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Industrial Disputes in Indonesia: a reassessment

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This paper draws attention to three areas of possible interest to Indonesian labour market researchers. The first area involves a comparison of certain major official data collections on Indonesian industrial disputes. A number of gross but partly explainable anomalies are found. The second area reviews the official record of time lost due to industrial disputes over the period 1980 to 2003. Time lost due to industrial disputes is decomposed so as to identify trends in the frequency, involvement and duration of disputes (as defined). The third area involves international comparisons between Indonesian industrial disputes and disputes for a selection of major trading partners for the period 1980 to 2002, as well as comparisons between Indonesian industrial disputes and a 'global' index of industrial disputes. A number of stark differences are noted. The balance of the paper is sequenced in accordance with the three areas identified above, with the addition of some concluding comments in the last section.

Indonesian Industrial Disputes Data

International access to data on Indonesian industrial dispute trends is available from the ILO in both its yearbook and from its website. The website currently provides aggregate annual data for the period 1969-97.¹ Local official Indonesian sources are more difficult to pin down for those outside of the country and lacking Indonesian-language skills. Nevertheless, two official (Indonesian-language) websites have been accessed that give official aggregate annual data on industrial disputes for the period

1980-2003.² These two sets of data - the ILO and the local data - are radically different. This applies, in particular, to the number of working days lost due to industrial disputes, which is arguably the broadest and most useful measure of industrial disputes available. The two data sets, and the proportional discrepancies between the two, are presented in Table 1.

Data on the *number* of disputes are the least inconsistent. The average difference between the two sets of data is 17 per cent. For 1985, 1988-93 and 1995 the data are the same. The average discrepancy for *workers involved* in disputes is 32 per cent. For two years the data are the same. But for all other years significant differences apply. Data on the number of *working days lost* due to industrial disputes are the least consistent.

The ILO publishes *working days lost*. The official Indonesian websites publish *working hours lost* due to industrial disputes. On the assumption that the normal working day involves 7 hours work, the Indonesian website data can be readily converted from *hours lost* due to disputes to *days lost* due to disputes.³ This is done in Table 1. If it is assumed that the ILO data should be for *hours* instead of *days*, then we can directly compare the *days* and *hours* data for working time lost. While these data are the 'same' on four occasions (1991-93 and 1995), the data are significantly different on other occasions, particularly during the 1980s. The average discrepancy over the entire overlap period is 71 per cent. If the data for apparent working days are compared, the average discrepancy is 121 per cent.

The numbers in Table 1 suggest that there has been a simple confusion over *days* lost versus *hours* lost. If we assume that the ILO data should actually refer to *hours* lost rather than *days* lost,⁴ then perhaps many of the differences between the series would disappear. This is probably true for the much of the 1990s, but it is not true for the 1980s, as column (x) of Table 1 indicates. The proportional differences during the 1990s are quite small. But during the 1980s the two sets of data are seriously at odds.

It might be argued that, while there are differences between official ILO data and official Indonesian data, none of the official data are all that reliable, anyway. This is suggested as a distinct possibility by Hadiz (1997, p. 208), for example, who observes (in an endnote) that, when tabling the *number* of strikes, his data is 'compiled from various sources, including Manning (1993, p.81), who quotes official sources'. Hadiz goes on to advise that official data '... constitute a very conservative estimate, as many strikes go unreported. One labour activist put the number of disputes from 1989 to 1994 at an amazing 3000'. The total number of disputes according to official sources, both ILO and Indonesian, was less than 1000 according to Table 1. Hadiz refers to various other unofficial estimates, all of which estimate a considerably larger number of disputes. One source, Jordan (1995, p. viii), employs union estimates from Indonesia's then single official union the SPSP, which apparently estimated that 1130 strikes occurred during 1994 alone. This sits in stark contrast with the official estimate, in Table 1, of 278 disputes (and 296 disputes according to ILO estimates).

In his unpublished PhD thesis, Kemman (1997) makes a detailed study of strikes in Indonesia for the period 1969 to 1994. His focus is on the *number* of strikes. Although there is some analysis of the duration of strikes and the number of workers involved in strikes between 1990 and 1994, he does not estimate the number of working days lost due to strikes. Between 1969 and 1994 he estimates that there were 3,057 strikes, of which 2,225 occurred during the years 1990 to 1994. Official government estimates for 1969-94 were 1987 strikes, of which 931 occurred between 1990 and 1994.⁵

Kemman's estimates of the number of strikes vary considerably from the official data. Kemman observes that some of the differences occur because of a range of irregular interpretative actions by government officials, workers and factory managers (pp. 40-41).⁶ But he also states that:

For the purposes of this dissertation, a strike is defined as a collective work stoppage in a *single enterprise* in pursuit of common goals. While many scholars prefer to consider simultaneous, coordinated actions in a series of enterprises as a single strike, this is not practical for the purposes of this study. It is often difficult to determine whether or not multiple strikes in the same locale on the same day were in fact coordinated together (p. 41-42). [Italics added]

He also states, in a related footnote, that: Most studies of strikes have followed the ILO definition which states, 'Disputes affecting *several establishments* should be considered as one case if they are organized or directed by one person or organization' (Shorter and Tilly, 1973, p. 353) (Kemman, 1997, p. 41). [Italics added]

This raises the question: to what extent are the number of strikes reported by Kammen different from the official estimates because of a possible official practice, in line with ILO guidelines, of classifying concurrent strike activity in different enterprises as a *single* strike because strike activity in different enterprises is “organised or directed by one person or organization”?

