# Bank Connections in Thailand: Benefit or Cost?

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## Abstract

*Financial crises around the world demonstrate the fragility of financial institutions and their risk-taking behavior. Prior evidence has shown the prevalence of connections between firms and banks in Thailand and the benefit of bank connections in terms of easy access to external funds before the 1997 Thai financial crisis. However, to the author's knowledge, there is no evidence that indicates the monitoring role of Thai banks during the pre-crisis period. It is expected that banks would monitor connected firms, especially their investment behavior. As a result, firms would invest in productive projects, which generate higher firm performance. Using Thai listed firms, the effect of bank connections on firm performance during the crisis was investigated. The findings show that the performance of connected firms was poorer than that of non-connected firms during the crisis, indicating potential over-investment problems of connected firms. The results imply that banks might not have played an effective role in monitoring connected firms and possibly engaged in risk taking over corporate lending during the pre-crisis period. Accordingly, investment of connected firms would be unproductive, thus leading to poor firm performance. Although bank connections facilitate firms' investment, they would be detrimental. At the macro-level, bank connections could lead to inefficient allocation of resources,*

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*while they could destroy performance at the company-level. Policy makers should have continuously strengthened bank governance and have monitored bank lending practices.*

***Keywords:*** *Bank Connections, Firm Performance, Financial Crisis*

# ความสัมพันธ์ที่มีต่อธนาคารในประเทศไทย: ประโยชน์หรือผลเสีย?

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**บทคัดย่อ**

*วิกฤติการเงินทั่วโลกสะท้อนให้เห็นถึงความอ่อนแอและพฤติกรรมชอบความเสี่ยงของสถาบันการเงิน งานวิจัยที่ผ่านมา พบว่า ในช่วงก่อนเกิดวิกฤติทางการเงินในปี 2540 ความสัมพันธ์ระหว่างบริษัทและธนาคารถูกพบอย่างแพร่หลายและให้ประโยชน์ในการเข้าสู่แหล่งเงินทุนภายนอกแก่บริษัทในประเทศไทย อย่างไรก็ตาม ผู้วิจัยเห็นว่าหลักฐานในเรื่องบทบาทการควบคุมดูแลของธนาคารของไทยก่อนวิกฤติทางการเงินไม่มีปรากฏเด่นชัด และมีความเป็นไปได้ว่าธนาคารจะทำหน้าที่ควบคุมบริษัทที่มีความสัมพันธ์ด้วย โดยเฉพาะในเรื่องการลงทุนของบริษัทเหล่านั้น เพื่อทำให้ผลการดำเนินงานของบริษัทเพิ่มขึ้น ผู้วิจัยใช้ข้อมูลของบริษัทจดทะเบียนในประเทศไทยทำการศึกษาผลกระทบของความสัมพันธ์ระหว่างบริษัทและธนาคารที่มีต่อผลการดำเนินงานของบริษัทในช่วงวิกฤติทางการเงิน ผลวิจัยแสดงว่าบริษัทที่มีความสัมพันธ์กับธนาคารมีผลประกอบการน้อยกว่าบริษัทที่ไม่มีความสัมพันธ์กับธนาคารในช่วงวิกฤติทางการเงิน ซึ่งผลดังกล่าวแสดงให้เห็นถึงปัญหาจากพฤติกรรมการลงทุนอย่างเกินตัวของบริษัทที่มีความสัมพันธ์กับธนาคาร ผลงานวิจัยนี้สะท้อนให้เห็นว่าธนาคารอาจไม่แสดงบทบาทควบคุมดูแลบริษัทอย่างมีประสิทธิภาพและเป็นไปได้ที่มีการให้สินเชื่อแก่ธุรกิจอย่างมีความเสี่ยงในช่วงก่อนเกิดวิกฤติทางการเงิน จากเหตุผลดังกล่าว การลงทุนของบริษัทที่มีความสัมพันธ์กับธนาคารอาจจะไม่ก่อให้เกิดผลประโยชน์ที่ดี จึงส่งผลเสียต่อผลการดำเนินงานของบริษัท แม้ว่าความสัมพันธ์ที่มีต่อธนาคารจะช่วยทำให้การลงทุนของบริษัทง่ายขึ้น แต่อาจก่อให้เกิดผลเสียได้ ในระดับมหภาค ความสัมพันธ์ดังกล่าวสามารถก่อให้เกิดการกระจายเงินทุนอย่างไม่มีประสิทธิภาพ ในขณะที่สามารถทำให้สูญเสียผลการดำเนินงานในระดับบริษัทได้อีกด้วย ผู้กำหนดนโยบายควรสร้าง*

