, 2015

Tax Rate Municipality	Below Standard Rate	Standard Rate	“Excess Taxation” (<i>chouka kazei</i>)				Total(C)	Taxation at Standard Rate A/C	Taxation at Excess Rate B/C
	< 1.4%	1.4%(A)	> 1.4% < 1.6%	> 1.6% < 1.8%	> 1.8%	Subtotal(B)			
Population over 500,000	0	29	0	0	0	0	29	100.0%	0.0%
50,000 to 500,000	0	461	36	0	0	36	497	92.8%	7.2%
Under 50,000	0	214	47	11	0	58	261	82.0%	22.2%
Towns and Villages	0	862	52	41	0	93	955	90.3%	9.7%
Total	0	1,566	135	52	0	187	1,753	89.3%	10.7%

Source: Adapted from Cabinet Office, p19: http://www.cao.go.jp/zei-cho/gijiroku/zeicho/2015/_icsFiles/afieldfile/2015/10/26/27zen25kai8.pdf

Fixed Asset Tax Rates by Category of Municipality, FY 2015

Tax Rete	Number of Municipalities	%
0.3%	328	50.4
> 0.2% < 0.3%	269	41.3
< 0.2%	54	8.3

Source: Zushi City, 2015: <http://www.city.zushi.kanagawa.jp/global-image/units/106925/1-20150911154846.pdf>

City Planning Tax Rates, FY 2015

As for the CPT, the data for FY 2015 indicate that 651 of 1,719 municipalities impose the levy. Many impose it at less than the standard tax rate, as shown in the table “City Planning Tax Rates, FY 2015.” The city of Narita, in Chiba Prefecture (and site of the main international airport), levies the lowest rate of CPT, at 0.05%.

The Tax Base of the Fixed Assets Tax : Land

There are 23 different types of land in Japan, for the purposes of the property registration law. These are 1) residential land (*takuchi*), 2) rice paddies (*ta*), 3) fields (*hatake*), 4) mountains and forests (*sanrin*), 5) wilderness (*genya*), 6) irrigation and drainage waterways (*youakusuiro*), 7) public use roadways (*koushuuyou douro*), 8) parks (*kouen*), 9) multiple use lands (*zasshuchi*), 10) precincts lands (*keidaichi*), 11) ranch lands (*bokujou*), 12) mineral spring lands (*kousenchi*), 13) marshes and power supply dam reservoir waters not for irrigation (*chishou*), 14) cemeteries (*bochi*), 15) water supply lands (*suidouyouchi*), 16) canal lands (*ungayouchi*), 17) reservoirs (*tameike*), 18) forest reserve lands (*hoanrin*), 19) dykes (*tsutsumi*), 20) farmland and village waterways (*seikou*), 21) railway lands (*tetsudouyouchi*), 22) school lands (*gakkouyouchi*), 23) and salt pans (*enden*)¹⁵⁾.

The FAT definition of land is based on the above noted land registration law and its elements, but aggregates the latter’s 23 different types of land into a total of 9 categories. These are: 1) residential land (*takuchi*), 2) rice paddies (*ta*), 3) fields (*hatake*), 4) mountains and forests (*sanrin*), 5) wilderness (*genya*), 6) ranch lands (*bokujou*), 7) mineral spring lands (*kousenchi*), 8) marshes and power supply dam reservoir waters not for irrigation (*chishou*), and 9) multiple use lands (*zasshuchi*). The FAT’s multiple use land category encompasses many of the 23 types defined in the property registration law¹⁶⁾.

15) The listing can be found (in Japanese) at “Types of Land,” Your District Registration and Survey Consultant Centre, nd: <http://www.to-ki.jp/data/chimoku.html>

16) The Fixed Assets Tax related definition of land and other relevant information can be found (in Japanese) at “Formulating the Standards for Certification of Land,” Management of Information and Appraisal Council, Japan, nd: http://www.miaj.gr.jp/publication/kotei_23th_pdf/23_4_1.PDF

Japan's Distribution of Lands, 2012		
Type of Land :	Area (10,000 hectares)	%
Agricultural Land	455	12.0
Mountains and Forests	2,506	66.3
Wilderness	34	0.9
Waterways	135	3.5
Roads	142	3.6
Residential Lands	190	5.0
Housing	116	3.1
Industrial	15	0.4
Other Residential	59	1.6
Other Lands	324	8.6
Total	3,780	100
Urban Areas	127	3.4

Note: Urban Areas are High Population Density Districts, based on the 2010 census

Source: Ministry of Lands, Infrastructure, Transport, and Tourism: <http://www.mlit.go.jp/common/001091533.pdf>

Category	Area (10,000 hectares)	Average Value: YEN/m ²
Agricultural Land	456	Rice paddy, 818; fields, 470
Mountains and Forests	2,506	14 (general)
Wilderness	34	17
Roads and Waterways	270	N/A
Residential	190	35,613
Others	322	N/A
Total	3,799	

Source: Adapted from Shoko Yoshihara: <http://www.tkfd.or.jp/research/project/news.php?id=1330>

Area and Value of Japan's National Lands, by Category (2013)

The chart on “Japan’s Distribution of Lands, 2012” provides an accounting of the various types of land pertinent to the FAT, listing their area in units of 10,000 hectares as well as in terms of the percent of total national lands. The total area and percent of “urban areas” (defined as high population density districts) has been included at the bottom of the chart for purposes of comparison.

The MLIT 2013 White Paper on Lands provides a breakdown of the average

value of the lands in the above figure, though the categories are not precisely the same.

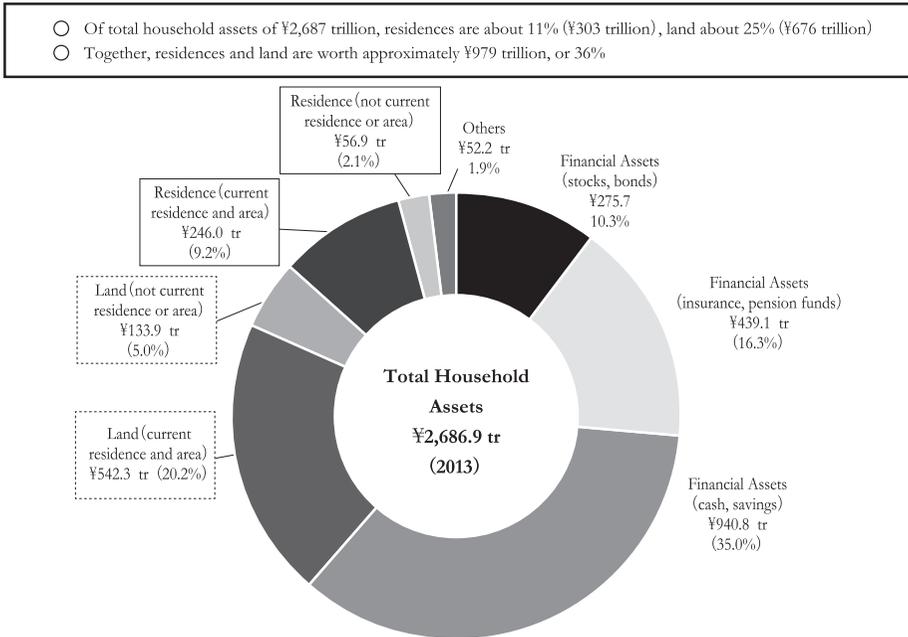
The tax base for the FAT is the assessed value of the taxable fixed property listed in the FAT registration cadaster compiled by each municipality. The assessment itself is undertaken by the municipalities, but in accordance with a unified formula. This overall formula for assessing the value of taxable fixed property is determined by the Minister of Internal Affairs and Communications (MIC), the Japanese central government agency responsible for subnational governments' finances. The MIC uniform formula for assessment is key to ensuring that each municipality's assessment is essentially unified and thus that the property tax system per se is fair and equitable¹⁷⁾.

A measure of the asset base is seen in the figure "Land and Residences in Japan's Total Household Wealth, FY 2013," a summary compiled by the MLIT and presented to the Japanese cabinet on August 3 of 2015. The presentation was part of an argument for enhancing household incentives to make improvements to existing residences as a means of expanding national wealth while simultaneously enhancing the general quality of life¹⁸⁾. The data indicate that approximately YEN 969 trillion, or 36% of Japan's total household wealth, is in land (YEN 676 trillion, or 25%) and residences (YEN 303 trillion, or 11%).

As seen in the figure on "National Wealth," Japan's total national wealth has not increased since it peaked at roughly YEN 3,500 trillion in 1989, just before the collapse of the 1980s "bubble economy." In the context of declining property values, Japanese policymakers have, and especially in recent years, sought both to assess land and building assets equitably. In tandem, policymakers seek to increase the value of these assets through various means of encouraging greater density in municipalities. Policymakers are especially keen to incentivize local governments to use their lands in

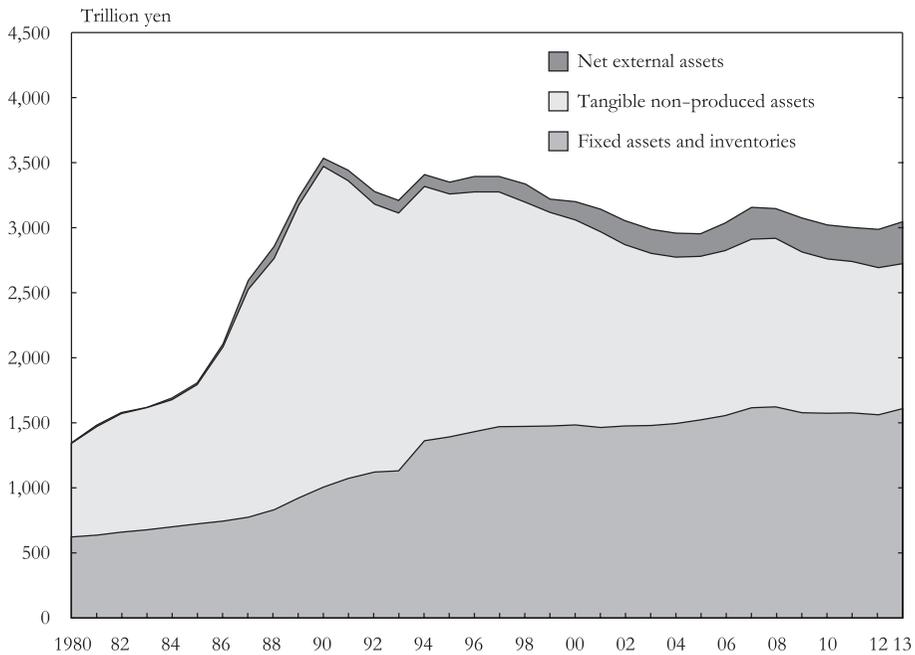
17) The Minister of Internal Affairs and Communications formula (in Japanese) for each element of the FAT (land, buildings and depreciable assets) is at this website: http://www.soumu.go.jp/main_sosiki/jichi_zeisei/czaisei/czaisei_seido/ichiran13/ichiran13_00.html

18) See (in Japanese) "Vitalizing the Used Housing Market," MLIT, August 3, 2015: https://www.kantei.go.jp/jp/singi/sousei/meeting/ccrc/h27_08_03_siryoushi.pdf



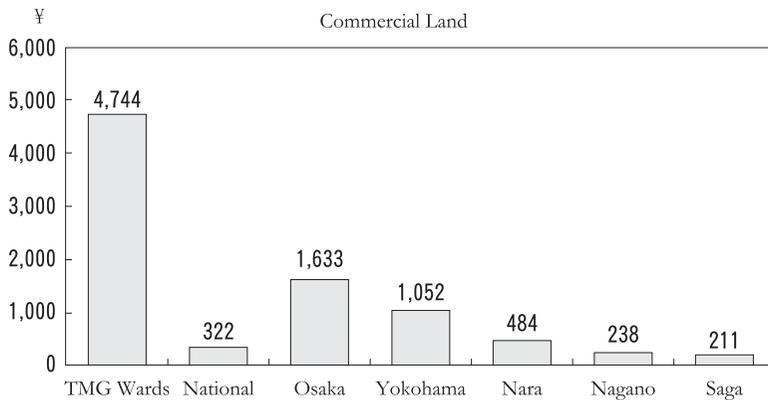
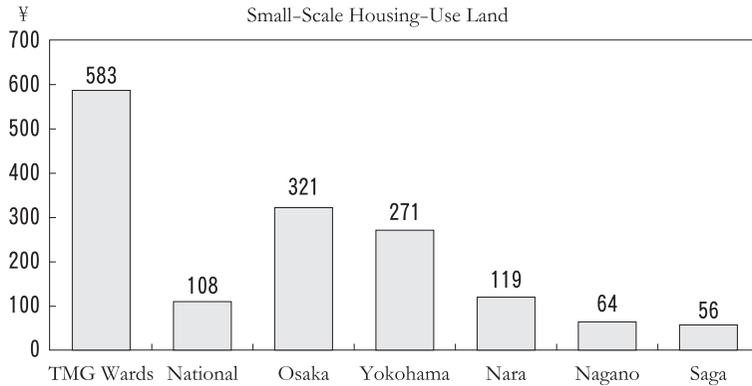
Source : MLIT, August 3, 2015 : <https://www.kantei.go.jp/jp/singi/sousei/meeting/ccrc/h27-08-03-siryous.pdf>

Land and Residences in Japan 's Total Household Wealth, FY 2013



cf Fig 3.2 <http://www.stat.go.jp/english/data/handbook/c0117.htm>

National Wealth



Note: TMG Special Ward average revenues are for levies after application tax reductions

Source: TMG Tax Commission, Working Group 2, July 7, 2014: http://www.tax.metro.tokyo.jp/report/tzc26_s2/04.pdf

Fixed Assets Tax Revenue per sq. meter, TMG 23 Special Wards, National and Other Cities, FY 2012

the respect, as public real estate (*kouteki fudousan*) constitutes about 1/4 of all Japan's real estate by value, with over 76% of it held by prefectures and municipalities¹⁹⁾.

One measure of the spatial distribution of the land asset base is seen in the figure "Fixed Assets Tax Revenue per square meter, TMG 23 Special Wards, National and Other Cities, FY 2012." It shows that residential and commercial land values in TMG are much greater than elsewhere, reflecting its density and multiple other at-

19) See (in Japanese) p.14 of MLIT report on "Changes in Land Values During 2014 and Basic Measures Concerning Land in 2015," MLIT, June 2015: <http://tochi.mlit.go.jp/wp-content/uploads/2015/06/7f1b21a571bc81517bbf8b85b1ef7ccd1.pdf>

tributes as a global city. The most recent assessment of land values nationwide, released July 1, 2015 by the National Tax Agency, indicated that these differences likely grew. Nationwide average prices declined 0.4% for the year 2014 (the basis of the survey), but rose 2.1% in Tokyo. Price increases in TMG were in fact exceeded by increases in Miyagi and Fukushima Prefectures (2.5% and 2.3% respectively), but these gains were due to reconstruction projects in the wake of the 2011 earthquake and tsunami²⁰⁾.

