

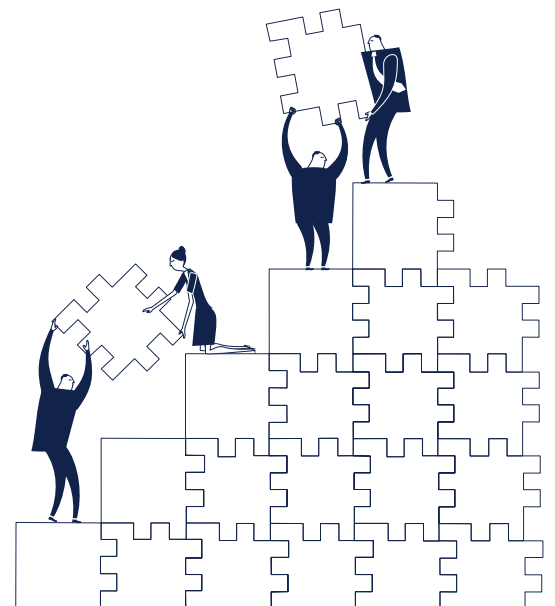
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# Lawyers, yakuza and zombie firms: A quasi-natural experiment

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# Lawyers, *yakuza* and zombie firms: A quasi-natural experiment

In the aftermath of the bursting of Japan's "Bubble" economy and the subsequent banking crisis of 1997, we find it is possible to have "too few lawyers". The decline of extra-legal resolution of financial distress via banks' suspension of banking transactions leads to an increase in *yakuza* numbers as "dark side" private ordering increases and there is an increase in loss-making "zombie" firms. Japanese legal reforms in 2002 lead to a significant increase in lawyer numbers. These new lawyers play an economically significant role in reducing the number of "zombie" firms in Japan and the *yakuza*'s involvement in civil disputes. Using a panel of 47 prefectures we find new lawyers lead to a rise in the dissolution and liquidation of firms and a reduction in the number of loss-making "zombie" firms, as well as a reduction in crimes associated with *yakuza* involvement in civil dispute resolution.

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## **I. Introduction**

Anti-lawyer sentiment pervades modern popular culture: “What do you call a thousand lawyers at the bottom of the ocean?” “A good start” (the 1993 movie Philadelphia). The sentiment expressed in these lines can be found in many other jokes about lawyers: They reflect a view that lawyers engage in vexatious litigation and are rent seekers. In this paper we ask the question: “Is it possible to have too few lawyers?” We conclude that it is possible to have too few lawyers and the effects are economically harmful as the lack of legal services impairs the resolution of financial distress.

Many authors have emphasised the importance of strong institutions in generating economic growth, notably North 1990. Acemoglu and et al. (2002) have shown the importance of institutions – such as the rule of law – while Rodrik et al. (2004) have shown the primacy of institutions over geography and trade. The idea that the rule of law, with protection for property rights and contracts, is desirable for economic growth is well established (Dam 2007; Acemoglu et al. 2001; 2005). However, how the legal system affects growth in advanced economies has been a topic of debate amongst economists and lawyers for at least three decades – with Magee et al (1989) building on the work of Olson (1982) suggesting that the effect of rent seeking lawyers is bad for growth.

In the US even lawyers themselves believe that there is an excess of lawyers: a 2015 survey of 320 managing partners at US law firms by consultancy firm Altman Weil indicated that 60% of the law firms believed that overcapacity was making their firms less profitable<sup>1</sup>. Law School Transparency, a non-profit organisation dedicated to data transparency, recorded that of the US Law Schools class of 2013 just 57% found employment full time, long term legal jobs, the number falling to 55.3% if we exclude jobs funded by the law schools themselves.

The academic literature on the optimal number of lawyers is limited and dates back to the 1990s. Magee (1992) suggests that the US suffers a loss of US\$220 billion due to excessive numbers of lawyers<sup>2</sup>. Yet other scholars emphasise the importance of lawyers in generating growth. Epp (1992) maintains that there is a positive relationship between the number of lawyers and economic growth and Cross (1992) found no evidence for a declining relationship between growth and the number of lawyers. Gilson (1992) points to the important microeconomic foundation missing from the work of Magee, Epp and Cross: What role is played by lawyers? Murphy et al. (1991) define roles as either entrepreneurial or rent seeking and show that countries with a higher proportion of engineering majors grow faster than those with a higher proportion of law concentrators. However, are lawyers always rent seekers? Gilson suggests that there are cases where lawyers may play roles that are not rent

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<sup>1</sup> Kitroeff (2015)

<sup>2</sup> According to Magee (1992), the optimum number of lawyers is 1,370 per million or one per 730 persons

seeking and instead help to smooth commercial transactions. Our study provides evidence for this view: Lawyers are an essential element in ensuring economic growth.

Hitherto, scholars have mostly focused on situations characterised by a surfeit of lawyers and have paid scant attention to advanced economies with too few lawyers. Is it possible for advanced economies to have too few lawyers? And what are the consequences of a scarcity of lawyers? We use Japan as a case study to explore this question as it has very few lawyers relative to the population and goes through a disruptive change in the availability of alternative (extra-legal) methods of resolution of financial distress.

We believe that Japan offers a unique opportunity to design a quasi-natural experiment to investigate this issue. Japan underwent a radical reform of its legal system in 2002, which led to a dramatic rise in the number of lawyers, with an effective doubling of numbers within a decade. The reforms gave appearance rights to judicial scriveners (*shiho shoshi*) and an increased rate of new attorney qualification. In this paper, we use the word “lawyer” to cover both Bar qualified attorneys (*bengoshi*) and judicial scriveners (*shiho shoshi*) with court appearance rights.

We use a diff-in-diff pre- and post- the reform methodology. Our analysis uses OLS panel data regressions of the 47 prefectures of Japan, using the lagged year-on-year changes in the number of lawyers to explain changes in the resolution of financial distress and reductions in the number of “zombie” firms and reductions in crimes associated with *yakuza* involvement in civil dispute resolution. The one-off effect of permitting judicial scriveners to represent clients in summary courts is estimated to increase the legal resolution of financially distressed firms by approximately 20% or approximately 3,000 firms. Our results are statistically and economically significant and robust to alternative specifications that include changes in bank lending and the number of police.

Our study focuses on the resolution of financial distress of Japanese firms after the bursting of the Japanese “Bubble” economy and the onset of the Japanese financial crisis in 1997. There are three ways in which financial distress is resolved in Japan: 1) Through litigation and renegotiation via lawyers as intermediaries; 2) Through the extra-legal means of banks suspending transactions; 3) Through “dark side” private ordering, with *yakuza* (Japanese organized crime) as intermediaries. The bursting of the “Bubble” leads to financial distress at banks, which together with structural changes in the role of notes payable in inter-firm credit, appears to have resulted in a steep decline of 2) the suspension of bank transactions, the extra-legal, but not “dark side” resolution of financial distress. This leads to a rise in 3), with a sustained rise in the number of *yakuza* between 1997 and 2003. However, while *yakuza* may have resolved financial distress in some cases, in others it is likely that the *yakuza* extended financial distress and preyed on creditors and debtors. It seems likely that the threat of *yakuza* involvement decreases the rate of resolution of financial distress and contributes to the creation of “zombie” firms. The creation of “zombie” firms has previously been linked to

forbearance by Japanese banks, see Caballero et al. (2008) and Peek and Rosengren (2005), our analysis suggests that there is another channel for the creation and dissolution of “zombies”: The availability of legal representation.

This paper is organised into five sections: I) Introduction; II) The Japanese legal system and reform; III) Methodology and data; IV) Results, alternative hypotheses and robustness ;V) Conclusion.

## **II. The Japanese legal system and the need for reform**

Japan operates a Civil Code legal system based on the German code. It is a unitary state meaning that the 47 prefectures are subject to the same laws and institutions. There are several tiers to the Japanese court system. At the lowest level, and perhaps most important for our purposes, are Summary Courts. There are 438 Summary Courts, each with a single judge. The Summary Courts are for civil cases for monetary claims of less than Y1,400,000 (US\$12,850) – this was Y900,000 (US\$8,250) until 2003. There are also special procedures for single day court cases for small claims of less than Y600,000 (US\$5,500). The Summary Court is the level at which judicial scriveners gain appearance rights. There are a further 50 district courts, with a further 203 branch offices. These courts handle most other first instance cases.

Japan has historically had a low level of litigation and very few lawyers. Table I shows the relative number of bar qualified attorneys in Japan and other major developed countries. In 2002, Japan had one lawyer for every 6,752 people and the US had one lawyer for every 284 people<sup>3</sup>, meaning that the US has 1,049,751 lawyers for a population of 287 million, whilst Japan had a mere 18,838 for a population of 127 million. There are several competing views about the relatively low level of litigation. A traditional view from Kawashima (1967) suggests that Japanese were culturally loath to litigate, due to concerns about consensus and harmony. Haley (1978) suggests that the Japanese are happy to litigate, but were limited due to capacity constraints, costs and a lack of suitable remedies. Ramseyer (1988) and Ramseyer and Nakazato (1989) suggest that Japanese litigants are rational and once courts resolve legal uncertainties, rather than litigate Japanese choose to settle along the lines of the precedents set by the courts, so the Japanese are rational litigants rather than reluctant. Ginsburg and Hoetker (2006) find evidence for capacity constraints in explaining the rise in litigation between 1986 and 2002, with increasing numbers of lawyers and judges being statistically significant and accounting for around 50-55% of the total rise in litigation.