In fact the simple *number* of industrial disputes is generally an inadequate measure of the overall ‘size’ of industrial disputes. One reason, indicated above in the work of Kammen (1997), is that the definition of a single dispute can be somewhat arbitrary. Is a dispute on three separate premises to be classified as three disputes, or one dispute because the dispute is orchestrated by the one trade union? And if there is one official union in the country, are not all disputes at all enterprises orchestrated by the one union?

Another, perhaps more important reason for the simple *number* of disputes being inadequate is that the number of disputes does not take into account either (i) the number of workers involved in disputes or (ii) the average duration of disputes. To illustrate this point further, a single dispute involving, say, one hundred workers striking for half a day is likely to have a much lesser impact on the work environment than a single dispute involving, say, twenty thousand workers striking for two and a half days. The first dispute will result in 50 working days being lost. The second dispute will result in 50,000 days being lost. The two single disputes are quantitatively and probably qualitatively

different yet both register as simply one single dispute.

The broadest measure, and arguably the most useful measure of the dimensions of industrial disputes, is the number of *working days lost* or to use the expression favoured by the ILO: the number of days not worked. Apart from having the advantage of being the broadest measure of disputes, working days lost has the added advantage of being least likely to be affected by underestimates of relatively small disputes (Turner, 1969; Perry and Wilson, 2004). The reason for this is that large-scale disputes are least likely to go unrecognised. Their very size makes them visible. News media and official collection agencies will find it difficult not to take note of large-scale disputes. Many smaller disputes, on the other hand, may not get reported or noted by either the news media or the collecting agency. As it turns out, for most countries, the number of working days lost is generally dominated by larger disputes.

In the case of the USA, for example, larger disputes (involving a thousand or more workers) accounted for 71 per cent of all working days lost due to disputes between 1947 and 1981, but only 7 per cent of the *number* of disputes (Perry and Wilson, 2004). The under-enumeration of small disputes, evidenced in a number of developed countries (Kelly and Nicholson, 1980; Kopi, 1981) has likely had a relatively minor effect on the *working days lost* measure but a sizeable effect on the *number* of disputes measure. Perhaps the same observation is applicable for Indonesia. The general implication of these observations is

that it is more instructive to focus on the number of working days lost due to industrial disputes than the number of disputes: the former is not only a broader measure of industrial disputes, it is also likely to be less affected by under-enumeration.

All in all, there appear to be significant inconsistencies in the reporting of Indonesian industrial dispute statistics. It seems puzzling that the official agencies have not been able to reconcile these inconsistencies either by declaring one or the other correct or, perhaps, accounting for the differences in some other manner. For the continuing purposes of this paper, it will be assumed that the official Indonesian-supplied data are correct. The reason for this decision is that international agencies like the ILO normally rely on individual countries to supply data. Thus ultimately international agencies are dependent on the national collecting agency for the vast bulk of their information.⁷⁷ In addition it will be seen in the next section that independent estimates of the duration of disputes are consistent with ILO data being for hours rather than for days. See endnote 12.

Indicators of Indonesian Industrial Disputes

It was pointed out in the previous section that the broadest, most reliable and useful indicator of industrial disputes is the number of working days lost (suitably adjusted for the hours versus days anomaly). Agrawal (1996, p. 36) employs the 'correct' indicator in this regard. He employs it, however, for just four annual

observations and does not use this indicator when making international comparisons (p. 37). Manning (1993, p. 70; 1998, p. 213) makes apparent use of ILO data, to report on working days lost, however these data are flawed from 1980 onwards.⁸ When making international comparisons, Manning reports on the number of disputes. Kammen, as noted above, focuses on the number of disputes. Hadiz (1997, 2001) similarly refers only to the number of disputes in his commentary, while Rinakit (1999) refers to the number of disputes and number of workers involved.

Arguably, all of these commentaries suffer from one or more of the following weaknesses: (i) they use an inadequate run of data, (ii) they *inadvertently* use erroneous data and (iii) they use too narrow an indicator of industrial disputes. This section of the paper will attempt to address these inadequacies. In the process, it will provide a fuller framework and a more accurate picture of broad structural changes in industrial disputes in Indonesia. One important caveat must be emphasised before proceeding, however. The analysis below is based on official Indonesian data. Any inadequacies inherent in these official data will necessarily act as a limit on the reliability of the inferences that might be drawn.