Defining Residential Land

The rules governing the definition of residential land require the plot to be used exclusively for a residential dwelling and that its area be no more than ten times the floor area of the residential dwelling. Alternatively, the land may include a structure that is mixed use (ie, not just for use as a residence) and still be defined as residential land, provided that the structure's dwelling area is at least 25% of its total floor area. As is evident from the table "Residential Land Calculation for Combined Use Dwelling, TMG FY 2015," the residential land area of the plot on which such a mixed use premises sits depends on the "proportion of dwelling space" in the building.

Moreover, should the plot's dimensions be greater than 10 times the floor area of the residential building, the plot's area designated as residential land is subject to

Residential Land Calculation for Combined Use Dwelling, TMG FY 2015		
Type of Dwelling	Proportion of Dwelling Space	Rates
1) Residential building other than 2	25% to 50%	0.5
	Over 50%	1.0
2) Fireproofed residential building with 5 or more stories above ground	25% to 50%	0.5
	50% to 75%	0.75
	Over 75%	1.0

Note: dwelling space= Floor space of living area/Total floor area of residential building

Source: TMG Guide to Metropolitan Taxes, 2015: <http://www.tax.metro.tokyo.jp/book/guidebookgaigo/guidebook2015e.pdf>

20) On this, see "Land prices rise in 10 prefectures, but overall trend is down," *Japan Times*, July 1, 2015: http://www.japantimes.co.jp/news/2015/07/01/business/economy_business/land_prices_rise_10_prefectures_overall_trend/#.VonJDjZO23Q

the following calculations multiplied by 10.

Registering Residential Land

The registration of land as residential, which secures eligibility for special tax measures (listed below), is not automatic. Rather, it requires the owner file a “Notification of Residential Land, etc. for Fixed Assets Tax Purposes” (in cases 1–5 listed below), or a “Notification of Disaster Damaged Residential Land for Fixed Assets Tax Purposes” (in the case of item 6 below), with the municipal tax office that has jurisdiction over the area in which the land is located. The deadline for this filing is January 31 of the year in which the land is to become taxable²¹⁾.

- 1) Acquisition or construction of a new residential building.
- 2) Demolition of all or part of a residential building.
- 3) Reconstruction of a residential building.
- 4) Conversion of all or part of an existing building (e.g. from a shop to a house).
- 5) Change in land use (e.g. conversion to a parking lot).
- 6) Destruction of, or damage to, a residential building through natural disasters, etc.

In practice, the Legal Affairs Bureau of the Ministry of Justice (MOJ) maintains a registry of fixed property (land and buildings)²²⁾. The Ministry’s branch offices throughout the country are in charge of registering property in their respective areas, and are also obliged to report purchases or transfers of property to the municipalities. In turn, the municipalities use the MOJ registry to check that their own registries are current²³⁾.

21) See p.38 of the TMG “Guide to Metropolitan Taxes 2015.” But note that the English language version is at odds in some sections with the Japanese language version, and hence the latter is taken to be authoritative. See (in Japanese) “What is Notification of Residential Land for Purposes of the Fixed Assets Tax?” : http://www.tax.metro.tokyo.jp/shitsumon/tozei/index_o.htm

22) The Legal Affairs Bureau (Japanese language) website concerning property registration is here : http://houmukyoku.moj.go.jp/homu/static/goannai_index_fudousan.html

23) See p.112 of Toshiaki Kitazato, “Property tax in Japan,” *International Handbook of Land and Property Taxation*, Richard Miller Bird and Naomi Enid Slack (eds) Edward Elgar, 2004

One notable problem with the Japanese governance of land and other property is that it is rather poorly surveyed and increasingly falls through the cracks of the registry system. Transferring the deed to land and a structure – for example, in the event of an owner's death – can be quite costly, in the hundreds of thousands of yen. Especially outside of TMG and other built up urban areas, where properties have considerable value, a tract of agricultural or forest land may have minimal value. Its tax burden may be low, but the pecuniary and other costs of claiming ownership are too great in an increasing number of cases. Thus many properties are simply left unclaimed. A recent Tokyo Foundation study warned that as much as 310,000 hectares, or 8.2% of Japan's total land area, may become unclaimed within the next 30 years²⁴.

Valuing Land

In principle, the value of land is determined every third year (the most recent being FY 2015) by taking into account actual market prices of several similar tracts of land as well as via surveys. Under normal circumstances, that assessed value is maintained for the subsequent two years. In practice, however, assessments are undertaken whenever required, as when land plots are subdivided or consolidated, or when dwellings are newly built, expanded, or renovated.

The routine triennial assessments are undertaken by real estate appraisers, whose work is contracted by the municipal offices²⁵. The assessments are performed according to the 9 different types of land relevant to property taxation (eg, residential land, agricultural land, and mountains and forests). In each municipality, multiple standard plots of land are selected for assessment in various areas, and for each type of land. This selection of standard plots begins with defining districts with roughly similar characteristics, such that the selected standard plot will be representative of plots nearby. Then a major roadway, bordering on the standard plot, is chosen. An

24) See Katsuyuki Yakushiji, "Saving Japan's Endangered Regions," The Tokyo Foundation, March 4, 2015 : http://www.tokyofoundation.org/en/articles/2015/saving_japans_endangered_regions

25) The real estate appraisers also undertake assessments for other valuations, such as the inheritance tax, making them well known among civil servants at all levels of government. On this, see (in Japanese) "The role of the real estate appraiser," Toshima Ku Joint Consulting Committee, October 13, 2015 : <http://toshimashigyo.com/?p=91>

assessment is then made of the standard residential plot “standard residential land” (*hyoujun takuchi*), and about 70% of the assessed value is posted as the “roadside land price” (*rosenka*). This roadside land price is then used as the basis for assessing other values along other (“non major”) roadways. These valuations for roadways and plots are based on distances from the nearest railway station, the dimensions of the roadway, and other relevant factors. The values of residential plots are then expressed per square meter²⁶⁾.

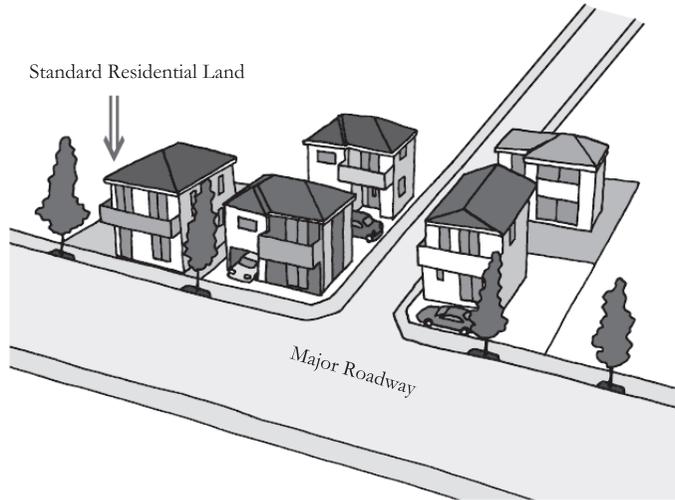
Outside of cities, the assessment omits the use of roadways as a guide to valuation. Instead, the plots near a given plot of standard residential land are assessed in proportion to that standard plot. In other words, roadways do not enter into the valuation²⁷⁾.

The figure “Japan’s Fixed Assets Tax Standard Residential Land and Roadside Land Price,” affords a graphic representation of how the roadside land price is assigned to a plot of standard residential land, fronting on major roadway, in an urban area. The unmarked roadway, perpendicular to the “major roadway,” would be assessed relative to the latter. The values of other residential plots in the vicinity of the plot chosen as the standard would then be scored relative to the value of the standard plot, and the fronting roadway, based on such factors as the individual plot’s breadth, shape, and distance from public facilities.

The taxable value of agricultural land is assessed in a manner similar to residential land. As is shown in the figure below, on “Japan’s Taxation of Agricultural Land (Fixed Assets Tax),” the assessment starts with selecting standard plots of agricultural land in each area. One key difference from residential land assessment is that agricultural land is divided into “general agricultural land” (*ippan nouchi*) and

26) For example, see (in Japanese) the itemization of the valuation steps at Nishinomiya City’s web page of Municipal Taxes. Note that a simplified system of evaluation is undertaken in areas where land values have dropped significantly : <http://www.nishi.or.jp/contents/0000104300060001200143.html>

27) This difference is outlined (in Japanese) in the figure on “Application of the Appraised Value in the Fixed Assets Tax Assessment,” in Fixed Assets Tax Related Materials 2, 2015, Research Center for Property Assessment System (RECPAS) : http://www.recpas.or.jp/new/jigyoreport_web/H27_kensyushiryoy/H27kankeishiryoushu2.pdf



< Standard Residential Land >

Standard residential lands are plots in the various municipal districts that border on major roadways and are used as reference.

< Roadside Land Price >

The roadside land price is the per-square meter price of standard residential land that borders major roadways in the municipality. The roadside land price along major roadways is based on published land prices as well as appraisals. The roadside land price along major roadways is supplemented with other factors as roadway width and distance from public facilities. The residential land price (appraised value) is based on this roadside land price as well as the particular characteristics of individual plots of residential land (breadth, frontage, shape, etc).

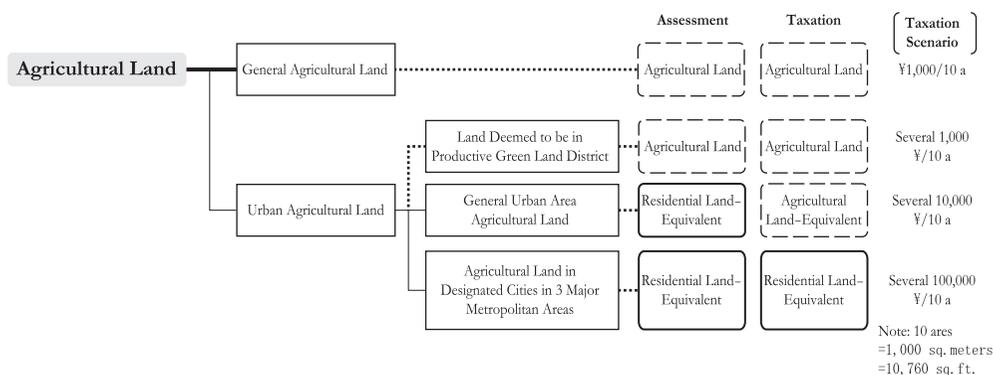
Source : (in Japanese) “2014 Guidebook for the Fixed Property Tax,” Tax Bureau, Ministry of Internal Affairs and Communications

Japan's Fixed Assets Tax Standard Residential Land and Roadside Land Price

“urban agricultural land” (*shigaichikuiki nouchi*). General agricultural land is situated outside of municipal city planning areas, and assessed against the value of standard plots relevant to that category.

In contrast, urban agricultural land is farmland located within city planning areas. This agricultural land is separated into three distinct categories: 1) land deemed to be in a “Productive Green Land District,” 2) land deemed to be “General

- Agricultural land is separated into **general agricultural land and urban agricultural land**, and assessed as well as taxed accordingly
- General agricultural land is assessed on the basis of actual transactions, and taxed in accordance with relevant burden adjustment measures
- Urban agricultural land in productive green districts is regulated by the Productive Green Land Act's limits on conversion and is thus assessed and taxed in the same manner as general agricultural land
- For urban agricultural land, assessment is undertaken similar to the valuation of residential land but with a deduction for the calculated cost of building a residence ("residential land-equivalent assessment"). Among these measures:
 - 1) The general agricultural land burden adjustment measures are applied to general urban area agricultural land, so that even if the assessed value increases the actual taxation is equivalent to agricultural land
 - 2) The residential land burden adjustment measures are applied to agricultural land in the designated cities in the 3 major metropolitan areas (residential-land equivalent taxation)



Agricultural Land Assessment: Assessment on the basis of price discovery in purchase and sales of land for agricultural use

Residential Land Equivalent Assessment: Assessment on the basis of price discovery in purchase and sales of neighbouring residential land, deducting the calculated cost of building a residence

Source: Based on (in Japanese) "Japan's Taxation of Agricultural Land (Fixed Assets Tax)," Ministry of Agriculture, Forestry and Fisheries (no date)

Japan's Taxation of Agricultural Land (Fixed Assets Tax)

Urban Area Agricultural Land," and 3) agricultural land deemed to be in one of the 190 designated cities in the 3 major metropolitan areas (centred on Tokyo, Nagoya, and Osaka)²⁸⁾. Agricultural land in defined urban areas of the municipality, and in a "Productive Green Land District," is assessed as agricultural land and is also taxed as agricultural land. Agricultural land designated as "General Urban Area Agricultural Land" is, however, assessed as residential land but taxed as agricultural land. Agricultural land in the third category, within one of the designated cities, is both assessed as well as taxed as residential land²⁹⁾.

The "Taxation Scenarios" listed in the figure show that the FAT burden per 10 ares (10 ares are equivalent to 1,000 m²) varies considerably according to the cate-

28) See (in Japanese) http://www.nounen.go.jp/qa/kyuseidokyufu/2_6.html

29) See (in Japanese) http://www.maff.go.jp/j/keiei/koukai/nouchi_seido/pdf/hoyuu_zeisei.pdf

gory. For general agricultural land, the burden per 1,000 m² is YEN 1,000. The burden rises several fold if the land is classified as urban agricultural land in a Productive Green Land District. The burden rises an order of magnitude, to several tens of thousands of yen/1,000 m² if the land is deemed General Urban Area Agricultural Land, and then a further order of magnitude, to several hundred thousand yen/1,000 m² if the agricultural land is in one of the 190 designated cities in the 3 major metropolitan areas.

In practice, the average assessed value of farmland in Japan is YEN 70 per square meter, which is roughly equivalent to 0.2% of the value of residential land. One reason is that the assessment of fields is discounted 45% to market prices. The low burden of assessment and taxation is thought to be a major reason that about 400,000 hectares of Japan's farmland lays idle³⁰⁾. The OECD argues that Japan's problem of idle farmland is "due to the production quota system and the complex web of laws governing land ownership, transfer, use and taxation³¹⁾."

