Jacksonian Monetary Policy, Specie Flows, and the Panic of 1837

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A number of hypotheses attempt to disentangle the "true" causes of the Panic of 1837 from domestic and international factors that came into play as the crisis approached. I analyze U.S. government documents and contemporary newspapers to reconsider the role of domestic factors. These sources place neither the official distribution of the federal surplus nor an international shock at the center. Rather, a series of inter-bank transfers of government balances and a policy-induced increase in the demand for coin in the Western states drained the largest New York City banks of their specie reserves and rendered the panic inevitable.

The financial panic that gripped the U.S. economy in the Spring of 1837 was among the most severe in its history. In the five years that followed the nation's first general suspension of specie payments by banks, failures and loan losses reduced the book assets of the state chartered banks by 45 percent, and 194 of the 729 banks with charters in 1837 were forced to close their doors.[1] Prices of banking, railroad, and industrial securities in the early stock markets plummeted.[2] And though the resumption of payments a year later led to a short-lived recovery in the second half of 1838, the specter of 1837 must have weighed heavily in the minds of the public as panic conditions returned in 1839 at the first sign of monetary pressure. Declines in real activity accompanied these losses of confidence. For example, growth in per capita investment fell from an average of 6.6 percent per year between 1831 and 1836 to –1.0 percent per year over the next five years, while average per capita output growth fell by 1.4 percent per year across the same five-year periods.[3] Douglass C. North reports that real per capita imports reached only

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[1] Total bank assets are from *Historical Statistics* (series X581, p. 1020). Bank failures are from Martin, *Seventy-Three Years*, p. 31. The number of state chartered banks is from Fenstermaker, *Development*, p. 111.

[2] For example, Smith and Cole (*Fluctuations*, p. 46) report that railroad stock prices fell by 63 percent between 1837 and 1843, and that banking and insurance stocks fell by 31.9 percent. Atack and Rousseau (*Business Activity*, p. 175) report a decline of 23 percent in their value-weighted index of industrial stock prices for Boston over this period.

[3] Data on real output, real investment and population for 1832–1843 are from Berry "Production."

half of their 1836 level in each year from 1837 to 1843, and George Heberton Evans finds that nonfinancial business incorporations fell by more than 80 percent.[4]

Given the consequences of the 1837 panic and their magnification in 1839, it is not surprising that a number of hypotheses have emerged to explain the suspensions of May 1837. Each isolates a different domestic or international event as central among a host of shocks that buffeted the nation in the months leading up to the crisis. To this day, however, the panic remains imperfectly understood.

This article organizes previously unexplored information from U.S. government documents and newspapers to take a fresh look at the panic. The analysis suggests that the official distribution of the federal surplus to the states in 1837—Richard H. Timberlake's explanation—could not have involved enough specie movement to be an immediate determinant of the crisis.[5] Further, an international shock—Peter Temin's explanation—could not alone have caused the suspensions.[6] Rather, the banking system sustained two other disruptions in 1836 and early 1837 that turn out to be central. The first was a series of "supplemental" interbank transfers of public balances ordered by the Treasury under the Deposit Act of 23 June 1836 to prepare for the "official" distribution of $28 million of the $34 million federal surplus. The second was a heightened demand for specie in the West arising from the Jackson administration's "Specie Circular" of 11 July 1836, which ordered the use of specie for the purchase of public lands after 15 August.

Operating in a tandem, these measures reduced the specie reserves of the deposit banks in New York City from $7.2 million on 1 September 1836 to $2.8 million by 1 March 1837 and a mere $1.5 million by 1 May. The drain left the banks vulnerable to specie calls from a faltering British economy that had become determined to settle its international balances. As the dollar-sterling exchange rate approached the export point in April of 1837, the prospect of such calls and President Van Buren's highly publicized refusal to repeal the Specie Circular combined to engender distrust in the value of bank notes. As news of New York's dwindling reserves reached the newspapers, declining land prices and pressure from abroad combined to launch a precautionary demand for coin in early May. Figure 1 shows the timing of key domestic events in the year leading up to the panic. Indeed, the balance sheets of the deposit banks between July of 1836 and August of 1837 show how these policies combined to set the panic into motion. Since the Jackson administration acquiesced to the Deposit Act and initiated the

[4] North, *Economic Growth*; and Evans, *Business Incorporations*.
[5] Timberlake, "Specie Circular."
[6] Temin, *Jacksonian Economy*.