As noted above, the broadest measure of the level of industrial disputes is the number of working days lost per labour force member. This can be abbreviated to *time lost*. When measuring time lost, researchers sometimes use a different divisor from the one used in this paper. Thus, instead of using the labour force as

the divisor, the number of employees or the number of unionists is used. There are two reasons why the labour force is employed as the divisor in this paper. First, in this paper we are trying to get a measure of the importance of industrial disputes relative to the *total* economy. If the number of unionists, for example, were used in the denominator, it would tend to magnify the industrial dispute rate for countries like Indonesia that have relatively large 'informal' sectors and small formal sectors in which unions are typically confined. These relatively small denominators can give an exaggerated impression of the impact of industrial disputes on the economy *as a whole*. By standardising working days lost in terms of the labour force, we are effectively weighting the dispute rate per (say) unionist, by the proportion of unionists in the labour force.⁹

A second reason for favouring the labour force as the denominator is much more pragmatic; consistent and accessible time series data on employees and unionists are not readily available for Indonesia from international data collecting agencies.¹⁰

Time lost due to industrial disputes can be decomposed into the measures of 'frequency', 'involvement' and 'duration' as below:

Time Lost (is defined as) Frequency x Involvement x Duration

WDL/LF (is defined as) $NID/LF \times WI/NID \times WDL/WI$

In the above decomposition, *WDL* refers to working days lost due to industrial disputes, *LF* refers to the labour force, *NID* refers to the number of industrial disputes and *WI* refers to the number of workers involved in industrial disputes.

It will be apparent that the frequency, involvement and duration indicators are all components of time lost. Any one of the components in isolation is, at best, a *partial* indicator of the overall 'size' of disputes. Accordingly, commentaries that are based on one or two of the components of time lost are necessarily limited. Of course, it may well be that the component indicators move in a similar fashion to one another; this would need to be empirically established. Arguably, any discussion of industrial disputes should minimally focus on time lost and to get a broader picture of structural changes in disputes, consider all of the component indicators as well. Clearly, this only applies if all of the data are available in the first place, as they are in the case of Indonesia.

We can examine the official pattern of Indonesia's industrial disputes in terms of the above four dimensions. We commence on the right-hand side of the above definition, with the frequency of disputes and the level of involvement in disputes graphed together, to facilitate comparisons, in Figure 1. Generally, the frequency of disputes and the number of workers involved in disputes was declining during the 1980s, reaching a low in 1989. During the early 1990s, frequency and involvement rose and have remained relatively high up until 2003, though there is some evidence of a mildly declining trend in the frequency of disputes since 1996 and the involvement in disputes since 1992. During the 1980s the average frequency of disputes was 1.1 per thousand in the labour force. During the 1990s and beyond, frequency was, on average, 2.2. During the 1980s the average

level of involvement in disputes was 235 per dispute. During the 1990s and beyond, involvement was, on average, 524.

Next we consider the average duration of disputes and the overall time lost due to industrial disputes in Indonesia. These are graphed together in Figure 2. Generally, the duration of worker involvement in disputes has, save for one year, 1988, been fairly stable.¹¹ During the 1980s and the 1990s and beyond, the average duration of workers involvement in disputes was 1.4 days, ignoring 1988. Manning (1998, p. 215) observes that 'Strikes ... rarely lasted more than two days ...' and 'Unpublished Ministry of Manpower data indicate an average duration of stop work action of nine hours in Jakarta and surrounding areas in 1991'. Clearly, the data embodied in the duration of disputes chart in Figure 2 is consistent with the observation that strikes in Indonesia have been on average around a day or two in length. However, this is not what is implied in Manning's (1998, p. 212) own Table of Strikes. The implied average duration of disputes for the period 1991-94 was 10 days.¹²¹² Manning (1998, p. 212). Table 8.4 reports that for 1991-94 (i) the annual average number of working days lost was 998 thousand and (ii) the annual average number of workers involved was 100 thousand. The implied average duration of disputes is (i) divided by (ii), which equals 10. Presumably, if the argument advanced in this paper is correct, this last number (10) is really the average number working *hours* lost per worker involved in disputes.

One of the advantages of analysing disputes in terms of the aforementioned

decomposition approach is that it separately identifies the average duration of disputes (among other things), which can then be reconciled (and must be reconciled) with other data on the duration of disputes.

Finally, overall time lost due to industrial disputes averaged 0.6 days per one thousand in the labour force during the 1980s and 1.4 days during the 1990s and beyond. The year 1996 was relatively climactic, with around 4.5 working days lost per thousand in the labour force. Interestingly, despite the major freedoms given to unions since the 1998 passing of the Soeharto government (Rahayu and Sumarto, 2003; Mizuno, 2005¹³), time lost due to disputes has trended down. Indeed, since 1996 there has been quite a sharp decline in time lost due to disputes. The decline in time lost is much more pronounced than the decline in the frequency of and involvement in industrial disputes.

