Chapter 2
Markets, Communities, and Government: Analytical Framework

A welfare regime can be defined as the combined, interdependent way in which welfare is produced and allocated between state, markets, and family.

Esping-Andersen, G. (1999, p.34)

2.1 Introduction

In this chapter, we try to clarify functions and limits of the three most important institutions in our society: markets, communities (including families), and governments. We also try to clarify the interactions among those institutions.

In modern societies based on market economies, it is useful to regard communities and the government as institutions for resource allocations that supplement the allocations in markets. Such a way of thinking is a standard in economics, except that we explicitly consider communities as institutions that supplement the resource allocations by markets and the government.

Roles of a family, one of the most important examples of a community, have been well recognized in social sciences other than economics, as suggested by the above-mentioned quote from Espin-Andersen (1999). In this book, we also point out the importance of various communities other than families, to deepen our understanding on the transformation of our society and the role of the government in it.

The usefulness of such a viewpoint has been put forward in development economics. Hayami and Goto (2005, p. 311), for instance, argue that "the economic system for the development of developing economies must be designed not as a combination of market and state but as a combination of the three organizations including community." The viewpoint is not only useful in analyzing developing economies, but also in understanding the transformation from developing to developed economies (c.f. Aoki and Hayami 2001).

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2.2 Functions of Markets, Communities, and Governments

We first summarize functions and limits of markets, communities, and governments from the viewpoint of resource allocations.[1]

2.2.1 Functions and Limits of Markets

The following first welfare theorem is useful in understanding functions and limits of the market system. The "efficiency" in the theorem refers to the condition in which there is no waste in the allocation, which is referred to as Pareto efficiency[2] named after an Italian economist, Pareto (1848–1923).

Proposition 2.1 (First Welfare Theorem) *If all goods and services are traded in the markets, under perfect competition, efficiency of allocations will be achieved.*

This theorem is the basis of most economists who claim that the market system functions well in allocating precious resources efficiently in our society. It also indicates the limitations of the market system, by pointing out two conditions for efficiency. First, all goods and services are expected to be traded in markets, which we refer to as "universality of markets." The second condition is the "perfect competition" under which economic agents need to take the market prices as given, with no power to change them.

These two conditions are sufficient conditions for efficient resource allocation in the market. However, it is well known that allocations can be inefficient when either of the two conditions is not satisfied, which we refer to as "market failure" problems. As the two conditions are rarely satisfied, our society is full of market failures.

In the following part, we briefly explain six market failure problems: (1) imperfect competition, (2) externalities, (3) economies of scale, (4) incomplete information, (5) incomplete contracts, and (6) inequality. Although inequality is not a problem associated with the first welfare theorem concerning the efficiency of the markets, we regard it as a market failure problem because it is an important problem that the market cannot solve and often exacerbates.

2.2.1.1 Market Failure: Imperfect Competition

In markets, sellers try to earn some monopoly profits by differentiating their goods and services from other sellers. Even if such efforts are not made, goods and services

[1] A good reference for the explanations of functions and limits of markets and governments is Stiglitz and Rosengard (2015).

[2] To be more precise, Pareto efficiency refers to the condition in which it is no longer possible to improve anyone's welfare without deteriorating that of others.

provided in different places can be seen as different goods and services. Hence, markets are naturally imperfect.

Under imperfect competition, sellers try to set their prices higher than the prices under perfect competition, and thus the transactions, in general, become smaller and inefficient. The market system itself usually does not have good mechanisms to prevent such behavior because sellers try to maintain their monopoly powers to earn higher profits. Government's intervention to mitigate such problems that the market system fails to solve is justified.

2.2.1.2 Market Failure: Externalities

When some actions have effects on the welfare of other economic agents outside the market system, they are said to have externalities or external effects. Creating noise, garbage, air pollution, water pollution, and exploitation of resources for free are a few examples of negative externalities. Provision of good education, good environment, peace and order, and maintenance of a stable financial system are examples of positive externalities. The existence of such externalities suggests that there are many goods and services that are not traded in the markets and are provided for free. When the "universality of markets" is not satisfied and there exist problems of "missing markets," resource allocations become generally inefficient. Resources will be overused under negative externalities and underused under positive externalities.

Such problems usually occur because the property rights of some resources are not well-defined. For the market system to work efficiently property rights of goods and services need to be well-defined and protected; hence, the intervention of governments is required. However, it is difficult to define and maintain the property rights of all goods and services.

Even if the governments fail to adequately define property rights of some resources and markets cannot achieve efficient allocations, as long as external effects are limited to small communities, people will cooperate with each other to improve efficiency in the communities (c.f. Coase theorem in Sect. 3.1). For example, in our family lives, we usually provide various services that are full of externalities. However, our family lives are not so inefficient, if not perfectly efficient, because we cooperate with each other to reduce inefficiency.

Although we usually do not expect the government to intervene in family lives, if the externalities are spreading over wide communities, the cooperation within the communities will become more difficult. The intervention of the government in such cases will be demanded and justified. It is well known that the government can mitigate the problems of externalities by the direct provision of goods and services with externalities (e.g., education), designing and implementing regulations (e.g., pollutions), setting taxes and/or subsidies (e.g., carbon taxes and subsidies for education), and creating new markets (e.g., markets for emission credits).[3]

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[3]Note that the government policies to mitigate market failures can generate positive or negative externalities. For example, the social security system can have negative effects on our fertility

2.2.1.3 Market Failure: Economies of Scale

A high fixed cost is required to start a business such as the supply of water, electricity, gas, railway services, and telephone services because it requires infrastructure to provide the service. The average cost for such businesses decreases as the scale of supply increases. Under such "economies of scale," the market price that guarantees efficiency is often lower than the average cost when the market demand is not large due to, say, low economic development. If the price, that is, revenue for each unit of output, is lower than the average cost, the profit becomes negative. Hence, no supply will be made under perfect competition and the market fails to achieve efficiency.