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*ความแข็งแกร่งในการกำกับดูแลธนาคารและควบคุมดูแลการให้สินเชื่อของธนาคารอย่างต่อเนื่อง*

***คำสำคัญ:*** *ความสัมพันธ์ที่มีต่อธนาคาร ผลประกอบการของบริษัท วิกฤติทางการเงิน*

## Introduction

Connections are defined as a relationship between two people or more. They are also known as a network of related parties. Individuals and firms tend to develop connections based on reputation and trust in order to complement a lack of formal institutions and effective contracting (McMillan & Woodruff, 1999; Powell & Smith-Doerr, 1994). Lower costs of searching for information and higher quantity and reliability of information can be achieved from connected parties (Granovetter, 1973). However, connections may also lead to corporate governance problems in some circumstances because connected parties may collude and hinder transparency, which may lead to unfair treatment of non-connected parties (Rajan & Zingales, 1998).

Prior studies mainly highlight the presence of connections between firms and banks in countries where the ownership structure is dispersed and banks play a key role in reducing agency problems between shareholders and managers (Aoki, 2000; McCahery, 2002). Unlike previous research in developed countries, bank connections, which are driven by family ownership and social relations in emerging markets, may cause agency problems between major shareholders and minority shareholders.[1] In East Asia, family-owned firms are commonly found (Claessens, Djankov, & Lang, 2000). The East Asian financial crisis in 1997-1998 demonstrates that connections among family-owned institutions lead to adverse effects in terms of misallocation of funds and related lending between firms and banks (Alba, Bhattacharya, Claessens, Ghosh, & Hernandez, 1998; Backman, 1999; Pomerleano, 1998; Rajan & Zingales, 1998).

Before the 1997 financial crisis, connections between firms and banks were driven by the characteristics of family institutions in Thailand. Firms that were connected with banks received preferential treatments in terms of easy access to bank loans and a lower cost of external funds (Charumilind, Kali, & Wiwattanakantang, 2006; Espenlaub, Khurshed, & Sitthipongpanich, 2012). Banks supposedly play a monitoring role in connected firms, especially during an

[1] Many firms and banks in emerging markets are owned by families (Caprio, Laeven, & Levine, 2007; La Porta, Lopez de Silanes, & Shleifer, 1999).

economic boom, to ensure that firms' investment projects are productive, thus increasing firm performance. However, the high amount of non-performing loans after the crisis illustrates the potential over-investment behavior of firms and the outcome of their unproductive investment projects.

In this paper, focus is placed on the connections between firms and banks within family business groups and social relations in an emerging market. Using non-financial firms listed on the Stock Exchange of Thailand, the impact of bank connections on firm performance in Thailand during the crisis is examined in order to reflect the results of the banks' monitoring role and of the investment behavior of firms. It is hypothesized that the performance of connected firms is lower than that of non-connected firms in a crisis-period if easy access to bank loans leads to the over-investment behavior of connected firms.

The contributions of this study to the existing literature are fourfold. First, this study defines bank connections using the setting of family-owned institutions and social relations in countries with developing capital markets. This institutional background is different from the context of financial intermediaries in developed countries (Boot, 2000; Elyasiani & Goldberg, 2004). The definitions of bank connections in this study add to existing definitions of prior work in developed countries (Fohlin, 1998; Kaplan & Minton, 1994; Kroszner & Strahan, 2001).

Second, this study provides a better understanding of the impact of bank connections on firm performance in Thailand. Its findings will complement previous studies that examine the impact of connections on firms' performance in other countries (Faccio, 2006; Fisman, 2001; Johnson & Mitton, 2003) and the impact of connections on corporate financing (Dinc, 2005; Khwaja & Mian, 2005). Third, this paper highlights the role of family-owned banks in allocating bank capital and the role of family linkages and social ties in reducing information asymmetry problems and forming connections with banks.