Just as Japanese agricultural policy influences the assessment and taxation of agricultural land, Japanese housing policy influences the assessment and taxation of residential land. There are significant incentives to use vacant land (*sarachi*) for housing and thus be deemed residential land (*takuchi*) for tax purposes. The scale of these incentives derives in part from rapid postwar growth that entailed large flows of people from the rural, agricultural sector to the industrializing and urban areas. The incentives also reflect the role of structures, especially homes, as commodities expected to depreciate rapidly in value and be replaced within a few decades.

The incentives for residential land are displayed in the table "Special Measures for Residential Land, TMG FY 2015." The table shows that plots of residential land 200 m² or less are taxed on the basis of one sixth of the assessed value of the plot,

30) On this, see "Government weighs higher tax on idle farms," *Nikkei Asian Review*, November 11, 2015: [http://asia.nikkei.com/Politics Economy/Policy Politics/Government weighs higher tax on idle farms](http://asia.nikkei.com/Politics_Economy/Policy_Politics/Government_weighs_higher_tax_on_idle_farms)

31) See "Agriculture: Assuring the Long term Health of Japan's Food and Agricultural System," Japan Policy Brief, OECD, April, 2015: http://www.oecd.org/policy_briefs/japan_assuring_long_term_health_of_food_and_agriculture_system.pdf

Special Measures for Residential Land, TMG FY 2015			
Type of Residential Land		Fixed Asset Tax	City Planning Tax
Small Scale	Up to 200 m ²	Assessed Value x 1/6	Assessed Value x 1/3
General	Other than above	Assessed Value x 1/3	Assessed Value x 2/3

Source: TMG Guide to Metropolitan Taxes, 2015: <http://www.tax.metro.tokyo.jp/book/guidebookgaigo/guidebook2015e.pdf>

as “small scale housing use land” (*shokibo juutaku youchi*). Portions of lots that exceed this 200 m² size are taxed on the basis of one third of the assessed value, as “general housing use land” (*ippan juutaku youchi*). In other words, the tax base for residential land is one sixth of the assessed value for the portion up to 200 m², and one third of the assessed value for the portion that exceeds 200 m². The table shows that these incentives also apply to the CPT, at least as levied by TMG on behalf of its 23 special wards.

A concrete example of how the FAT works to incentivize the construction of a building on vacant land is seen in the figure “Example of Fixed Property Tax Reduction.” The figure outlines the costs, over time, for a hypothetical vacant 150 m² plot of land versus the same lot with a 120 m² home built on it. The plot is assessed as worth YEN 40 million, and without a residential structure is subject to the full 1.4% rate of FAT, leading to an annual tax burden of YEN 560,000. However, the example shows that construction of a residence in February of 2015 changes the definition of the land from vacant land to residential land (subject to notification of the authorities), and specifically to the category of “small scale housing use land” described above (since the plot is under 200 m²). Since the FAT is assessed from the start of each calendar year, the land becomes residential land, in the small scale category, from January 1 of 2016, and is thus taxed at 1/6 of its assessed value. This re-designation of the land leads to a FAT burden on the plot of YEN 93,000, as opposed to the previous year’s tax payment of YEN 560,000.

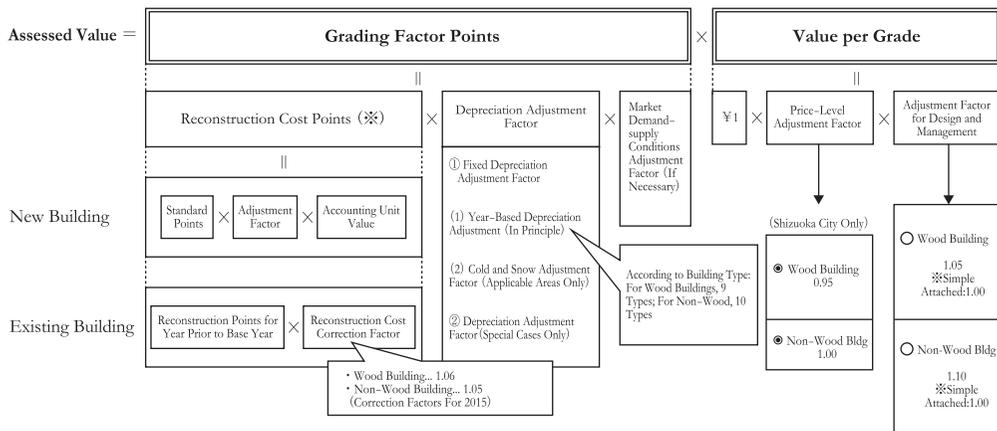
In the meantime, the newly built house has been inspected by the city’s tax assessment authorities, and deemed to be worth YEN 10 million. Because the house is new and single detached, it is eligible for a tax reduction of 50% for 3 years. Assuming all valuations are unchanged, and that there are no changes to the FAT per se, at the end of that three year period, the FAT tax burden on the YEN 10 million

27.9% of housing, followed by 5.3% in social housing, and the rest in company housing or unknown. Further, 92% of all single detached housing units were owner occupied, whereas 24.8% of condominiums and 23.9% of row houses were owner occupied. However, the increasing trend towards condominiums was evident in their increase to 42.4% of all units by 2013 (with single detached being 54.9% of all dwellings)³⁴.

In practice, the taxable value of a house or building is determined via direct assessment by the relevant municipal authorities (in the city office’s Fixed Asset Assessment Division). The Local Tax Law gives the appropriate municipal tax assessment officers the legal authority to visit the premises and undertake an assessment. Refusal to cooperate with the assessment team (usually 2 people from the division, who are obliged to show identification when requested) or otherwise obstruct their work can be subject to penalty. The taxpayer or a representative must be at the premises to allow entry so that the inside walls, ceilings, fixtures and other relevant particulars can be assessed.

The assessment takes into account the cost of replacement, depreciation over

The value of a building is calculated according to the Fixed Property (House) Assessment Standard. Buildings are separated according to whether they are constructed from wood or not, and then the value is calculated according to the grading of relevant factors, as depicted below



※ The reconstruction cost points are calculated in the construction year for new buildings, and tri-annually (next in 2018) for extant buildings

Source: Shizuoka City, 2015

Source : Shizuoka City : <http://www.city.shizuoka.jp/000125828.pdf>

Building Value (Assessment) Outline, Based on Rules Applicable up to 2015, Shizuoka City, Japan

34) See the data (in Japanese) on housing at the Ministry of Internal Affairs and Communications, Statistics Bureau : <http://www.stat.go.jp/data/jyutaku/topics/topi861.htm>

years in use, and a number of other factors. A sample of the manner in which a residence is assessed is seen in the figure “Building Value (Assessment) Outline, Based on Rules Applicable up to 2015, Shizuoka City, Japan.”

As the figure shows, the assessment differs if the building is new as opposed to an existing structure. In both cases, however, the assessed value is the result of numerous grading factor points (such as the reconstruction cost) multiplied by the value assigned per grade. The great complexity of the assessment, in terms of materials and other aspects, appears to reflect Japan's lack of standardization in methods of construction³⁵. Among architects and many students of urban design, Japan is internationally known for an emphasis on novelty in architectural style as well as a relative lack of zoning regulations on residential building³⁶. The significance of Japan's home and office building industry can be seen in the International Union of Architects data indicating that the country has no fewer than 307,558 registered architects, versus 105,596 in the United States (in Canada, 7,500; in China, 36,000; in France, 26,964; in South Korea, 10,140; and in the United Kingdom, 30,399)³⁷.

Against the backdrop of loose regulation, rapid postwar growth (with the emphasis on housing quantity rather than quality), coupled with frequent earthquakes (Japan accounts for about 20% of global earthquakes of a magnitude 6 or greater)³⁸, Japanese houses continue to be seen as “disposable³⁹” or “durable consumer goods.” Though the quality of Japanese home construction has reputedly become world

35) On this, see “Building wealth,” *The Economist*, January 3, 2008: <http://www.economist.com/node/10431721>

36) See Stephen J. Smith, “Japan Shows the Way to Affordable Megacities,” *Next City*, January 22, 2014: <https://nextcity.org/daily/entry/japan-shows-the-way-to-affordable-megacities>

37) Data from the International Union of Architects Database: <http://www.uia.archi/en/exercer/exercer-dans-le-monde/commission-uia#.VoDaNTbFQgs>

38) See p. 35 in Sandra K. Schneider and Marty P. Jordan, “Analysis of Governmental Performance During Urban Disasters: Fukushima and Hurricane Sandy,” in Gary Sands, Pierrre Fillion, Mark Skidmore (eds) *Cities at Risk: Planning for and Recovering From Natural Disaster*, Ashgate, 2015.

39) “Japan's disposable home culture is an environmental and financial headache,” *The Guardian*, May 2, 2014: <http://www.theguardian.com/sustainable-business/disposable-homes-japan-environment-lifespan-sustainability>

class⁴⁰⁾,” the legacy effect is that half of all homes are demolished within 38 years, versus roughly 100 years in the United States.

In the figure on “Building Value,” the reconstruction cost is the cost of building the same structure as the one under assessment, calculated by aggregating the estimated prices of the materials and other items used to construct it. The reconstruction costs only cover the replacement value of the materials, exclusive of the structure’s design and construction per se.

The depreciation adjustment is a rate that is meant to account for ageing of the structure. The depreciation rates differ significantly by type of building, but all are set so that even after 65 years (for offices built of reinforced concrete), 20 percent of the initial reconstruction cost remains⁴¹⁾.

Other adjustments include a correction regarding interregional differences in the price levels (relative to the level in Metropolitan Tokyo). These adjustments also include measures to incorporate costs of design and construction.

Tax Reductions and Exemptions for Structures

There are a host of tax reduction and exemptions that apply to Japan’s FAT levied on dwellings. The most commonly cited is the tax reduction for new homes, which was noted earlier in the sample FAT calculation for a newly built home. This reduction is especially important in light of the relatively short lifetime of houses, noted above.

Current tax rules provide a FAT reduction of 50% for the first three taxable years. This reduction applies to new houses built by March 31, 2016, with a dwelling floor space of 50 to 280 m². The reduction applies to a maximum of 120 m².

40) On this, see Richard Koo and Masaya Sasaki, “Obstacles to Affluence: Thoughts on Japanese Housing,” Nomura Research Papers, December 1, 2008: <http://www.nri.com/global/opinion/papers/2008/pdf/np2008137.pdf>

41) On this, see (in Japanese) http://www.soumu.go.jp/main_sosiki/jichi_zeisei/czaisei/czaisei_seido/ichiran13/pdf/kaoku.pdf

For new residential buildings of three stories or greater built by March 31, 2016 with floor space of 50 to 280 m², the FAT is reduced by 50% for the first five taxable years.

As for apartment buildings for rent, whose dwelling space is between 40 to 280 m², the FAT is reduced by 50% for the first five taxable years.

Even larger tax reductions are provided for “Long Term High Quality Houses” (*chouki yuuryou juutaku*) that are built to be used over a many decades, are crafted with special attention to the living environment, and otherwise meet guidelines set by the authorities. These homes are part of the MLIT “200 Year Lifespan House” initiative, which aim to raise the market share of “Long Term High Quality Houses” from 8.8% in 2010 to 20% by 2020⁴²⁾. The measure dates from the May 2007 proposal of the “200 Year Home Vision,” released by the Liberal Democratic Party “Housing and Land Research Commission” under the leadership of subsequent PM Fukuda Yasuo. Fukuda framed the policy when he formed his government in September of 2007, listing a set of proposed construction standards as well as reductions in the FAT and the Real Estate Acquisition Tax. In FY 2008, the policy was put into place under the tutelage of the MLIT, with over YEN 10 billion for financing model developments, dissemination of best practices in home maintenance, the expansion of home loans, and other relevant policies.

Since June 4 of 2009, and up to March 31 of 2016, these “long term” buildings are eligible for 50% FAT reductions for a period of 5 years if a general residence and for 7 years if a condominium of 3 stories or greater. The rules on floor area are the same as the other categories (eg, 50 to 280 m² for owner occupied, 40 to 280 m² for rental), but the standards for certification are much stricter⁴³⁾.

Similarly, remodeling a home to enhance the safety and comfort of an elderly resident was eligible for a two thirds reduction in the FAT, and for five years, for

42) See (in Japanese) p. 3: <http://www.mlit.go.jp/common/001087623.pdf>

43) See (in Japanese) the outline on Yokohama City's page on FAT rules relating to the “Long term High Quality House”: <http://www.city.yokohama.lg.jp/zaisei/citytax/shizei/choukiyuuryoujuutakugengaku.html>

work undertaken during the period October 20, 2011 to March 31 2015.

Other reductions that apply to the FAT aim at bolstering the durability of homes, their energy efficiency, and their accessibility for handicapped residents. A typical example is earthquake proofing: From January 1 of 2013 through to December 31 of 2015, home renovations aimed at earthquake proofing and exceeding YEN 500,000, have been targeted at homes built before January 1 of 1982. The reduction is 50% of the FAT for one year and is applied to 120 m² of dwelling space. In other words, the reduction for a YEN 6 million home of 150 m² would total YEN 33,600. The usual FAT levy on such a home would be YEN 84,000, derived by multiplying the YEN 6 million assessed value by the 1.4% tax rate. The 50% reduction in the tax is applied to 120 m² of the 150 m² home, leading to a reduction of YEN 33,600⁴⁴.

TMG also has even more robust tax reduction and exemption measures, largely centred on bolstering structures against earthquake and fire threats. Up to December 31, 2015, TMG exempts the entirety (ie, not just 50%) of the FAT as well as the CPT for three years for the replacement of residential buildings constructed prior to January 1 of 1982. The measure is to encourage greater earthquake proofing of buildings throughout the 23 special wards of TMG. And if such a building (ie, one constructed prior to January 1, 1982) is not replaced but rather renovated for earthquake proofing, it can be eligible for a full year of complete exemption from the FAT and the CPT. The stipulations governing this case include renovations costing not less than YEN 500,000 and to a limit of 120m² of floor space. A special FAT and CPT exemption of two years is possible if the renovated structure was originally non compliant with earthquake resistance standards and was at risk of blocking access roadways in the event of an earthquake.

As to fireproofing, this applies to the TMG's Specific Fireproofing Districts (*funenka tokku*)⁴⁵. Reconstruction of structures in these districts, subject to certain

44) See (in Japanese) the Ueda City (Nagano Prefecture) explanation of the tax reduction, complete with sample calculation: <http://www.city.ueda.nagano.jp/zeimu/kurashi/zeikin/koteshisan/kaoku/taishinkaishu.html>

45) The applicable areas are specified by the TMG Bureau of Urban Redevelopment, and total

restrictions on area and original building materials, can result in exemption from the FAT and CPT for five years from completion of the rebuild⁴⁶⁾.