The problem lies in the fact that the market demand is too weak to cover large fixed costs. However, the businesses listed above are essential for our lives. Hence, the governments often set up public enterprises to provide such services and use the tax revenue to compensate for the deficit under efficient supply.

2.2.1.4 Market Failure: Incomplete Information

When there are informational gaps between sellers and buyers, we say that there exists "incomplete information" or "asymmetric information." In markets, it is difficult to obtain accurate information about qualities and/or risks of goods and services. It is known that market transactions are not efficient with incomplete information.

The problem is known to exist in the insurance markets, where insurance companies have difficulty in obtaining information about the risks of subscribers. If the insurance premium is set to cover the average risks of subscribers, it is well known that it will lead to the "adverse selection problem." It is a problem that only those who have higher risks than average will think that the premium is acceptable and thus purchase the insurance. That is, under incomplete information, subscribers that the insurance companies would not want to insure will be adversely selected by the market. In the worst case, the insurance markets fail to exist (c.f. Akerlof 1970).

If such insurance is very important for most people, it is often justifiable that the governments provide it by forcing people to purchase the insurance to avoid the adverse selection problem. The universal public pension and healthcare, in which all the people in the country are forced to participate, can be justified by the adverse selection problem in the insurance markets.

Incomplete information about the behavior of sellers and buyers can also cause market failure problems. For example, when people have full insurance for healthcare under which they do not have to pay at all for the treatment of sickness, they may behave less carefully than when they have no insurance. Such rational behavior is referred to as the "moral hazard problem." The problem is caused by the incomplete

(Footnote 3 continued)
behavior, and under the labor income tax system, our labor will have positive externalities on the society. Public policies need to be designed by considering such externalities.

information about our behavior in the sense that such wrongful behavior would be prevented if the insurance company knows about it.

2.2.1.5 Market Failure: Incomplete Contracts

Theoretically speaking, there must be some contracts for all market transactions. Hence, for market transactions to be efficiently conducted, the legal and judicial system should be well developed so that any failure to comply by the terms of the contracts should be adequately punished. For the system to work, each contract must be complete to handle every possible case that may occur after the market transaction is made. However, there are infinite possibilities in the future. As we cannot write contracts for infinite contingencies, each contract must be an incomplete contract to some extent.

When the problem is serious, market transactions will be inefficient. This is also a problem that the markets cannot solve and is thus considered a market failure problem. The problem of incomplete contracts exists not only in market transactions, but also in formal and informal contracts in the activities of communities and governments, as we will see in this book.

2.2.1.6 Market Failure: Inequality

One of the characteristics of the market allocation is that those who have bigger endowments (e.g., abilities and wealth) can enjoy better lives, and those who have little will perish. The market mechanism is cruel. The market system does not satisfy vertical equity in the sense that those who have less will envy those who have more although it satisfies horizontal equity in the sense that people need not envy those with the same endowments.

However, the second welfare theorem suggests that we should not discard the market system to achieve equity in it, because it indicates that under certain conditions, any allocation that is equitable can be achieved in the market as an efficient allocation if the appropriate redistribution of the initial endowments by lump-sum tax and/or subsidy is achieved. Although it is very difficult for the conditions to be satisfied, the second welfare theorem suggests that the equality of the market economy can be improved by the government's intervention to redistribute the endowments of the people and allow people to trade in the markets.

However, the adequate redistribution of the initial endowments is very difficult because the government does not have enough information about it. If so, redistribution of outcomes of market transactions, such as labor incomes, may be justified. In most countries, there seems to be some consensus, besides guaranteeing the fundamental human rights in a market economy, to redistribute incomes that are attributable to the unequal distribution of initial endowments among people.

Remark 2.1 (Equity) In economics, it is considered desirable to achieve efficient and equitable allocation. It is regrettable that many economists place too much emphasis on efficiency due to the difficulty in defining equity. In this book, we consider an equitable society as one in which equal opportunities are guaranteed.[4]

Although "equal opportunity" is also difficult to define, it seems natural, from the viewpoint of economics, to define it as the equality of choice sets.[5] In standard economics, such choice sets are essentially the budget sets (c.f. Remark 3.4). The budget sets are dependent on individual wages, that is, the ability to earn labor income, which is generally different for different individuals. Hence, equal opportunity is not guaranteed in a market economy. It can be viewed as one of government's functions to reduce the inequality in our opportunities.

2.2.2 Roles and Limits of Governments

How the market failures can be solved has a deep impact on the quality of our society. Mainstream economics has regarded the government as an institution that should mitigate such problems.

2.2.2.1 Roles of the Government

What would happen if the government disappeared tomorrow? There would be chaos. In some societies, it may lead to "the war of all against all" as Thomas Hobbes (1588–1679) described in his *Leviathan*.[6] There may be outbreaks of some infectious diseases, loss of properties by fire and disasters, or suspension of various activities based on credit transactions. Lives of many people would be lost due to inadequate or the absence of treatment. Markets would not work well, and even if they would exist, they would suffer from market failure problems.

To avoid a "war of all against all" and protect our basic human rights, we will engage in a social contract with each other and ask the Leviathan, the powerful sea monster described in the old testament of the Bible (e.g., Job Chap. 3), to punish those who break the contract. In this theory of social contract, the people demand the government to play the role of Leviathan, who has the power to protect the basic human rights, and under which markets work well.

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[4]This definition is imperfect as compared to the one for equitable allocation because it does not allow us to compare equity of allocations when equal opportunities are not guaranteed. We can define the degree of equity if we define a measure of differences of opportunity sets.

[5]The notion of equality adopted in this book has a close relationship with the envy-free allocation as the equitable allocation (c.f. Pazner and Schmeidler (1974) and Yamashige (1997)).

[6]The book, *Leviathan or The Matter, Form and Power of a Common Wealth Ecclesiastical and Civil*, was published in 1651.

