A preliminary examination of the effects of credit instruments on *de facto* and *de jure* political power: lien laws in the postbellum United States South and nineteenth century New South Wales, Australia

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Abstract

This paper offers some preliminary insights into the impact of a particular type of credit instrument, the lien, on the distribution of *de facto* and *de jure* political power in the postbellum US South and the Australian colony of New South Wales. *De facto* political power arises when wealth increases and, once acquired, it can be used to challenge the prevailing distribution of *de jure* political power. The design and operation of lien laws in these two locations resulted in very different outcomes for the allocation of *de facto* and *de jure* political power and this had implications for long run growth outcomes. In the postbellum South the operation of liens evolved to favour landlord elites over competing claimants thereby supporting the continued unequal distribution of *de facto* and *de jure* political power. This skewed distribution of political power is likely to have resulted in lower growth rates in the long run for many Southern economies. In New South Wales the pastoral elites themselves were credit constrained and therefore, relied on another colonial group, merchants, to provide credit via liens. This led to greater *de facto* political power of merchants which, over time, allowed this group to mount an effective challenge to the prevailing *de jure* political power of pastoralists. In turn, this contributed to a shift toward a more equal allocation of property rights as well as liberalisation of the political sector including universal franchise and the secret ballot. The move towards greater equality in NSW would have led to higher long run growth rates than may otherwise have prevailed.

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1. Introduction

Endowments and the institutional arrangements they produce exert an important influence on the long run growth path in any given region (Acemoglu, Johnson and Robinson, 2001, 2002; Denoon, 1983; Easterly and Levine, 2003; Engerman and Sokoloff, 2001, 2003; Glaeser, La Porta, Lopez-de-Silaner, and Shileifer, 2004; North, 1990; Sokoloff and Engerman, 2000). Endowments determine the comparative advantage of alternative production choices that in turn effects the organisation of production, consumption, and exchange. The institutions that evolve, such as property rights, determine, in the first instance, which societal group has access to resources and therefore, wealth. In cases where endowments favour large-scale production there is a tendency for institutions to evolve that limit access to resources and wealth. Wealth accumulation, in turn, determines the distribution of *de facto* political power that can be transformed into *de jure* political power at some later stage (Acemoglu, Johnson and Robinson, 2001, 2002).[1] If *de facto* and *de jure* political power is concentrated on a small group of elites subsequent economic institutions will be fashioned so as to continue the concentration of wealth in their favour. In the long run, this inequality tends to persist and negatively impact economic growth.

The relevant literature identifies various channels by which inequality is preserved for instance, by limiting access to franchise, concentrating land ownership, and underinvestment in public education (Sokoloff and Engerman, 2000). This paper provides a preliminary analysis of one specific economic institution, access to credit under lien laws and how their operation in two different locations, the postbellum US South and the Australian colony of New South Wales (NSW) affected the distribution of *de facto* and *de jure* political power.[2] Lien laws allowed producers to pledge their future assets as collateral for loans. In the US South liens were secured against the growing crop, primarily cotton while in NSW liens were given against the future wool clip. This paper is concerned with two main questions: first, how did the allocation of property rights affect the operation of lien laws in these different locations? Second, what were the implications of lien operation for the

[1] The transformation of *de facto* political power into *de jure* power can be a relatively slow process and elites may try to counteract the rising *de facto* political power of competing groups by suppression and short-run concessions such as lowering the tax rate. However, under certain conditions elites may cede their political power power. Acemoglu (2006) derives a model to explain how and when each of these possible strategies will be utilised by elites.

[2] NSW is the focus of the analysis because prior to 1850 it included the entire East coast of Australia. Therefore, the study refers to rules that applied to the geographical area that today incorporates Victoria, Queensland, and the Australian Capital Territory.

distribution of *de facto* and *de jure* political power and how did this distribution impact long run growth outcomes in each location?

The nature of lien laws adopted in these two regions was remarkably similar. However, their evolution at each location was distinctly different so that the *de jure* political power of the elites in the postbellum South allowed these laws to be shaped in such a way as to favour planters over merchants, tenant farmers, and sharecroppers. In NSW priority was determined by date registered rather than in favour of a specific economic group because of the absence of competing credit providers. By identifying these different paths of evolution it is possible to highlight the influence of lien laws on the distribution of *de facto* and *de jure* political power via their impact on wealth accumulation for different economic groups. In turn, this distribution can have significant implications for the persistence of inequality or greater equality in a given economy in the long run.

The potential for plantation owners in the postbellum South to distort production outcomes via their control over *de jure* political power has been well documented in the literature (for example: Alston, 1990; Alston and Ferrie, 1999; Fishback, 1989; McGuire and Higgs, 1975; Parker, 1980; Ransom and Sutch, 1972, 1975, 2000; Woodman, 1968, 1979). There have been far fewer studies that examine the role of pastoral elites in NSW over a similar time period (for example: McLean, 2007, 2013; Harris, 2012). Moreover, McLean (2007) has argued that the inequality which persisted in places like the postbellum South and parts of South America for example, Argentina was avoided in Australia because of the mitigating role played by the British Colonial Office (BCO). The BCO could effectively counter the *de jure* political power of pastoralists because, until 1850, it determined all colonial economic and political policy, including land policy (Alston, Harris, and Mueller, 2011, 2012). However, prior the granting of responsible government, there is very little evidence that the BCO actively prevented the rise of NSW pastoralists *de facto* and *de jure* political power. Further, during the early period of colonial development when pastoralists entered the colonial parliament the BCO did not act to curtail their ability to mould institutions in their own favour and maintain inequality of access to resources and wealth. Nevertheless, over time, the *de jure* power of elites was slowly eroded away. Lien laws contributed to the decrease in elite *de jure* power as merchants, the main suppliers of capital, gained wealth and therefore, *de facto* political power that, over the course of 20 years, was transformed into *de jure* political power. This had important effects for institutional outcomes because once merchants transformed their *de facto* into *de jure* power economic institutions that favoured elites were dismantled paving the way for higher long run growth levels than may otherwise have been achieved.