Some Regional and Global Comparisons

Manning (1993, 1998) is the only commentator to systematically compare Indonesian experience with that of other countries. Agrawal (1996) also makes international comparisons but uses Manning's (1993) data to do so. When making international comparisons, Manning focuses on the frequency of disputes. He does not compare working days lost per worker (i.e. time lost). As argued above, the number (or frequency) of disputes does not tell the full story. Manning compares Indonesian data with data for Thailand, the Philippines, Malaysia

and South Korea. Arguably this list of countries is somewhat limited, in that it does not consider, for example, Indonesia's two largest trading partners - Japan or the USA.

To address these issues, in this section we compare time lost due to industrial disputes in Indonesia with that of (i) other ASEAN countries, (ii) selected non-ASEAN major trading partners and (iii) an index of Global time lost due to industrial disputes. The ASEAN countries are Malaysia, Singapore, the Philippines and Thailand. The major non-ASEAN trading partners are the USA, Japan, South Korea, Hong Kong and Australia. The index of global time lost due to industrial disputes is that developed and tabled in Perry and Wilson (2004, p.37), which is made up of 39 economies (excluding Indonesia).

Table 2 presents a matrix of correlation coefficients for the various countries involved (including the global index). Essentially, the purpose of this matrix is to concisely compare the pattern of industrial disputes in Indonesia with the pattern for other countries that are important to Indonesia. Large positive correlation coefficients, such as the 0.9 correlation coefficient between Japan and Australia, indicate a high degree of similarity in the pattern of, and overall trend in, industrial disputes in these two countries. Large negative coefficients, such as the -0.6 coefficient between Indonesia and the Philippines, indicate a considerable degree of dissimilarity in the trend in industrial disputes. In this case, the negative correlation suggests that while time lost to industrial disputes has generally been

trending up for Indonesia (at least up until the mid-1990s), it has been *trending down* for the Philippines (at least since the mid-1980s).

The following points can be noted. First, time lost in Indonesia due to industrial disputes is *inversely* related to time lost in all but one country, Thailand. This result may help to explain why there was such concern expressed about the 'wave of strikes' (Kammen, 1997) that occurred in Indonesia during the early 1990s. Not only was the level of disputation during the early 1990s relatively high by Indonesia's own recent historical standards (Figure 2), the then *upward trend* in disputes put Indonesian experience at odds with the experience of most of its major international trading partners, particularly trading partners from whom Indonesia was trying to attract investment capital, such as Japan, the USA and Hong Kong.

Second, Indonesian disputes are *inversely* correlated with the global index more strongly than any of the other countries. Indonesian experience being at odds with average global experience indicates that not only has Indonesian experience been at odds with major trading partners such as Japan and the USA, it has also been at odds with other influential major economies such as the UK, Germany, Italy and India, all of which are of some importance in the global index. Again, this may assist in explaining the concern expressed in Indonesia during the early 1990s about Indonesia's increasing dispute rate. It goes beyond the purpose of this paper to explore the forces behind the contrary movement in dispute statistics for

Indonesia, however the topic is well covered in, for example, Kammen (1997), Hadiz (1997) and Manning (1998). Note that since the 1997-98 East Asian financial crisis Indonesia's declining dispute rate trend (Figure 2) has put it on a similar footing to the longer-term experience of most major economies, at least for the time being.

Finally, the bottom row of Table 2 compares the average annual dispute rate for each country as a percentage of the Global rate. Disputes in Indonesia averaged a little over 1 per cent of the global average. Even if these data were 'grossed up' for Indonesia's very low union density rate (of around 4 or 5 per cent of employees¹⁴), industrial disputes would still be relatively minor compared with most other countries.

Conclusions

This paper has shown that there are major inconsistencies in the data published by official local Indonesian and international agencies in regards to the dimensions of industrial disputes in Indonesia. In addition there are major inconsistencies in the various estimates of dispute numbers provided by unofficial union and academic sources versus official sources. To add to the confusion, it is unclear to what extent differences in official and unofficial estimates are attributable to (i) differences in the way a single dispute is defined and (ii) differences in collecting and counting procedures.

Having available reasonably accurate and consistent information about the basic attributes of a country's labour market is centrally important for informed decision