The government can play many important roles to mitigate market failures in our society. However, Leviathan is not perfect. It will often fail to realize the wills of the people. This is called the "government failure problem." Hence, even if the government's intervention in some market failures may be justified, it may not be desirable.

The desirable roles and the size of the government will be determined by balancing the benefits of reducing market failures and the costs of government failures, that is, by maximizing the net benefits of government intervention. The most difficult part of a democratic society under social contract is that people often have different perceptions and values about the benefits and costs of government intervention.

2.2.2.2 Government Failure

Human beings have developed democratic societies in which the government will be operated by the agents elected by the people. As the government is an organization, it faces organizational problems. Hence, the government failures are essentially problems in governance of the government.[7] The question is why the governance of the government fails.

There are two sources of failures peculiar to the governments. The first one is that the people who are expected to have sovereign power have little interest in monitoring the government. It is because the benefit of monitoring the government is very small compared to its cost, as each individual is too small to change the behavior of the government even if he/she finds some problem in monitoring. The situation is in contrast to the case in which one owns shares of a private company. Although only small shares of the company are owned, there is an incentive to monitor the company because the shares can be profitable if traded.

The difference lies in the fact that each individual cannot choose the government while he/she can choose the company by selling or buying the shares. Under little incentive to monitor the government, actors in the governments can pursue their self-interests rather than interests of the people. The essential problem is "incomplete information" about the behavior of the government and the low incentive for the people to collect the information.

The second source peculiar to the government is that the value of the services provided by the government is difficult to assess, as most of them are provided for free, that is, not appraised in terms of money. If performance of the organization is hard to evaluate, disciplining the organization becomes difficult. This is in contrast to the case of for-profit companies, whose performance in terms of profit can be easily evaluated in monetary terms. The contracts of reward and punishment to discipline the organization can be more easily engaged in such a case than in the case when the measure of the performance cannot be clearly defined, as in the case of the

[7] Governance of an organization means that those who have the rights and/or the responsibilities of controlling the organization, discipline it.

government. Due to such a problem of incomplete contracts, the agents of the government can pursue their own interests.

In addition to these problems, the complexity of the government, as an organization, contributes to the failure of governance. For example, in most countries, the power of the governments is divided into three parts to prevent the Leviathan from abusing it. The structure comprises of an interactive relationship among various actors of the government, which makes governance more complicated as compared to the top-down structure in corporate governance. Hence, the probability of the government failing is higher than that of private companies.

Finally, there is another source of government failures, which lies above the organizational problem. It is the difficulty of social choice in democratic societies where the government's decisions must be made by some rule to be based on the preferences of the people. However, Arrow (1950) demonstrated that it is impossible to design a social choice rule that satisfies the desirable properties.

Hence, even if the governance of the government works perfectly, democratic decisions must have some defects that can cause government failures in terms of efficiency or equity. Furthermore, even if future generations may be affected by some policies, they will not be able to participate in the political process to determine the policies if they are not born yet, and thus, the welfare of the future generations will be deteriorated by policies determined by the current generation (e.g., public debt accumulation). This limitation of social choices is one of the sources of the government failure wherein the governments worsen the inefficiency and inequality in society.

From a social perspective, it is desirable to minimize the problems of market failure *and* government failure by considering the roles and size of the government. However, there will be problems that markets and governments cannot mitigate even if they do their best. In fact, it is families and communities that have been trying to mitigate market failures before the welfare societies were developed, and as we will see below, they are still playing important roles in mitigating market and government failures.

2.2.3 Functions and Limitations of Community

In this book, communities imply networks connected by blood, location, religion, interests, and so on. Families, neighborhood associations, religious groups, and NPOs (Not-for-Profit Organizations) are some examples of communities.

Communities connected by interests, such as NPOs, are often referred to as "associations." We call them "new communities" and the others "traditional communities." In this book, we examine the functions of communities in comparison with markets and governments, and define communities as the networks of people not connected by profit-seeking motives.[8]

The “new communities” have emerged in modern societies in their attempts to overcome the limitations of the “traditional communities.” We defer the discussion on new communities to Chap. 7 and try to summarize functions and limitations of families and local communities as good examples of the traditional communities.

2.2.3.1 Functions of Families

We first consider the functions of families, one of the oldest and the most common forms of communities in the world. Why do we get married, have children, and form new families? To understand the functions of families, we summarize the benefits and costs of family formation based on Weiss (1997).[9]

From the perspective of economics, we can argue that people will get married if the benefit of marriage exceeds its cost. There are several benefits of marriage. The first benefit is the economies of scale from living together. That is, the average cost of living is smaller when living with someone as compared to living alone. For example, couples can share the costs of the house, durable goods, and of raising children. Marriage allows people to consume these goods and services at lower costs.

Second, marriage will produce goods and services that the market cannot. For example, love is something that markets fail to provide, which marriage and families do. Another example of something that is not usually sold in the market is children. There are many other goods and services that are either not sold or sold at high prices, especially in rural areas. Families can provide various household services at reasonable costs and compensate for the roles of the market.

An important service often provided within families is financial service. With incomplete information about our abilities, we often face difficulty in borrowing money in the market. When people get married, they may be able to borrow money from their spouse or children. For example, if a husband borrows money from his wife to study in a graduate school and earn higher income after graduation, it will loosen the budget constraint of the household.

Furthermore, when we are married, we can avail of some insurance that markets often fail to provide. For example, insurance against sickness, injury, long-term care,

[8]Hayami and Goto (2005, p. 310) defines a community as “a group of people tied by mutual trust based on intense personal interaction.” Our definition is broader than that as we do not include “mutual trust” nor “intense personal interaction,” but it is narrower at the same time, as we exclude groups of people tied by profit-seeking motives. In Japan, private companies (*kaisha*) are sometimes considered as communities. Although we do not consider them as communities, when we consider the personal networks of workers or labor unions in the companies, they can be termed as communities by our definition. See our discussion in Sect. 2.3.1 about roles and changes of labor unions in the market economy.