Last, little is known about the role of banks in East Asia and it remains arguable whether banks strengthen corporate governance (Claessens & Fan, 2002). This study sheds light on the monitoring role of banks and reflects the investment

behavior of connected firms in the context of family institutions in an emerging market. The findings will add to previous research in developed countries (Aoki, 2000; Edwards & Fischer, 1994; Gorton & Schmid, 2000; Hoshi, Kashyap, & Scharfstein, 1991; Houston & James, 2001). The remainder of the paper is structured as follows. Section 1 reviews the relevant literature. Section 2 describes the data and methodology. Section 3 presents empirical findings. Section 4 concludes the paper.

## Literature Review

Banks act as firms' external financing providers and bank financing plays a key role in developing a country's financial system (Mayer, 1990). In theory, banks adopt a monitoring role in ensuring that firms are able to repay their loans, and in gathering updated information to review firms' financial status and operations. In Germany, banks take an active role in monitoring and governing firms according to the agency theory (Chirinko & Elston, 2006; Edwards & Fischer, 1994). Aoki (2000) uses the concept of information asymmetry and documents that Japanese banks work closely with firms to gain information and to monitor firms' investments.

Examples of studies that discuss the significance of banking relationships are those by Ongena and Smith (2000), Boot (2000), and Elyasiani & Goldberg (2004). Bank relationships provide firms with various benefits. Bank connections help firms obtain easy access to bank loans (Espenlaub, Khurshed, & Sitthipongpanich, 2012 Gugler, 2001; McCahery, 2002). In addition, the benefits of bank monitoring increase firms' access to other sources of external funds (Diamond, 1991). Bank connections also help firms obtain a lower cost of external funds (Berger & Udell, 1995; Charumilind, Kali, & Wiwattanakantang, 2006; Greenbaum & Thakor, 1995).

Furthermore, previous research shows that bank connections significantly affect firm performance. In Germany, firm performance is positively related to banks' equity control rights and concentration of control rights (Gorton & Schmid, 2000). In addition, in Thailand, Limpaphayom & Polwitoon (2004) find that the relationship between bank equity ownership and firm performance is non-linear. The percentage of bank ownership (a proxy for bank relationship) is positively

related to Tobin's Q ratio (a measure of firm performance) at a lower level of bank equity ownership, but negatively related at a higher level of bank ownership.[2]

Nevertheless, the relationships between firms and banks bring about adverse consequences. Hold-up problems take place when banks hold information monopoly power, opportunistically exploit lending benefits, and restrict firms' bargaining power (Boot, 2000). In some circumstances, bank relationships adversely affect firms' financial behavior and performance (Bae, Kang, & Kim, 2002; Chirinko & Elston, 2006; Kang & Stulz, 2000; Weinstein & Yafeh, 1998). Close ties between firms and banks not only lead to ineffective contract enforcement, but also result in the looting dilemma (La Porta, Lopez de Silanes, & Zamarripa, 2003). Imprudent related lending also leads to over-lending and over-investment problems, which eventually lead to financial crises (Pomerleano, 1998; Rajan & Zingales, 1998).

In conclusion, previous research supports the notion that banks play a key role in monitoring firms, complementing a lack of incomplete contract and mitigating free rider problems and agency problems. As a result, bank relationships could bring about several benefits and lead to higher performance. However, there are some circumstances in which close ties to banks could provide some costs to firms. The incidence of the financial crisis in 1997 casts some doubt about the monitoring role of banks and reflects the failure of the banking and financial sector in Thailand. Whether or not bank connections, which were prevalent before the crisis, could lead to higher performance is left for further investigation.

## Data and Methodology

The main research question on which this paper focuses is: Do connected firms and non-connected firms perform differently?

Non-financial firms listed on the Stock Exchange of Thailand between 1997 and 1998 are used as a sample of firms in an emerging market. The institutional

[2] The definition of bank relationships used in this study may under-estimate the real bank relationships that could be traced through ultimate shareholdings in the institutional framework of concentrated ownership and family business groups in Thailand.

characteristics of Thai firms, in terms of concentrated ownership, family business groups, and a weak legal system, are similar to those of firms in emerging markets with a history of family firms (East Asia and Latin America). In addition, the financial crisis in 1997, which was a major economic event in East Asia, appears to demonstrate the possible adverse consequences of connections between firms and banks. It also provides insight into the restructuring and reform of the banking and financial sector in response to the crisis.