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<sup>3</sup> This is based on the number of qualified attorneys in each country. It should be noted that the number of people undertaking “legal” duties in Japan who are not qualified attorneys is substantially higher and many of those who perform the same roles in other countries are qualified attorneys. See Ramseyer (1986).

**Table I: Number of persons per lawyer in major developed countries**

	2002	2013	Change
Japan (attorneys only)	6752	3786	-43.9%
US	284	269	-5.3%
UK	593	430	-27.5%
Germany	707	509	-28.0%
France	1827	1165	-36.2%

Source: Japan Federation of Bar Associations White Paper on Lawyers 2009 and 2013

The relative dearth of lawyers has led to alternative dispute resolution mechanisms such as the involvement of organised crime, the *yakuza* or Japanese mafia. Milhaupt and West (2000) show that the *yakuza* are involved in dispute resolution; offering alternative payment mechanisms and at prices competitive with lawyers (see also Hill 2003; Varese 2014). The dispute resolution services offered by *yakuza* are not always optimal however. The Japanese National Police Agency strongly discourages the use of *yakuza* in dispute resolution, claiming that the *yakuza* will only take advantage of disputants. The involvement of *yakuza* in civil disputes is known as *Minji boryoku kainyu* (Racketeering through intercession in civil disputes).

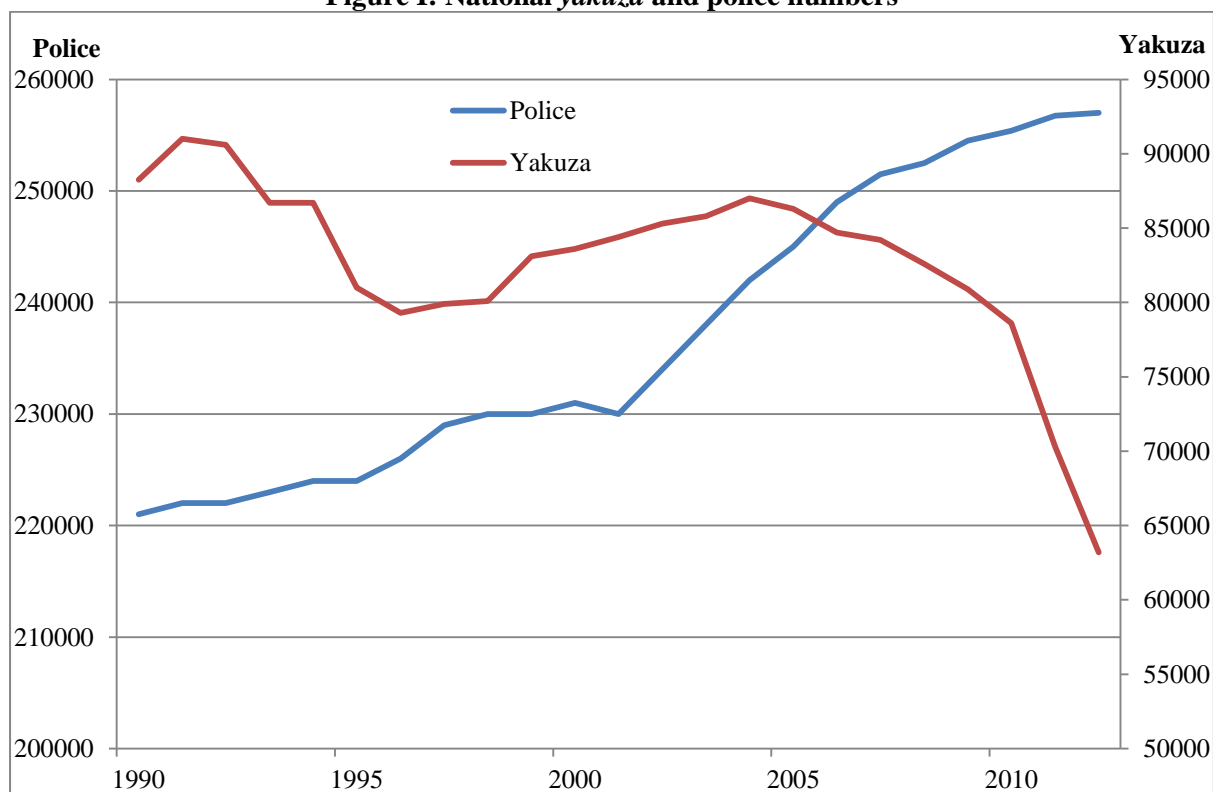
There is substantial field evidence that the *yakuza* are involved in civil disputes. In the 1989 Police White Paper, the police estimated that 7.3% of *yakuza* income came from civil disputes. Hill (2003) explains how *seiriya* (specialists in the management of financial distress) can maximise their returns, with the *seiriya* identifying financially distressed firms at the point of collapse and lending short term financial support. From this position of strength the *seiriya* then force managers to hand over binding powers of attorney and use this to further entrench the *seiriya*'s claims.

The involvement of *yakuza* in civil disputes over debts has several consequences. Some of the intercessions by *yakuza* should lead to criminal complaints in the form of recorded crimes such as extortion and intimidation. Small firms that are insolvent may not be wound up as the *yakuza* threaten the owners and attempt to continue to extort money on outstanding debts even though the firm is no longer viable. Alternatively, firms that owe money on outstanding debts may be protected by *yakuza* keen to preserve the value of other claims. This form of forbearance is not due to banks unwilling to force borrowers into bankruptcy due to worries about their own solvency, but instead is due to the chilling effect of *yakuza* in debt disputes<sup>4</sup>.

<sup>4</sup> We find some evidence for *yakuza* related crimes leading a decline in liquidations (*seisan*) prior to the legal reform, this can be found in table B in the appendix.

The lack of lawyers to resolve financial disputes may explain a reversal between 1997 and 2004 in the long term trend of declining *yakuza* numbers. *Yakuza* numbers peaked nationally in 1963 at 184,091 and have been in a long term downward trend since this peak. Although there is a small uptick between 1987 and 1991, the rise between 1997 and 2004 is far larger in absolute and percentage terms. The rise in *yakuza* occurs even as police numbers increase dramatically. *Yakuza* numbers appear to decline after the legal reforms increase the number of lawyers.

**Figure I: National *yakuza* and police numbers**



Source: National Police Agency

**Legal reforms**

Prior to 1990, Japan qualified about 500 attorneys per year, with a pass rate of 2% in the extremely competitive Bar examinations. Only bar qualified attorneys had the right to represent clients in court cases. The first phase of reforms beginning in the 1990s saw the qualifying numbers rise to 1,000 by 1999. By 2002 sufficient political pressure for a cheaper and more flexible legal system resulted in two major changes. For lawyers the Koizumi government passed the Act on Education in Law School and Connection with the Bar Examination in 2002. This law led to the creation of law schools from

April 1<sup>st</sup> 2004 along the lines of the US model. Pass rates for the Bar examinations rose, albeit at rates lower than were originally foreseen by the reforms. The Judicial Scriveners Act reform of 2002 led to a shift in the status of judicial scriveners. From April 2003, judicial scriveners who pass a training course given by the Ministry of Justice are permitted to represent clients in Summary Courts and are recognised as legal professionals able to settle, negotiate or mediate in disputes where the value of the claim is less than the amount subject to Summary Courts.

In 2002 there are 18,838 attorneys in Japan; this number rises to 33,624 attorneys in 2013. There were also 14,483 scriveners able to represent clients in court in 2013. This effectively increased the number of lawyers who could litigate smaller claims by 43% and the number of new attorneys plus the judicial scriveners relative to the number of attorneys in 2002 means that lawyers increase by 159% in 10 years.

Japan still has far fewer lawyers than other developed countries, as can be seen from the 2013 number of lawyers per person in table I, but the effect of the reforms is especially great in that prior to the reforms many isolated parts of rural Japan lacked lawyers who could represent clients in court. In 2002 there were 61 District Court sub-districts (*Chihousaibansho shibu*) out of 203 that had one or zero lawyers, by 2011 this had declined to 2 districts. In the 10 years between 2002 and 2013, overall attorney numbers increased by 80%. The representation rights given to judicial scriveners also mitigate the rural problem. Judicial scriveners have always been far more geographically evenly spread than attorneys, who tend to congregate in the four major urban centres of Japan: Tokyo, Yokohama (Kanagawa Prefecture), Osaka and Nagoya (Aichi Prefecture), where the number of attorneys exceeds the number of judicial scriveners.

The judicial scriveners are an important component of the legal reform. In 2010, the scriveners represent more than 125,000 applicants in Summary Courts, although there is a similar rise for lawyers, who go from representing 10,579 applicants in 2002 to 108,738 applicants in 2010. The vast majority of the litigation claims in Summary Court are debt related. It is notable that while there is a rise in the number of civil litigation cases at the District Court level, it is an order of magnitude less than the rise in Summary Court cases<sup>5</sup>.

We can see from table III that the number of first instance litigation cases in Summary Courts rises from 314,000 in 2002 to 624,000 in 2010 and the number of cases where there is a lawyer involved, either an attorney or judicial scrivener, rises from under 30,000 to 274,000 over the same time period.