[9]See also Becker (1973, 1974, 1985, 1993) and Grossbard-Shechtman (1984, 1993).

and unemployment are often missing in markets due to adverse selection and/or moral hazard problems because of incomplete information (c.f. Sect. 2.2.1.4). If we were living alone, we would face high risks in our lives, but if we have spouses and children, they can provide some help when we need it.[10]

The arguments above suggest that families are working as institutions to mitigate various market failures and improve efficiency and equity in our lives.

2.2.3.2 Functions of Local Communities

In Japan, local communities also play important roles. For example, Table 1.1 in Chap. 1 indicates that neighborhood associations have provided various public goods and services in the region. The punishment mechanism, known as "*murahachibu*," in local communities provides precious information about how the local communities have worked in the lives of the Japanese people (c.f. Sect. 6.3.3). *Murahachibu* is a norm of ostracizing families who do not follow the rules of the community by requiring members of the community to withdraw 80% of the mutual assistance to such families.[11] The assistance includes that provided for coming-of-age ceremonies, marriages, new births, sickness, flood damages, religious activities, travels, and building houses. The remaining 20% of mutual assistance still provided includes assistance for funerals and fire-fighting to prevent the spread of contagious diseases and the spread of fires.

The penal system in *murahachibu* described above gives us a glimpse into the many types of mutual assistance provided in traditional communities and how essential they were for Japanese families in the past. The local communities have played their role in compensating and supporting families.

As we will see in Chap. 6, such mutual assistances have been prevalent in the western societies (c.f. Remark 6.7 and Ostrom (1990)). They played an important role in avoiding the overuse of communal resources, also known as the tragedy of the commons (c.f. Sect. 3.3.5).

Various economic analysis have also clarified that communities have provided insurances that markets and families fail to provide (c.f. Remark 9.1). For example, risks in the production of agricultural products seem to be absorbed to some extent within the village so that the variation in consumption is not too high and it correlates with the income of the village. As the lack of insurance markets is a typical market failure problem under incomplete information, these findings strongly suggest that market failures have been mitigated by the mutual assistance of the local communities.

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[10] See, for example, Kotlikoff and Spivak (1981).

[11] In the word *murahachibu*, "*mura*" means village and "*hachibu*" means 80%.

2.2.3.3 Community Failure

Communities have functioned as institutions to produce values in our society. As they are composed of members who know each other well, they can avoid the problems of incomplete information and high costs of bargaining to solve externality problems, thus mitigating market failures.

However, unlike transactions in markets, transactions in communities have usually functioned based on the norm of reciprocity rather than formal contracts and thus often fail to be efficient. One of the biggest problems is that community members have an incentive to free ride on the goods and services that are provided by the community.

In market transactions based on formal contracts, the free rider problem can be legally solved, but the solutions will not be available in the communities. Thus, they usually have their own punishment mechanisms such as *murahachibu* to punish those who try to free ride on the mutual assistance within the communities. If they work well, communities can succeed in conducting efficient production and transactions.

However, such mechanisms often fail to work well, which we refer to as "community failure".[12] First, due to the problems of incomplete information and incomplete contracts, the punishment mechanism may fail to provide effective punishments to those who take inefficient actions (c.f. Remark 6.6). Second, for them to work well, mobility must be strictly restrained. If one can leave the community easily after the punishment, the punishment mechanism will not work well to prevent the free rider problem. If mobility is severely restricted, then the closedness of the community will deteriorate the efficiency of the whole society.[13]

Finally, from the perspective of equity, informal punishment system such as *murahachibu* may be seen as a problem, in that it is brutal and inhumane to make people obey traditional behavioral rules. Although the punishment system can be justified to maintain the efficiency of local communities, there have been criticisms against the Japanese traditional local communities based on the inhumane *murahachibu* system (c.f. Sect. 6.3.3).

To overcome the problems of market failure and government failure, the expectations riding on the functions of the communities have been increasing. However, communities also have their own limitation and failure in improving efficiency and equity in society. We will deepen our understanding on the functions and the structure of communities in Chaps. 6 and 7.

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[12] Hayami and Goto (2005) stated that the communities, which are "critically needed to correct the failures of the market and the state" (p. 311), are immune to "community failure" in achieving socially efficient resource allocation (p. 343).

[13] See, for example, Coleman (1990, Chap. 22).

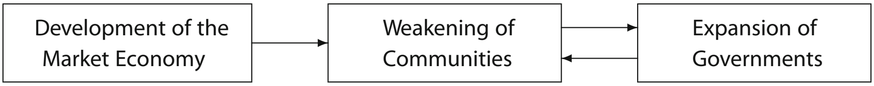

Fig. 2.1 Interactions of markets, communities, and governments

2.3 Interactions of Markets, Communities, and Governments

In the modern society, the governments have started to increase their active roles in resource allocation to mitigate market failure problems. We inquire into the reason that the roles of governments have expanded in our society. We first consider the dynamic interaction between markets and communities and try to explain the expansion of governments. Then, we consider the effects of the expansion of the government on communities to present a hypothesis on the mechanism of continuous government expansion, which we refer to as the snowball-expansion of the government. The basic idea can be illustrated by Fig. 2.1.[14]

First, when the market economy develops and allows us to trade many goods and services, the value of goods and services provided by families and communities may diminish. Then, people can leave their families and local communities to make a living. With such mobility, the punishment for those who do not obey the rules to induce cooperation in communities does not work well and the mutual assistance within communities is reduced. Mobility of people indeed increased dramatically with the development of the market system. The development of the market system thus weakened community ties and made people more individualistic. This effect is depicted in Fig. 2.1 as the causal relationship "Development of the Market Economy → Weakening of Communities".