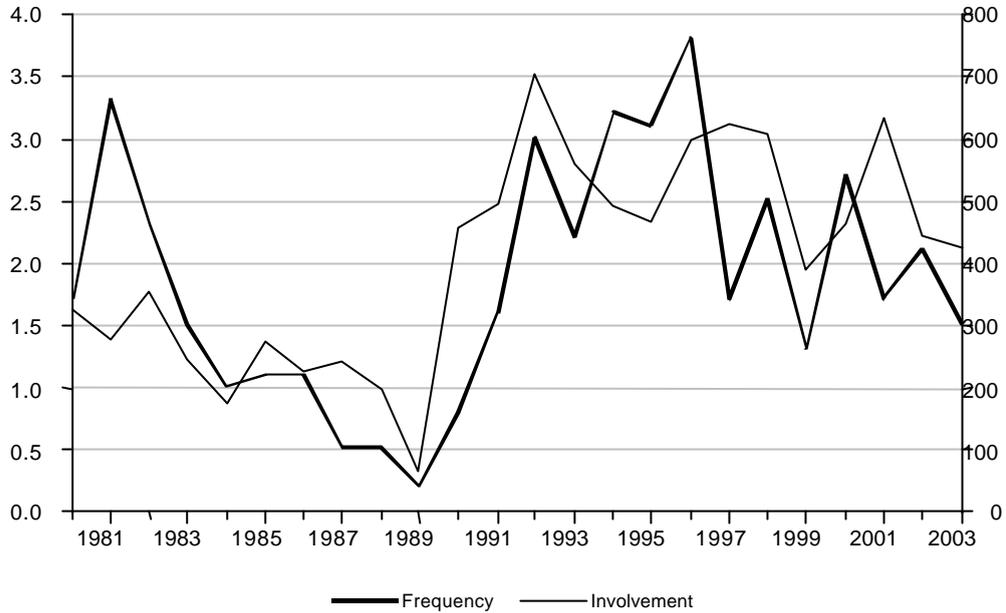
making. Governments, businesses, labour organisations and the community in general depend on public institutions to provide reliable data so that sensible decisions can be made. It is surely incumbent upon these publicly funded institutions to monitor their own statistics and the statistics of others to ensure that the information they are entrusted to provide is as accurate as possible.

This paper has also argued that much academic research into industrial disputes in Indonesia has placed undue emphasis on the *number* of disputes. Focussing on the number of disputes means that other information like the average duration of disputes and the level of worker involvement in disputes are ignored. It is argued that total time lost due to industrial disputes is a fuller and more instructive indicator of the overall size of industrial disputes. It is also suggested that time lost due to disputes can be usefully decomposed into the frequency, involvement in and duration of disputes. These dimensions of dispute statistics can assist in providing an overview of structural changes (if any) in the pattern of disputes over time.

Finally, official Indonesian data are briefly analysed for the period 1980-2003. It is noted that the frequency and involvement in disputes rose quite markedly during the 1990s, though the average duration of disputes changed little (save for one rather aberrant and suspicious observation for 1988). Since 1996, there has been a marked decline in time lost due to industrial disputes, notwithstanding the emergence of greater freedom in the formation and actions of trade unions since

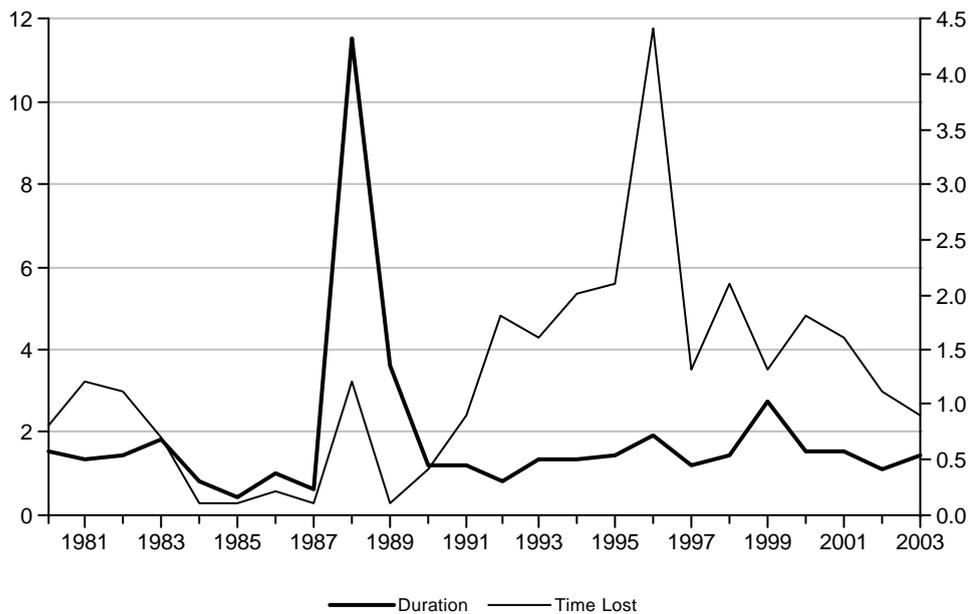
the departure of President Soeharto in 1998. The pattern of industrial disputes in Indonesia in terms of time lost has over the period 1980 to 2003 differed markedly from the experience of most of Indonesia's major trading partners. While most major economies were experiencing declining time lost due to industrial disputes, Indonesia was experiencing rising time lost due to industrial disputes, at least up until 1996. Little wonder Indonesia's aberrant dispute pattern and wave of unrest during the early 1990s was such a source of concern in some quarters.