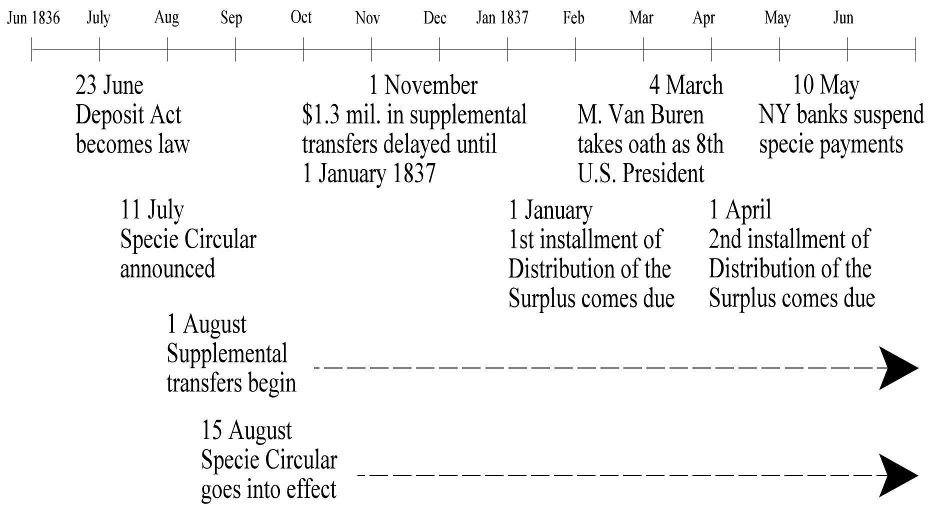

FIGURE 1
THE TIMING OF DOMESTIC EVENTS LEADING TO THE PANIC OF 1837

Note: See the text for discussion of these events.

Specie Circular as an executive order, this account calls into question claims that the nation's seventh President was an innocent bystander to the crisis.

BACKGROUND

The Panic of 1837 was a watershed event for the U.S. economy. Contemporary "hard money" advocates viewed it as a result of expanding paper money issues in an inadequately regulated banking sector bloated by the government deposits that had been removed from the Second Bank of the United States three years earlier.[7] Despite the resonance of such rhetoric, the traditional accounts of Reginald C. McGrane and Bray Hammond point to the Specie Circular, which directed federal receivers to accept only specie for public lands after 15 August 1836, as the primary cause.[8] This monetary policy was designed to reduce the note issues of remote banks and to erect a barrier for speculators, who would have more difficulty raising specie for land purchases than the bank notes and "certificates of

[7] This sentiment is aptly expressed in a 25 September 1836 editorial from the *New York Herald*: "Fifty thousand dollars in the currency of a good bank, and ten thousand dollars in specie, will set going a dozen of these remote Western banks. After one has used it, it goes beyond the next hill or across the next river, the cashier swimming the stream on horseback, to start another bank. Their notes are signed, packed up in bundles of $10,000 each, and sent into New York, to be circulated among the work people and the mechanics."

[8] McGrane, *Panic*; and Hammond, *Banks*. The Specie Circular offered an extension until 15 December for tracts of 320 acres or less that were purchased by "actual" settlers and "bona fide" state residents.

deposit" (known as "land office money" and often fraudulently obtained) that they had been using.