When families and local communities are weakened and mutual assistance is reduced, people are in trouble when they face serious life risks. For example, the income support and care for the elderly by their children, care for the children by their grandparents and local communities, and support for the poor by families and local communities diminished. Then, people started demanding the governments for help. As the governments cannot abandon the elderly, the children, and the poor, they usually start playing more welfare roles. This effect is depicted in Fig. 2.1 as the causal relationship "Weakening of Communities → Expansion of Governments".

The governments need not respond to the voices of the frail people. However, when they do, the increase in social security further weakens families and local communities, as people need to rely less on them, thus lowering the efforts to continue mutual assistance. This effect is depicted in Fig. 2.1 as the causal relationship "Expansion of Governments → Weakening of Communities".

[14]Needless to state, these three institutions have a more complex relationship than the one depicted in Fig. 2.1. For example, change in the communities should have some impact on the development of the market economy, which should be analyzed more carefully.

An interesting consequence of the last two causal relationships in Fig. 2.1 is that the continuous snow-ball expansion of the government can happen, especially when governments try to respond to the voices of the people.

The expansion of governments in the process of the development of the market economy was observed and analyzed, for instance, by Wagner (1883).[15] He explained that governments needed to increase the expenditure to deal with more complex transactions and social conflicts due to the rise in inequality in a market economy. The fundamental reason for the expansion of the government in most developed countries is the expansion of social insurance. To explain it, we need to pay attention to the decline in mutual assistance, which served as an insurance for many people. Our explanation depicted in Fig. 2.1 provides an interesting theory for the expansion of governments, which goes beyond the one given by Wagner.

It also explains the extent to which government expansion depends on the attitude of the government, that is, the degree of the government's response to the people's voices may depend on, say, people's trust in their government, the stability of the government, and the social norms of families and communities. Such a consideration allows us to explain the difference in the size of governments among developed countries.

In the following part, we will provide two economic theories to support our above hypothesis and then provide some historical evidence that is consistent with it.

2.3.1 Economic Theories Supporting Our Hypothesis

Communities such as families and local communities have played important roles in mitigating various market failures. In economics, the government has been expected to play the role of solving such problems. To understand the relationship between governments and communities, two theories, known in economics as the "Coase theorem" and "crowding-out theorem," are useful.

2.3.1.1 Coase Theorem

Our society is full of externalities. For example, there are public spaces in families and local communities that are maintained by the efforts and cooperation of the members of communities. Coase (1960) pointed out that even if there are externalities, people will discuss and bargain to reduce inefficiencies associated with externalities. If the bargaining cost is very small under well-defined property rights in the legal system, bargaining to solve the problems of externalities will reduce the inefficiency of the society without government intervention. The idea in Coase (1960) is well illustrated in the following theorem.

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[15] Wagner (1835–1917) is a German fiscal economist who proposed a law of government expansion in a market economy.

Proposition 2.2 (Coase Theorem) *If there are no bargaining costs (transaction costs) among the people involved in a problem of externalities, then efficiency will be achieved through bargaining (without the governments' intervention).*

The proof for the theorem is easy once we understand the definition of "efficiency." When there is inefficiency due to some externality, it means that there is room for improvement of someone's welfare without deteriorating the welfare of others. If so, welfare improvement will be realized through negotiation. Bargaining will continue until such improvement is impossible, and thus efficiency will be reached when the bargaining cost is zero.

This theorem is usually discussed without explicitly relating to the communities, but, it represents the criticism against traditional welfare economics, a là Pigou (1920), which emphasizes the necessity of government intervention to solve the problems of externalities. In the theorem, there is some consideration of the non-market and non-government allocation mechanisms to improve the efficiency of the society through voluntary bargaining among the people. It suggests the importance of communities in improving the efficiency of our society.

If we use the term "communities," the theorem suggests that, as long as the bargaining cost in a community is small, efficiency can be achieved through cooperation among the members. When the community tie is strong, the bargaining cost will be lower and many problems can be solved within the community. However, when communities are weak they will fail to improve efficiency due to the high costs of bargaining, and thus government intervention will be demanded. The theorem is useful in understanding the functions of communities and the relationship between communities and the governments.

2.3.1.2 Crowding-Out Theorem

When the government tries to solve market failure problems, it may crowd out goods and services provided by families and local communities to mitigate the market failures. Such effects, known as the crowding-out effects of government policies, may weaken communities and lead to the expansion of the government.

There are several versions of the crowding-out theorem. Here, we present the version in which the government's provision of public goods crowds out the private provision of public goods, where "public goods" refer to the goods and services whose benefits can be enjoyed by everyone for free.[16] Donations and voluntary activities to clean up public spaces or to help poor people are some examples of public goods that private people often provide.

Proposition 2.3 (Crowding-Out Theorem) *If the government provides public goods that people voluntarily provide, people will reduce their voluntary provision.*

[16] To be more precise, in economics, public goods are defined as goods and services that are non-excludable and non-rival.

The extreme result concerning this theorem is that the government can completely crowd out the private provision of public goods in the sense that an increase in public goods provided by the government will be completely offset by the reduction in that provided by the private sector. This theorem is sometimes referred to as the "neutrality theorem" because the increase in the provision of public goods by the government will have no effect on its total level. We shall provide more discussion on this theorem in Sect. 6.2.3.

Although the possibility of complete crowding-out is low, there is much evidence of the private sector reducing its provision of public goods when the government tries to increase the public goods. This theorem provides a theoretical foundation for explaining the causal relationship between the expansion of the government and the reduction of activities by the communities.

2.3.2 Evidences in History

Based on the economic theories above, we will show some historical evidences about the structural transformation of our society to support our hypothesis, as illustrated in Fig. 2.1.

2.3.2.1 Development of the Market System and Weakening of Communities

Let us first see how the expansion of the market economy affected the family, which is the most important community. Family, as a social institution, has existed universally in the long history of human beings. There are extensive studies on the structure of families in different places and periods.

Before the emergence of markets, it was not easy for most people to leave communities where necessary goods and services must be obtained from the community members. Building cooperation and trust with community members was very important. After the development of the market system, where people can anonymously sell and buy goods and services including labor, people started to leave their families and local communities to make a living.