In order to define the connection variables, lists of family business groups and ownership structure details of Thai firms, commercial banks, and finance companies were gathered. The ownership data of Thai firms constructed by Polsiri & Wiwattanakantang (2006), and the ownership data of Thai commercial banks and finance companies constructed by Anuchitworawong, Soma, & Wiwattanakantang (2004), were used. In addition, lists of the board of directors of Thai firms, commercial banks, and finance companies were collected from the I-SIM CD-ROMs, annual company reports, and the SETSMART database of the Stock Exchange of Thailand.

Moreover, financial data were collected from the Worldscope database, which compiles the company information of Thai firms from the Stock Exchange of Thailand. All financial data were winsorized at 1% and 99%. Observations were excluded from the sample if the firm data were in the year of an initial public offering (IPO) or rehabilitation and if the financial data of observations were missing. The final firm-year observations include 591 firm-year observations during the crisis (1997 and 1998).

Various government actions and the ongoing process of bank closures and capital injections in Thai financial institutions during the crisis period (1997 and 1998) make it difficult to define the existence of bank connections during this time period. Therefore, firms are classified into “connected” and “non-connected” firms according to the data on ownership and boards of directors of non-financial firms listed on the Stock Exchange of Thailand in 1996. “Bank connection” refers to a connection with one or more banks and/or finance companies. A firm is a bank-connected firm if: 1) a major shareholder of a bank or a member of his

related families holds 10% shareholding or more of the firm[3], 2) if a major shareholder of the firm or a member of his related family is a director of a bank, 3) a major shareholder of a bank or a member of his related family is a director of a firm, or 4) a non-family bank director is a director of a firm.

Whether bank connections lead to an adverse consequence is investigated. The financial crisis in 1997-1998 highlights the fact that connections in the context of family firms lead to misallocation of funds, and related lending between firms and banks is observed (Alba, Bhattacharya, Claessens, Ghosh, & Hernandez, 1998; Backman, 1999; Espenlaub, Khurshed, & Sitthipongpanich, 2012; Pomerleano, 1998; Rajan & Zingales, 1998). Without efficient monitoring of connected banks in the pre-crisis period, easy access to external funds may induce connected firms to over-invest in unproductive projects. The effect of over-investment behavior of connected firms may be pronounced during the crisis. It is hypothesized that the performance of connected firms was lower than that of non-connected firms in the crisis period as a result of potential over-investment behavior and the inefficient monitoring role of banks.

To examine whether bank connections have an impact on firm performance, the following equation was estimated[4]:

$$Performance_{i,t} = \alpha_{i,t} + \beta_1 Sine_{i,t} + \beta_2 Lev_{i,t} + \beta_3 Growth_{i,t} + \beta_4 Con_{i,t} + \varepsilon_{i,t}$$

The Pooled Ordinary Least Square (OLS) was used, controlling for industry effects for firm (i) and year effects (t).[5] Two measures of performance were employed, including $ROA_{i,t}$, which is defined as the ratio of earnings before interest and tax to total assets (the return on assets), and $Q_{i,t}$,, which is a proxy

[3] A cut-off point of ownership shareholding at 10% was used to define a major shareholder as prior literature (Claessens, Djankov, & Lang, 2000; La Porta, Lopez de Silanes, & Shleifer, 1999) suggests that such a stake lends sufficient power.

[4] The specification has high tolerance and low values for variance inflation factor (VIF), which indicates a low degree of multicollinearity.

[5] Industry dummies of seven industries are included in the specification, including 1) Agribusiness and Food Industry, 2) Consumer Products, 3) Industrials, 4) Property and Construction, 5) Resources, 6) Services and 7) Technology.

of Tobin's Q ratio (measured by the ratio of book value of equity to market value of equity).[6] In the specification, $Size_{i,t}$ is natural logarithm of total assets, $Lev_{i,t}$ is the ratio of long-term debt to total assets, $Growth_{i,t}$ is the ratio of the change between current sales and sales in the previous year to the sales in the previous year, and $Con_{i,t}$ is a dummy variable that equals 1 if a firm is connected to bank(s), and zero otherwise. A positive sign of the coefficient of $Size_{i,t}$ capturing the benefit of economies of scale of large firms was expected. $Lev_{i,t}$ was included to control for financial effects. It was also expected that the coefficient $b_2$ would be negative, indicating the higher default risk of using debt financing. The coefficient of $Growth_{i,t}$ was expected to be positive according to the productivity effects, and a negative sign for the coefficient $\beta_4$, supporting the adverse consequence of bank connections, was expected.