Defining Depreciable Assets

As noted earlier, the FAT applies not only to land and buildings, like the CPT, but also to depreciable assets. In FY 2013, the revenues from taxing these assets via the FAT was just over YEN 1.5 trillion, or roughly 7.5% of total municipal level tax revenues.

For the purposes of the Local Tax Law, depreciable assets are defined as business assets, excluding land and buildings, whose depreciation or depreciation expense is included in losses or necessary expenses when calculating the income pursuant to

The Major Categories of Depreciable Assets, TMG FY 2015	
Types of assets	Prominent Examples
Structures	Power substations; paved roads; gardens; exterior works such as gates, walls, fences and greening facilities; billboards; others
Machinery and equipment	Various types of production equipment; mechanical parking facilities (including turntables); etc.
Ships and vessels	Boats, fishing vessels, pleasure boats, etc.
Aircraft	Airplanes, helicopters, gliders, etc.
Automobiles and other vehicles	Large sized special purpose motor vehicles such as bulldozers and forklifts
Tools, appliances and fittings	Computers; display cases; signboards (neon sign); medical equipment, measuring equipment, molds, barber and hairdressing equipment, partitioning screens, air conditioners, furniture for drawing rooms, cash registers, vending machines, etc.

Source: TMG Guide to Metropolitan Taxes, 2015: <http://www.tax.metro.tokyo.jp/book/guidebookgaigo/guidebook2015e.pdf>

just over 10,000 hectares of areas already renovated or under construction. See (in Japanese) the relevant site, complete with map: <http://www.toshiseibi.metro.tokyo.jp/bosai/mokumitu/torikumi.html>

46) On the above exemptions extended through TMG, see pp.43 4 of the TMG "Guide to Metropolitan Taxes 2015": <http://www.tax.metro.tokyo.jp/book/guidebookgaigo/guidebook2015e.pdf>

the Corporation Tax Act or the Income Tax Act. These assets include the structures, machinery, equipment and fixtures, which firms or self employed individuals have acquired to conduct their business operations. Representative examples of these assets are listed in the table “The Major Categories of Depreciable Assets, TMG FY 2015.”

The taxable value of these tangible business assets is determined by taking account of the cost and amount of depreciation. As noted in the table, the valuation of depreciable capital excludes items subject to the automobile or light automobile taxes (eg, light forklifts). It also excludes intangibles (software, patents), deferred assets, capital that has a depreciation period of less than a year or a value of less than YEN 100,000, as well as leases involving assets with an acquisition cost of less than YEN 200,000. Depreciable assets with a value of less than YEN 1,500,000 (the tax exemption limit) are not subject to taxation via the FAT.

For TMG, the reporting deadline for the depreciable assets portion of the FAT is the end of January in FY 2015 (and February 1 in FY 2016)⁴⁷⁾. The reporting obligation is on the part of the owner (individual or corporate) of the assets, and the report must be filed to the Metropolitan Tax Office in the ward in which the assets are located.

Other Exemptions from the FAT

Also exempt from the FAT are many of the 23 categories of property detailed in the property registration law, often with the stipulation that the property be for public use. The exempt properties include irrigation and drainage waterways (*youakusuiro*), public use roadways (*koushuuyou douro*), precincts lands (*keidaichi*), mineral spring lands (*kousenchi*), water supply lands (*suidouyouchi*), canal lands (*ungayouchi*), reservoirs (*tameike*), dykes (*tsutsumi*), farmland and village waterways (*seikou*). Also exempt are cemeteries (*bochi*). In addition, the exemption from the FAT extends to a variety of properties held by independent administrative corporations (*dokuritsu gyousei houjin*), land improvement districts (*tochi kairyuu ku*), asso-

47) The FY 2016 deadline and other particulars are (in Japanese) at “FY 2016 Fixed Asset Tax (Depreciable Assets) Procedures for Reporting,” Tokyo Metropolitan Tax Bureau: http://www.tax.metro.tokyo.jp/shisan/info/h28_shinkokutebiki.pdf

ciations (*tochi kairyō rengō*) and land development public corporations (*tochi kaihatsu kōusha*) and used for their operations. Religious properties are also exempt, as are schools, elderly care and handicapped care facilities owned by social welfare corporations. Fixed assets owned by the national government, prefectures, municipalities, and embassies and consulates of foreign countries are also exempt⁴⁸.

In consequence of these tax rules, all the assets owned by local public corporations, including social housing as well as day care centres, libraries, museums, research facilities, and the like, are exempt from the FAT (as well as the CPT and the Real Estate Purchase Tax)⁴⁹. The scale of this exemption is quite significant, because Japan's social housing, or "public rental housing" (*kouteki chintai juutaku*), totaled 1.2 million units as of the end of the 2013 calendar year⁵⁰.

Disclosure of Land Assessment

In actual practice, there are at least 5 valuations for land, including the market price, the MLIT monitoring price (*kouji kakaku*), the National Tax Agency's (NTA) assessment (*souzokuzei rosen ka*) for the Inheritance Tax (*souzokuzei*) and Gift Tax (*zouyozei*), the municipal government's assessment for the FAT (*koteishisanzei rosenka*), the monitoring for representative places by the prefectural government (*kijun chikakaku*), and the land price index of urban districts surveyed by the Japan Real Estate Institute, a non governmental agency⁵¹.

The MLIT survey is under the authority of the Ministry's Land Appraisal Commission (*tochi kantei iinkai*), and is announced annually at the end of March

48) The legal definitions (in Japanese) are available at the Osaka City web site: <http://www.city.osaka.lg.jp/gyouseiinkai/cmsfiles/contents/0000112/112106/H26hontai9.pdf>

49) On this, see (in Japanese) "The Legal Advantages and Restrictions of Public Corporations," Osaka City (nd): http://www.city.osaka.lg.jp/toshiseibi/cmsfiles/contents/0000006/6971/kaigi_03_01.pdf

50) On these data, and their breakdown by the 7 categories of housing (eg, "care equipped old age home"), see (in Japanese) the Japan Association of Housing Corporation's website: <http://www.zenjyuren.or.jp/kind.html>

51) See Takatoshi Ito, "Public Policy and Housing in Japan," in Yukio Noguchi and James Poterba (eds), *Housing Markets in the United States and Japan*, University of Chicago Press, 1994, p. 225: <http://www.nber.org/chapters/c8827.pdf>

(based on a January 1 valuation). The survey tracks land prices as a standard for estimating the price levels of land used for public works as well as with the aim of contributing to an appropriate valuation of land⁵²⁾. The 2015 MLIT survey is based on 23,380 land assessments. The prefectural monitoring is under the authority of prefectural governors, and published annually around the end of September (based on July 1 valuations). This monitoring is the same as the MLIT land value monitoring price, but in 2014 used 21,740 assessments. The NTA assessment is under the authority of the Director of the National Tax Bureau. The assessment is published annually around the beginning of July (based on valuation of January 1), and is aimed at being 80% of the land monitoring price. It assessed 28,000 plots in 2012. The municipal assessments are undertaken via authority of the mayor, based on valuations for January 1, and in FY 2015 assessed roughly 440,000 plots of land⁵³⁾.

For TMG, the municipal assessments are published, on paper, for a specified period of time (in FY 2015, between April 1 and June 30, excluding weekends and statutory holidays), and determined on the basis of inspections as well as the roadside land price.

As discussed in the above, Japan has several property valuation agencies and surveys. In principle, the valuation of property for municipal tax (FAT and CPT) purposes is undertaken by the relevant municipality in consultation with the central and prefectural governments⁵⁴⁾. At the same time, most of the actual work in conducting the municipal valuation, as well as other surveys (eg, the MLIT and NTA surveys), is performed by real estate appraisers. Japan's 5,414 (as of March 31, 2015) real estate appraisers are organized in regional associations that are in turn grouped

52) The MLIT has also maintained a "Japan Residential Property Price Index" (JRPPI), providing indices by region and metropolitan area since August of 2012. It has begun full operation of the system since March of 2015: [http://tochi.mlit.go.jp/english/wp_content/uploads/2015/03/Outline of Japan Residential Property Price Index.pdf](http://tochi.mlit.go.jp/english/wp_content/uploads/2015/03/Outline_of_Japan_Residential_Property_Price_Index.pdf)

53) The agency in charge as well as the number and dating of the assessments can be found (in Japanese) in the Table "Comparing Public Valuations," on p.5 of in Fixed Assets Tax Related Materials 2, 2015, Research Center for Property Assessment System (RECPAS): http://www.recpas.or.jp/new/jigyo/report_web/H27_kensyushiryo/H27kankeishiryoushu2.pdf

54) On this, see (in Japanese) the note on "Public Assessments of Land Values," at the website of Yokohama City: http://www.city.yokohama.lg.jp/toshi/kikaku/chika/annnai/pdf/1_2_1.pdf

into the Japan Association of Real Estate Appraisers (JAREA)⁵⁵⁾. This non profit association was founded on October 1, 1965, under the governance of the MLIT (Land Price Research Division, Land Economy and Construction and Engineering Industry Bureau)⁵⁶⁾.

Public inspection of the tax register's precise valuations of individual properties is possible during specified periods of time, as was noted above for TMG. The right to view valuations for specific properties, as well as for neighbouring land and building, is restricted to the relevant taxpayer, and identity is verified via driver's license or similarly authoritative documentation. Taxpayers, as well as leaseholders and tenants are also able to view the cadaster throughout the year, subject to documentation of identity (such as a rental contract).

Taxpayers are able to dispute valuations registered in the Fixed Assets Tax Cadaster. In TMG, for example, a claim can be submitted in writing to the Tokyo Metropolitan Fixed Assets Evaluation Council from the initial day of the public inspection period (April 1 for FY 2015 to the 60th day after the issue date of the June 1, 2015 delivery of the Tax Notice. Should an official notification be received after the Tax Notice is delivered, then the option to challenge is within 60 days from receipt of the latter notification (and this latter period is to be increased to 90 days via the Act for the Establishment of Acts Related to the Enforcement of the Administrative Appeal Act, whose date of enforcement is yet to be determined).

In principle, the valuations of land and buildings are open to dispute during the base year (eg, FY 2015) of the triennial assessment. For depreciable assets, the prices registered in the fixed assets tax cadaster are open to challenge regardless of the fiscal year.

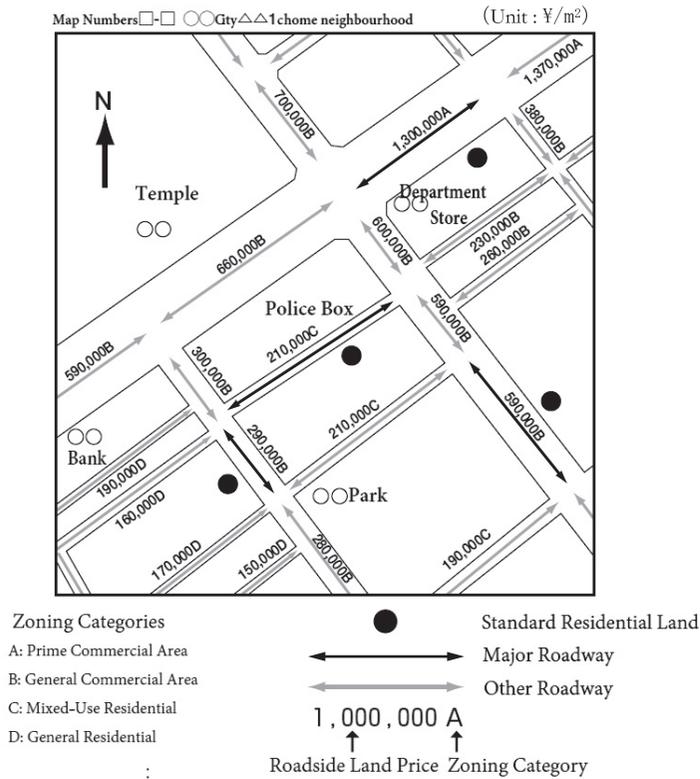
In the event that the valuation dispute settling mechanism does not satisfy the

55) See (in Japanese) the Japan Association of Real Estate Appraisers: https://www.fudousan.kanteishi.or.jp/rengou_annai/outline_j/

56) The Japan Association of Real Estate Appraisers includes some English language materials, albeit rather dated, at its website: https://dacha.fudousan.kanteishi.or.jp/english/about_jarea.html

In order to facilitate the cooperation of taxpayers concerning the assessment of land, all roadside price that are the basis of assessments are published. Moreover, the locations of standard residential lands are also published.

<Example of Published Roadside Prices>



※ For areas without a roadside land price, in substitute the per-square meter price of standard residential land is published

Source: (in Japanese) “2014 Guidebook for the Fixed Assets Tax,” Tax Bureau, Ministry of Internal Affairs and Communications

The Publication of Roadside Prices and Related Information for the Fixed Assets Tax

taxpayer, the case can be taken to court.

As the figure “The Publication of Roadside Prices and Related Information for the Fixed Assets Tax” displays, the generalized assessments are readily available for viewing on line.

Adjusting Asset Burdens

Since 1994, Japan has deployed a special measure to adjust tax burdens on land, due to the effects of the 1980s asset bubble. The triennial assessment of the previous year (FY 1993) saw the published land values suddenly rise from 20-30% to the 70% range, a 3.5 times increase nationwide. It was determined that the best course of action would be gradual increases of 2.5% to 15%, and so a “burden adjustment mechanism” (*futan chousei sochi*) was adopted. Yet soon afterwards, it became apparent that land prices were dropping precipitously, and the focus turned to adjustments in light of the new reality. These adjustments have continued up to the present, in part because land values continue to drop in many parts of the country.

Another object of adjustment is to even out burdens among the various categories of land, such as residential, commercial and other land. The mechanisms differ in their specifics, from place to place, but the overall approach is to adjust the tax burden level by dividing the previous year's assessed value against the current year and then multiplying the result by 100 to arrive at a percentage. The approach is outlined in the chart on “Balancing Tax Burden Levels in TMG.”

In TMG, a tax burden level of 100% or over on residential land leads to the regular standard taxable value (meaning the assessed value multiplied by 1/6 or 1/3, depending on the size of the residential plot). For tax burden levels that are below 100%, there is a gradual increase in taxation.