The remainder of the paper is set out as follows: section two outlines the endowments prevailing in the postbellum South and NSW during the nineteenth century to highlight how these contributed to a comparative advantage for cotton and wool production in each region. Section three provides an overview of the factors that led to the introduction of lien laws. Section four highlights the possible effects of lien legislation on the allocation of wealth and the subsequent effects this had on the distribution of *de facto* and *de jure* political power among different societal groups. Section five offers some concluding remarks.

2. Endowments and comparative advantage

By the mid-nineteenth century the distribution of property rights and political power in both locations were remarkably similar in that a small group of elites owned or occupied vast tracts of land while also controlling *de facto* and *de jure* political power. The elites in the postbellum South were plantation owners while in NSW they were wool producers. In part, the institutional arrangements leading to this concentration of political power in the two regions were the result of the endowment sets that determined the comparative advantage of alternative production choices. Broadly speaking, endowments include factors such as climate, soil and labour. Climate and soil determine the suitability of particular environments for the production of specific crops (Sokoloff and Engerman, 2000). Generally, in more temperate locations climate and soil characteristics give a comparative advantage to the production of grain crops on small, individually farmed plots while in tropical and sub-tropical areas the comparative advantage favours large-scale production of cash crops on slave plantations. These characteristics affect the distribution of *de facto* and *de jure* political power so that in economies with small production units franchise tends to be widely dispersed while in the regions with large production units it is concentrated on an elite group. This has important implications for long run growth outcomes because political equality leads to a wider distribution of resources and therefore, wealth while a more narrow franchise limits resource distribution and wealth to a small group (Acemoglu, Johnson and Robinson, 2001, 2002; Denoon, 1983; Easterly and Levine, 2003; Engerman and Sokoloff, 2001, 2003; Glaeser, La Porta, Lopez-de-Silaner, and Shileifer, 2004; North, 1990;

Sokoloff and Engerman, 2000). In order to better evaluate the role endowments had on the comparative advantage of cotton production in the US South and wool in NSW the climate, land supply and the availability of labour in each location needs to be discussed.

2.1 Postbellum South endowments

The climate of the US Southern states can be broadly categorised as sub-tropical. To successfully produce cotton a minimum of 200 frost-free days per year and ample rainfall are required so that the geographic bounds of production are determined largely by climate (Fogel and Engerman, 1974). Emerson (1911) notes that, generally speaking, the parallel 37^{o} north latitude is the northern climatic limit for profitable cotton production. Average rainfall varies across the Southern states between 30 to 60 inches (730 to 1500 millimetres) per annum and is fairly evenly distributed across the year. As a result, cotton production was relatively well suited to the climate of Southern states compared with the North. Cotton also had an advantage over other crops because it was easy to store and could be transported with only small losses to producers and merchants compared with more perishable products (Clark, 1946). The limited investment in transport infrastructure including poor road quality in much of the South that persisted until after the Civil War therefore, also contributed to the relative advantage of cotton.

Land occupation in the Southern states began with the migration of various European groups either as independent settlers or as part of royal charter companies wanting to establish settlements in the New World. The creation of private property rights for extensive areas of US territory relied on a mix of first possession rules and Federal land sales (Lueck, 2003). Initially, settlers in the South grew tobacco in many of these areas until the invention of the cotton gin in 1794. This led to the widespread adoption of cotton production across the Southern states. Land supply was abundant relative to demand and settlers continued to move southwest as the cotton frontier expanded in the 1800s. Economies of scale could be achieved in cotton when produced on large-scale land holdings and the pattern of ownership that emerged in the Southern states reflected these realities. Labour scarcity was perhaps the biggest challenge to growth in the antebellum cotton industry but this was overcome by the high returns generated that provided sufficient capital to buy slaves on the world market. In turn, Atack and Passell (1994) argue the antebellum cotton industry was land intensive and labour extensive.

Slavery was a relatively efficient method of production in plantation agriculture (Gray, 1940; Engerman, 1975; Fogel and Engerman, 1971, 1974). A comparison of per capita wealth prior to 1800 indicates the South's per capita income was 14.5% above the rest of the US making it the wealthiest section of the nation (Engerman, 1975). Moreover, the total factor productivity of slave farms was 48% higher than for free because slave labour worked more intensively (Fogel and Engerman, 1974). The seminal work by Fogel and Engerman (1974) details the varying reasons for slavery's efficiency in the antebellum South and the following paragraph summarises part of their account (pages 204-209). The sources of efficiency can be broken down into three main themes highlighting the sophistication of labour utilisation on large plantations: specialisation, organisation, and intensity.

Field labour was managed in a gang system based on an internal division of labour where each member was assigned a precise task and their performance was dependent on the actions of others. The organisation of slaves into highly disciplined, interdependent teams that maintained a steady and intense work rhythm was at the core of the superior efficiency of large-scale plantation operations. Some aspects of cotton production such as harvesting did not provide the opportunities for division of labour and specialisation that existed during planting and cultivation. However, planters attempted to achieve the same objective by dividing hands into competing groups and offering bonuses to the winning team. Fogel and Engerman (1974) argue plantations, therefore, were able to move closer to 'full-capacity' utilisation of labour than in a free economy. On large plantations, work intensity was complemented by flexibility that allowed individuals to be matched to occupations reflecting their abilities.