Figure 1 Industrial Disputes in Indonesia: Frequency and Involvement



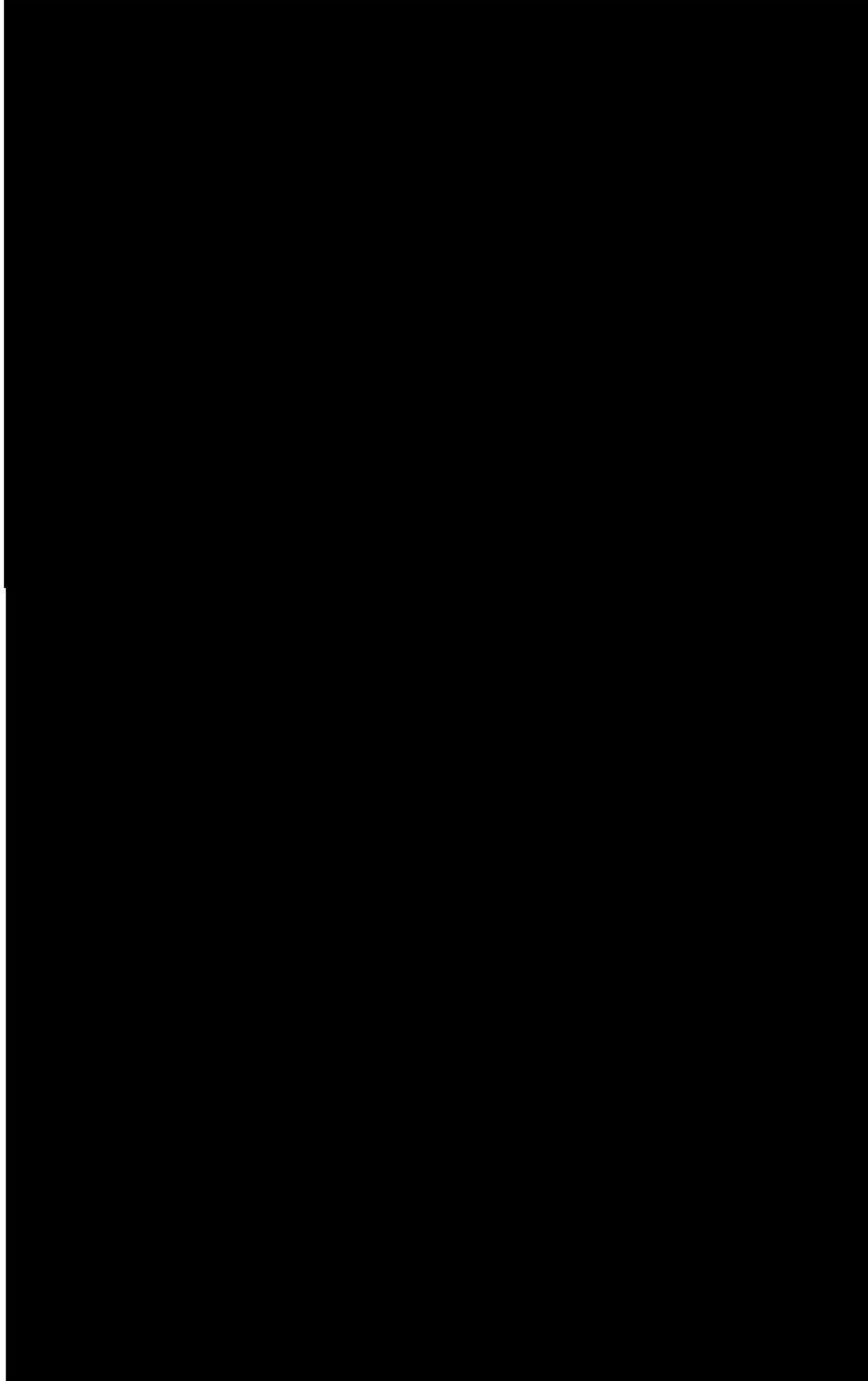
Heavy line on the left axis. See text for definitions.

Figure 2 Industrial Disputes in Indonesia: Duration and Time Lost



Heavy line on left axis. See text for definitions

Table 1: Indonesian Industrial Disputes - ILO versus Local Indonesian-Sourced Data Compared



Sources: See Endnotes (1) and (2). (a) The Discrepancy is the absolute difference between the two values expressed as a percent of their average value.
(b) See endnote 11

**Table 2: Regional Dispute Rate Comparisons: 1980-2002
Correlation Coefficients**

	Indo	USA*	Aus	Jap	ROK	Mal	Phil	Sing	Thai	HK	Globe
Indo	1.0										
USA	-0.3	1.0									
Aus	-0.3	0.7	1.0								
Jap	-0.4	0.7	0.9	1.0							
ROK	-0.3	-0.1	-0.1	-0.2	1.0						
Mal	-0.3	0.0	0.1	0.0	0.3	1.0					
Phil	-0.6	0.1	0.2	0.2	0.1	0.1	1.0				
Sing	-0.2	0.1	0.0	0.0	-0.2	0.0	0.7	1.0			
Thai	0.1	0.0	0.0	-0.1	-0.1	-0.2	0.1	0.1	1.0		
HK	-0.1	0.5	0.8	0.8	-0.3	0.0	0.1	0.0	0.1	1.0	
Globe	-0.4	0.9	0.8	0.9	-0.2	0.1	0.2	0.1	-0.1	0.7	1.0
Rate**	1.3	72	176	4	95	4	48	0	4	2	100

Sources: (1) For Indonesian industrial disputes data see Endnote 2. For 'Globe' data (which is a 'world' or global index of industrial disputes) see Perry and Wilson (2004, p.37). For industrial disputes in all other countries see International Labour Organization (ILO) *Yearbook of Labour Statistics* plus ILO website: (<http://laborsta.ilo.org/>). (2) For labour force data see World Bank *World Tables* various issues available through EconData Pty Ltd.