Public reaction to the Specie Circular can be characterized by initial confusion followed by concern about its potential to disrupt the money market.[9] It was widely believed that the specie requirement would drain reserves from New York, Philadelphia, and New Orleans to the West and cause loan curtailments in those cities. There was also a (not entirely unfounded) belief that the government by accepting specie for land would effectively "lock it up." The initial drain aggravated existing monetary pressures late in the Summer of 1836, and by early September rates on short-term business paper in New York had risen to 24 percent from only 12 percent in late June. They remained more than 20 percent in each month (with the exception of December 1836) until the suspension.[10]

Figure 2 shows an acceleration in public land sales from 1834 to their historical peak in early 1836, and continued brisk sales throughout that year in spite of the Specie Circular. Sales even reached $3.48 million in the first quarter of 1837. The traditional account suggests that the flow of specie to the West was inadequate to support this pace, and that a break in land prices ushered in the panic.

My account emphasizes the Specie Circular as central, but differs from the traditional one by showing that the specie stock was large enough to support land sales for months after the enactment. Indeed, the westward drain from New York did not reach critical mass until the Spring of 1837. It was thus the *inability* of the Specie Circular to halt land speculation quickly that strained the reserves of the New York banks and contributed to a loss of confidence in their notes. A decline in land prices, for which there is consistent but only anecdotal evidence, would have further impaired financial institutions that supported land purchases (with eastern banks among them) but is not essential to my narrative.

[9] "The general impression is fast settling down to the belief that the Treasury Circular and the Distribution Law will so disturb the currency, exchanges, and the business of the country, as to cause an extensive pressure in a few months. The commercial interests of the American cities suffer every way. Western merchants are all up to the eyes in land speculations" (*New York Herald*, 16 July 1836).

[10] Smith and Cole (*Fluctuations*) include data on monthly short-term rates that begin in 1831 and exceed 10 percent for the first time in November of 1833. They characterize 1834 rates as "high and variable" and 1835 rates as "comparatively low." Rates again reached 10 percent in December of 1835 and fluctuated between 12 and 18 percent throughout the Spring of 1836. Possible explanations for these "high" rates include inflation from increases in the specie stock and the accompanying bank note issues, and pressure arising from speculation in land, slaves, and railroad and canal stocks. These factors may have been pushing the U.S. economy towards a crisis before the Specie Circular was enacted, yet interest rates similar to those observed in the Spring of 1836 had persisted throughout 1834 without causing a panic. Accordingly, this account begins with events which subsequently pushed interest rates from high but not unprecedented levels to extraordinary ones.

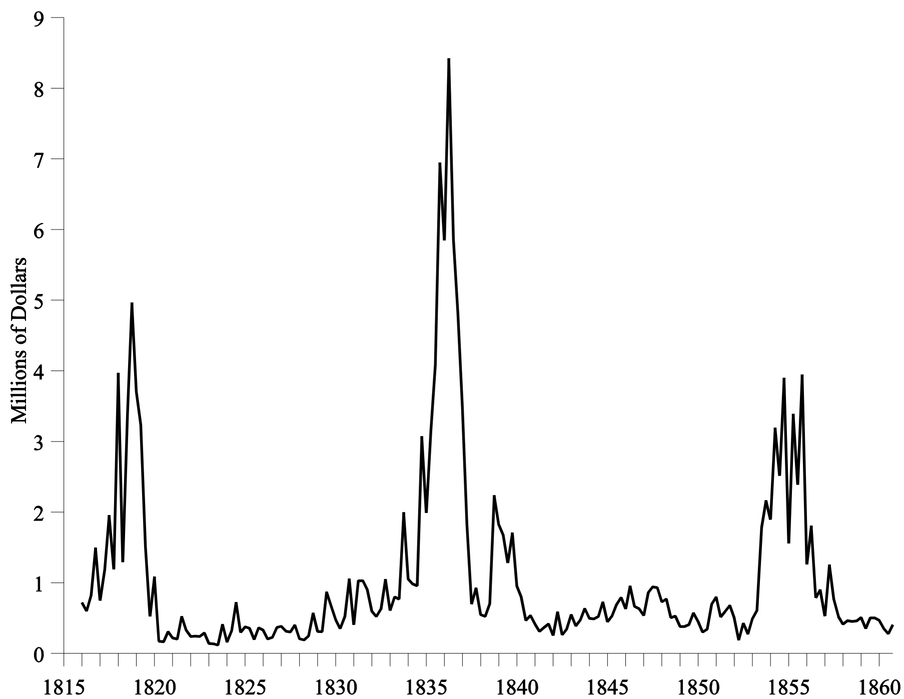

FIGURE 2
RECEIPTS FROM SALES OF PUBLIC LANDS, QUARTERLY 1816–1860

Source: Smith and Cole, *Fluctuations*, table 72.