Combined, the endowments in the US South meant the location was suited to large-scale plantation agriculture dominated by cotton. During the nineteenth century, the tropical climate and abundance of land gave cash crop production a comparative advantage over other forms of agriculture (DeCanio, 1973; Wright, 1987). Moreover, the profitability of cash crops made it possible for producers to generate sufficient income by which to alleviate labour scarcity by purchasing slaves and exploiting economies of scale in production. Nevertheless, with the advent of the Civil War and the subsequent abolition of slavery, labour scarcity became a significant problem for Southern producers because the newly freed slaves now had employment mobility. The challenge for producers was to retain their labour force in an environment of increasing real wages.

In the antebellum South endowments shaped political and economic institutions that favoured a concentration of *de facto* and *de jure* political power on an elite group of landowners. After the Civil War this power remained relatively unaltered so that economic institutions continued to skew access to resources and wealth in favour of elites (Moore, 1978). The link between landownership and franchise however, had been all but removed during the antebellum period but the application of poll taxes acted to restrict voting privileges for large segments of the population, including former slaves.

2.2 Endowments of NSW

Nineteenth century NSW endowments were eminently suited to large-scale wool production. A highly variable climate, land abundance, and labour scarcity were all key factors in promoting expansion of the wool industry. These impacted both the organisation of production that relied on transhumance and the nature of land occupation that favoured large claims scattered over geographically dispersed areas. During the early period of expansion the BCO agent in the colony, the governor, tended to support the patterns of occupation and organisation that evolved out of custom (Alston, et al. 2012).

NSW has a Mediterranean climate with warm to hot summers and mild, wet winters. An important characteristic of the NSW climate particularly and Australia more broadly is that rainfall is low by world standards and highly variable from year to year. Much of the state has an annual rainfall of between eight and 20 inches (200 – 500 millimetres). This is similar in volume to the US Great Plains and far West. Moreover, Australia's rivers exhibit a high coefficient variation of annual flow estimated at 1.12 compared with the world average of 0.33 (Finlayson and McMahon, 1998). As a result, the use of surface water as a substitute for rainfall is somewhat constrained. These climatic characteristics gave wool production an important advantage over permanent agriculture because sheep mobility provided some degree of insulation from the unpredictable climate (Harris, 2010). Land allocation policies supported the practice of transhumance by allowing squatters to claim occupation rights to multiple parcels of land, averaging in total 34,000 acres (Roberts, 1935).

Transhumance is the movement of stock between pastures which permits the maintenance of a larger population of stock compared to more sedentary forms of livestock husbandry (Halstead, 1987). NSW pastoralists multiple land claims allowed them to use alternative locations as substitutes thereby reducing the risk associated with climate variability (Anderson, 1970; Harris, 2012; White, 1992). Rules regarding travelling stock accompanied the rise of transhumance to reduce the costs of mobility. For example, sheep were required to move a minimum distance of six miles in 24 hours (Johnson, 1994). On private land occupied by a third party drovers were required to give an owner 12 hours notice of entry and the flock of sheep had to enter within 48 hours. Pastoralists could take advantage of sheep mobility because rainfall was variable between their geographically dispersed plots (Harris, 2010). Access to water supplies on each parcel of land for which they had an occupation license was guaranteed under the operation of the English common law of riparian rights.[3] In the case of severe, widespread drought slaughtering could be used to reduce animal numbers and therefore, resource competition. Natural increases in stock numbers could be relied upon to replenish the flock in later periods.

The expansion of wool production began in earnest from 1830 as individuals moved flocks beyond the legal boundaries of settlement declared in 1827.[4] By 1834, while the BCO deemed continued occupation of frontier land illegal, it had become clear to the governor this rule was unenforceable. Further, extensive grasslands in the interior were perfectly suited to sheep grazing and the wool produced generated a high economic return to the colony (Shaw, 2003). The inability and unwillingness of the local governor to enforce settlement boundaries led the English parliament to legalise this occupation via the *Squatting Act* (7 Wm. IV No. 4, 1836). This legislation introduced an annual licensing system that allowed pastoralists to pay £10 per annum to occupy as much land as they pleased. Crown Land Commissioners enforced the license system. The profitability of wool was precisely due to the absence of ownership rights and low land rents at the frontier that allowed producers to be competitive on the world market (McMichael, 1980).

Prior to the 1851 gold rush, NSW was relatively labour scarce for several reasons. Aboriginals that survived initial contact were very few and, in many cases, hostile to the spread of settlement (Butlin, 1993; Millis, 1992; Reece, 1974; Shaw 1992, 2003). Convict transportation was falling in popular sentiment in both the colony and England leading to

[3] '*Ripa'* means the banks of a watercourse that gives rise to the term riparian (Lauer, 1963). Only individuals that owned or occupied land that came into contact with the water source could acquire riparian rights. Riparian users were equal both in right and obligation.

[4] The boundaries were known as the Nineteen Counties. Occupation beyond the limits was illegal and, if caught, offenders would be prosecuted. However, these limits were more theoretical than practical because the resource constrained military governor did not have sufficient troops to enforce them.

political agitation for its abolition. In addition, NSW 'competed' with other locations for British migrants. A major obstacle to attracting free settlers to NSW was the high cost of travel compared with alternative locations, particularly North America (McDonald and Schlomowitz, 1991). As a result, the bulk of free migration to NSW from 1830 until 1850 was comprised of government assisted migrants (Haines, 1994).