* For the USA industrial disputes involve 1000 or more workers. No other country excludes small-scale disputes (i.e. disputes involving less than 1000 workers) in their tally to the same extent as the USA.

** *Rate* measures the average annual dispute rate for each respective country as a percentage of the Global rate.

Endnotes

¹ See International Labour Office (ILO), *Yearbook of Labour Statistics*, various issues plus the ILO website: <http://laborsta.ilo.org/>.

² See Departemen Tenaga Kerja Dan Transmigrasi Pemerintah Republik Indonesia (2005) and Depnakertrans, Ditjen PHI, (2005).

³ According to Herlina (1997, p.6) Law No. 1/1951 requires that '... workers are not allowed to work more than seven hours per day ...' In practice of course seven hours work a day has not been the norm (Agrawal, 1996, p.31). However, the results in this paper are not materially affected when different assumptions are made about the number of hours in an Indonesian working day.

⁴ This assumption is based on the proposition that the ILO is largely dependent on official national collection agencies for its data.

⁵ Note this estimate of the official number of strikes includes the 278 strikes during 1994 taken from Table 1 of this paper, as Kammen (p. 395) has no official data for 1994.

⁶ Some aspects of Kammen's commentary are puzzling. For example, in explaining the differences between his high estimate of strike numbers and official low estimates, he states that '... government statistics routinely *conflate* strikes ... with the broader category of demonstrations ..., thereby *exaggerating* the actual number of work stoppages' (p.40, italics added). How can conflating (i.e. combining into one) different disputes result in an exaggeration (i.e. overstatement or amplification) of disputes numbers? Would not conflating strikes lead to an underestimate of strike numbers? A second example is '... at times government officials in the Department of Labor (Depnaker) have counted each day that workers strike as a separate strike; thus a three day strike at a factory will be counted as three separate cases' (p. 41). If this is the case, then does not this imply that the official number of strikes is *more* than it should be? How does this reported practice by the Department of Labour explain *fewer* strikes than there apparently should be?

⁷ In addition it will be seen in the next section that independent estimates of the duration of disputes are consistent with ILO data being for hours rather than days. See endnote 12.

⁸ Since official local Indonesian-based data are not readily available for years prior to 1980, comparisons with pre-1980 ILO data used by Manning (1998) cannot be made.

⁹ Let D , U , E and L be respectively disputes, unionists, employees and the labour force. The dispute rate per the labour force member is: $D/L = (U/E) \times (E/L) \times (D/U) = (U/L) \times (D/U)$, where (U/E) is union density, i.e. the proportion of employees who are unionists, (E/L) is the proportion of employees in the labour force, (D/U) is the dispute rate per unionist and (U/L) is the proportion of unionists in the labour force.

¹⁰ The results presented in this paper are not materially affected by the use of the labour force as a divisor when calculating time lost. If employees or unionists are used as a divisor, the overall shape of the time lost series (in Figure 2) will likely change only a little. There may be a slightly sharper recent (post-Soeharto) decline in time lost per unionists because of a possible increase in unionist numbers associated with the freeing up of union-formation activity, and a slightly milder decline in time lost per employee because of the relative decline in the size of the formal sector in recent years. Similar comments apply to the frequency of strikes, defined and discussed below. The involvement in, and duration of, disputes (also discussed below) are, by definition, unaffected by the divisor chosen.

¹¹ It is noted that for the year 1988 during which the average duration of disputes was an aberrant 10 days, table 1 records working hours lost as 607,265. This is from the official Indonesian web site. Kammen (1997, p. 427), also reporting official government data from 'various media sources', records 60,726 working hours lost. Kammen's number implies an average duration of strikes of 1 day, which is consistent with earlier and later experience. Considerable caution is duly advised in the use of the data for this year.

¹² Manning (1998, p. 212) Table 8.4 reports that for 1991-94 (i) the annual average number of working days lost was 998 thousand and (ii) the annual average number of workers involved was 100 thousand. The implied average duration of disputes is (i) divided by (ii), which equals 10. Presumably, if the argument advanced in this paper is correct, this last number (10) is really the average number working *hours* lost per worker involved in disputes.

¹³ Mizuno (2005, p. 190) notes that shortly after the resignation of President Soeharto in May 1998, greater freedom was granted to unions. With the coming to office of Habibie: 'Long-standing government intervention in the Indonesian labor movement was stifled with the ratification of the ILO Convention No. 87 on freedom of association and protection of the right to organise. This was done under Presidential Decree No. 83 in June 1998. This step helped increase the number of labour federations at a national level from 1 only under the Soeharto regime to 74 as of October 2003'. See Mizuno for further details.