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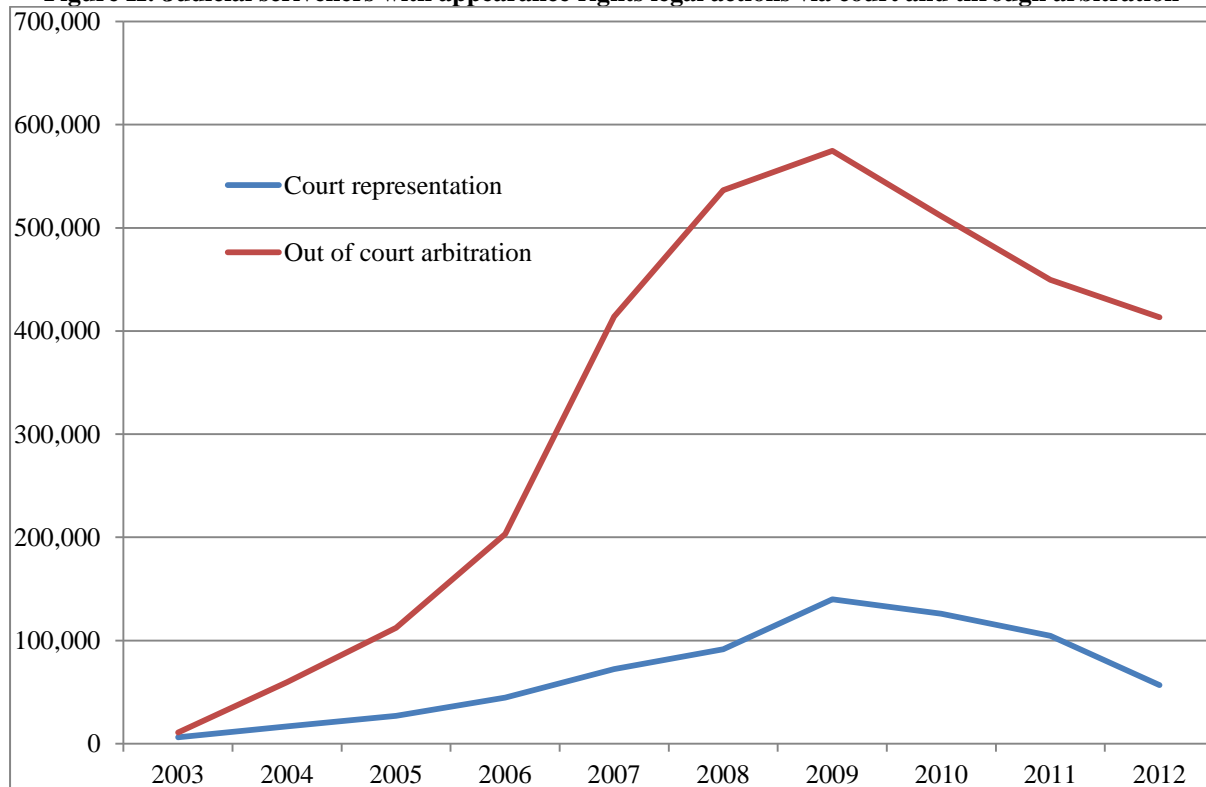
<sup>5</sup> District Court civil litigation rose from 181,207 cases in 2002 to 258,330



**Table II: Number of lawyers and judicial scriveners**

	Lawyers	Judicial Scriveners	Scriveners with appearance rights before Summary Courts
1998	16,305	16,981	
1999	16,731	16,983	
2000	17,126	17,034	
2001	18,243	17,075	
2002	18,838	17,097	
2003	19,508	17,304	
2004	20,224	17,667	6,351
2005	21,185	17,735	8,462
2006	22,021	18,059	9,242
2007	23,119	18,520	9,986
2008	25,041	18,877	10,880
2009	26,930	19,394	11,674
2010	28,789	19,766	12,415
2011	30,485	20,313	13,258
2012	32,088	20,670	13,898
2013	33,624	20,979	14,483

Source: Japan Federation of Bar Associations, Japan Association of Shiho Shoshi Associations

**Figure II: Judicial scriveners with appearance rights legal actions via court and through arbitration**

Source: Japan Association of Shiho Shoshi Associations

The major increase in cases in the Summary Courts comes from cases where the applicant hires a lawyer with applicants hiring both attorneys and judicial scriveners. The number of *pro se* litigants is relatively stable during the period analysed. Between 2002 and 2010, there is an increase of 223,000 cases where the applicants hire a legal representative.

Figure II shows that even after the peak of litigation passes with the global financial crisis in 2009, the level of judicial scrivener arbitration remains at a high level and substantially higher than the level of litigation at its peak.

**Table III: First instance litigation cases before the Summary Court by type of representative (lawyers, judicial scriveners and *Pro Se* (in person))**

	Total	Any legal counsel	Both lawyers	Applicant lawyer respondent scrivener	Applicant scrivener respondent lawyer	Both scrivener	Applicant lawyer	Applicant scrivener	Respondent lawyer	Respondent scrivener	<i>Pro Se</i>
2000	301,185	31,281	4,034				10,409		16,838		269,904
2001	303,927	30,908	3,688				10,368		16,837		273,019
2002	314,623	29,534	3,768				10,579		15,187		285,069
2003	337,076	30,863	3,703	12	36	4	11,483	1,207	14,180	238	306,213
2004	347,851	43,796	4,434	120	459	75	15,064	8,883	13,561	1,200	304,055
2005	356,718	57,883	5,889	172	806	107	20,029	16,747	12,760	1,373	298,835
2006	386,833	78,243	7,381	194	1,211	101	28,162	28,905	10,850	1,439	308,590
2007	461,128	133,395	8,855	212	1,804	98	50,607	58,202	11,587	2,030	327,733
2008	537,626	168,087	9,940	171	2,073	78	65,101	73,561	14,311	2,852	369,539
2009	622,492	225,248	10,356	242	1,665	156	83,725	108,567	16,625	3,912	397,244
2010	624,443	274,045	11,898	244	2,021	296	108,738	125,028	21,147	4,673	350,398
2011	550,798	226,431	13,066	251	2,168	205	89,586	99,441	17,734	3,980	324,367
2012	424,368	137,673	14,774	267	1,808	178	52,953	48,071	15,905	3,717	286,695
2013	345,331	104,968	15,337	271	1,318	101	38,038	31,845	14,903	3,155	240,363

Source: Supreme Court of Japan

### Forms of corporate failure

There are multiple ways in which a Japanese firm can legally fail or restructure. The widest possible definition is dissolution (*kaisan*), which is an aggregate measure of firm failure. It includes all firms that enter bankruptcy (*hasan*), liquidation (*seisan*), and special liquidation (*tokubetsu seisan*), it is the first step taken in terms of registration. Dissolution (*kaisan*) itself is not a way to restructure debts, but is an action that must be registered with the Ministry of Justice indicating that the firm is to be dissolved. If the firm is not involved in a formal bankruptcy (*hasan*) proceeding, a liquidator (*seisanin*) must be appointed if the firm has debts and the firm must go through either liquidation (*seisan*) or special liquidation (*tokubestu seisan*). The forms of corporate restructuring include corporate arrangement (*seiri*) and corporate reorganization (*kaisha kosei*).

Bankruptcy (*hasan*) involves substantial court proceedings. Bankruptcy expenses are substantial and a court appointed trustee controls assets. In general bankruptcy already has substantial lawyer involvement pre-reform. Liquidation (*seisan*) is a private process and does not involve the courts. The person selected by the shareholders as liquidator retains control over the assets of the firm. The liquidator can be (but is not required to be) a lawyer. Special liquidation (*tokubestu seisan*) is a court ordered version of private liquidation and follows a similar pattern to liquidation. The liquidator in special liquidation must report not only to the creditors' committee but also to the court. The court supervises the liquidator.

Table IV shows the relative frequency of the different forms of failure and reorganisation in 2002. The rate of reorganizations can be seen to be very minor as is the rate of special liquidations. The two major forms of corporate failure are bankruptcy and liquidation, covered by the overarching registration of dissolution. We thus focus on dissolution, bankruptcy and liquidation in this paper.

**Table IV: Registrations for different forms of firm failure and reorganization in 2002**

	Total
Dissolution ( <i>kaisan</i> )	20,998
Bankruptcy ( <i>hasan</i> )	13,357
Liquidation ( <i>seisan</i> )	17,167
Special liquidation ( <i>tokubetsu seisan</i> )	608
Corporate reorganization ( <i>kaisah kosei</i> )	436
Corporate arrangement ( <i>seiri</i> )	69

Source: Ministry of Justice

### **The aftermath of the bursting of the “Bubble” economy and “Zombie” firms**

The Japanese economy slowed dramatically in the 1990s as a major property “bubble” deflated, the value of land in Japan fell 47% between 1990 and 2005<sup>6</sup>. Japanese banks suffered significant bad loans as the economy slowed. The bad debts of Japanese banks and their effective insolvency was a prime reason for the rise of listed “zombie” firms, as shown in Caballero et al. (2008) and Peek and Rosengren (2005). The effect was significant for unlisted firms as well.

We use the number of loss making firms for tax purposes as a proxy for “zombies”. The number and proportion of loss makers increased during the 1990s, see figure III. This is an imperfect measure since this data is based on tax agency data. Many small firms are loss-making for tax purposes, but are, in reality, economically healthy. Japanese small firms with capital of less than ¥100 million (approximately US\$1 million) are permitted to “expense” up to ¥8 million (approximately US\$80,000) on entertainment allowances – food and drink for directors, employees and their family members. We thus find that many small firms are loss making for tax purposes because the profits are, quite literally, consumed by the employees and directors of the firm. However, the spike in loss making firms that occurs in the 1990s is accompanied by a dramatic rise in the size of the losses per loss making firm, which declines between 2000 and 2012 seen in figure IV. The rise in loss-making firms losing more than the entertainment allowance can be seen as our proxy “zombie” firms.

