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Credit constraints, firm ownership and the structure of exports in China

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ABSTRACT

We investigate how the export performance in China is influenced by credit constraints. Using panel data from Chinese customs, we show that credit constraints affect the sectoral composition of exports. We confirm that credit constraints provide an advantage to foreign-owned firms and joint ventures over private domestic firms in sectors with higher levels of financial vulnerability. We show that these distortions have been lessened over the period in conjunction with the reduction of State control over the financial intermediation system.

1. Introduction

China's financial system has been widely viewed as lagging behind the country's rapid development and successful transition from a planned system to a market-driven economy over the past 30 years. Abundant research has shown it to be deficient and ineffective in its role of allocating capital across the economy (Boyreau-Debray, 2003; Dollar and Wei, 2007; Li et al., 2008) and of allowing firms to engage in international trade (Manova et al., 2014). China has however initiated several reforms since the mid 1990s so as to reduce State control over the banking sector,

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which leads to interferences and distortions in the allocation of bank credit. Existing research on the repercussions of China's financial reforms is very limited and mostly looks at the impact on economic growth and innovation (Guariglia and Poncet, 2008; Hanley et al., 2011; Demetriades et al., 2008). Despite growing evidence of the importance of financial development for participation in international trade, little is known on the effect of financial reforms and export performance in China. This issue is especially relevant as China's export sector has grown at the impressive rate of 25% yearly over the past 15 years (Brandt et al., 2012). In this paper, we investigate the impact of the progressive restructuring of the banking sector on China's export patterns.

Theoretical modeling predicts that the efficiency of the financial sector has a higher impact on growth and export performance in industries intrinsically more dependent on external finance.[1] This heterogeneity in sector-level dependence on finance provides a robust methodology to detect credit constraints and measure their evolution, as first proposed by Rajan and Zingales (1998). Recent models by Chaney (2005) and Manova (2013) predict that the efficiency of the financial system should affect the export structure, with the most dependent sectors being disadvantaged in environments with high distortions, but benefiting relatively more from improvements in financial system efficiency. Such patterns of exports have been found empirically in cross-country regressions by Manova (2013) and Berthou (2010) among others. We apply this methodology to study how the distortionary effect of financial markets imperfections on exports evolved as China's banking sector deregulated.

Our paper builds on Manova et al. (2014) who posit that the ownership status of Chinese firms provides a plausible proxy for firms' access to the financing needed for export activities in an environment that features relatively weak financial institutions. They compare domestic private firms and foreign-owned firms. Firms with partial and full foreign ownership can indeed be expected to rely on internal sources of funding from their parent companies, which help them to alleviate the credit constraints faced in exporting. Financial constraints are hence expected to be most pervasive for domestic private firms. This should give rise to a very specific pattern in terms of export whereby private domestic firms are not able to export as much as the other firm types, especially in financially dependent sectors. Relying on firm-level export data for the year 2005, Manova et al. (2014) show that foreign-owned affiliates are relatively less constrained than private domestic firms and are thus able to export more, especially in financially dependent sectors. They interpret their findings as being consistent with a causal impact of credit constraints on export behavior.

We use multiple years of data, as opposed to a single year, and consider differences across provinces to investigate how credit constraints are mitigated by financial development. The period covered by the data – 1997–2007 – is pertinent in this regard as it corresponds to a period of substantial reforms of the financial system in China, with a diminution of State control over the banking sector. Our study covers all firm types, including State owned firms. They are shown in the literature to be able to count on either the government authorities or the public banks to bail them out when their budget constraint are persistently breached (Cull and Xu, 2000; Brandt and Li, 2003). We show that private-owned firms had a substantial disadvantage compared to any other type of firms in finance dependent sectors in 1997, which has steadily decreased over the period. Contrary to Manova et al. (2014), we do not use firm-level data but exploit data aggregated by firm type. The focus of our study is hence different: while Manova et al. (2014) look at differences in firm-level export value across sectors,[2] we sum up province-level exports by sector and firm type groups, in order to look at the distribution of province-level exports across sectors. Our results thus provide information about the allocation of resources at the aggregate level: theory identifies two margins of the impact of finance on export activities of firms, as access to credit potentially constrains the selection of firms which successfully enter export markets, as well as the volume of exports by those firms. By using aggregate data by firm type and province, we identify the overall effect of credit constraints on those two margins. Our key contribution is then to exploit the cross-province variation in the efficiency of

[1] In the following we refer interchangeably to financially dependent or financially vulnerable sectors.

[2] Manova et al. (2014) only consider firms exporting in multiple sectors, which represent 49% of the total number of firms in 2005. In our study, we look at the distribution of province-level exports across sectors which includes both mono-industry and multi-industry firms.