¹⁴ See Agrawal (1995, p.33), Naya (1996, p. 31) and Manning (1998, p.201). More recent years have produced an increase in trade union density, with the formation of many unions. See Mizuno (2005) and Friedrich-Ebert-Stiftung (2005).

References

- Asia Development Bank (ADB), (2004), *Key Indicators 2004*, ADB, Manilla. http://www.adb.org/Documents/Books/Key_Indicators/2004/default.asp
- Agrawal, N. (1995), 'Indonesia: Labor Market Policies and International Competitiveness', Policy Research Working Paper 1515, World Bank.
- - . (1996), 'The Benefits of Growth for Indonesian Workers', Policy Research Working Paper 1637, World Bank.
- Friedrich-Ebert-Stiftung (2005), Friedrich-Ebert-Stiftung Website for Indonesia: Country Analysis Indonesia <http://www.fesspore.org/pdf/Trade%20Union/indonesia.pdf>.
- Hadiz, V. R. (1997), *Workers and the State in New Order Indonesia*, Routledge, London.
- Herlina, A. (1997), 'Workers' Conditions in Indonesia', Public Hearing on the Social Clause: Human Rights Promotion or Protection? Committee on Foreign Affairs, Security and Defence Policy, Subcommittee on Human Rights, Europarl, Brussels. 17-18 June. http://www.europarl.eu.int/hearings/sc1b/socclause/doc5_en.htm [Accessed 12.03.2005].
- Departemen Tenaga Kerja Dan Transmigrasi Pemerintah Republik Indonesia (2005) Tabel 10.2, Kasus Pemogokan, Tenaga Kerja Yang Terlibat Dan Jam Kerja Yang Hilang, 1980-2000. [The Department of Labour and Transmigration of the Indonesian Republic, (2005) Table 10.2, The Case of Labour Strikes pertaining to Lost Working Hours, 1980-2000] http://www.nakertrans.go.id/PINAKER/Statistik/PHK_Mogok/KM_1980-2000r.htm [Accessed 13.03.2005].
- Depnakertrans, Ditjen PHI, (2005), Pemogokan, Tahun 2001-2003. [The Department of Labour and Transmigration: General Directorate of PHI, (2005) Strike Year 2001-2003] <http://www.nakertrans.go.id/pusdatinnaker/mogok/Mogok.htm> [Accessed 13.03.2005].
- International Labour Office (ILO) *Yearbook of Labour Statistics*, Geneva, various issues plus ILO website: <http://laborsta.ilo.org/>.
- Jordan, B. (1995), 'Preface' in Harris, D. R. (ed.) *Prisoners of Progress: A Review of the Current Indonesian Labour Situation*, INDOC, FNV, INFID, Leiden
- Kammen, D. (1997), 'A Time to Strike: Industrial Strikes and Changing Class Relations in New Order Indonesia', Unpublished PhD thesis, Cornell University
- Kelly, J. and C. Nicholson (1980), 'Strikes and Other Forms of Industrial Action', *Industrial Relations Journal*, Vol. 11, No. 5, pp. 20-31.

- Korpi, W.(1981), 'Unofficial Strikes in Sweden', *British Journal of Industrial Relations*, Vol. 19, No. 1, pp. 66-86.
- Manning, C. (1993), 'Structural Change and Industrial Relations during the Soeharto Period: An Approaching Crisis', *Bulletin of Indonesian Economic Studies*, Vol. 29, No. 2, August, pp 59-95.
- Manning, C. (1998), *Indonesian Labour in Transition. An East Asian Success Story?* Cambridge University Press, Cambridge.
- Mizuno, K. (2005), 'The Rise of the Labor Movement and the Evolution of the Indonesian System of Industrial Relations: A case Study', *The Developing Economies*, XLIII-1 March, pp. 190-211.
- Nayar, R. (1996) 'Indonesian Labor Legislation ana Compartive Perspective: A Study of Six APEC Countries', Policy Research Paper, 1673, World Bank East Asia and Pacific Country Department III, October.
- Perry, L. J. and Wilson, Patrick J. (2004), 'Trends in Work Stoppages: A Global Perspective', Working Paper No. 47, November, Policy Integration Department, Statistical Development and Analysis Unit, International Labour Office. <http://www.ilo.org/public/english/bureau/integration/departme/about/working.htm>
- Rinakit, S. (1999), 'Trade Unions and Labour Unrest,' in Baker, R. et al. (ed), *Indonesia: The Challenge of Change*, Institute of Southeast Asian Studies: Singapore.
- Rahaya, S. K. and Sumarto, S. (2003), 'The Practice of Industrial Relations in Indonesia', SMERU Working Paper, The SMERU Research Institute, March 2003.
- Shorter, E. and Tilly, C. (1974), *Strikes in France, 1830-1968*, Cambridge University Press, Cambridge.
- World Bank (2004), *World Bank World Tables*, Washington.