As for commercial land in TMG, a tax burden level of 70% or over leads to a reduction of the legal upper limit (70% of the price) of the applied standard taxable value. For burdens between 60 and 70%, the standard taxable value for the previous year is applied. Burdens of lower than 60% lead to a gradual tax increase.

Burden level (%) =	Amount of standard taxable value, etc. for FY 2014	X 100
	Assessed value, etc. in FY 2015	

Source: TMG Guide to Metropolitan Taxes, 2015: <http://www.tax.metro.tokyo.jp/book/guidebookgaigo/guidebook2015e.pdf>

Balancing Tax Burden Levels in TMG

Collaboration on Assessment and Data Accuracy

In fact, the four main public sector property valuations (ie, the MLIT monitoring price, the NTA assessment for the Inheritance Tax and Gift Tax, the municipal governments' assessments for the FAT, and the monitoring for representative places by the prefectural governments) are aggregated at the Research Center for Property Assessment System (RECPAS). These survey results are also made readily available, and in a very user friendly manner (in Japanese), to any interested party via the RECPAS internet portal⁵⁷⁾.

Japanese policymakers also promote collaboration among subnational governments and other interests, concerning property taxation, through the RECPAS. This agency was founded on May 1 of 1978 as an incorporated foundation. It bears some similarity, for example, to the Canadian Property Tax Association (<https://cpta.org>) and other such national organizations that group local governments, tax professionals, academics, and other parties in an institution to foster the exchange of information on best practices as well as undertake research on how to improve them.

In apparent contrast to other property tax associations, RECPAS's main membership are the subnational governments (all 1,765 of them), while other organizations (15 public service corporations and 24 private firms) are "supporting members" (as of April 2015). Among those supporting organizations is the MLIT governed Japan Association of Real Estate Appraisers (JAREA), described earlier.

The RECPAS' budget for FY 2015 is just under YEN 420 million, YEN 140 million of which is from subnational governments. Its organizational goals centre on analysis of the conditions of all relevant property (land, buildings and depreciable assets) as well as research on the theory and practice of improving assessments. It is also devoted to helping to balance the valuations among different kinds of property. The RECPAS also has an important educational role. It undertakes about 30 training

57) The RECPAS website is: <http://www.chikamap.jp> As of December 31, 2015, the site had received just under 15.65 million visits.

seminars annually to help train local officials in charge of the assessment of fixed assets, aiding them in improving their appraisal techniques. The RECPAS also produces a wide range of video and written material to this end. Moreover, it publishes a bi-monthly magazine "Property Assessment Information" (*shisan hyouka jouhou*), which focuses on enhancing assessment mechanisms, and is distributed to subnational governments and related institutions.

The REPCAS thus performs a crucial role in linking the subnational governments, the MIC, the MLIT, the real estate appraisers and other main stakeholders involved in assessing and collecting the FAT. This role was evident at its most recent annual meeting, held on October 23, 2015, in Tokyo. The annual meeting was supported by the MIC, the National Governors Association, the National Mayors' Association, the National Association of Towns and Villages, The National Association for the Promotion of Municipalities, JAREEA, and the Japan Real Estate Institute. The meeting's first panel discussion focused on the role of the fixed assets tax in an aging society with a shrinking population. Key among its concerns were how to balance tax burdens among various types of assets in order to enhance equity as well as preserve the fixed asset tax's role as a key tax for municipal level of government. The panel discussants included the principles of the Metro Tokyo Tax Bureau's Asset Tax Division, the Ministry of Internal Affairs and Communications Property Assessment Division. Moreover, the conference overall featured extensive presentations on the role of ICT and GIS technologies in the assessment of property for the fixed assets tax.

Moreover, the REPCAS aids municipal governments to locate and assess assets in order to maintain accurate and fair property taxation. One means is the REPCAS dissemination of the "Standard Specification for the Research on Present Situation of Fixed Assets" (revised in March, 1999). This specification was developed to use aerial photography in assessing changes in structures and other related elements. The REPCAS also conducts research on present situations requested from municipalities by using the "Standard Specification."

The REPCAS committee for "Standardization of Research on Present Situation of Fixed Assets" reviews the "Standard Specification" in response to rapid development

of computer technologies.

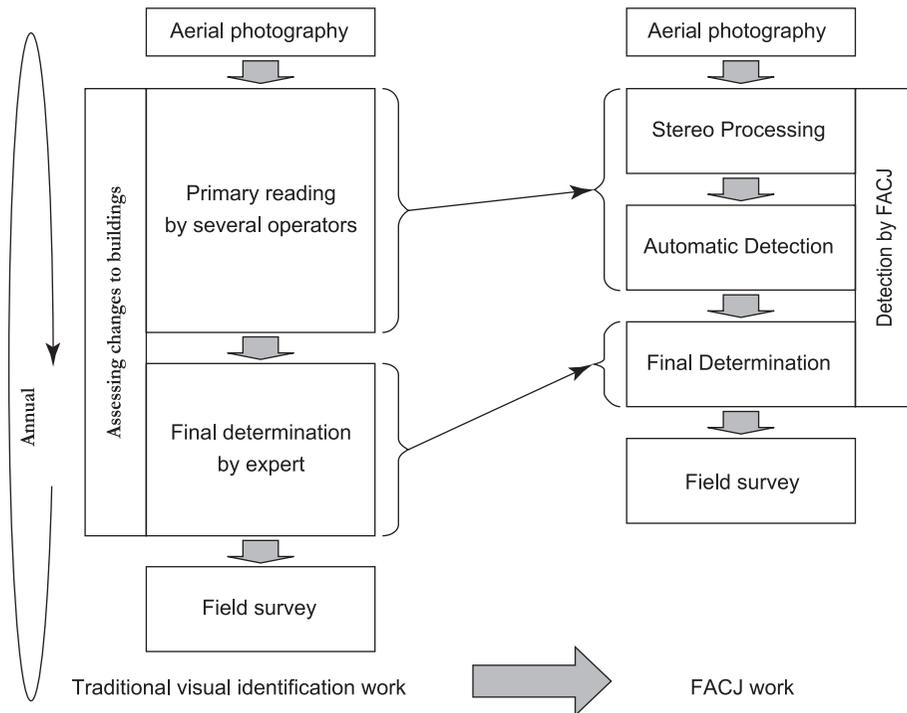
Automation and other ICT related technologies are used quite extensively to improve assessments as well as spot changes in the municipal asset profile. Many of the services are contracted by the public authorities (including the municipalities), from private firms. One example of a private firm working in the business of refining property assessments is the Japan Land Appraisal System Inc (*nihon tochi hyouka shisutemu kabushikigaisha*)⁵⁸⁾. This firm has 36 staff and was founded in June of 1989. It appears to have been the first to deploy Geographical Information Systems (GIS) technologies in the mapping of property values as well as other information relevant to municipal governments. It has since added the UK firm Cadcorp's Spatial Information System (SIS) software to its suite of "JASROS" products dedicated to its municipal and prefectural customers, to aid them in tracking properties, correcting errors, and other services⁵⁹⁾.

Another example of how technologies are used in improving assessments and other relevant information is the Fixed Assets Change Judgment (FACJ) system and its core tool, RealScape. The innovators of this system, which is marketed by NEC Solution Innovators⁶⁰⁾, depict it as automatically detecting changes in the height and colour of structures via a 3 D analysis of aerial photographs. Their 3 D analysis employs a pixel by pixel stereo processing method that calculates the height of each pixel in aerial photographs and thus enables precise difference detection between previous and current aerial photographs. The innovators indicate, as is outlined in the figure "Automating the Work Flow in Spotting Building Changes for Japan's Fixed Assets Tax," that the FACJ system reduces the labour costs of assessing photographs to one third of the traditional approach and the required judgment duration to about two weeks per 100 km². This FACJ system was first deployed experimentally by TMG

58) The firm's role in land evaluations relevant to the FAT is detailed (in Japanese) here: <http://www.jasinc.co.jp/kotei/kotesisanhyoka.html>

59) The JASROC services, including the number of recent projects for subnational governments, are described (in Japanese) here: <http://www.jasinc.co.jp/membersportal/members.html>

60) The NEC website (in Japanese) on RealScape is here: <http://www.nec-solutioninnovators.co.jp/sl/rs/>



In identifying structures eligible for the fixed-asset tax, Japanese municipalities conduct annual surveys of building changes by aerial photography. This identification work is contracted out to survey companies. FACJ represents a major conceptual shift from the traditional work flow in spotting changes to buildings.

Source: Koizumi et al, 2010

Automating the Work Flow in Spotting Building Changes for Japan's Fixed Assets Tax: Fixed Assets Change Judgement (FACJ)

in 2005. In the wake of successful deployment in TMG, being used annually by TMG Tax Bureau to assess for the FAT, it has since been adopted by other major city governments, such as Osaka and Sapporo⁶¹).

These kinds of technologies make it quite difficult to hide a new or altered structure from the taxation authorities. Japanese law requires that structures over 10 m² be registered, but a great deal of laxity is evident with the registration. Indeed, many plots of land are unclear as to ownership as well as to actual dimensions.

61) See Hirokazu Koizumi, et al. "RealScape: Metropolitan Fixed Assets Change Judgment by Pixel by pixel Stereo Processing of Aerial Photographs," AI Magazine, Vol 31, No.1, October, 2010 : <http://www.aaai.org/ojs/index.php/aimagazine/article/view/2281/2138>

Tax Collection

Given the unprecedented degree of Japan's fiscal crisis, in addition to the steadily increasing cost of its demographic challenges, the Japanese municipal authorities appear to be increasingly adamant about collecting the FAT and other taxes. Virtually all the municipalities encourage taxpayers to pay the tax levied on their property, by providing ample notice of assessment and explaining the purposes of property taxation. In most of the municipalities in TMG, taxpayers are given notice of their FAT and CPT (where applicable) levy in June of the year, which is also the first month for payment of the quarterly burden. The subsequent payment deadlines are September, December and February. The due date of the quarterly payment is specified for the relevant month, but the tax levy can also be paid in one lump sum in the initial payment period (eg, June, if that is the month of initial notice)⁶². In most other Japanese municipalities, the payment deadlines for the FAT and CPT are the last day of April, July, December, and February. However, there are some variations. For example, the city of Yokohama's FAT and CPT payment deadlines are April 30, July 31, January 4, and February 29⁶³.

The options for payment include payment at ordinary banks and postal banks, most convenience stores, the "Pay easy" network (Japan Multi Payment Network Management Organization) that allows payment via the internet or ATMs, through the postal service (ie, a registered bank transfer). Bank transfers can also be set up to automatically forward the tax payment from the taxpayer's account to the municipality's account, at a specified time. From 2015, TMG has also included FAT payments among the taxes that can be paid via credit card⁶⁴. The TMG has quite detailed

62) On TMG's payment deadlines for the Fixed Asset Tax and City Planning Tax, see (in Japanese) "The Fixed Asset Tax (Land and Buildings) and the City Planning Tax," Tokyo Metropolitan Government Bureau of Taxation (nd) : http://www.tax.metro.tokyo.jp/shitsumon/tozei/index_o.htm

63) See (in Japanese) the city of Yokohama's Finance Bureau Taxation Department's website : http://www.tax.metro.tokyo.jp/shitsumon/tozei/index_o.htm

64) TMG began allowing credit card payments (Visa, Mastercard, JCB, and 3 other major cards) on its Automobile Tax from 2011, with a limit of YEN 1 million. On this, see (in Japanese) "Tokyo: Expansion of credit card tax payments, including the fixed assets tax,"

web pages on the system in English, Chinese and Korean⁶⁵.

Tax Delinquency

Taxpayers are strongly advised to contact the assessment office in the relevant municipality if they find it difficult to make the required tax payment. Resolution mechanisms include postponement of payment, reduction of the burden, and/or other measures deemed suitable for any given case.

However, in the event that the taxpayer misses a payment or does not pay the full amount, without prior consultation, the municipality issues a reminder and also contacts via telephone or dispatches staff to visit the non compliant taxpayer. From the point of delinquency, the municipality also begins charging a late penalty on the taxes in arrears.

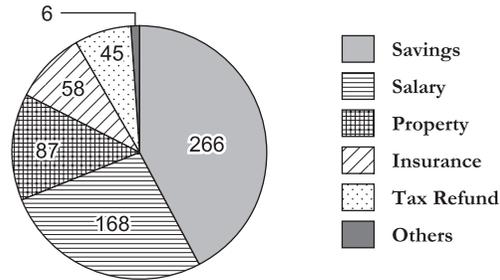
This penalty, in principle (*honsoku no wariai*), is a 7.3% rate of interests for the first month of arrears, a rate that is increased to 14.6% after the initial month. In practice, these rates of penalty are adjusted along with changes in Japan's general level of interest rates. A special rate (*tokurei no wariai*) is also calculated annually by the Minister of Finance, based on the annual average for new short term borrowing at domestic banks during October to September of two years prior. The special rate is 1% above this prevailing rate of bank interest. For FY 2015 and 2016, the penalty for arrears is set at 2.8% for the first month, and then 9.1% for longer periods. In the event that the special rate exceeds the in principle penalty rate of 7.3% for the first month (and 14.6% for periods of arrears that exceed the first month) then the penalty will revert to the in principle rate⁶⁶.

If the above measures do not lead to payment of the sum in arrears, within ten days, the municipal authorities are able to undertake an investigation of the delin-

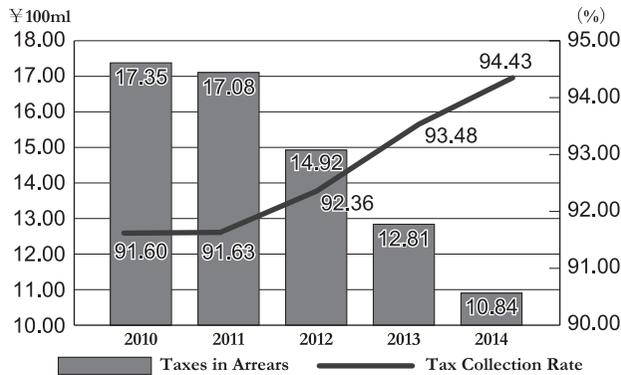
Asahi Shimbun, May 2, 2015: <http://www.asahi.com/articles/ASH4Z5QRDH4ZUTIL03M.html>

65) The English language page is here: <https://zei.tokyo/en>

66) A detailed explanation (in Japanese) can be found on the website of the city of Kodaira in TMG: <http://www.city.kodaira.tokyo.jp/kurashi/002/002759.html>



Asaka City Tax Related Seizures in 2015 (630 cases)



Changes in Asaka City Taxes in Arrears and Rate of Collection, 2010-2014

quent taxpayer’s financial as well as property assets (such as an automobile). These assessments are done, for example, by direct visit to the place of work, financial institutions where the delinquent taxpayer conducts transactions (such as maintaining a savings account), as well as direct inspection of assets at the delinquent’s residence. After assessing assets, the authorities are empowered to seize them to cover the amount in arrears directly or via proceeds raised through public auction. These steps are all codified in the Local Tax Law.