Timberlake asserts that the Specie Circular had negligible effects.[11] He reasons that because public land sales were about $25 million in 1836 and gross national product about $1 billion, the fall in land sales in early 1837 was too small to lower aggregate demand, and that the diversion of funds from land purchases could have even increased demand. This, however, is not an appropriate comparison. If specie from New York was needed for Western land purchases it would require only a few million in sales to cut deeply into the reserves of that city. After dismissing the Specie Circular, Timberlake focuses on the "official" Distribution of the Surplus, which provided for the transfer of federal balances in excess of $5 million to the states according to their relative populations in four equal quarterly installments starting on 1 January 1837. Some $28 million was transferred in the three installments (January, April, and July) that were realized. Most did not cross state lines. Some, however, did and especially out of New York. Using records of the Distribution, Timberlake shows that New York's deposit banks transferred $1.3 million across state lines in January and April of 1837, a sizeable portion of which was probably drawn in specie, and de-

[11] Timberlake, "Specie Circular," p. 111.

scribes these transfers as a "jeweled-pivot" upon which the crisis turned. How such small interstate transfers could have caused a panic was not addressed, and has since motivated economic historians to seek alternative explanations.

Temin, reluctant to accept the traditional account due to a lack of evidence that an economically important amount of specie actually flowed to the West, offers such an alternative. According to Temin, two increases in the Bank of England's discount rate in the Summer of 1836 and their instructions to the Liverpool branch to reject bills of exchange drawn on houses associated with American commerce in late August were the start of a deliberate and sustained effort to "recover" specie that had been presumed lost to the United States. These actions combined to reduce demand for the U.S. cotton crop of 1836/37 and force a drop in its price by the following Spring. This in turn depressed the market values of cotton-backed bills in the United States and produced defaults among cotton factors, a deterioration of bank assets, and finally panic.[12] The argument requires a lag of at least eight months between the Bank's initial actions and the panic, and large real effects of a fall in the price of cotton that occurred late in the annual export cycle. Such fluctuations in cotton prices, however, were not uncommon by historical standards. There is also evidence that the bill rejections were an embarrassing blunder by the Bank of England, and that public alarm in that country had led to a quick reversal of the policy. By the Spring of 1837, the Bank was even taking extraordinary measures to support houses involved in the American trade. This is not to say that the international factors emphasized by Temin had no impact on U.S. developments. But the breakdown of the U.S. banking system was already underway by the time that the Bank of England made its moves, as shown in what follows.

These accounts all neglect or readily dismiss the effects of the "supplemental" Treasury operations. Even Harry N. Scheiber, in making a descriptive case that these transfers disrupted the banking system in the Fall of 1836, does not quantify their possible effects with the available bank-level, state-level, and regional data.[13] Interestingly, these data seem to hold the key to understanding how the transfers contributed to the drain of specie reserves from New York.

The specie drain was pivotal because the U.S. banking system was by this time firmly centered in New York. On 1 August 1836, for example, the $5.8 million in specie held by the deposit (or "pet") banks of that city represented 36 percent of the $16.3 million held by all deposit banks, 16 percent of the $35.5 million held by all state-chartered banks, and nearly 90 percent of the specie held by state banks in New York. The $5.8 million reserve base was

[12] Temin, *Jacksonian Economy*, pp. 123, 136–41.
[13] Scheiber, "Pet Banks."

more than ten times that of New Orleans, and was nearly triple the combined specie reserves of deposit banks in Alabama, Kentucky, Louisiana, Mississippi, and Tennessee.[14] Because specie was often required to settle international balances and New York was the nation's commercial center, it is not surprising that coins accumulated there. Nor would the banks have hesitated to lend quantities commensurate with their ample reserves. The New York City banks also held 34.2 percent of the $42.3 million that the federal government had deposited with the pet banks. This was due to New York's position as the key collection point for revenues from the government's main source—tariffs.