Such an economic factor, that is, the development of the market system, can be viewed as an important force that weakened the traditional communities including families. Many scholars, such as Durkheim, Weber, and Marx recognized the importance of the Industrial Revolution, which created factory workers in urban areas, in understanding the transformation of families and local communities.[17]

[17] See, for example, Morrison (2006).

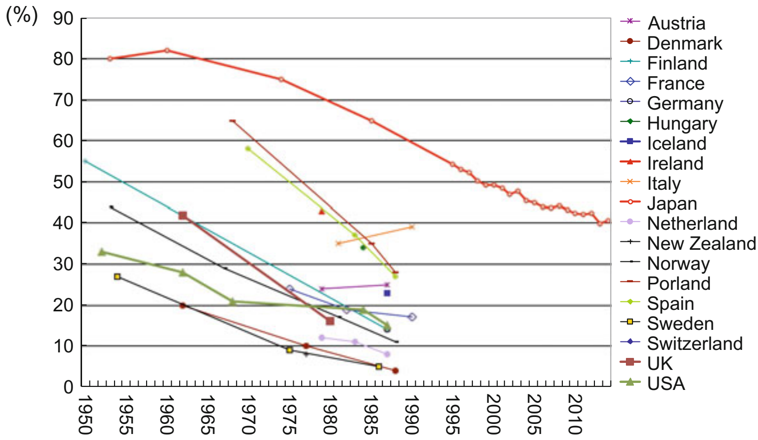

Fig. 2.2 Share of the elderly living with children. *Source*: Data published by NIPSSR for Japan and Sundström (1994) for other countries

Ruggles (1987, p. 13), for example, points out that "[t]oday, the importance of economic influences on the evolution of the family is rarely challenged," and summarizes the standard explanation as follows[18]:

> When production shifted from family to factory, the family economy was destroyed. The new industrial system demanded a flexible and mobile family: the stripped-down nuclear family prevailed because it was functionally adapted to new economic realities. As part of this process, the elderly lost their productive role and became isolated form society and from the family.

The change in families suggested above has been accelerated after the Second World War when we observed the very rapid expansion of the market economy. One of the most important functions of families has been the provision of care to frail elderly parents. Living together with elderly parents is one way of playing such a role efficiently. Figure 2.2 depicts the trends in the share of the people above 65 years of age who live with their children in developed countries. It shows that in most developed countries, many elderly people were used to living with their children after the Second World War.[19] However, the share has been declining in most of the countries.

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[18]Although there are various criticisms against such an explanation, including Ruggles (1987), which indicates that the effects of the development of the market system on the family structure are more complex than the simple story stated above, the basic explanation above is still convincing theoretically and empirically as argued by many scholars.

[19]Sundström (1994) who collected data for Fig. 2.2 points out that the decline in the share makes it more difficult for the frail elderly to receive care from their families. However, he also points out that when the elderly really need care from their children they tend to live close to their children. Thus, the data for the elderly living together in Fig. 2.2 may be overestimating the weakening of families in developed countries.

The development of the market system has also weakened local communities. The most well-known case is the one in the period of enclosure in 18th-century England. The enclosure of open fields, where farmers had to cooperate with each other, meant the dissolution of agrarian communities.

It is often explained that the enclosure dissolved the agrarian communities, expelled farmers from the farming lands, provided cheap labor to be employed by the capitalists in urban factories, and contributed to the economic development. However, the close examination of the open fields suggests that the enclosure is a consequence of the development of markets, as explained by Allen (2001, pp. 66–67)[20]:

> The open field village fostered solidarity amongst the tenants. ... Open field farming strengthened bonds between peasants and made them wary of lords. While the social capital of the open field village raised productivity in that context, it was counterproductive when the yeoman were eliminated and replaced by tenants at will. ... the great estates that emerged in the eighteenth century required that each farmer identify his fortune with the estate rather than with his fellow villagers. ... Enclosure was the result. It was not, therefore, that enclosure overthrew community and created market capitalism. Rather, the reverse was the case: market capitalism undermined the open field community from within and precipitated enclosure.

The explanation above may be well understood if we compare the agrarian community to cooperative labor unions, which have contributed to the increased productivity of the workplace with good relationships with the employers (landlords). As long as the workers (yeoman) have long-term employment, the cooperation among workers and the employer will work well. When the labor mobility became high as the market economy developed, workers started to find better opportunities in the markets, the relationship among workers and employer weakened and its duration shortened, and employers needed to guarantee high returns to the workers (tenants) who would work for them only at their will. Solidarity among workers in the labor unions can sometimes be considered as threats to the employer when the relationship gets worse. As labor markets and markets for the agricultural products developed, it is understandable that the landlords decided to abolish the open fields and thus their communities.

In Japan, the dissolution of local communities in the prewar periods can be well illustrated by the decomposition of the commons known as "*iriaichi*" in Japanese. In the villages, anyone could access the *iriaichi* for grass, trees, water, fish, and animals, under formal or informal rules. The rules were clearly set and if people broke them, the severe punishment of "*murahachibu*" was imposed on them by the village (c.f. Sect. 6.3.3). Members of the local communities were strongly tied by the use and the rules for the use of commons.

[20]The argument need not be denied because the weakening of communities can indeed contribute to the development of the market economy. If we consider such an effect, we should add an arrow in Fig. 2.1 from "Weakening of Communities" to "Development of the Market Economy" and indicate the cyclical expansion of the market and the weakening of communities. What the following quote stresses is that the development of the market system is the first cause of the weakening of communities.