Labour scarcity created a climate of high real wages for pastoralists however, wool production was not labour intensive so the scarcity of this factor did not constrain expansion. Wool production had three main labour requirements: shepherds to protect sheep from predators and disease; hut keepers to enforce pastoralists' occupation rights against encroachment; and seasonal shearers to harvested the clip. Convicts provided a substitute source of non-wage labour and they were utilised in pastoral activities.[5] This was beneficial to the resource constrained colonial government because it shifted the costs of feeding and clothing prisoners to private individuals taking pressure off military stores. As Cashin and McDermott (2002: 250) aptly note, "for a land abundant, labour scarce, isolated region dependent on long distance transportation, wool was an ideal commodity."

Combined, Australia's Mediterranean climate, abundant pastoral land and scarce labour led wool growing to have a comparative advantage over all other types of the production in nineteenth century NSW. These endowments shaped the political and economic institutions that favoured continued expansion of the wool industry. By 1842, 24 out of 36 Legislative Council members were elected but the right to vote and to stand for parliament were accompanied by strict property requirements.[6] Pastoralists obtained the right to vote and be elected under property rules and, as a result, came to dominate the Council. Such a concentration of *de facto* and *de jure* political power gave this group the ability to influence economic policy by using legislation to favour their access to land, labour, and credit over other groups.

[5] Convicts who demonstrated good behaviour were given the opportunity to work for pastoralists and other producers under the Ticket-of-leave system. A Ticket holder was assigned to a particular district and employer. Tickets were issued by the governor and allowed a convict to live within society but constrained their ability to move around the colony, their choice of employment, and their capacity to earn wages.

[6] Prior to colonial independence in the 1850s NSW had a unicameral parliamentary system.

3. The introduction of lien laws

Before considering the possible impacts of lien law operation on the distribution of *de facto* and *de jure* political power in the postbellum US South and nineteenth century NSW the events leading to their adoption in these locations needs to be discussed. Lien laws were introduced in both regions after significant, negative economic shocks. In the United States this shock was the abolition of slavery at the end of the Civil War. In NSW it was a severe economic contraction in the early 1840s brought about, in part, by rising input costs and an outflow of British capital (Butlin, 1953; Decker, 2008; Holder, 1970). These shocks brought about significant economic challenges to the key productive sectors of each economy, cotton in the South and wool in NSW. One of the main challenges was the access to capital. In both cases producers faced the same capital constraint brought about by a lack of land ownership without which they were unable to provide collateral for loans.

Freed slaves and poor whites in the postbellum South generally lacked sufficient resources to enter the land market.[7] Moreover, the highly concentrated distribution of landownership that had prevailed before the war persisted in the postbellum era (Parker, 1980; Wright, 1970). In NSW, pastoralists' licenses gave them only occupation rights to their land. Occupation rights did not constitute ownership and therefore, land could not be used as security for credit. Without acceptable collateral to support cotton and wool production respectively, these economies faced the possibility of large-scale contractions in key export industries and an associated overall fall in growth levels. These reductions in growth were, in part, avoided by the introduction of lien laws that allowed producers to pledge their future crop or wool clip as security for short-term loans. Nonetheless, both endowments and the nature of politics affected the operation of these laws so the outcomes varied with respect to their impacts on the distribution of *de facto* and *de jure* political power (discussed in section 4).

3.1 Liens in the postbellum South

In the postbellum South lien legislation was introduced against the backdrop of destruction caused by the Civil War and a newly freed labour force. This led to changes in production away from large-scale plantation based organisation to small plots farmed by tenants or sharecroppers. Prior to the War cotton factors acted as middlemen to provide planters with the goods and credit they needed from the North. After the War the factorage system did

[7] There is evidence that some of these poorer farmers did become landowners albeit on a limited scale. Engerman (1982) notes that by 1900 only 25% of black farms were owner-operated.

not re-establish itself and the National Banking Acts eliminated large numbers of commercial banks in the agricultural South (Jaremski and Fishback, 2012; Parker, 1980; Ransom and Sutch, 2001). A substitute source of credit was available from local merchants and landlords. However, money or supplies could not be advanced without security and, in the absence of land ownership by the newly freed population the only asset this group owned was the cotton they produced. Lien laws allowed merchants and/or landlords to advance money and supplies using the cotton crop as security. In the case of insolvency the lienee retained the right to the crop even if the land upon which it grew was sold.

A major advantage of the lien in this context was that it bonded a newly mobile labour force to the land. Once a lien was given a lienor was tied to the land until the harvest. In fact, in most states legislation evolved to make it a criminal offence to abandon a growing crop if a lien had been granted (Woodman, 1979). Furthermore, where a sharecropper held a lien from the landlord for wages, mid-season abandonment of the crop would result in the forfeiture of wages. The provision of local credit lowered the costs of supervision for the credit supplier who had an incentive to monitor the work effort of lienors to limit the risk of crop failure (Alston, 1990). Once the cotton was harvested it was the type of employment contract, sharecropper or tenant, that determined who gained control of the crop. In the case of sharecroppers the landlord controlled the crop. Specifically, once harvested the sharecropper relinquished possession to the landlord who was then responsible for selling it and paying the cropper a proportion of the proceeds in accordance with the agreed terms of the labour contract. This created information asymmetries because croppers did not know the price for which cotton was sold. Widespread illiteracy contributed to these information asymmetries. In turn, this provided landlords with an avenue to deceive croppers with regard to the price obtained for the cotton and their ability to pay wages. Nevertheless, the extent to which this may have occurred is not well known (Parker, 1980). Tenants on the other hand paid the landlord a share of the harvest as rent for the land on which the crop was grown. Theoretically then, it was tenants who had control over the harvested crop allowing them to decide where to sell it and for how much. In reality, the lien contracts generally gave possession to the merchant or landlord who would sell the crop, subtract the rental owed plus any outstanding debt for goods or services provided during the season from the proceeds with the balance being given to the tenant.