With the nation's specie stock estimated at $70.1 million in August of 1836, the previous figures imply that about 42 percent was in the hands of individuals.[15] The modest specie base, which amounted to $4.60 (about $68 in year 2000 value) for every man, woman, and child, supported a money stock of $230 million. The reserve ratio of 15.6 percent for the nation as a whole, when combined with a system of convertibility to the base on demand and a willingness of the public to hold and use coins, produced a vulnerability to precautionary demands for specie. In such a unit banking system, a drain of specie due to international calls, government-directed balance transfers, or an initiative such as the Specie Circular could easily generate runs. I will argue later that the specie withdrawals in the late Spring of 1837 were largely precautionary and quite moderate on an individual level, but that the coin remained in the hands of the public for several months after the panic. For now, I will set the stage by examining the supplemental Treasury operations of 1836–1837 and their contribution to the specie drain.

THE SUPPLEMENTAL TREASURY OPERATIONS

The aspect of the Deposit Act of 23 June 1836 (also known as the "Distribution Act") that raised the most concern among its opponents was the return of the federal surplus to the states in proportion to their populations. Less controversial were provisions that prohibited government deposits from exceeding three-fourths of a bank's paid-in capital and required the establishment of at least one bank as a government depository in each state that chartered banks. To comply with the latter provisions, then Secretary of the Treasury Levi Woodbury quickly selected 45 new deposit banks, increasing their number from 36 in June of 1836 to 81 by December.

[14] Data on the deposit banks for 1 September 1836 are from *Senate Document* No. 21, 24th Congress, 2d Session, pp. 2–26. Specie held by chartered banks in New York State is the 1836 figure from Fenstermaker, *Development*, p. 218.

[15] The aggregate specie stock and its components are August 1836 figures from Rutner, *Money*, p. 168.

Knowing that much of the surplus was on deposit in the commercial centers, Woodbury asked Congress in late June if he could prepare for the official distribution that was to begin on January 1 while reallocating balances to meet the new deposit limits. Congress responded by amending the Deposit Act on 4 July to state that "nothing in the act, to which this is a supplement, shall be construed as to prevent the Secretary of the Treasury from making transfers from banks in one State or Territory, to banks in another State or Territory, whenever such transactions may be required, to prevent large and inconvenient accumulations in particular places, or to produce a due equality, and just proportion, according to the provisions of the said act."[16] With his discretion affirmed, the Secretary ordered more than $38 million in "supplemental" interbank transfers over the next six months, with nearly two-thirds involving interstate transactions.[17] Of the total, $26.4 million were completed by the end of 1836, with 57 percent crossing state lines. Most of the remaining orders were completed in the first quarter of 1837, with 79 percent requiring interstate movement. The supplemental transfers stand apart from the $28 million transferred in the official distribution, of which only 18 percent crossed state lines.

Despite Woodbury's efforts, an increase in government balances from $34 million in June of 1836 to nearly $43 million by December limited his ability to achieve the distribution among the states that soon would be required. Collections over this period were twice as large as payouts, and more than half of the $22 million in new revenues would require movement from their point of receipt. Woodbury recognized that continued inflows would dramatically increase the transfers that would become necessary for New York, where the federal deposits had already accumulated far beyond the state's population share. He therefore focused the supplemental transfers in the Summer and early Fall of 1836 on gradually moving large sums from New York. The secret nature of these transfers first led contemporary observers to misunderstand the causes of the rising monetary pressure in August, but as the extent of the transfers became known, they were criticized, along with the Specie Circular, and held responsible for the pressure that had risen to a fever pitch by October.[18]

[16] 24th Congress, 1st Session, Ch. 355.