The use of commons has changed drastically after the economic development that started in the late nineteenth century when the *Meiji* government opened Japan to the world and made various political and economic reforms. The common lands were decomposed and distributed to the members of the community. One of the reasons for the decomposition of commons was the response to the new government's tax reform that required clearer definitions of property rights. However, many historians point out that it was also a response to the development of the market economy in which farmers sell their products in the markets to earn monetary income. In such circumstances, many villages faced difficulties in keeping the common lands as commons and decided to decompose the lands into private farms in the villages. For example, Kainou (1943) wrote as follows:

> ⋯ the decomposition of *iriaichi* to the villagers and the purely private economic management of the lands and forests may have contributed to an increase in the income of each household. However, we cannot ignore the fact that such a change accelerated the dissolution of the villages because they lost a kind of precautionary wealth that the whole village used to have.

Notice that many Japanese communities had to decompose the commons to individuals to respond to the development of the market economy in which property rights need to be well-defined; additionally, the dissolution of the commons, and thus the development of the market economy, weakened the communities.

The weakening of families and local communities in Japan continued with the further development of the market economy after the Second World War. Yoshihara and Wada (1999, Chap. 18) describes the increase in social problems after 1955 as follows:

> The distortion of rapid economic growth began to be visible, caused various social problems, and had serious impacts particularly on the lives of the elderly. Due to the shrinking share of primary industry and the outflow of people, especially the young, from rural to urban areas, the elderly are left behind in rural areas, resulting in depopulation in those areas.

This clearly describes how economic development changed families in rural areas, thereby rendering the lives of the elderly uncertain. Economic development gradually changed the family structure in the late 1950s.

2.3.2.2 Weakening of Communities and Expansion of the Government

When communities are weakened with the development of the market economy, mutual assistance within communities will shrink and many market failure problems, which were earlier mitigated by the communities, will occur.

In Japan, given the increasing awareness of the problems affecting the elderly, the Liberal Democratic Party (hereinafter LDP), which was the majority party between 1955 and 1993 with its important voting blocks in rural areas, responded to the voices of the elderly. Yoshihara and Wada (1999) state that "with the increasing attention being paid to the problems affecting the elderly, the first thing that showed up was the universal national pension system."

Takeda (2005, p. 117) also describes the changes in the late 1950s as follows:

> High growth had destabilized the social units through mobilization of population caused by the transformation in the industrial structure that had, in place of the public purse, been providing support for those in need, namely families and communities. As a result of this transition, the nation-state was required to compensate for functions that families and communities normally played.

In 1961, the Japanese government introduced universal public pension and universal public health insurance. Since then, everyone in Japan has been covered by social insurance. However, the levels of social security payment were not high in the 1960s, and as such, the elderly demanded more social security.

In 1973, the Japanese government declared the “first year of welfare state.” It increased the pension payment significantly and made healthcare services for the elderly free. After the declaration of the welfare state in 1973, the Japanese government continuously increased its social security expenditure.

In western countries, many scholars of sociology have made an argument that the expansion of the government has weakened families and communities.[21] For example, Coleman (1990, p. 607) states the following.

> Modern society differs extensively from the village social structure described above. The family is no longer the primary welfare unit. Responsibility for caring for the aged has been taken over by the society as a whole. Responsibility for medical care has been taken over by the state and employers. ... The family, greatly shrunken in size and function, has become incapable of carrying out many welfare activities. ... The state, greatly expanded in size and function, has taken on most welfare functions.

The quote above also reveals that the expansion of the government has crowded out roles of families and transformed families. We will discuss this further.

2.3.2.3 Expansion of the Government and the Weakening of Communities

The causal relationship, “weakening of communities → expansion of the government,” implies that the demand for the welfare services of the government will go up when communities are weakened. To what extent does the government respond to the demand? The size of supply depends on the political decisions in each country. For example, a fairly big expansion of the government occurred in Germany, England, and Japan. On the other hand, the U.S. government has not responded to such a demand strongly.

Once the expansion of the government occurs, it will have further effects on the communities, which is depicted by the causal relationship “expansion of the government → weakening of communities”. History has witnessed many instances of such a relationship.

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[21] For example, Cliquet (2006) summarized the changes in families and demography in western countries.

For example, Myrdal (1941, p. 5) suggested that the expansion of the government worked to weaken the functions of families and lowered the motivation for marriage and children:

> The *protective* function of the family likewise plays a declining role. Hospitalization, institutionalization, and social security measures are taking place of family care for the old and sick. This tends, on the one hand, to decrease the value to the individual of marriage and childbearings.

The weakening of families and local communities by the expansion of governments has been witnessed by Japanese history as well. We have already seen in Fig. 1.5 in Chap. 1 that the marriage rates and fertility rates indicated a continuous decline after 1974, just after the government's declaration of the welfare state in 1973.

Figure 2.2 indicates that the share of the elderly living with their children, which was traditionally high at around 80%, has also started to decline. More and more elderly people have started to live independently. The risk of their falling into poverty became greater, particularly when the number of children became smaller.

The expectation of being dependent on children for old-age security continued to decline as social security expanded (c.f. Fig. 11.1).[22] Development of the market economy and the expansion of social security replaced the roles of children, which led to the decline in fertility rate.

2.4 Concluding Remarks

In this chapter, we first considered the functions and limitations of the markets, governments, and communities and then discussed the interactions among these three important institutions, to set up an analytical framework for discussing the transformation of the social structure and the roles of the government in Japan.

We have presented a hypothesis that the development of markets has weakened communities, which demanded the expansion of the welfare role of governments. This in turn further weakened communities when governments responded to the demand. Then, we forwarded two economic theories and various historical evidences that are consistent with our hypothesis.

In the next four chapters, from Chap. 3 to Chap. 7, we make our argument above theoretically sophisticated, and then, in the last part of the book, we apply our framework to explain the social transformation and public policies in Japan. Before we present the detailed arguments in those chapters, we would like to summarize the basic viewpoints on how Japan's public policies should be redesigned to properly respond to the transformation of the Japanese society.

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[22] See, for instance, Ogawa and Matsukura (2007, Fig. 10). It also indicates that the norm of children taking care of their aged parents changed considerably. The share of those who believed that children taking care of their aged parents is a "good custom" or "natural duty" declined rapidly after 1986.