The mid sized city of Asaka (pop. 135,556) is an instructive case of aggressive action. It led an association of 63 municipalities and its prefecture (Saitama, just north of TMG) in adopting a “Period to Strengthen Measures Against Tax Arrears” (October to December) as well as the slogan of “Stop! Delinquency.” As shown in the figure “Asaka City Tax Related Seizures in 2015,” the city pressed hard against delinquency in 630 cases. It resolved them at least partially via 266 seizures of savings, 168 cases of seizing salary payments, 87 confiscations of property, 58 appropriations of

insurance funds, 45 seizures of refunds from the national tax authorities, and 6 other unspecified actions.

As shown in the figure, “Changes in Asaka City Taxes in Arrears and Rate of Collection, 2010-2014,” the city was able to raise its tax collection rate from 91.6% in 2010 to 94.43% in 2014⁶⁷⁾.

Recent and Ongoing Reforms

1) Incentivizing Agriculture

As noted above, Japan has very low taxation of most farmland. In tandem with the extremely complex rules governing land ownership and transfer, the low burden has incentivized the idling of about 400,000 hectares of farmland. At the same time, urban farming is argued to be impeded by high taxation of urban farmland. In 2015 these problems were addressed through a new Basic Law to Promote Urban Farming, enacted on April 16. The Law imposes an obligation of the central and subnational governments to work towards expanding productive green zones and alleviating the FAT and Inheritance Tax burden on urban farmland. Advocates of the reform point out that the area of urban agricultural land has declined markedly. In the decade between 2003 and 2013, total urban agricultural land area fell from 143,000 hectares to 80,000 hectares. Within this decline, farmland deemed productive green land dropped from 15,000 hectares to 14,000 hectares⁶⁸⁾. Along with this Basic Law, the government has implemented tax incentives, to take effect from April 1 of 2016, to consolidate farmland as well as impose greater burdens on unused farmland via the FAT. The changes to the FAT will remove the limited assessment (45% in FY 2015) as well as halve the FAT burden if the land is leased to a “farmland bank” (*nouchi banku*)⁶⁹⁾.

67) For the details, see (in Japanese) “Stop! Delinquency,” Asaka City Newsletter, October 2015, p. 3 : <https://www.city.asaka.lg.jp/uploaded/attachment/29779.PDF>

68) See (in Japanese) p.9 of Akihiro Takatsuka, “The JA’s Role and the Appropriate Tax System for Promoting Urban Farming in Light of the Basic Law on Promoting Urban Farming,” Japan Agricultural Association, (nd) : http://www.tosinouti.or.jp/report/70gou/p09_12_takatuka.pdf

69) On the changes, see (in Japanese) “An Explanation of the 2016 Tax Reforms Pertaining to Bolstering/Reduction of Fixed Assets Tax on Farmland,” Yamada and Partners Tax Accountants, (nd) : <http://www.yamada-partners.gr.jp/news/H28shisan.pdf>

2) Abandoned Residences

Another one of the recent reforms to the FAT is a special measure to incentivize the disposal of Japan's increasing number of empty residences (*akiya*). The MIC Statistics Bureau's compilations of data on empty residences indicate that in 2013 Japan's total stock of houses was 60.63 million units, a 5.3% increase of 3.05 million over the number in 2008. Over the same period, the number of empty homes increased by 8.3%, or 630,000 units, to a total of 8.2 million units. This latter figure represented 13.5%⁷⁰⁾.

Due to concern over public safety and public health threats posed by the increasing number of uninhabited dwellings, February 26 of 2015 saw implementation of a Special Measures for Empty Residence Law. The law's provisions allow municipal officials to enter "specified empty residences" (*tokutei akiya*), suspected of being permanently uninhabited as well as posing risks. The law confers on them powers of administrative guidance as well as the authority to levy penalties. The law also has specific provisions to permit the use of the FAT related data to determine ownership. Moreover, the law specifically allowed, from May of 2015, the land on which an uninhabited dwelling stands to be declared vacant land (*sarachi*) rather than residential land (*takuchi*). As noted earlier the difference between the two designations is a six times greater burden in the FAT levy, as residential land under 200 m² is given a special tax exemption of 1/6 vacant land. In December of 2015, Mie Prefecture's Nabari City determined to use the legal authority, drawing up a new policy in which the change in tax status will be made explicit from 2016 for a period of 10 years⁷¹⁾.

The object of the tax change is to incentivize the home owner to take action, and either repair, sell, dispose of the house, or otherwise deal with the problem. But as noted above, the ownership of an increasing fraction of Japan's lands and buildings is uncertain due to costs of registration and other reasons. Hence, the threat of an increase in the FAT burden is often not sufficient to settle the matter, and the municipi-

70) See the data (in Japanese) on empty homes at the Ministry of Internal Affairs and Communications, Statistics Bureau: http://www.stat.go.jp/data/jyutaku/2013/10_1.htm

71) See (in Japanese) "Nabari City announces the draft of counter measures for abandoned residences," Mainichi Shimbun, December 18, 2015: <http://mainichi.jp/articles/20151218/ddl/k24/010/346000c>

pality finds it has to shoulder the cost. Indeed, the first use of the new law to dispose of an abandoned house occurred on October 26 of 2015, in Kanagawa Prefecture's Yokosuka City. The city officials had received complaints that the structure was in danger of collapsing into the street, so upon passage of the law the premises' FAT registration was checked (in July) and confirmed that ownership was unclear. In other words, there was no party on which to impose the fee for disposal of the premises. Because of the danger of the building's collapse, the city had to assume the YEN 1.5 million cost⁷²⁾.

3) FAT Related Tax Reductions for Depreciated Assets and for Relocation

As noted earlier, December 24 of 2015 saw the Japanese cabinet approve a major reform to the FAT's taxation of depreciable assets. Depreciable assets represented 18.1% (YEN 1.54 trillion) of all FAT revenues in FY 2012, so the proposal elicited great concern in the MIC as well as among the subnational governments⁷³⁾. The METI and other interests are keen to enhance investment incentives, and so insisted that property tax levies on depreciable assets (specifically machinery and equipment, which provide roughly one third of the FAT's revenue base from depreciable assets) are a rarity among the major economies⁷⁴⁾. They argued for, and secured, a reduction that is to apply to SME purchases of equipment and machinery, exempting them from half the normal FAT applied. Calculations indicate that the measure could lead to as much as YEN 18.3 billion in reduced revenues. The initial METI led efforts to exempt far more of the depreciated assets tax base was, however, contained to this more restricted measure⁷⁵⁾.

72) On this, see (in Japanese) "In the first application of the special law for an abandoned residence, the city does the removal," *Yomiuri Shimbun*, October 26, 2015: http://www.yomiuri.co.jp/life/homeguide/news/20151026_OYT_8_T50189.html

73) See, for example, the MIC presentation (in Japanese) "Fix Asset Tax Related Materials," March 31, 2015: http://www.soumu.go.jp/main_content/000361318.pdf

74) See p.29 of (in Japanese) METI's Proposals Concerning the FY 2016 Tax Reform (Outline)," METI, August 25, 2015: http://www.meti.go.jp/main/yosangaisan/fy2016/pdf/09_2.pdf

75) The METI have been lobbying for several years to have the Fixed Assets Tax on depreciable assets eliminated altogether. See (in Japanese) their FY 2012 proposal "Fixed Asset Tax (Fix Assets Other than Buildings) ": http://www.meti.go.jp/main/downloadfiles/zeisei22/youbou_71.pdf

A potentially larger tax measure involving the FAT concerns the “local revitalization” (aka “regional revitalization”)⁷⁶⁾ incentives for expanding regional business offices or moving business offices from the major urban centres (especially the TMG area) to the regional cities and towns. Both of these measures involve the FAT as well as the intergovernmental fiscal system.

In line with the implementation of local revitalization in FY 2015, special tax measures were introduced to encourage firms to expand their offices in local areas, and these incentives were emphasized in the case of firms that relocate their offices out of the TMG’s 23 special wards. Because these measures’ conditions may be further relaxed in the future, TMG is concerned that firms’ movement outside of TMG could be accelerated.

The measures that apply to firms purchasing offices in the local areas are for firms that already have a presence in the local region and intend to move head office functions and other functions to the local area. The measures applied to the purchase price of an office facility include a 15% front loading of the depreciation as well as a 4% tax exemption for 2 years. In addition, there is a YEN 500,000 per person tax exemption for increased employment. An additional measure uses general subsidies to cover the loss of local tax revenues (from the FAT and the Real Estate Acquisition Tax [*fudousan shutokuzei*]) due to the local governments’ use of special tax measures to attract firms.

More generous yet are measures that apply to the movement of office facilities from TMG’s 23 special wards in order to alleviate concentration in the capital region as well as encourage the movement of business activity to the local areas. In the case where the relocation is from one of TMG’s 23 wards, the special measures that apply to the purchase price of the office facility is a front loading of 25% in the depreciation as well as a 7% tax exemption for 2 years. Moreover, the per person employment subsidy is a YEN 800,000 tax exemption in the first year with the possibility of additional measures in subsequent years, to a possible maximum of YEN 1.4 million over 3 years. In addition, general subsidies are used to cover an expanded list of

76) On the policy, see “Measures and Support for Regional Revitalization,” Office for Promotion of Regional Revitalization” (nd): http://www.cao.go.jp/en/pmf/pmf_19.pdf

revenue losses incurred by the local government in its efforts to attract business firms through reduced local taxes. Subsidies not only cover revenue losses from special measures in the FAT and the Real Estate Acquisition Tax, but also reductions to the Local Business Tax (*houjin jigyouzei*).

In both of the above cases, the city regions in the Tokyo area, the Chubu area, and the Kinki area are not covered by the incentives. The result is that firms which relocate in these areas receive none of the incentives. Moreover, these larger urban subnational governments (if they are the site of relocation) are not able to receive general subsidies to cover revenues forfeited via the use of special tax reductions⁷⁷.

TMG's degree of concern about these kinds of tax measures has to be understood in light of the very unorthodox taxation policies of the Abe regime. These policies include the April 2016 expansion of the so called "hometown tax" (*furusato nouzei*) system of tax subsidized individual donations to the corporate tax system⁷⁸. The TMG Tax Bureau brought out a very detailed critique of the "corporate hometown tax" (*kigyouban furusato nouzei*), describing it as without precedent, lacking any foundation in the principles of taxation (especially the benefit principle), and posing a significant risk of skewing local political and economic incentives⁷⁹. Moreover, on June 9 of 2015, the TMG Governor, Yoichi Masuzoe, made a point of criticizing the central government's tax policy, deriding them as "irrational" and lamenting their rationales as "discussions that try to sound plausible⁸⁰."

77) See (in Japanese) "Aiming Towards the Development of Japan as a Whole Through Coexistence and Co prosperity: Tokyo's Assertions Concerning Local Finance," Tokyo Metropolitan Government Tax Bureau, September 15: <http://www.metro.tokyo.jp/INET/OSHIRASE/2015/09/DATA/20p9f102.pdf>

78) For a brief description, see "Japan to launch corporate version of tax free donation system aimed at boosting regional economies," *Japan Times*, December 11, 2015: <http://www.japantimes.co.jp/news/2015/12/11/business/japan-launch-corporate-version-furusato-nozei-tax-system/#.VonfADZO23Q>

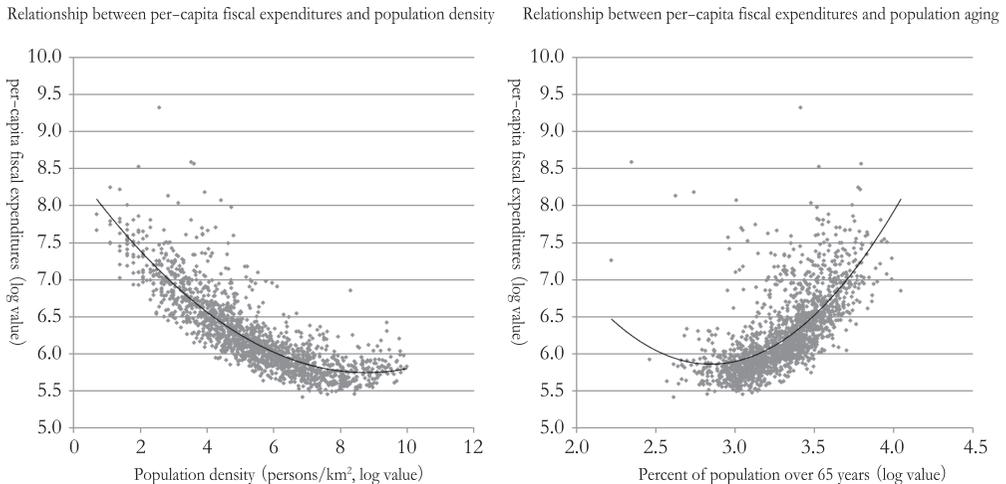
79) See (in Japanese) pp. 33-5 of "FY 2015 Report of the Tokyo Metropolitan Tax Commission," November 16, 2015: http://www.tax.metro.tokyo.jp/oshirase/2015/h27_zeiseicyousakitoshin_02.pdf

80) See the final paragraph of the English language translation of "Print Policy Speech by the Governor of Tokyo, Yoichi Masuzoe, at the Second Regular Session of the Tokyo Metropolitan Assembly, 2015," June 9, 2015: <http://www.metro.tokyo.jp/ENGLISH/GOVERNOR/SPEECH/2015/0609/contents03.htm>

Compact Cities and the FAT

One of Japan's most pressing structural reforms, evident in ongoing changes to the FAT and other policies, is to reshape the political economy's bias towards spatial expansion of the built environment. Rather than add yet more suburban sprawl, further increasing Japan's already massive investment in roads, sewerages and other infrastructure, policy has turned to an emphasis on densification. The forces driving the larger governance system in this direction include the unprecedented burden of public debt as well as the sobering data on demography. In addition, an expanding cohort of policymakers aim to foster new "smart city" business models and infrastructures appropriate to a resource and carbon constrained era⁸¹.