The precise operation of lien laws in the postbellum South reflects the particular endowments and comparative advantage in that location. In the South cotton retained a comparative advantage over other crops but the organisation of production had been altered. This sudden and significant break from previous arrangements led to a credit vacuum for which substitutes were available only once legislation permitted growing crops to be used as collateral. In order to maximise production constant labour input was required over the growing season and the geographical proximity of lien holders lowered monitoring costs providing some protection of their capital investment. Over time, legislation determined the order of payment if competing liens were held that favoured landlords over merchants and other groups (refer to section 4.1). The *de jure* political power of landlords and their desire to maintain this power played an important role in determining payment priority.

3.2 Liens in NSW

Lien laws in NSW were brought about by the depression in the early 1840s that saw a severe contraction of liquid capital in the colony. Prior to the onset of the slump pastoralists' finances had been indirectly obtained from colonial banks. Much like the cotton factors in the South, NSW merchants had functioned as middlemen between those supplying finance and the lenders. Primarily, this was because colonial banks did not favour discounting settlers' bills due to the frequently long delays in payment (Holder, 1970). Instead, banks would lend to merchants who, on receipt of the wool clip would provide funds to pastoralists. The nature of this credit supply created obvious problems for pastoralists who had to survive each season with the proceeds of the previous years clip. If these funds were insufficient to cover the costs of operation over the season then storekeepers could sell goods on credit, generally secured by a promissory note, or sheep could be sold or boiled down for tallow to provide ready money.

Prior to the significant contraction of 1842/43 a two year drought (1838 – 1840) had reduced wheat output in the colony, leading to higher imports. As prices began to fall consignor bills drawn on merchants by British suppliers could not be met. This forced colonial merchants to call in outstanding accounts and resulted in a general fall of available liquid capital in the colony. This was coupled with rising labour costs as the number of convicts being transportation began to fall (Butlin, 1953; Holder, 1970). According to Butlin (1953: 321),

> Pressure for cash once initiated, spread almost overnight, and the merchants and traders were neither prepared to give new credit nor wait for old debts; they in turn were pressed by banks and other lenders – the first sharp reduction in bank loans came as early as 1841.

Widespread insolvencies followed resulting in a significant contraction of British capital. These events were followed by a collapse in land sales that forced the government to draw on its bank deposits to fund immigration orders (Butlin, 1953; Holder, 1970; Fry, 1973). The crisis that ensued was one of the most significant depressions in Australian history resulting in acute deflation of commodity and asset prices, unparalleled insolvencies, bank failures, and high unemployment (Decker, 2008). This credit crisis was more acute than it otherwise may have been because the existing credit instruments did not allow pastoralists to use the only asset they owned, sheep, as collateral. Further, bank statistics during the crisis show that while money supply contracted by 34% between 1840 and 1843, the holding of coin assets increased by 18% indicating an underinvestment of available bank capital (Decker, 2008). Loanable funds were available but pastoralists were unable to access them without a change in the law. This change was introduced in 1843 under the *Lien on Wool and Stock Mortgage Act* (7 Vic. No. 3), an act designed by a prominent pastoralist and newly elected Legislative Council member, William Wentworth.

Liens allowed pastoralists to pledge their future wool clip as security for short-term credit, usually between six and nine months. Under a lien, the creditor had rights to the wool of the flock but not the flock itself. This type of security had its origins in the Roman law of hypothec – a non-possessory chattel security unknown in English common law during the period. Possession of the sheep remained with the lienor who, once the wool was ready to shear, was obligated to provide the lienee with the quantity of wool for which the lien was pledged. If the sheep were sold before the lien was repaid both the lienee and the lienor retained the right to shear the sheep and go in to possession for the purposes of doing so in order to pay the debt (Sykes, 1959). To be valid, liens had to be registered with the NSW Supreme Court.

This legislation also contained provisions for pastoralists to mortgage stock thereby creating the potential for dispute amongst creditors. Such disputes were avoided however, because legislation required that when flocks were subject to a mortgage a lien could only be granted with written permission from the mortgagee. If a lien already existed and the stockholder wanted to mortgage his flock the mortgagee could check the Supreme Court lien registers to determine the extent and nature of the lien obligation before agreeing to provide the mortgage. If a stockman became insolvent a mortgage or lien did not require the assets to be evenly distributed between creditors. Each creditor's claims remained good against all other claimants ensuring 100% repayment of the debt. For example, A is a pastoralist with a mortgage on his sheep held by B and lien on the wool held by C. Assume A becomes insolvent, B has the right to claim ownership of the flock under the mortgage contract and C to the wool once it has been shorn and made a separate chattel from the animal. Upon A's insolvency B takes possession of the flock and becomes legally required to fulfil the obligations imposed under C's lien. To do this B can either shear the sheep himself and deliver the wool to the lienee or allow C to shear the flock at any location deemed suitable. In either case the original lienor (A) or his estate was responsible for the costs of shearing and delivering the wool. If B failed to supply the wool or access to the sheep for C he would be criminally liable for fraud.

Much like the persistence of a comparative advantage in cotton production in the US postbellum South's, in NSW wool also retained a comparative advantage over other sectors until at least the 1890s. Against the backdrop of a depression and monetary contraction liens allowed pastoralists to pledge the wool of their flock as security for loans. Unlike cotton, however, the maximisation of wool output did not require consistent monitoring of labour inputs over the growing season so that creditors were often located a considerable distance away from producers. Furthermore, payment priority in NSW did not evolve to favour one economic group over another rather, it was ordered by a lien's date of registration.