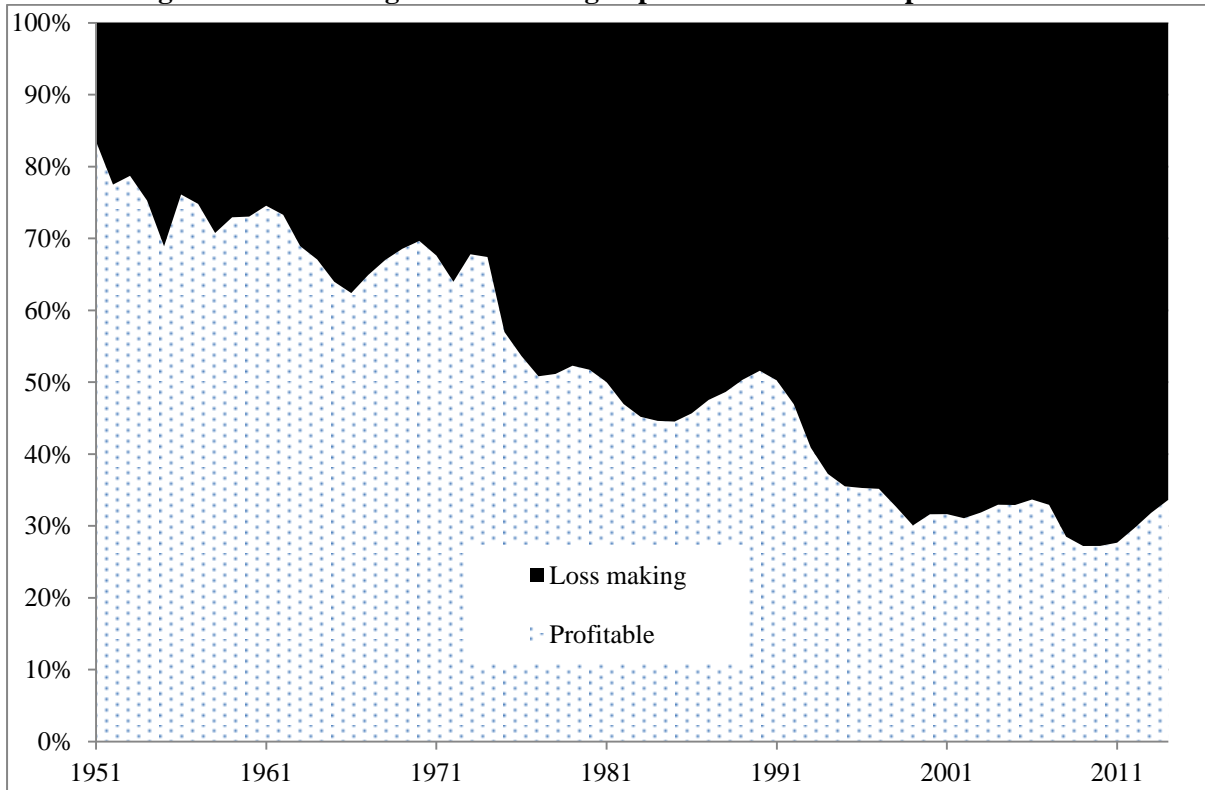
Historically Japanese firms fail when banks suspend banking transactions when the firm defaulted on two promissory notes (or cheques) within six months<sup>7</sup>. This extra-legal enforcement system is discussed in Matsumura and Ryser (1995). In 1993, according to Matsumura and Ryser (1995), 87.8% of failures of firms with shareholder’s capital of more than ¥10 million (approximately US\$100,000) suffered from the suspension of bank transactions. Over time the importance of suspension of banking transactions declines. In 1965, there were 197,743 cases of bank transaction suspension. In 1980, there were 62,766 cases. In 1990 at the height of the Japanese “Bubble” economy, there were 10,083 cases. In 2000 there were a mere 16,268. Figure V shows the decline of cases of bank suspension and the gradual rise of bankruptcies, with the two inverting in 1997. There are two reasons why the suspension of bank transactions ceases to be as significant as more formal legal bankruptcies. Firstly we can see in figure VI that the importance of notes payable declines steeply during the 1990s – the value of notes payable cleared at the clearing houses annually declines to less than 150% of GDP in 2002 having been as high as 11 times GDP in 1990 and steady at 400% of GDP during the 1960s and 1970s. Secondly, the financial distress of banks appears to have led to a failure of the old suspension of bank transactions mechanism to force financially troubled firms into bankruptcy.

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<sup>6</sup> Data taken from supporting tables of the National Accounts at the Japanese Cabinet Office.

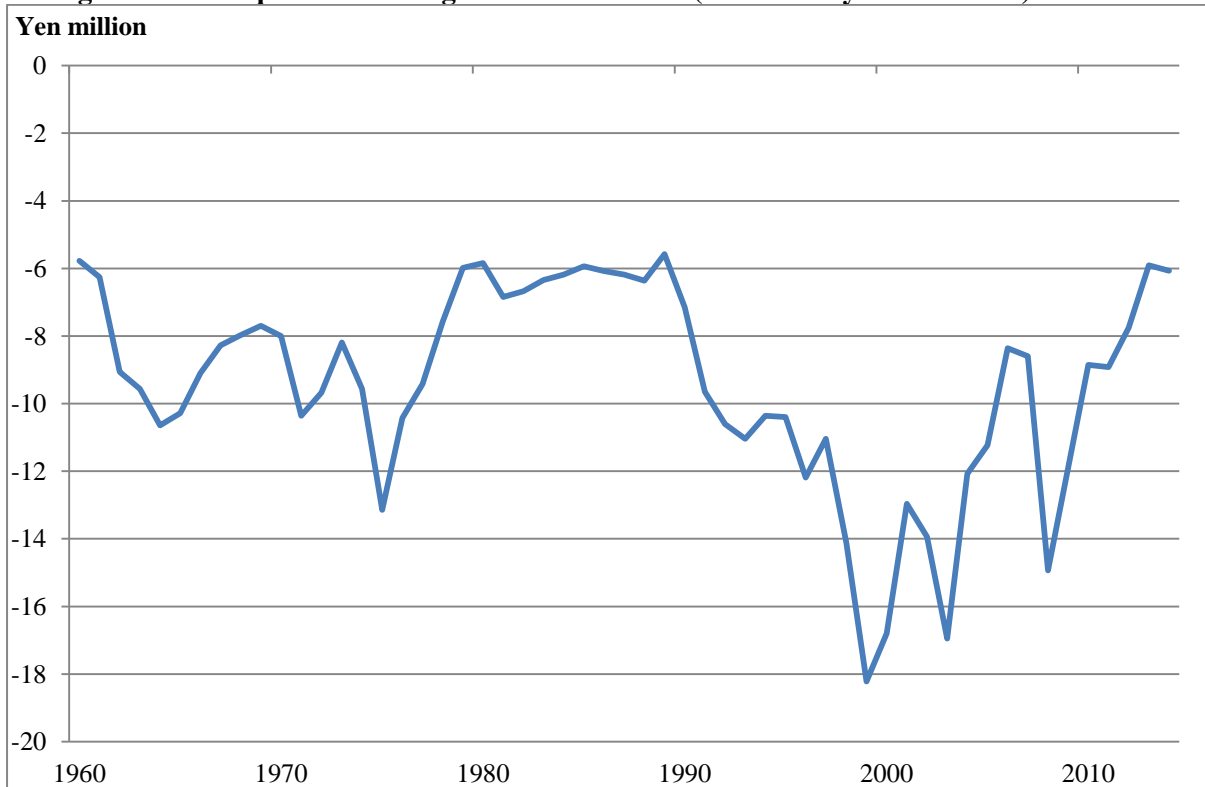
<sup>7</sup> Tokyo Clearing House Rules: Chapter 4 Sections 62-71.