## Research Findings

Table 1 presents summary statistics of financial characteristics for the 591 observations in the pooled sample in 1997-1998. The pooled sample was also classified into connected firms (465 observations) and non-connected firms (126 observations). Student t-statistics were used to assess the significance of the differences in the means between connected and non-connected firms. The findings show that the return on assets of connected firms was lower than that of non-connected firms at the 10% significance level. During the crisis, the return on assets of connected firms was -1.86%, while that of non-connected firms was 0.89%. However, Tobin's Q ratio of connected and non-connected firms was not significantly different. Connected firms were much larger than non-connected firms at the 1% significance level. The mean values of total assets were 9,256 million baht and 3,803 million baht for connected and non-connected firms, respectively. In addition, the difference in leverage ratio between connected and non-connected firms was statistically significant. On average, the leverage ratio of connected firms was 24.13%, while the mean value of

[6] The accounting based performance, measured by ROA, and the market based performance, measured by Tobin's Q ratio, are commonly used in previous economic and nance literature (Chirinko & Elston, 2006; Joh, 2003; Limpaphayom & Polwitoon, 2004).

leverage ratio was 18.13% for non-connected firms. However, the difference in sales growth between connected and non-connected firms was not statistically significant.

**Table 1: Financial Characteristics of Connected and Non-connected Firms**

This table reports summary statistics of firm characteristics during the crisis period. Sample firms are classified into three groups, including all sampled firms, connected firms, and non-connected firms. Connection is a dummy variable that equals 1 if a firm is connected to bank(s), and zero otherwise. The summary statistics are the means of variables in 1997-1998. ROA is the return on assets. Tobin's Q ratio is measured by the ratio of book value of equity to market value of equity. Total assets are in millions of Baht. Leverage is the ratio of long-term debt to total assets. Sales growth is the percentage annual change in sales. Mean differences are tested using the t-test. The statistical significance at levels of 1% (***), 5% (**), and 10% (*) is reported.

| | All firms | Connected firms | Non-connected firms | |
|---|---|---|---|---|
| ROA | -1.27% | -1.86% | 0.89% | * |
| Tobin's Q | 0.92 | 0.88 | 1.09 | |
| Total assets (million baht) | 8,094 | 9,256 | 3,803 | *** |
| Leverage | 22.85% | 24.13% | 18.13% | *** |
| Sales growth | 1.40% | 0.83% | 3.51% | |
| Observations | 591 | 465 | 126 | |

The results in Table 2 show the impact of connections on firm performance, measured by the return on assets and Tobin's Q ratio. It was found that the return on assets of connected firms was poorer than that of non-connected firms at the 10% significance level and at the 5% significance level for the pooled sample in 1997-1998 and for the sample in 1997, respectively. Using the pooled sample 1997-1998 (model 1), the performance of connected firms, measured by ROA, was lower than that of non-connected firms for 2.5% during the crisis (1997-1998). The results become stronger when the sample included only listed firms in 1997, the crisis year (model 3). It was found that connected firms have poorer performance than non-connected firms by 4.3%.

**Table 2: Impact of Bank Connections on Firms' Performance during the Crisis Period**

This table reports the results of the pooled OLS regression during the crisis period. The dependent variable is the return on assets. Size is the natural logarithm of total assets. Leverage is the ratio of long-term debt to total assets. Sales growth is the ratio of the change between current sales and sales in the previous year to the previous year's sales. Connection is a dummy variable that equals 1 if a firm is connected to bank(s), and zero otherwise. The White's standard errors were adjusted for heteroskedasticity (White, 1980). The model controls for industry effects and year effects. The statistical significance at levels of 1% (***), 5% (**) and 10% (*) is reported.