4. The operation of lien laws

De jure political power in the nineteenth postbellum South and NSW was concentrated in the hands of a small group of elites. Generally, the concentration of political power on elites results in the adoption and/or adaptation of economic institutions that contribute to the maintenance of this power over time thereby constraining long run economic growth. One way elites can strengthen their political power is via access to credit. By examining the operation of lien laws in each location, therefore, the extent to which these credit instruments did (or did not) support the continued concentration of elite *de facto* and *de jure* political power can be identified. In turn, the influence of this particular type of credit mechanism on wealth distribution can be linked to the prevailing endowment set, the comparative advantage this produces, the mix of production inputs that results, and the potential for inequality to persist.

4.1 The operation of lien laws in the postbellum South

The relative economic underperformance of the US Southern states in the postbellum years has been the subject of much analysis. In many studies, if not all, the lien has been identified as an important contributing factor (for example: Alston, 1990; Alston and Ferrie, 1999; Billings, 1979; Brown and Reynolds, 1973; Ferleger, 1993; Fishback, 1989; Hammon, 1897; Jaremski and Fishback, 2012; McGuire and Higgs, 1977; Parker, 1980; Woodman, 1968, 1979; Wood 1986; Ransom and Sutch, 1972, 1975 1979, 2001). Early economic historians studying the effects of lien laws noted their primary effect was to create debt peonage where poor black and white farmers were locked into perpetual debt. The rise of debt peonage resulted from the interaction of a number of factors.

First, the overproduction of cotton depressed prices and therefore, returns to small farmers. Cotton overproduction has been attributed to the economic power of landlords and merchants who forced its production by refusing to give liens for any other crops. Lower cotton prices meant returns from the crop might have been insufficient for lienors to fully pay their debt at the end of the season. Any shortfall in payment therefore, would be carried over to the following year and the lienor would require further advances for that year's crops creating a vicious cycle of debt. Second, exclusive reliance on cotton meant cash poor farmers were no longer self-sufficient in food production forcing them to purchase these items on credit from landlords or merchants at heavily inflated credit prices (Woodman, 1968, 1979). Third, Southern credit markets were such that local merchants and landlords retained a monopoly over seasonal credit because producers were immobile thereby reducing the supply of substitute lenders (Ransom and Sutch, 1975, 2001). Nonetheless, many of these assertions have been debunked by studies utilising statistics from the period that indicate most farmers paid off their debt at year's end and could then freely switch credit providers. Moreover, any supposition that debt peonage occurred is subject to theoretical weakness because holding someone in perpetual debt implies the lender is giving away real resources (Alston, 1990). In turn, it is reasonable to assume creditors would limit the sum advanced to an amount they expected a tenant would repay (Alston, 1990). For these reasons it is logical to assume that debt peonage did not exist to the extent that earlier studies have suggested. However, endowments influenced the operation of lien laws in such a way during the postbellum period that they contributed to the maintenance of elites *de facto* and *de jure* political power via two, interconnected factors: the organisation of production and the order of payment.

Cotton remained the most profitable crop for Southern farmers to grow because the endowments of the postbellum era were not substantially different from those that existed during the antebellum period. As noted in section 3.1, cotton production is labour intensive requiring ongoing supervision of landlords to ensure maximum work effort was expended in production. In order for postbellum landlords to maximise production, therefore, they needed to secure seasonal labour input. Contracts to bond labour over the course of a season varied in nature and generally, three categories were utilised: wage labour, fixed contract land rental, and sharecropping. Of these three, sharecropping became the most dominant contractual form in the South. Sharecropping divided the cotton crop between landlords and croppers, usually 50-50.[8] By dividing crop proceeds in this way landlords were able to reduce supervision costs by tying cropper input more directly to output. Landlords also supplied croppers with all necessary implements including, tools and seeds as well as consumption goods over the course of a season. These were all added to the value of the landlord's lien and deducted from the cropper's half of the output. Croppers were bound to one landlord for a growing season but, once the crop was harvested and proceeds allocated, assuming there was sufficient funds to pay the total of the outstanding lien, these workers were free to move to another district and work for alternative landlords. Simple geographical relocation however, did not change the fact that most croppers were relatively poor with limited personal chattels to use as collateral for credit. As a result, for these workers to produce a crop in any season they needed access to credit only available via landlords or merchants. This was not debt peonage per se, rather it was a seasonal debt. Seasonal debt could be paid off and avoided in future periods if accumulation above subsistence was achieved. In the postbellum South two factors suggest widespread accumulation was not possible and therefore, sharecroppers could not avoid seasonal debt.

First, in the face of cotton overproduction and falling prices the very existence of seasonal debt was probably sufficient to prevent croppers from accumulating much wealth beyond

[8] For simplicity, the division of the cotton harvest here ignores the fact that sharecropping contracts did demonstrate spatial and temporal differences as to contract mix so that proportions were not always fixed equally (Alston and Higgs, 1982). It should also be noted that there would an inverse relationship between the incentives for self-enforcement and the proportion of crop contracted for at the end of the season.

subsistence. Even if cotton prices were sufficient to clear all debt and provide some surplus, all it took was one bad season to wipe out any previous gains. Second, prices for items purchased on credit throughout the year were higher than for cash transactions and interest charges were often excessively high (Woodman, 1968). The limited wealth accumulation from season to season by croppers also constrained their ability to invest in education, either their own or that of their children thereby restricting employment choices outside agriculture. This affect was magnified because of the underinvestment in public education that persisted in the Southern states during this period. In addition, racial violence provided incentives for black sharecroppers to remain in agriculture because they could rely on the paternalism offered by landlords to protect them (Alston and Ferrie, 1993). Sectoral mobility of labour out of agriculture was further constrained by the implementation of vagrancy laws under the 'Black Codes.' Combined, seasonal debt, limited accumulation, threats of violence, and legal restrictions bound agricultural labour to the land. The lien contributed to lower levels of inter-sectoral labour mobility and this mechanism was part of a broader set of economic institutions that ensured landlords could access sufficient labour to continue cotton production and retain their control over *de facto* and *de jure* political power.