**Figure III: Percentage of loss making to profitable firms in Japan 1951-2013**



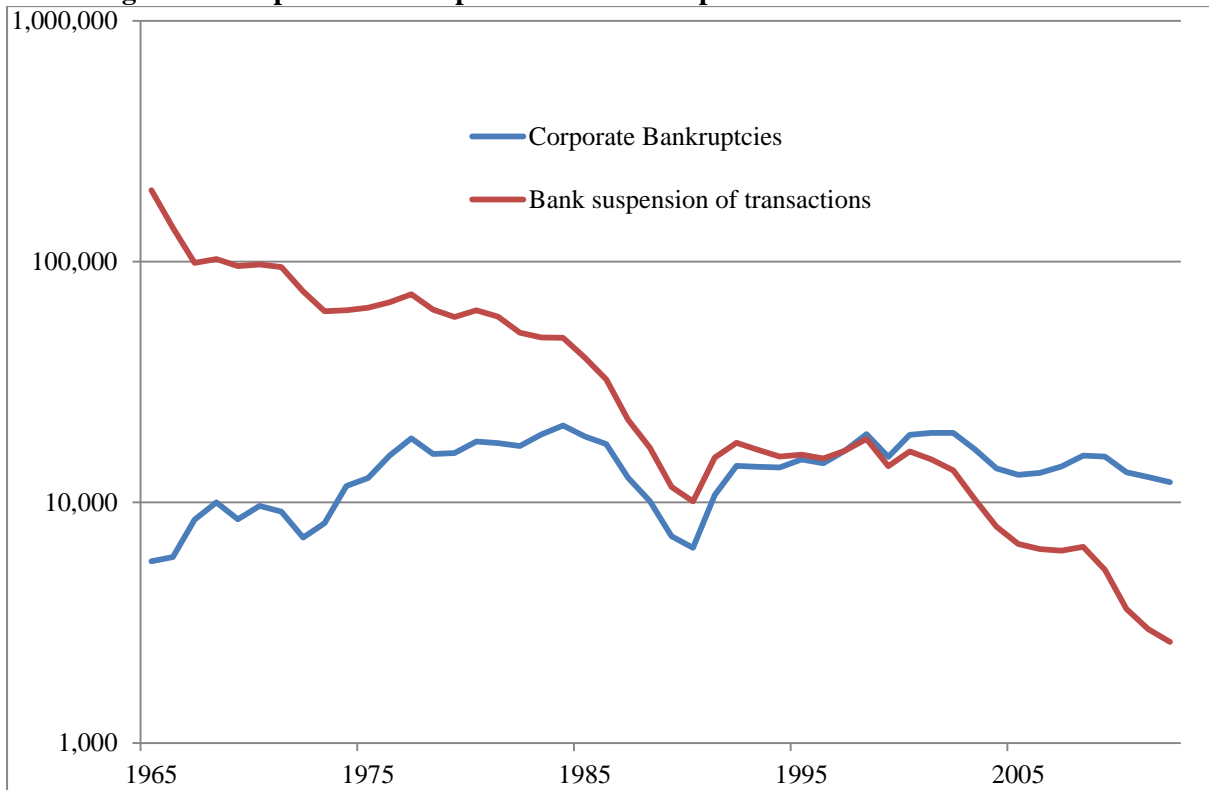
Source: National Tax Agency

**Figure IV: Loss per loss-making firm in real terms (deflated to year 2000 Yen) 1960-2013**



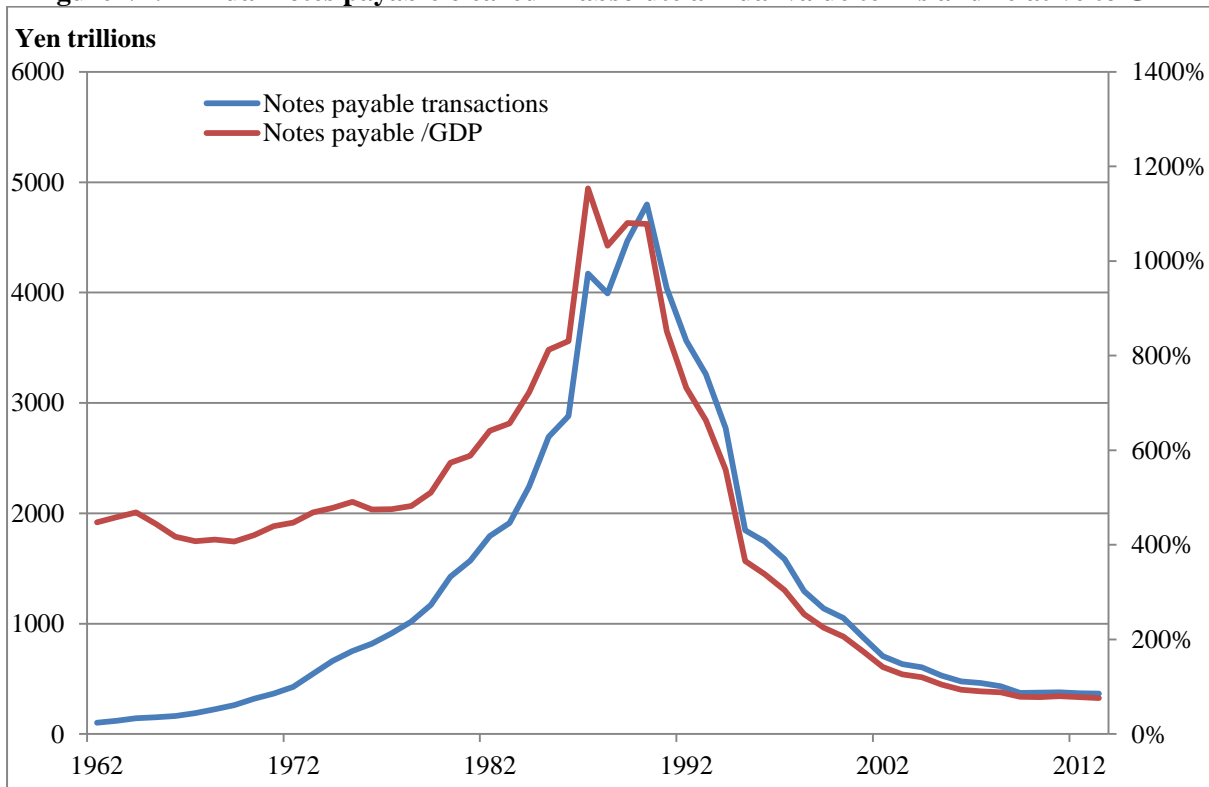
Source: National Tax Agency

**Figure V: Corporate bankruptcies and bank suspension of transactions 1965-2012**



Sources: Tokyo Shoko Research and Japan Federation of Bankers' Associations

**Figure VI: Annual notes payable cleared in absolute annual value terms and relative to GDP**



Sources: Japan Federation of Bankers' Associations and Cabinet Office

The rise in legal cases before the Summary Court and the District Court in Japan are primarily driven by cases associated with litigation for claims related to debts. Note that dissolutions and bankruptcies occur mainly to incorporated firms, whilst the suspension of bank transactions would also include sole trader unincorporated firms.

### **III. Methodology and data**

We use a panel regression on the 47 prefectures of Japan over the period 1999-2012. We divide the period into two – prior to the deregulation and post the deregulation. We designate 2004 as the year that deregulation takes effect, based on the measurable rise in the number of judicial scriveners that gain appearance rights in this year, the change in bar attorney qualification requirements, and a panel regression that shows the one-off effect of scriveners is statistically significant in this year. We use panel OLS regressions with fixed effects by prefecture. All regressions include year fixed effects and use robust standard errors. We use both the number of lawyers (attorneys + judicial scriveners) per head in each prefecture and the year-on-year change in the number of lawyers per head of population as the primary explanatory variable. Ideally we would have the number of judicial scriveners with appearance rights before Summary Courts, but this data is not available on a prefectural basis. However, the number of new scriveners should be correlated with scriveners with appearance rights and the extra noise associated with this measure only strengthens any results found.

The economic data on prefectures is taken from the Cabinet Office. Data on population is taken from The National Institute of Population and Social Security Research. Data on the number of attorneys is from the Japan Association of Bar Associations and data on the number of judicial scriveners is from the Japan Federation of Shiho Shoshi Associations. Data on the number of police is taken from National Police Agency White Paper on Police. Data on crimes committed by prefecture is taken from the National Police Agency. Data on the number of loss making firms is taken from National Tax Agency. Data on the number of *yakuza* is taken from *Jitsuwa Documento* (2005a, b), which is taken from prefectural police force statements on the number of *yakuza*. Data on the number of firms that register for dissolution, bankruptcy or liquidation are taken from the Ministry of Justice. Note that we focus on *Kabushiki Kaisha* (stock company), the primary corporate structure with limited liability in Japan for the Ministry of Justice registration data.

#### **Hypotheses**

As the legal changes represent a series of different reforms, our hypotheses need to be layered as well. Firstly, we expect to find that there will be a one-off increase in corporate dissolutions and



liquidations when the scriveners are granted appearance rights. If the increase in “zombie” firms is due to a lack of legal representation, we would expect to find that the availability of new representation should lead to a rise in corporate failures. Of the various different forms of failure, we expect liquidations to increase the most since they do not require attorneys or significant court oversight. The effect of giving scriveners appearance rights before the courts should continue to have an effect, but it should not be as significant as the first year when the backlog is cleared. This also determines the year in which the legal reforms gain traction and drive corporate failures.

***Hypothesis 1: The impact of giving scriveners appearance rights will result in a one-off increase in corporate failures.***

Secondly, we expect that there should be a marginal effect on the rate of change of corporate failures with each new lawyer (scrivener or attorney) qualified in a prefecture. We expect that post-reform, new lawyers in a prefecture will cause firms that are financially distressed to fail, increasing dissolutions. The new lawyers engage in litigation for claims, forcing financially distressed firms to fail and we expect that the availability of lawyers will help firms to file for dissolution.

***Hypothesis 2: An increase in lawyers post-reform will increase firm dissolutions***

We expect the effect of new lawyers to be more significant for liquidation (*seisan*), since firms that are large enough to qualify for bankruptcy (*hasan*) and its associated costs are more likely to have found lawyers prior to the reform. We also assume that yakuza intervention, that prevents “zombie” firms failing, is less likely for larger firms that are able to pay for bankruptcy.

***Hypothesis 2a: An increase in lawyers post-reform will increase liquidation registrations***

***Hypothesis 2b: An increase in lawyers post-reform will not affect bankruptcy registrations***

The effect on loss making firms is three-fold. Firstly, we expect “zombie” firms that are making the largest losses and have the most debts, for which the lawyers are engaged in litigation, are most likely to be dissolved. Secondly, we expect the removal of “zombie” firms should result in an improvement in the profitability of other firms. Thirdly, “zombie” firms that are artificially kept going by *yakuza* intervention will decrease.