| Dependent variable: | **ROA** | | **Tobin's Q** | | **ROA** | |
|---|---|---|---|---|---|---|
| | **Pooled 1997-98** | | **Pooled 1997-98** | | **1997 only** | |
| | (1) | | (2) | | (3) | |
| Size | 0.0188 | *** | 0.1980 | *** | 0.0248 | *** |
| Leverage | -0.0797 | *** | -0.1638 | | -0.1298 | *** |
| Sales growth | 0.0516 | *** | 0.1762 | | 0.0576 | ** |
| Connection dummy | -0.0249 | * | -0.3203 | * | -0.0431 | ** |
| Observations | 591 | | 591 | | 311 | |
| Adjusted R sq. | 0.1269 | | 0.0624 | | 0.1265 | |

Using market-based performance, Tobin's Q ratio, it can be seen that the results in model (2) are consistent with those in models (1) and (3). The Tobin's Q ratio of connected firms is significantly lower than that of non-connected firms at the 10% significance level.

Other control variables are significantly related to firm performance. Firm size is positively related to firm performance at the 1% significance level in both samples. Leverage ratio is negatively related to firm performance at the 1% significance level in both samples. Sales growth also had a positive impact on firm performance at the 1% significance level and at the 5% significance level in the pooled sample 1997-1998 and the 1997 sample, respectively.

The results provide additional evidence supporting the work of Charumilind, Kali, & Wiwattanakantang (2006) and Espenlaub, Khurshed, & Sitthipongpanich (2012). These authors found positive effects of bank connections during the

pre-crisis period in the aspects of access to bank loans and cost of external funds, while this study demonstrates the negative result of bank connections on firm performance during the crisis period under the crony system.

## Conclusion and Recommendations

This study focuses on the Thai financial crisis from 1997 to 1998 because this period uniquely shows the evolution of bank connections in response to the crisis and the presence of "bank connections" in the setting of family firms and social relations in an emerging market. Arguably as a result of related bank lending to the corporate sector, there were large amounts of non-performing loans during the crisis (Charumilind, Kali, & Wiwattanakantang, 2006). Espenlaub, Khurshed, & Sitthipongpanich (2012) show that Thai firms obtained easy access to bank loans through their connections with banks in the pre-crisis period; therefore, the investment and cash flow sensitivity of connected firms was lower than that of non-connected firms. In this article, further investigation was made concerning whether such easy access to bank loans, presumably without the effective monitoring role of banks before the crisis, would induce Thai firms to potentially over-invest, hence leading to poor performance during the crisis.

The findings show that connections between firms and banks adversely affected firm performance during the crisis period in Thailand. Connected firms performed more poorly than non-connected firms during the crisis period. Previous evidence shows that bank-connected firms were less financially-constrained and obtained easier access to external funds during the pre-crisis period (Espenlaub, Khurshed, & Sitthipongpanich, 2012); hence it may be argued that the investment behavior between connected and non-connected firms was different. According to the findings of this study, it could be interpreted that connected firms seemed to spend their capital on unproductive investment projects and that banks inefficiently monitored connected firms' investment during the pre-crisis period.

The overall results shed light on the presence of cronyism in the Thai banking and financial sector before the financial crisis. It is likely that banks allowed connected firms to obtain (too) easy access to bank loans for their unproductive investment projects. The high amount of non-performing loans during

the crisis illustrates the potential over-investment behavior of firms and the outcome of their unproductive investment projects. It also seems that these connected banks did not efficiently monitor firms. Thus, the monitoring and governing role of existing financial institutions should be strengthened to a greater extent in order to prevent over-investment problems of firms and non-performing loans in the future.

Moreover, the prevalence of connections can be commonly found everywhere in Thailand until the present. Although connections provide several benefits, they also lead to unfair treatment, inefficient allocation of resources, and conflicts of interest. The policy makers should have continuously strengthened bank governance and monitored bank lending practices, as current severe competition in the industry, similar to what was seen before the 1997 crisis, could induce banks to commit misconduct. The development of alternative non-bank funding sources should also be continued. In addition, the market for corporate control and shareholder activism is almost non-existent, and external monitoring institutions, such as credit rating companies, are not highly developed. In order to increase the effectiveness of the monitoring of Thai financial institutions, these external forces need to be improved.

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