The large supply of unskilled labour in the South contributed to a high labour to capital ratio that prevailed in the postbellum period and this acted to constrain productivity improvements via its effect on technology adoption (Hornbeck and Naidu, 2012). The considerable supply of labour limited the planters' incentives to seek out new production methods and reduce the use of tools and equipment (Mandle, 1983). Ferleger (1993) claims that as profit maximisers landlords would seek to employ the cheapest factor of production, labour, rather than improving on-farm implement use. This was reflected the landlords bias toward the use of only the most rudimentary tools which resulted in low crop yields, slow rates of mechanisation, and overall slow productivity growth (Ferleger, 1993). Once liens were operative the priority of payment locked-in the labour intensive nature of production, preventing accumulation above subsistence for most small farmers, thereby limiting inter-sectoral employment mobility and the potential to earn higher wages. In this way, labourers could not acquire sufficient wealth to increase their *de facto* political power leaving very few avenues via which they could mount a challenge to the existing *de jure* political power of elites.

As the adoption of lien based credit spread throughout the South, the granting of multiple liens against the same crop led to some confusion regarding payment order. In cases where labourers, merchants, and landlords obtained liens over the same crop but the value of the harvest was not sufficient to cover both supplies and rent, the question of who had superior rights to payment became important. Rather than leave such fundamental questions to the courts, legislators created a priority system of payment where a landlord's claim for rent (and supplies) was deemed superior to a merchant's for supplies and the labourer for wages. The priority of landlord liens stemmed from the fact the plantation elite retained political and economic power in the postbellum rural South so it makes sense that they would fashion laws to guarantee their own privileges (Alston and Ferrie, 1999; Jaremski and Fishback, 2012; Moore, 1978). Moreover, with the abolition of slavery, land became the main asset owned by elites so that in order to generate income returns had to be somehow guaranteed.[9] By making landlord liens for rent and supplies superior to wage obligations for croppers and tenants obligations to merchants for supplies, landlord risk was reduced because income was assured. In the case of failed or damaged crops where priority order favoured croppers, landlord incomes would be constrained and they would face higher risks. By lowering workers payment priority this risk was transferred to labour and landlord incomes could be, to some degree, insulated from the risks associated with changes in output prices or volume. This reinforced the *de facto* and *de jure* political power of the landed elite because wage labourers were unable to acquire sufficient wealth and, therefore, *de facto* political power to challenge elites existing *de jure* power in an environment of depressed crop prices and high credit prices.

A similar outcome would occur if lien priority were given to merchants because in the case of output being insufficient to cover competing liens, landlords would be limiting their own income. A group that retains *de facto* and *de jure* political power is not likely to create legislation that, by definition, challenges this power. If merchants' liens had been given priority payment income would be transferred away from the landowner elites. Rising merchant incomes would increase their *de facto* political power thereby creating the potential for that group to challenge the elites *de jure* political power. It was not in the interests of elites to facilitate this shift of power so by ensuring lien payment priority favoured themselves over other groups they prevented any challenge to the prevailing political status quo.

[9] Land prices were relatively low in the postbellum South limiting the income that could be derived from selling the land outright

4.2 The operation of lien laws in NSW

By the end of the nineteenth century NSW had obtained one of the highest per capita incomes in the world. The factors contributing to this performance, however, have not been studied in detail. Butlin (1986) and McLean (2007, 2013) are the only two writers that have attempted to identify the sources of NSW impressive growth after only a very short period of European settlement. Both writers identify the favourable natural resources, including abundant grazing land. Nevertheless, as discussed in the wider economic growth literature, it's not endowments that matter per se but the access to those endowments and the subsequent distribution of rents associated with their use. Lien laws arose out of an institutional framework that favoured the concentration of access to land by pastoralists. The economic dominance of this group, in turn, established their *de facto* and *de jure* political power over this period. Lien laws were the direct result of this political influence. Unlike in the postbellum South, however these laws functioned very differently and, as will be shown, it is likely that they contributed to the erosion of the *de facto* and *de jure* political power of pastoralists. Two factors contributed to this change in political power: credit was not supplied by the elites and the order of lien payment.

Lien laws were introduced in NSW because, unlike landlords in the US South, the elites themselves were capital constrained. In the postbellum South landlords owned two of the three inputs required for production, land and capital. NSW pastoralists did not own land but they did have some capital in the form of sheep. Nonetheless, this was relatively illiquid capital and access to liquid capital was necessary to smooth out the boom-bust cycle of the grazing industry. Liens provided ready access to liquid capital and the economic actors supplying this capital had no direct interest in sheep grazing. After the passing of lien legislation merchants and banks were the main source of grazing capital. In fact, in many cases, bank owners, board members, and merchants were the same people (Butlin, 1953; Holder, 1970). This was a natural progression because, as noted, prior to the introduction of the lien, merchants had provided indirect bank lending to pastoralists. By supplying credit to pastoralists either individually or via the bank system merchants had an avenue via which to increase their wealth and therefore, *de facto* political power. Once merchants accumulated sufficient *de facto* power they were able challenge the *de jure* political power of pastoral elites.