*Hypothesis 3: An increase in lawyers post-reform will reduce the number of loss making firms*

Finally, the impact of the new lawyers should result in a decrease in the number of crimes where yakuza are involved in civil disputes. The increase in the number of lawyers post-reform will reduce crimes of extortion and intimidation associated with yakuza intervention in civil disputes.

*Hypothesis 4: An increase in lawyers post-reform will reduce extortion and intimidation offences*

## **IV. Results, alternative hypotheses and robustness**

The panel results for the one-off effect of corporate dissolutions and liquidations are based on the absolute number of dissolutions relative to the stock of firms. The results in table V show that there is a statistically and economically significant increase in the number of both dissolution and liquidation registrations in 2004, which is the first full year when a substantial number of judicial scriveners gained appearance rights – with 10,000 cases at the Summary Court level where scriveners appeared as representatives for either applicant or defendant, see Table III.

Interestingly it would appear that the impact of the Global Financial Crisis in 2007/8 is reflected in another surge of potential loss makers that are resolved by the availability of scriveners with the number of dissolutions reaching statistical significance in 2008. In 2008, there are 78,000 cases where scriveners represent litigants in Summary Court. It appears possible that the availability of legal representation helps to prevent more zombie firms being created in Japan post the Global Financial Crisis.

Overall the relationship between the number of scriveners and both liquidations and dissolutions is negative. This negative correlation is likely to be linked to the fact that scriveners operate in economically healthier prefectures. However, we find that on a yearly basis we have a statistically significant rise in the number of liquidations and dissolutions in 2004. In 2004, the mean impact of the number of scriveners per head on dissolutions and liquidations is to increase the number of dissolutions and liquidations by 0.8 standard deviations. This is approximately an extra 3550 dissolutions and 3300 liquidations nationally in 2004. We thus find support for hypothesis 1: When scriveners are given appearance rights this leads to an increase corporate dissolutions and liquidations.

**Table V: Year-on-year changes in firm dissolution and liquidation registrations**

	Dissolution/ Firms	Liquidations / Firms
$\Delta$ Nominal GDP <sub>t+1</sub>	-0.006 (2.33)**	-0.004 (-3.18)**
$\Delta$ lawyers <sub>t+1</sub>	0.006 (3.99)***	0.004 (3.21)***
Scriveners/population	-20.1 (-2.07)**	-17.25 (-2.39)**
Attorneys/population	7.31 (3.75)***	-6.81 (4.14)***
Loss-making firms/ firms	0.001 (0.23)	0.001 (0.24)
Scrivener/population x 2002	9.87 (1.66)	7.25 (1.76)*
Scrivener/population x 2003	7.38 (1.46)	5.60 (0.96)
Scrivener/population x 2004	10.96 (2.45)**	9.70 (2.19)**
Scrivener/population x 2005	6.31 (1.25)	1.80 (0.40)
Scrivener/population x 2006	5.63 (1.15)	4.76 (1.15)
Scrivener/population x 2007	5.89 (1.48)	3.31 (1.02)
Scrivener/population x 2008	7.63 (2.07)**	3.95 (1.57)
Scrivener/population x 2009	-1.23 (-0.46)	-0.64 (0.19)
Scrivener/population x 2010	0.22 (0.10)	1.08 (0.40)
Scrivener/population x 2011	-2.33 (1.18)	1.86 (0.90)
Constant	0.006 (2.55)**	0.005 (2.78)***
Year fixed effects	Y	Y
Fixed effects	Y	Y
N	517	517
R <sup>2</sup>	0.39	0.37

**Year-on-year changes in lawyers**

The year-on-year change in lawyers uses as the primary explanatory independent variable the number of lawyers (attorney + scriveners) per head in each prefecture and looks for the lagged effect of the change in the number of lawyers on the dependent variables.

As expected in table VI we find that year-on-year change in lawyers per person does not have a statistically significant effect pre-2004, but does become significant at the 1% level post the reform. We also find that in the two years after the qualification of a new lawyer, there is a 0.14 decline in the percentage of loss making firms. The numbers are statistically significant at the 1% level over one year and at the 5% level after two years. Hypotheses 2 and 3 are supported by these results.

**Table VI: Year-on-year changes in firm dissolution, loss making firms pre- and post-reform**

	Pre-2004	Pre-2004	Post-2004	Post-2004
	$\Delta$ Dissolution	$\Delta$ Loss	$\Delta$ Dissolution	$\Delta$ Loss
$\Delta$ lawyers <sub>t+1</sub>	0.55 (0.63)	0.02 (0.41)	1.15 (2.10)**	-0.10 (-2.71)***
$\Delta$ lawyers <sub>t+2</sub>		0.02 (0.20)		-0.14 (-2.60)**
$\Delta$ lawyers <sub>t+3</sub>				
$\Delta$ Nominal GDP		0.05 (0.79)		-0.40 (-4.17) ***
$\Delta$ Nominal GDP <sub>t+1</sub>	-1.01 (-1.30)	-0.19 (-2.84)***	-0.74 (-2.06)**	-0.11 (-1.54)
Constant	-0.04 (-3.63)***	-0.00 (-3.65)***	-0.20 (-7.77)***	0.00 (1.08)
FE	Y	Y	Y	Y
Year dummies	Y	Y	Y	Y
N	226	141	423	423
R <sup>2</sup>	0.24	0.36	0.48	0.73

Putting these numbers into context, a single lawyer represents an approximate 0.14% increase in the stock of lawyers for the mean prefecture. This results in an increase of 0.16% in the rate of dissolutions per prefecture, which means that the number of dissolutions in the mean prefecture rise by 0.66 in the year following a lawyer qualifying. The number of loss-making firms in the mean prefecture declines by 0.014% or 5.8 firms in the two years following the qualification of the lawyer. Although these numbers may appear low, this is the marginal effect of a single lawyer's qualification and the number of new lawyers qualified between 2004 and 2013 (judicial scriveners with appearance rights + Attorneys) is 27,000. We would expect new lawyers to be concentrated in prefectures and locales where there is the greatest demand for their services, so the overall effect will not be as great at the marginal effect multiplied by the increase in lawyer numbers, but it is clearly significant.

We expect to find the effect of the new lawyers will be greater for firms undergoing liquidation (*seisan*) rather than bankruptcy (*hasan*) as bankruptcy is a more expensive procedure and any legal resources available are more likely to be directed at the expensive court mandated bankruptcy procedure than the cheaper liquidation procedure. Table VII shows that hypotheses 2a and 2b are supported and that while bankruptcy is not affected by the number of lawyers, liquidation, post-2004, is.

**Table VII: Year-on-year changes in firm bankruptcy and liquidation registrations pre- and post-reform**

	Pre-2004	Pre-2004	Post-2004	Post-2004
	$\Delta$ Bankruptcy	$\Delta$ Liquidation	$\Delta$ Bankruptcy	$\Delta$ Liquidation
$\Delta$ lawyers <sub>t+1</sub>	-0.01 (0.00)	-0.22 (-0.21)	0.43 (0.75)	1.01 (1.82)*
$\Delta$ Nominal GDP <sub>t+1</sub>	-1.81 (-0.76)	-0.58 (-0.78)	-1.29 (-1.91)*	-0.65 (-1.84)*
Constant	0.07 (1.78)*	0.21 (12.73) ***	-0.10 (-2.25)**	-0.14 (-5.38)***
FE	Y	Y	Y	Y
Year dummies	Y	Y	Y	Y
N	188	188	423	423
R <sup>2</sup>	0.07	0.21	0.21	0.21

### Lawyers vs. *Yakuza*

The qualification of extra lawyers also has an impact on the *yakuza*. We expect to find that the new lawyers drive the *yakuza* out of the civil dispute resolution business. Where *yakuza* engage in civil dispute resolution, we expect to find that the actions taken by the *yakuza* will result in two types of crimes: Intimidation and extortion. These are both felonies. Intimidation with compulsion carries a maximum sentence of 3 years. Extortion of property is a more serious crime and results in a sentence of no more than 10 years. From National Police Agency Data we find that in 2002 38.5% of the 1,572 arrests for intimidation were of *yakuza* and that 42.1% of the 2,954 arrests for extortion were of *yakuza*. Note that the regression analysis uses the overall number of offences of extortion and intimidation (per head of population) and not the offences committed by *yakuza*, this information is not available on a prefectural basis. We also only have crime data on a prefectural basis from 2000 rather than 1999, which reduces the pre-reform data.

In line with our hypothesis 3 in table VIII we find that pre-2004 changes in the number of lawyers per head had no statistically significant effect on reported crimes of extortion or intimidation, but post-2004, we find that an increase in the number of lawyers reduces the number of intimidation offences and this result is statistically significant at the 10% level. The effect on extortion is not statistically significant at the 10%, but is also negative.