- Japan's per-capita fiscal expenditures are strongly related to population density and rates of aging
- Japan's smaller local governments confront population declines that exacerbate fiscal challenges



Note: Based on 2010 census and municipal finance data

Source: Ministry of Economy Trade and Industry, (nd) : http://www.meti.go.jp/committee/kenkyukai/sansei/kaseguchikara/pdf/003_03_12.pdf

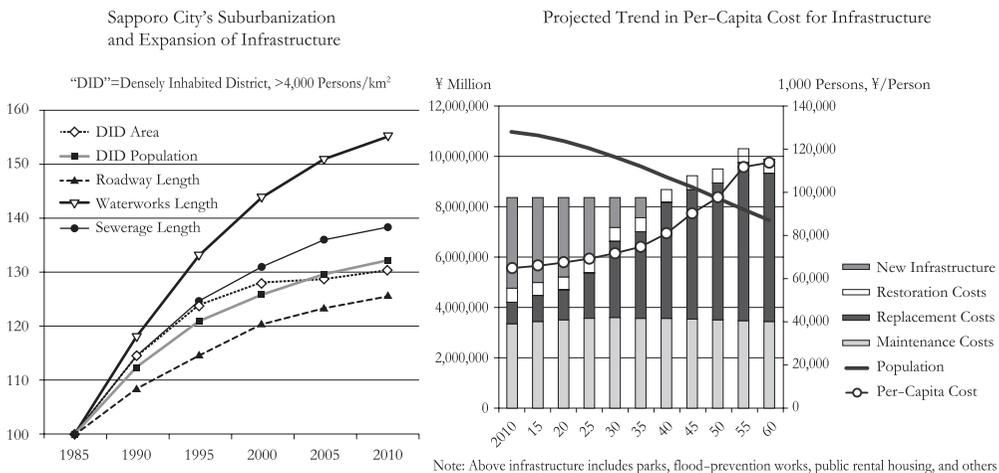
Population Density and Per Capita Cost of Administration in Japan

81) On these policymakers and their initiatives, see Andrew DeWit "Japan's Bid to Become a World Leader in Renewable Energy," *The Asia Pacific Journal*, Vol. 13, Issue 39, No. 2, October 5, 2015 : http://www.japanfocus.org/Andrew_DeWit/4385/article.html

Japan's shifting priorities are evident in the new National Spatial Plan (NSP), adopted in August 2015. As the OECD notes in its 2016 "Territorial Review of Japan," the NSP "is the most important of a number of key planning documents." Unlike prior spatial plans, the NSP is a "truly horizontal initiative," one that was built on the basis of "an intensive exercise in inter ministerial co ordination and consultations extending beyond the government itself under the aegis of the National Land Council, which brings together parliamentarians, academic experts, representatives of the private sector, elected officials from the cities and regions, and others." Moreover, the NSP "emphasizes compact city policies in an effort to sustain the coherence of the urban fabric."

Another important item is the NSP's careful attention to renewable energy, climate change, resilience and other factors as the context for compact cities. For example, the word "energy" appears only 54 times in the previous NSP (adopted in 2008), but the 2015 NSP has 207 mentions of "energy."

- Suburbanization leads to expansion of roads, sewers and other infrastructure
- As the population declines, the per-capita cost of maintaining and replacing infrastructure is expected to increase along with pressure on municipal finances
- Increased density reduces infrastructure costs and is thus advantageous for municipal finances

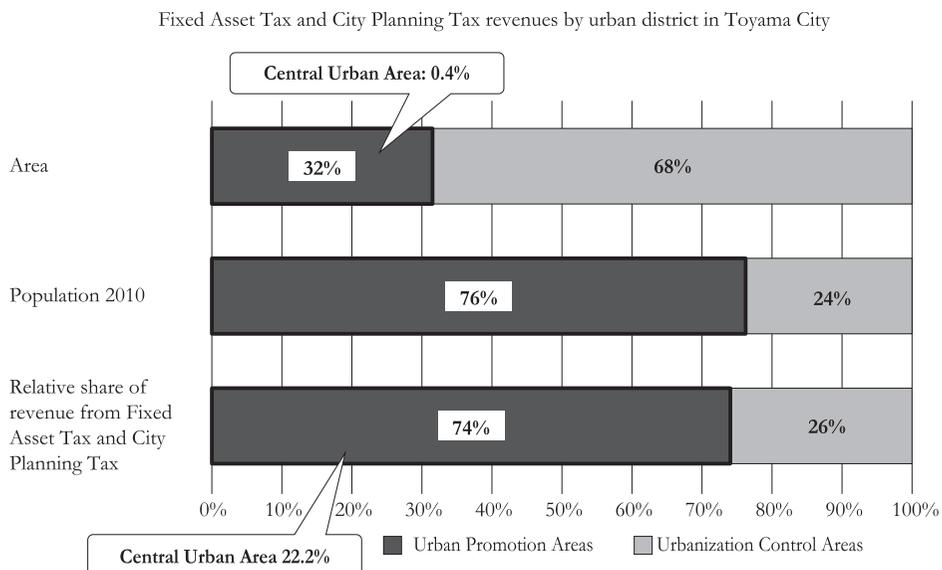


Source: Japanese Cabinet Secretariat: February 5, 2013, p. 31: <https://www.kantei.go.jp/jp/singi/tiiki/chukatu/hyouka/pdf/shiryous.pdf>

Urban Sprawl and its Effects on Japanese Municipal Finance

We have seen in the above that some of the FAT related tax measures to encourage business relocation are dubious and controversial. However, the larger emphasis on policies to encourage densification has become common sense among the technocratic elite and is rapidly diffusing throughout the municipalities. One reason is seen in the figure “Population Density and Per Capita Cost of Administration in Japan,” which quantifies how costly a low density and ageing population is. This kind of empirical analysis of the interaction between public finance and spatial and demographic factors is quite advanced and widespread in Japan.

Detailed empirical studies of the relationship between spatial forms, demographic change, and finance are also increasingly common. An example of the work is seen in the study of Sapporo City’s fiscal future, in the figure “Urban Sprawl and its Effects on Japanese Municipal Finance.” The work deftly outlines the consequences of past urbanization, whose sprawl resulted in a large investment in roads, waterworks and other infrastructure. The “projected trends in the per capita cost for infrastructure,” meaning expenses on maintenance, replacement and recovery from disaster, suggest significant rates of increase are already underway. These outlook is for these cost increases to accelerate before reaching a rough plateau in mid century.



Source : MLIT, (nd) : <http://hokuriku.mof.go.jp/content/000091655.pdf>

Land Values and Tax Revenues in a Japanese Municipality, FY 2013

And it should be noted that these projections may be underestimated, in light of climate change as well as possible increases in energy and material costs.

The FAT is also playing an increasingly strong role in encouraging attention to the merits of “compact city” densification. The figure on “Land Values and Tax Revenues in a Japanese Municipality, FY 2013,” displays the fiscal attractiveness of compact city approaches for Toyama City. This city has been studied in detail by the OECD as a model of “compact city” policies, alongside Melbourne, Paris, Portland and Vancouver⁸²). The international attention has helped give Toyama a benchmark status in Japanese specialist debate on urban policy options. It is increasingly common to see television and print media coverage of Toyama and other cases. As is evident from the figure, that discussion of Toyama City stresses the benefits that densification has for the city's fiscal health. Densification raises property values in the crucial urban core, which is only 0.4% of the city's land area but is the source of 22.2% (in FY 2013) of the city's revenues from the FAT and the CPT.

Toyama City in Detail

Toyama is indeed an instructive case, because tax policy is being melded with multiple other policies to cope with ageing and reduce energy intensiveness. So this paper examines the city, and its downtown area, in greater detail.

First, let us situate the city, spatially and demographically. Toyama City is in Toyama Prefecture, and is a major centre for pharmaceuticals, robotics, and banking. As shown in the figure “Toyama City, Japan,” the city is 250 kilometers northwest of Tokyo, on the Japan Sea side of Japan's main island Honshu. Toyama Prefecture's total population in 2015 was 1.07 million. Fully 30.3% of the prefectural residents were over 65 in 2015, versus the national average of 26.30% for the same year. As for Toyama City, its population in 2015 was 418, 686, or about 40% of the prefectural total, with 28.2% of city residents being over 65. Moreover, the city's population was projected to shrink to 381, 752 people by 2030, with the ratio of elderly rising to 32.3

82) See “Governance : Compact cities : the way of the future,” OECD, June 13, 2012 : <http://www.oecd.org/newsroom/governancecompactcitiesthewayofthefuture.htm>

%⁸³⁾.

Another measure of the city's challenge is seen in the regional reliance on personal transport as opposed to mass transit. Toyama Prefecture itself had Japan's second highest rate of car ownership in 2013, at 1.71 vehicles per household versus the nationwide average of 1.07⁸⁴⁾.

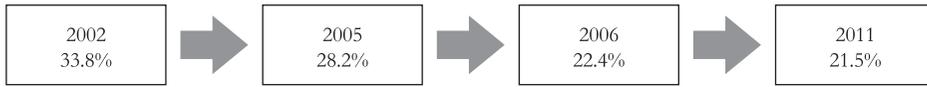
The prefectural dependence on automobiles has long been reflected in Toyama city as well. The most authoritative research on commuting showed that by 1999, Toyama City's reliance on motor vehicles for commutes overall was 72.2%, and 83.3% for commutes to work. This dependence on cars was the worst among Japan's 48 mid sized cities (*chuukakushi*)⁸⁵⁾. Toyama City also exhibited a striking degree of sprawl compared to the rest of Japanese mid sized cities. The sprawl was exacerbated by a 2005 amalgamation that made Toyama the largest of Japan's mid sized cities, at 1,242 square kilometers. Its population density, at 336.7 persons per square kilometer, was



83) The relevant data are available (in Japanese) at the Japan Medical Analysis Platform: <http://jmap.jp>

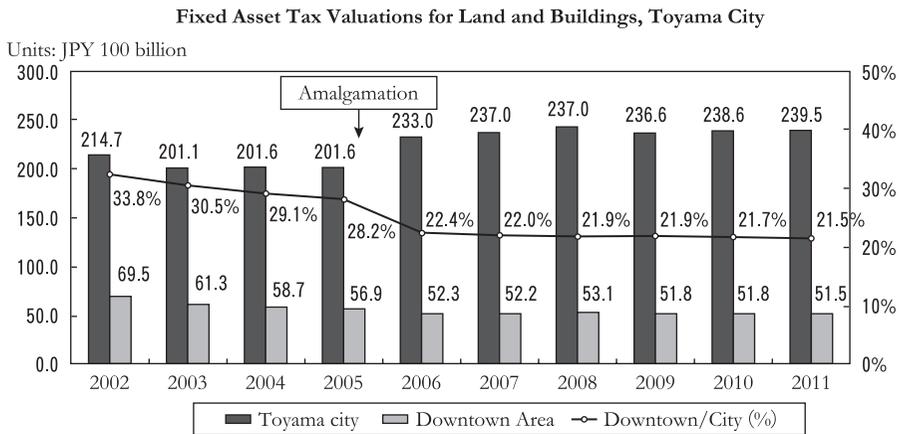
84) The data are available (in Japanese) on p.4 of "Specifics of the Toyama Prefecture Economy," Bank of Japan, Toyama Office, January 2016: <http://www3.boj.or.jp/toyama/pdf/toya.pdf>

85) See p. 6 of (in Japanese) "Why does Toyama City aim to be a compact city?" Awashima Yasuo, September 30, 2009: http://www.thr.mlit.go.jp/compact_city/contents/suishinkenkyuukai/3/s1.pdf



Between 2002 and 2005, the Toyama City Downtown Area's share of the overall Fixed Asset Tax base declined from 33.8% to 28.2%

After amalgamation in 2005, the Toyama City Downtown Area's share continued its decline, albeit at a slower pace, reaching 21.5% in 2011

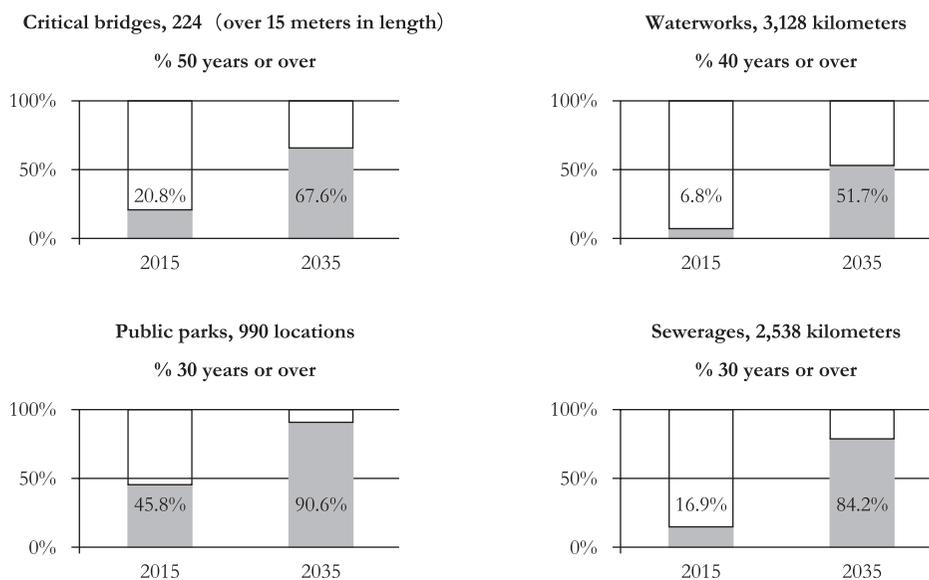


Source : Toyama City, 2016

Decline of Downtown Area's Proportion of Fixed Assets Tax Base in Toyama City, 2002-2011

third lowest among Japan's 48 mid sized cities.

Between 1995 and 2006, Toyama's roughly 436 hectare downtown area saw a 11.5% decline in population from 27,233 persons to 24,099. This decline was accompanied by a staggering drop in economic activity. Over the decade 1994 to 2004, retail sales in the downturn core dropped 40%, from YEN 197.3 billion to YEN 118.2 billion. The same decade saw the number of shops in the downtown decline from 1,995 to 1,450. Visitors to the downtown commercial area (on Sundays) plunged from 78,212 persons in 1995 to 24,932 in 2006. Between 1992 and 2004, downtown real estate used for parking lots increased from 27 hectares to 46 hectares. And land values fell accordingly. From 1995 to 2006, the per square meter value of downtown land fell from JPY 1.95 million to JPY 408,000. In consequence, the city's tax revenues from the downtown core dropped. Toyama City managed to maintain a total FAT revenue flow of about JPY 20 billion between 2001 and 2005, but the proportion collected from the



Source : p. 18 Toyama City National Resilience Local Plan(Draft), 2016

Ageing Social Infrastructure in Toyama City

downtown area declined from 34% to 28%⁸⁶⁾.