The basic viewpoints have already been indicated in the following statements by Myrdal (1940) who considered public policies to properly respond to the transformation of the Swedish society more than 70 years ago.[23] The term "social policy" here refers to public policies, such as social security, public support for raising children, labor policy, and education policies, that closely affect the social lives of people.

> [W]hen we transfer the emphasis from curative to preventive social policy we must cease to regard the costs of social policy as unprofitable, nonproductive consumption costs on the public budget. ... The tendency, however, is clearly visible in the present activity in the sphere of social reform in Sweden; and the population argument has been the most potent force behind the speeding up of this important transition in social policy from curative to prophylactic, from consumptive to productive, from the aid of the needy to broad cooperation among all the people. The solution is: certain services free for all children and for all families in all economic classes, with no means test, planned as a rational cooperation between citizens in a democratic society on the principle of national solidarity, financed through the national budget, ... The intended redistribution is carried out in *kind* instead of in *cash*. ... To a large extent the needs of families and children can be met by engaging otherwise unemployed or underemployed factors of production in work and the whole program engineered in the direction of stabilizing the economic system.

Needless to say, Japan today is quite different from Sweden 70 years ago, and we do not accept all the above proposals as desirable. However, the basic idea of reforming the social policies "from curative to prophylactic" and "from consumptive to productive" is surprisingly suggestive in redesigning Japan's public policies because many social problems in Japan have been caused by curative and consumptive public policies in Japan.

Gunner Myrdal found the instability of the Swedish socioeconomic system in his analysis of the declining fertility rates in Sweden. To determine policies to strengthen its stability, he recognized a simple fact that "[T]he principal part of the wealth of a nation always lies in the quality of its population."

His conclusion was that, proper social policies to strengthen the Swedish economic system should not be curative and consumptive, as in the traditional poor-relief policies, to protect the lives of the frail, but should be prophylactic and productive to improve the quality of life. In designing such policies, he realized that the in-kind policies are more effective to pursue the goals than cash-transfers, which may not be used to improve the quality of life.

As we have seen in this chapter, the development of the market economy has weakened the families and communities. As a consequence, elderly and poor people became more frail and the Japanese government expanded the social security system as a curative policy and the consumptive policies to help the elderly and the poor. Such curative policies made the people dependent on the government and further weakened families and local communities in Japan. The proper public policies to stabilize and strengthen the Japanese society should be, as Myrdal pointed out, prophylactic and productive social policies to empower the people and the communities.

In Japan, the elderly are increasing and the young generation is rapidly shrinking, while the public debt has already exceeded 200% of the GDP. In such a circumstance,

[23] Quotes from Myrdal (1940, pp. 206–210).

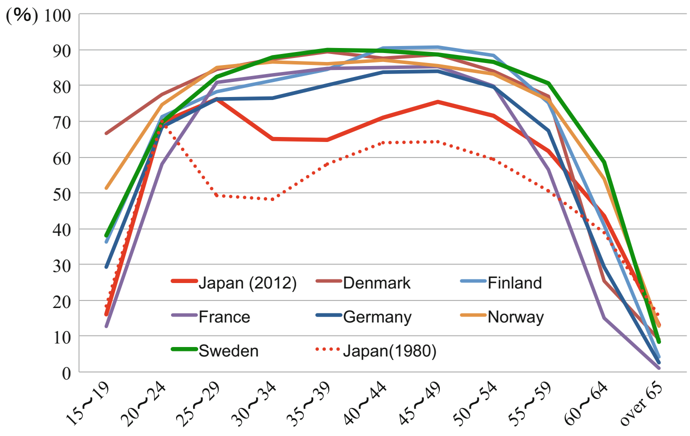

Fig. 2.3 Patterns of female labor participation. *Source* NIPSSR and Statistics Bureau

to make the country sustainable, Japan should aim for a society in which potential abilities of the people will be realized and used to generate high income from which taxes are collected to pay the high level of public debt. The keyword is "labor." When Myrdal said that "the principal part of the wealth of a nation always lies in the quality of its population" to strengthen the economy, he must have had a vision where everyone works for himself/herself and for the society.

Is Japan close to being such a society? Fig. 2.3 indicates the pattern of female labor participation by age. It indicates that the female labor participation rate in Japan is much lower than, say, in the Nordic countries. Most of the women who are not in the labor markets since their mid-twenties work at home as housewives. The Japanese policies have provided various favorable measures, such as the exemption of pension contribution, to dependents of the employed workers. Almost ten million women have remained in the category of people who can receive basic pension without their nor their husbands' paying the pension contributions (c.f. Sect. 8.3.1).

Under the social norm of sexual division of labor exemplified by such policies (c.f. Fig. 11.2 in Chap. 11), female labor participation has been low not only in the twenties and thirties, but in almost all ages. Although it has been increasing, it is still lower than that in Nordic countries, as depicted in Fig. 2.3. Such behavior has been driven by social norms and public policies based on these norms. Thus, whether potential abilities of Japanese women are fully utilized is questionable. If highly educated women participate in the labor market more, it is very likely that the per-capita income, and thus the tax revenue will increase in Japan, greatly contributing to the sustainability of the Japanese economy.

In the process of rising female labor participation, as Myrdal (1940, p. 210) points out, "the needs of families and children can be met by engaging otherwise unemployed or underemployed factors of production in work and the whole program engineered in the direction of stabilizing the economic system."

Such a new socio-economic system will change the traditional way of living in which families provide most of the care for the elderly and infants. However, it does not imply that all care will be out-sourced. Families will continue to function as the main institution for providing love and care to members. The prophylactic and productive social policies will provide more support to such families.

Needless to say, there are many young and elderly people, besides women, who can contribute to the labor market. It is important for the society to develop and utilize their potential abilities to overcome the current serious problems of Japan. The prophylactic and productive social policies will be also effective in supporting them.

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