**Table VIII: Year-on-year changes in the number of extortion and intimidation offences pre- and post reform**

	Pre-2004	Pre-2004	Post-2004	Post-2004
	$\Delta$ Extortion	$\Delta$ Intimidation	$\Delta$ Extortion	$\Delta$ Intimidation
$\Delta$ lawyers <sub>t+1</sub>	-3.41 (-0.99)	2.00 (0.46)	-1.14 (-1.54)	-2.14 (-1.89)*
$\Delta$ Nominal GDP <sub>t+1</sub>	1.63 (1.02)	-1.26 (-0.43)	-1.00 (-1.69)*	-0.72 (-0.78)
Constant	0.07 (1.36)	-0.11 (-1.10)	-0.15 (-3.23)***	-0.05 (-0.73)
FE	Y	Y	Y	Y
Year dummies	Y	Y	Y	Y
N	141	141	423	423
R <sup>2</sup>	0.02	0.06	0.08	0.18

Table IX focuses specifically on 2004, the year that we find the large one-off effect of scriveners gaining appearance rights on liquidation filings. We analyse the effect of *yakuza* presence in different prefectures. We expect to find fewer liquidation filings in these locations. We only have data on *yakuza* presence for 2004 for 45 prefectures and do not have sufficient panel data on numbers for other years. However, we find that the one-off effect of giving scriveners appearance rights is more significant and more positive when we include *yakuza* and that the presence of *yakuza* reduces the effect of scriveners. In actual numbers the mean percentage of scriveners per head of population in 2004 is 0.014% and the mean percentage of liquidated firms is 0.51% and the mean percentage of *yakuza* per head of population is 0.059%. In the mean prefecture the effect of judicial scriveners on liquidations is thus to increase it by 32% and the effect of the *yakuza* presence is to decrease it by 15%.

**Table IX: Year-on-year changes in the number of liquidation registrations relative to all firms in 2004**

	$\Delta$ Liquidation	$\Delta$ Liquidation
$\Delta$ Nominal GDP <sub>t+1</sub>	-3.85 (-2.84)***	-4.36 (-2.99)***
Scrivener/population	1958.35 (2.19)**	2352.05 (2.50)**
Attorneys/Population	-325.36 (-1.78)*	-28.49 (-0.21)
<i>Yakuza</i> /population		-256.09 (-1.76)*
Constant	-0.31 (-3.08)***	-0.28 (-3.22)***
N	47	45
R <sup>2</sup>	0.26	0.35

#### **Alternative hypotheses**

There are two other factors that clearly can be expected to have an effect on corporate failures and *yakuza* activity. The first is the impact of bank lending. The financial fragility of the banking sector and evergreening of loans is seen to be a major cause of “zombie” firms. The second factor is changes in the number of policemen, which would be expected to affect *yakuza* activity. The aggregate number of policemen in Japan increases during this period. This coincides with a more active anti-*yakuza* policy, with police and judicial authorities pursuing policies designed to reduce revenues of *yakuza*.

To control for the effect of bank lending, we re-run regressions on corporate dissolutions, liquidations and loss making firms while including changes in bank lending. We use both a lagged value and a current value for bank lending. The results in Table X show that the bank lending variable is statistically significant and at the same time there is no change in the coefficients for the year-on-year change in the number of lawyers’ impact on dissolution, loss making firms and liquidations.

**Table X: Year-on-year changes in firm dissolution and liquidation registrations and in the number of loss making firms post-reform**

	Post-2004	Post-2004	Post-2004
	$\Delta$ Dissolution	$\Delta$ Loss	$\Delta$ Liquidation
$\Delta$ lawyers <sub>t+1</sub>	1.17 (2.19) **	-0.09 (-2.39)**	1.04 (1.98)*
$\Delta$ lawyers <sub>t+2</sub>		-0.13 (-2.49)**	
$\Delta$ Bank loans	-0.71 (-2.44)**	-0.11 (-3.17)***	-0.78 (-2.52)**
$\Delta$ Bank loans <sub>t+1</sub>	-0.02 (-0.10)	0.12 (1.68)*	0.10 (0.31)
$\Delta$ Nominal GDP		-0.38 (-4.63)***	
$\Delta$ Nominal GDP <sub>t+1</sub>	-0.73 (-1.99)*	-0.12 (-1.58)	-0.66 (-1.84)*
Constant	-0.20 (-7.67)***	0.00 (1.04)	-0.14 (-5.36)***
FE	Y	Y	Y
Year dummies	Y	Y	Y
N	423	423	423
R <sup>2</sup>	0.48	0.75	0.22

The relative importance of the bank lending channel and the lawyers can be compared using the mean year-on-year change in bank lending and lawyers post-2004. Mean bank lending growth was 1.06%, with a standard deviation of 3.25%, while growth in lawyers was a mean 3.13% with a standard deviation of 2.28%. For dissolutions, the mean effect of lawyers is thus 3.66% and the mean effect of bank lending is -0.75%. For loss making firms, the mean effect of lawyers is 0.41% and the mean effect of bank lending is 0.1%. For liquidations, the mean effect of lawyers is 3.25% and of bank lending is -0.83%. Clearly the effect of variation in bank lending, which has a higher standard deviation will have a greater effect, but in aggregate the change in the number of lawyers appears to be more significant than changes in bank lending.

The second alternate hypothesis is that changes in the number of policemen affect the *yakuza*'s ability to engage in civil dispute intercession. We re-run regressions on the post-2004 cases of intimidation and extortion while including the change in the number of policemen per head as an independent variable. Table XI shows that the inclusion of policemen does not alter the coefficients on the impact of lawyers. If we include both police and bank lending growth in regressions for extortion and



intimidation we find that bank lending increases both intimidation and extortion, which is statistically significant for intimidation, but not for extortion. Including both bank lending and police in the regression increases the explanatory power of the increase in lawyers, with the increase in lawyers statistically significant at the 10% level for extortion and statistically significant at the 5% level for intimidation.

**Table XI: Year-on-year changes in the number of extortion and intimidation offences post reform**

	Post-2004	Post-2004	Post-2004	Post-2004
	$\Delta$ Extortion	$\Delta$ Intimidation	$\Delta$ Extortion	$\Delta$ Intimidation
$\Delta$ lawyers <sub>t+1</sub>	-1.14 (-1.57)	-2.17 (-1.92)*	-1.22 (1.68)*	-2.24 (-2.03)**
$\Delta$ police <sub>t+1</sub>	-0.63 (-0.49)	-2.59 (-1.52)	-0.93 (-0.71)	-2.79 (-1.72)*
$\Delta$ Bank loans			0.75 (1.01)	1.88 (2.26)**
$\Delta$ Bank loans <sub>t+1</sub>			-1.00 (-1.50)	-0.13 (-0.21)
$\Delta$ Nominal GDP <sub>t+1</sub>	-1.04 (-1.70)*	-0.89 (-0.99)	-0.98 (-1.55)	-0.91 (-0.99)
Constant	-0.15 (-3.21)***	-0.04 (-0.51)	-0.14 (-3.11)***	-0.04 (-0.58)
FE	Y	Y	Y	Y
Year dummies	Y	Y	Y	Y
N	423	423	423	423
R <sup>2</sup>	0.08	0.18	0.09	0.19

### Further robustness tests

We consider the possibility that another anti-*yakuza* factor explains the reduction in intimidation and extortion offences that may be correlated with lawyers, but is not caused by them. We hypothesize such a factor would also affect other crimes associated with the *yakuza*. In 2002, *yakuza* were responsible for 21% of homicide arrests (299 arrests), 38% of drug offence arrests (7124 arrests) and 15.7% of robbery arrests (652 arrests). If the growth in lawyers is correlated with another factor that is impeding the *yakuza*'s activities we would expect to see an impact of new lawyer creation on these other crimes for which the *yakuza* are significantly responsible. We include the other explanatory factors such as bank lending, police and nominal GDP growth. We find that the growth in lawyers is not associated with declines in arrests for these three major crimes that are associated with the *yakuza*'s non-civil dispute resolution activities in table XII.

**Table XII: Year-on-year changes in the number of drugs, homicide and robbery offences pre- and post reform**

	Post-2004	Post-2004	Post-2004
	$\Delta$ Drugs	$\Delta$ Homicides	$\Delta$ Robberies
$\Delta$ lawyers <sub>t+1</sub>	-0.10 (-0.14)	-1.52 (-0.86)	-0.34 (-0.29)
$\Delta$ police <sub>t+1</sub>	-0.44 (-0.34)	-2.07 (-0.97)	0.93 (0.67)
$\Delta$ Bank loans	-0.30 (-0.53)	1.96 (1.94)*	0.44 (0.77)
$\Delta$ Bank loans <sub>t+1</sub>	0.24 (0.49)	-0.62 (-0.45)	-0.72 (-1.16)
$\Delta$ Nominal GDP <sub>t+1</sub>	-1.21 (-0.99)	-1.00 (-0.57)	0.63 (0.55)
Constant	-0.02 (-0.52)	0.13 (0.97)	-0.08 (-1.05)
FE	Y	Y	Y
Year dummies	Y	Y	Y
N	423	423	423
R <sup>2</sup>	0.35	0.05	0.03

**Effect on growth**

The removal of loss making “zombie” firms will have a medium term positive impact on aggregate growth, but in the short term should result in less growth as jobs are lost and existing business relationships are disrupted. Given the decline in number of loss-making “zombie” firms for two years post-new lawyer qualification, it is logical to assume that positive effects on economic activity may not be apparent until three years post-qualification. As shown in table XIII, post the legal reforms, the effect of new lawyer qualification on economic growth is positive and statistically significant at the 10% level three years post lawyer qualification. In the period post-2004, the mean growth of GDP per capita was 0.97% with a standard deviation of 3.1%. The growth rate of lawyers per capita was 3.1%, meaning that the effect of mean lawyer qualifications was about 0.28% or approximately 29% of mean growth.