The figure on the “Decline of Downtown Area’s Proportion of Fixed Assets Tax Base in Toyama City, 2002-2011” illustrates these fiscal implications in greater detail. It shows that assessed FAT values for the city as a whole increased over the period, especially after the 2005 amalgamation. But it also shows that the downtown area’s role as a revenue source shrank. The 2005 amalgamation clearly had some effect, as the figure shows that overall FAT valuations rose from JPY 20.16 billion in 2005 to JPY 23.3 billion in 2006. But valuations in the downtown area declined from JPY 5.69 billion in 2005 to JPY 5.23 in 2006, remaining roughly at that latter level afterwards.

Toyama City's Challenge and Response

The above data show that Toyama City’s downtown area was hollowing out in the 1990s and 2000s. Suburban sprawl and ageing were leading to an unsustainable cy-

86) See pp. 4-5 in (in Japanese) “Toyama City Basic Plan for Revitalizing the Downtown Area,” Toyama City, February, 2007 : <https://www.city.toyama.toyama.jp/data/open/cnt/3/2332/1/all.pdf>

cle in fiscal, environmental and economic terms. The greater the hollowing out of the downtown core, in tandem with population ageing and decline, the less the residential density. The lower the density, the greater the per capita costs of building and maintaining such critical infrastructures as power, water, transport, sewerage, and communications systems. As shown in the figure “Ageing Social Infrastructure in Toyama City,” the majority of these assets will age over the 2015–2035 period, assuming no new investments⁸⁷⁾. The greater the per capita costs of using and maintaining these infrastructures, the greater the city’s energy consumption and carbon footprint. That kind of urbanization is not sustainable, given Japan’s demographics, its debt crisis, and its exposure to energy and climate change hazards.

The city and regional/national authorities have long recognized these challenges. Toyama was thus selected to be an “Environmental Model City” in 2008, one in which revitalization of public transport was made the core element in shifting the city towards a more compact and sustainable spatial profile⁸⁸⁾. The project centred on planning, with improved transport as the focus. Toyama City was also selected as an “Environmental Future City” in 2011⁸⁹⁾. And as noted earlier, in June of 2012 the OECD spotlighted Toyama City along with Vancouver, Melbourne, and Paris as exemplary cases of “compact city development⁹⁰⁾.”

In addition, Toyama was also chosen as one of the Rockefeller 100 Resilient Cities, in December, 2014. Toyama was the first Japanese city to be selected as one of these 100 resilient cities (Kyoto was added later). Since December of 2013, the Rockefeller Foundation has used the resilient cities programme to disseminate awareness of climate change and other challenges to cities. The Foundation makes its selec-

87) The figure is from p. 18 of Toyama City’s draft version of its “National Resilience Local Plan.” The plan was published in October 2016, and is available here: <http://www.city.toyama.toyama.jp/data/open/cnt/3/16202/1/tnlrrpd1011.pdf>

88) See (in Japanese) “Concerning the Selection as an Environmental Model City,” Toyama City: <http://www.city.toyama.toyama.jp/kankyobu/kankyoseisakuka/ondankataisakukikaku/kanyomoderutoshi.html>

89) See (in Japanese) “Concerning the Environmental Future City Concept,” Toyama City: <http://www.city.toyama.toyama.jp/kankyobu/kankyoseisakuka/ondankataisakukikaku/kanyomiraitoshi.html>

90) See “Governance: Compact Cities: the way of the future,” OECD, June 13, 2012: <http://www.oecd.org/newsroom/governancecompactcitiesthewayofthefuture.htm>

tions based on applications from the cities themselves. One major goal is to foster an international cohort of Chief Resilience Officers, each working in his or her designated city and funded by the Foundation. Ideally, these Chief Resilience Officers are empowered to build resilience within their own urban and regional contexts, borrowing from international best practice as well as contributing to it. Another resilient city goal is to maximize the “resilience dividend,” by deploying infrastructures and practices that pay off in greater resilience against disaster as well as during routine operations⁹¹⁾.

Toyama City is thus a notable case internationally as well as in terms of multiple, overlapping policy lines. These policies and their main sponsoring agencies (in brackets) include compact city (MLIT) ; smart community (METI) ; distributed energy (MOE, METI) ; hydrogen generation and distribution (METI) ; heat recovery in sewers (MLIT) ; ICT enabled efficiencies (MIC) ; and new model mobility, such as car sharing, small electric and fuel cell vehicles, buses and light rail (MLIT, METI). As noted earlier, the central element of Toyama’s approach is to use revitalized public transport to focus urban functions on the downtown area as well as along urban transit lines. The city also aims to revitalize its downtown area, enhancing its walkability and thus bolstering its social capital.

The overall image of what Toyama aims at is seen in the attached figure “The Compact City and Transit Networks,” which MLIT developed to illustrate the compact city. As is evident in the figure, proliferation of downtown areas and increasing use of moto vehicles have deleterious effects. The compact city approach seeks to counter these trends through plans that relocate core urban services (medical, welfare, etc) in downtown areas and link them through improved public transit options⁹²⁾.

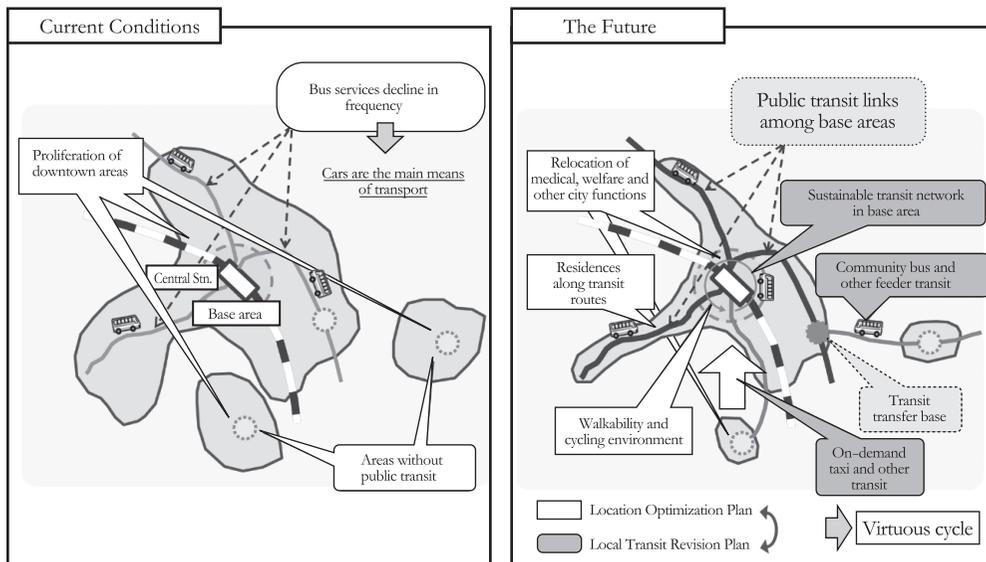
Toyama also seeks to maximize the activity of the regional pharmaceutical industry, attract new firms, and increase the use of renewable energy. Toyama’s renewable energy and related projects include the deployment of solar and other power

91) Concerning the Rockefeller Foundation’s 100 Resilience Cities initiative, see : <https://www.rockefellerfoundation.org/our-work/initiatives/100-resilient-cities/>

92) The figure is taken from (in Japanese) “Concerning the revision to the Law on Special Measures for the Revitalization of Cities (*toshi saisei tokubetsu sochihou*) and other measures,” MLIT, June 1, 2015 : <http://www.mlit.go.jp/common/001091253.pdf>

generation in the downtown area. The city also aims at building a distributed energy and materials circulation system that includes biomass, especially marine biomass as well as a biogas network that uses leftover foodstuffs as the input resource. Toyama City's outlying regions are also to be stimulated by a program that stresses the revitalization of farms via the deployment of such renewable energies as small hydro. The city will also build a factory for the cultivation of plants related to the pharmaceutical industry, one that uses geothermal, small hydro, solar and other energy sources. The city also aims at building an "eco forest Toyama," a project that aims to increase forested area from zero hectares (ha) in 2010 to 500 ha by 2016. The amount of forest origin biomass will also be increased from 370 tons in 2010 to 2000 tons in 2016⁹³.

Toyama certainly is not Japan's greenest city. It also is not Japan's most resilient city, no matter how one defines resilience. Nor is it Japan's most climate change challenged urban area. The disaster risks confronting the Tokyo Yokohama metro region are far greater, though Toyama City does confront very significant flood



Source : MLIT, June 1, 2015

The Compact City and Transit Networks

93) On this, see (in Japanese) "Toyama City Environmental Future City Plan," Toyama City, 2013 : <http://www.city.toyama.toyama.jp/data/open/cnt/3/9959/1/05siryou2.pdf>

risks⁹⁴). Yet among Japanese cities, Toyama has perhaps the greatest density of smart and compact city related public policies. It is especially aimed at coping with the intersection of aging and resource crises to build resilience inter generationally and throughout its city region, encompassing the rural areas, as well as maximize the economic opportunities through doing that.

The Toyama case is an exemplar of what is possible in Japan. There are multiple well funded central agencies keen to deploy compact city, smart community, future city, distributed energy, and other policies and finance for dealing with Toyama City (and the country's) long list of demographic, dirty energy dependence, climate change, and other chronic and increasingly threatening problems.

What has been lacking is the capacity and incentives for local governments, such as Toyama, to take the leadership role in designing and implementing these policies. Japan is a unitary state, with powerful central agencies that have their respective bureaus in local government. A lot of funds flow into climate and energy related projects, in tandem with urban revitalization, and it is important to maximize their effectiveness. Because policies for dealing with energy, climate, aging and other broad challenges cross so many administrative areas, there is a risk of overlap as well as poor design due to preferences of the central agencies and their allied political and business coalitions. This problem is reflected at the local government level as well. This is because Japanese local governments' local planning functions have not explicitly addressed the role of energy⁹⁵).

Yet policy changes since 2014 have seen revisions to the Law on Special Measures for the Revitalization of Cities (*toshi saisei tokubetsu sochihou*). A core element of the revision was to make local governments the key agent in land use planning, and explicitly to cope with ageing and other crises as well as achieve a more

94) Concerning Toyama City's hazards, and countermeasures, see (in Japanese) "Toyama City National Resilience Local Plan (Draft Version)," Toyama City, October, 2016: http://www.city.toyama.toyama.jp/kikakukanribu/miraisenryaku/tnlrrp1_2.html

95) On this, see p. 79 in Ozawa Ichiro (in Japanese) "The Role of Urban Planning in Low Carbon Cities," *The Journal of the Japanese Real Estate Academic Association*, No. 26 Vol. 1, June 2012: https://www.jstage.jst.go.jp/article/jares/26/1/26_76/_pdf

spatially effective use of energy. Japanese cities thus have a potentially powerful role in building coherent and comprehensive policies to increase densification in the downtown area⁹⁶). Their resources to undertake these measures also increased substantially over the same period. For example, the Local Finance Plan in 2017 included JPY 200 billion for densification of public facilities, and this amount rose to JPY 350 billion in the draft for the 2018 fiscal year⁹⁷). Indeed, the January 4, 2017 *Nihon Keizai Shinbun* noted that the central government would pick up 30% of the cost of building compact facilities, supplemented by generous provisions in the JPY 16.33 trillion Local Allocation Tax (the interregional general subsidy programme).

Toyama City is one of the key cases that led to these revisions. Its focus on revitalizing the downtown core, and the concrete incentive of increasing FAT revenues, appears to have encouraged policy coordination in the City. The evidence suggests it has also met with some successes. For example, visitors to the downtown area rose to 23, 595 in 2015. And the number of new residents (exclusive of births and deaths) rose by 609 between 2011 2015. This figure indicated that the revitalization target of 390 between 2011 2016 would be exceeded. Moreover, commercial land values in the downtown area increased between 3.3% 7.5% in the downtown area during 2014, versus 0.7% for the city as a whole⁹⁸).

Conclusion

Japanese policymakers use the FAT and other tax incentives to incentivize local communities. MLIT surveys indicate that over 50% of municipalities especially the larger ones have some degree of “compact city” policy in their master plans.

96) Note the discussion of these powers in (in Japanese) Murahashi Masatake “Compact Cities and Renovation: Sustainable Urban Planning and the City Image Aimed at by the Location Optimization Plan,” Paper Given to Kinki Chapter of the Society of Heating, Air Conditioning and Sanitary Engineers of Japan, September 11, 2015: <http://www.kinkishasej.org/upload/pdf/3151.pdf>

97) See (in Japanese) “Outline of the FY 2017 Local Finance Measures,” Ministry of Internal Affairs and Communications, Japan, December 22, 2016: http://www.soumu.go.jp/main_content/000455925.pdf

98) On these data, see (in Japanese) “Follow Up Report on the Authorized Downtown Area Revitalization Plan, 2015,” Toyama City, March 2016: <http://www.city.toyama.toyama.jp/data/open/cnt/3/2332/1/houkoku20160630.pdf>

Several municipal governments explicitly aim at densification to raise property values and thus increase FAT and other tax revenues while cutting expenditures for maintenance and other costs. In tandem, policymakers in MIC and MLIT are focusing tax reform on increasing urban density (to raise land values) and foster the diffusion of smart energy systems (eg, LEDs, district heating, light rail, FVC buses, etc). The FAT is one mechanism in this initiative. The use of “special tax measures” (*sozei tokubetsu sochi*) is also notable, as special depreciation tax measures centred on energy and the environment mushroomed from YEN 800 million in FY 2011 to YEN 552.5 billion in 2013, reaching well over half of FY 2013’s YEN 949.3 billion in total special depreciation allowances (versus a total of YEN 313.1 billion in FY 2011)⁹⁹. From FY 2011, these special measures include LEDs, biomass, small hydro, waste heat recovery (from sewerages), batteries, cogeneration and other energy producing and storage systems¹⁰⁰. Most of this investment is clustered in compact and smart cities, such as Toyota, Sendai, and Yokohama. This may be a paradigm shift, one that incorporates property and other tax incentives in a coherent package of smart policies.

99) On this, see (in Japanese) Satoshi Sakamoto “Special Depreciation,” presentation to Japanese Tax Research Centre, October 19, 2015.

100) For a listing of the items included in energy and environmental special tax measures, see (in Japanese) “Special Tax Measures Law, Tax Deductions”: http://www.zeiken.co.jp/25kaisei/soz1_3.html