In NSW, lien payment priority was determined by the date of registration rather than in favour of a particular group of creditors. In part, this was because the elites did not own the land they occupied so there was no need to ensure a return from this asset, as was the case in the US South. Creditors were only interested in the return from their capital rather than income generated by any fixed asset they owned such as land. Moreover, competing groups could not own liens so, where the returns from wool were insufficient to pay the debt, there was no need to establish priority based on the type of lien held. Where a wool lien and mortgage on the same flock were held by different people the rights of creditors were clearly established so that the lienee was entitled to the wool regardless of who had possession the flock.

The rise of merchants as the main suppliers of pastoral capital in the 1830s and 1840s began a sequence of events that paved the way for this group to challenge the *de jure* political power of elites. At the start of the 1850s as merchant incomes and their associated *de facto* political power was rising, the gold rush occurred. This led to an influx of immigrants who flocked to the gold fields to mine. Miners needed supplies in the form of equipment as well as consumption goods. Merchants, the main importers and exporters in the country since the 1820s, became the primary source of mining supplies. This added to their wealth and therefore, the further accumulation of *de facto* political power. Pastoralists however, retained *de jure* political power and, in the absence of a change to British colonial policy it is unclear whether merchants would have challenged this power. But British colonial policy did change and in 1850 NSW was granted responsible government, which, among other things, conferred the right to draft new constitutions and determine all domestic policy.

The NSW constitution which came into effect in 1855, established a bicameral parliament with a fully elected Legislative Assembly (lower house).[10] Franchise was limited to individuals owning a freehold estate valued at £100 or a leasehold estate valued at £10. The effect was to make the majority of the population ineligible to vote. Nevertheless, it reduced the *de jure* political power of pastoralists that had dominated the unicameral parliament. In turn, more radical liberals, supported by wealthy merchants were elected to the Assembly. Lien laws, in part, contributed to the erosion of pastoralists' *de jure* political power because they allowed merchants to gain sufficient wealth and as a consequence that

[10] The title of the Constitution act was: 'An Act to enable Her Majesty to assent to a Bill as amended, of the legislature of New South Wales to confer a constitution on New South Wales and to grant a civil list to Her Majesty' (19 Vic. No. 183 1855).

de facto political power was later transformed into *de jure* power. Over time the *de jure* political power of merchants in the Assembly succeeded in eroding away elites power and the inequalities in wealth distribution this had created with a series of reforms including the introduction of universal male suffrage, the secret ballot, government sponsored public education, and the redistribution of land ownership. This contributed to a more equal spread of access to resources and wealth within the colony which, in turn, contributed to the higher levels of long run growth as compared with the postbellum South.

5. Conclusion

This paper has provided some preliminary insights into the operation of credit instruments and their effects on the distribution of *de facto* and *de jure* political power in the postbellum South and nineteenth century NSW. Significant, negative economic shocks in both locations led to the introduction of a specific type of credit mechanism, the lien. Liens allowed producers to pledge their future crop or wool clip as security for short-term loans and these instruments affected the distribution of *de facto* political power at each location very differently. In the postbellum South lien payment favoured landlords above other groups thereby curtailing the potential for merchants and labourers to acquire sufficient wealth and therefore, *de facto* political power to permit a challenge to the prevailing *de jure* political power of elites. As a result, elites continued to exert important effects on economic institutions that supported their continued political power. In the relevant economic growth literature, such high levels of inequality have been identified as important contributors to lower growth rates in the long run and the operation of lien laws in the postbellum South may have contributed to this outcome via their effects on the distribution of *de facto* political power.

In nineteenth century NSW the order of payment for liens did not favour one group over another because elites themselves were capital constrained and they did not own the land they occupied. The absence of land ownership by the elites meant they did not need to generate income from this source negating the need for a priority of payment based on anything other than date of registration. Furthermore, lien legislation strictly forbade the holding of multiple liens, reducing any conflict that could arise if the returns from wool were insufficient to payoff an existing debt. The main societal group offering credit under the lien system was colonial merchants who were the major importers and exporters in the colony. By providing pastoralists with access to credit by merchants individually or via banks owned and run by merchants, the lien laws paved the way for this group to acquire *de facto* political power. An increase in *de facto* political power creates an avenue via which different societal groups can challenge elite *de jure* political power. Over time, the rising wealth of merchants in NSW was solidified by the 1851 gold rush. In turn, the introduction of responsible government gave merchants the opportunity to extend their *de jure* political power. The reallocation of political power overtime positively contributed to higher long run growth levels than would not have occurred under the continuing concentration of *de facto* and *de jure* power on pastoral elites.

The analysis here indicates that when groups other than elites amass wealth their *de facto* political power increases and this can be used, at some later date, to challenge the existing distribution of *de jure* power. In part, the ability for competing groups to obtain *de facto* political power is determined by the endowments and associated comparative advantage in any location. Endowments that favour production on large plantations lead land ownership to be highly concentrated and this supports elites *de jure* political power. This concentration of political power will result in elites favouring credit instruments that provide a return to their fixed assets over other creditors. However, where elites occupy but do not own large tracts of land credit instruments do not need to produce a return from a fixed asset, paving the way for other groups to access wealth via the provision of credit to producer groups. Wealth accumulation leads to greater *de facto* political power that, at some later stage, can be used to challenge the prevailing *de jure* political power of elites. In turn, the evolution of economic institutions designed to provide credit could have important implications for long run growth outcomes.

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