**Table XIII: Year-on-year changes in prefectural GDP per capita pre- and post reform**

	Pre-2004	Post-2004
	$\Delta$ GDP per capita	$\Delta$ GDP per capita
$\Delta$ lawyers <sub>t+1</sub>	-0.15 (-0.94)	-0.02 (-0.40)
$\Delta$ lawyers <sub>t+2</sub>	-0.3 (-0.16)	0.00. (0.10)
$\Delta$ lawyers <sub>t+3</sub>	0.09 (0.63)	0.09 (1.75)*
GDP per capita <sub>t+1</sub>	-0.20 (-4.62)***	-0.09 (-4.85)***
Constant	0.71 (4.73)***	0.36 (5.05)***
FE	Y	Y
Year dummies	Y	Y
N	94	423
R <sup>2</sup>	0.00	0.09

## V. Conclusion

The widening of appearance rights to judicial scriveners and the acceleration in numbers of lawyers qualified post-2002 appears to have had significant and positive effects on the Japanese economy. The one-off approval of appearance rights for scriveners appears to have increased the number of dissolutions and liquidations by approximately 20%. The creation of extra lawyers appears to have been helpful in overcoming a logjam of “zombie” firms created by the bursting of the “bubble” economy and subsequent bank bust and helped to clear problems associated with the global financial crisis of 2007-8. However, in line with Ramseyer’s (1988) view that the Japanese are rational litigants, we find that the number of new cases filed have decreased in recent years, although the rate at which Alternative Dispute Resolution occurs has fallen by less, which supports the view that the Japanese are rational litigants. The Japanese Federation of Bar Associations announced that the mean income of Japanese attorneys fell to ¥9 million (US\$ 82,500) in 2014 from ¥17.5 million (US\$ 160,000) in 2006.<sup>8</sup> These results contrast with the findings of Mora-Sanguinetti and Garoupa (2015), who find that new lawyers induce more litigation in Spain. The complaints of the Japan Federation of Bar Associations that the salaries of Japanese attorneys has fallen should not be seen as an indicator that the policy of reform has failed, but instead an indicator that the policy has succeeded. The

<sup>8</sup> Obe (2016)

increase in lawyers has not led to a surge in litigation after the “zombies” are closed, and so the costs of rent seeking by lawyers does not appear to have increased due to the increase in supply of lawyers.

We believe that the results of this study are more widely applicable even though it is based on Japan. Firstly, we believe it supports moves towards the provision of more and cheaper legal services in developed countries. Secondly, it clearly shows that the lack of legal services can have serious negative implications for economic growth, something that support the view put forward by Gilson (1992) that the role of lawyers need not be just to engage in rent seeking activities. Thirdly, it lends further support to the view that in countries with weaker institutions, when booms end, there may be a need for legal reforms to promote recovery (see Claessens et al. 2002). Finally, it gives insights into the role played by organized crime in civil disputes and shows that countries in transition with large organized crime sectors can shift to a new equilibrium without “dark side” private ordering.

It should be noted that our results do not give a definitive answer about the optimal number of lawyers. Japan still has far fewer lawyers than the number that Magee (1992) identified as optimal: one per 730 persons, even including scriveners with judicial appearance rights Japan has one for every 2,600 persons. The availability of alternative dispute resolution mechanisms / private ordering can substitute for legal services, as had been the case in Japan prior to the financial crisis and means that fewer lawyers per person are necessary. The failure of the previous equilibrium due to changing inter-firm credit and financially distressed banks leads to a rise in “dark side” private ordering – *yakuza* – which is undesirable and contributes to a rise in “zombie” firms. It is in this environment that a significant increase in the number of lawyers is necessary to resolve financial distress. This shows that the optimum number of lawyers is dependent on the context.

Even in the US, which is seen to be suffering from an excess of lawyers, we find a perceived shortage of lawyers for small and medium sized businesses. President Obama called for a (cheaper) two-year law degree and academics and policy makers have called for the licensing of Limited License Legal Technicians (LLLTs). LLLTs are legal in Washington State as of September 2012. This matches the way in which judicial scriveners appear to have played a major role in providing low cost legal services, litigating in Summary Courts for relatively small sums, helping to close down loss making firms and promoting efficiency. Judicial scriveners running their own offices made a mean reported<sup>9</sup> pre-tax income of ¥4.7 million (US\$43,000) about half the reported level of attorneys.

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<sup>9</sup> 2013 White Paper on Judicial Scriveners

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## Appendix

**Table A. Attorneys and judicial scriveners by prefecture 2002 and 2013**

Prefecture	Attorneys (2002)	Attorneys (2013)	Scriveners (2002)	Scriveners (2013)	Attorney change 2013/2002	Attorneys per 1000 pop 2002	Lawyers per 1000 pop 2013	Ratio of scriveners to attorneys 2002
Aichi	891	1,701	830	1,221	91%	12%	39%	93%
Akita	49	78	153	115	59%	4%	18%	312%
Aomori	42	118	138	125	181%	3%	18%	329%
Chiba	302	673	513	680	123%	5%	22%	170%
Ehime	91	159	263	250	75%	6%	29%	289%
Fukui	43	99	136	132	130%	5%	29%	316%
Fukuoka	626	1,091	705	904	74%	12%	39%	113%
Fukushima	86	176	298	279	105%	4%	23%	347%
Gifu	91	180	332	349	98%	4%	26%	365%
Gunma	128	264	277	305	106%	6%	29%	216%
Hiroshima	275	528	430	504	92%	10%	36%	156%
Hokkaido	414	887	560	653	114%	7%	28%	135%
Hyogo	437	814	787	1,019	86%	8%	33%	180%
Ibaraki	101	249	277	318	147%	3%	19%	274%
Ishikawa	86	167	184	195	94%	7%	31%	214%
Iwate	46	99	175	156	115%	3%	20%	380%
Kagawa	84	163	170	169	94%	8%	34%	202%
Kagoshima	83	183	300	321	120%	5%	30%	361%
Kanagawa	750	1,424	677	1,081	90%	9%	28%	90%
Kochi	55	87	133	116	58%	7%	27%	242%
Kumamoto	111	247	322	325	123%	6%	32%	290%
Kyoto	359	667	414	559	86%	14%	47%	115%
Mie	73	172	261	266	136%	4%	24%	358%
Miyagi	225	409	266	315	82%	9%	31%	118%
Miyazaki	57	123	175	177	116%	5%	27%	307%
Nagano	114	230	353	376	102%	5%	29%	310%
Nagasaki	75	157	164	161	109%	5%	23%	219%
Nara	86	158	169	217	84%	6%	27%	197%
Niigata	128	251	318	290	96%	5%	23%	248%
Oita	69	140	179	171	103%	6%	26%	259%
Okayama	176	354	302	362	101%	9%	37%	172%
Okinawa	178	248	218	218	39%	13%	33%	122%
Osaka	2,713	4,136	1,698	2,278	52%	31%	72%	63%
Saga	38	95	117	115	150%	4%	25%	308%
Saitama	321	725	623	829	126%	5%	22%	194%
Shiga	49	140	162	218	186%	4%	25%	331%
Shimane	23	69	147	122	200%	3%	27%	639%
Shizuoka	222	421	400	485	90%	6%	24%	180%
Tochigi	96	196	217	224	104%	5%	21%	226%
Tokushima	49	91	168	138	86%	6%	30%	343%
Tokyo	9,349	16,276	2,276	3,663	74%	76%	150%	24%
Tottori	24	68	115	107	183%	4%	30%	479%
Toyama	51	102	157	170	100%	5%	25%	308%
Wakayama	70	141	164	168	101%	7%	32%	234%
Yamagata	52	90	185	155	73%	4%	21%	356%
Yamaguchi	76	150	256	238	97%	5%	27%	337%
Yamanashi	58	117	140	127	102%	7%	29%	241%
National	19,522	35,113	17,304	21,366	80%	15%	44%	89%

Source: Japan Federation of Bar Associations, Japan Association of Shiho Shoshi Associations, National Institute of Population and Social Security Research

**Table B: Year-on-year change in number of loss making firms pre-reform**

	Pre-2004	Pre-2004
	$\Delta$ Loss	$\Delta$ Loss
$\Delta$ Intimidation <sub>t+1</sub>	0.01 (1.71)*	
$\Delta$ Extortion <sub>t+1</sub>		-0.00 (-0.41)
$\Delta$ Lawyers <sub>t+1</sub>	0.03 (0.29)	0.06 (0.50)
$\Delta$ Police <sub>t+1</sub>	-0.01 (-0.47)	-0.01 (-0.19)
$\Delta$ Bank loans	0.06 (0.68)	0.08 (0.81)
$\Delta$ Bank loans <sub>t+1</sub>	0.10 (1.36)	0.09 (1.19)
$\Delta$ Nominal GDP <sub>t+1</sub>	-0.30 (3.53)***	-0.31 (3.35)***
Constant	-0.00 (-0.17)	-0.00 (-0.41)
FE	Y	Y
Year dummies	Y	Y
N	94	94
R <sup>2</sup>	0.56	0.53

**Table C: Japanese attorneys' median and mean earnings in millions of Yen**

	Median	Mean
2000	13	17
2004	12	16.5
2006	12	16.3
2008	11	16
2010	9.93	15.7
2014	6	9.07

Source: Japan Federation of Bar Associations

NB. Table C overstates the decline in attorney earnings since the composition of attorneys has changed since reforms began. The relative percentage of younger and less experienced attorneys skews both the mean and median downward.