[17] With regard to the dual purpose of "regulating the banks" and preparing for the distribution, Woodbury reported in December 1836 that "in several cases, both objects or purposes, when convenient, were seasonably united, and with a mitigated and more beneficial effect, it is believed, on the whole administration of the law, and the condition of the money market generally, than if all the transfers to all the different states had been delayed till next year, and at that time ordered in much larger sums" (U.S. Congress, *Senate Document* No. 29, 24th Congress, 2d Session, p. 3).

[18] The *New York Herald* reports on 8 September that "another cause of the decline of the markets (in addition to concern about the upcoming Presidential election) is the heavy surplus revenue that is to be collected and gathered up for payment to the states on the 1st of January—probably 36 millions of dollars. The transfer of moneys from one point to another, in preparation for the great payment, necessarily creates a curtailment of discounts, and a consequent pressure in the money market. All these

Woodbury, who had underestimated the strain that these operations would place on the New York banks, responded by delaying until January more than $1.3 million in interstate transfers that were originally scheduled for November and December of 1836. As the Specie Circular began to drain reserves from the New York banks, he also attempted to bring coins back to the East in the Fall and early Winter with a new set of transfers from the Michigan and Ohio banks. These measures brought some relief to the money market in December, but the pressure soon re-intensified as the delayed transfers, most of them interstate, came due along with those of the official Distribution.

Responding to a demand from legislators to quantify the impact of the supplemental operations on the tightening money market, Woodbury's annual report to the Senate on 20 December 1836 specified the individual orders by sending and receiving bank and the date on which each transfer became effective or would be completed in early 1837.[19] Table 1 summarizes the gross amount of Treasury orders completed in each month from July 1836 through July 1837. The left panel shows the supplemental transfers and the right panel provides similar figures for the official Distribution.

The supplemental transfers were more than 35 percent larger than the official ones and involved nearly five times as many interstate orders. Further, the supplemental orders carried out between June 1836 and April 1837 were more than double those ordered in the course of normal payment operations from June 1835 to April 1836. And though the details of the 1835/36 orders are not available, the 1836/37 transfers, due to the provisions of the Deposit Act, would surely have involved more interstate movements. The $7 million in interstate supplemental transfers that were completed in the first quarter of 1837 were especially disruptive, and came just as the $18 million ($2.5 million interstate) involved in the first and second installments of the official distribution were also due.

Timberlake does not mention the supplemental transfers; Temin suggests that they were perhaps routine.[20] Nonetheless, both acknowledge that a large proportion of the interstate transfers and nearly all interregional transfers associated with the official distribution would have involved specie. To the extent that this is true, the interstate transfers associated with the supplemental operations, given their interbank nature, were even more likely to have been drawn in specie. With the U.S. specie stock at only about $73 million

causes unite at this moment to bring on a panic. The government adds to it. Specie is bought at 2 percent premium on Wall Street to go west in payment of public lands."

[19] U.S. Congress, *Senate Document* No. 29, 24th Congress, 2d Session, pp. 8–20. All figures in the text concerning the supplemental operations are derived from this source.

[20] Timberlake, "Specie Circular"; and Temin, *Jacksonian Economy*, pp. 134–35.

TABLE 1
TRANSFERS ORDERED BY THE U.S. TREASURY, 1836/37

	Supplemental			Distribution of the Surplus		
	Intrastate ($ 000)	Interstate ($ 000)	Percentage Interstate	Intrastate ($ 000)	Interstate ($ 000)	Percentage Interstate
Jul 1836	1,750	819	31.9	0	0	—
Aug 1836	2,305	2,642	53.4	0	0	—
Sep 1836	2,681.1	3,134.5	53.9	0	0	—
Oct 1836	1,874	3,690	66.3	0	0	—
Nov 1836	1,353.8	2,410	64.0	0	0	—
Dec 1836	1,485	2,300	60.8	0	0	—
Jan 1837	605	3,470	85.2	8,104.4	1,211.8	35.0
Feb 1837	680	1,935	74.0	0	0	—
Mar 1837	565	1,600	74.0	0	0	—
Apr 1837	525	860	62.1	7,924.9	1,348.8	14.5
May 1837	175	460	72.4	0	0	—
Jun 1837	0	600	100.0	0	0	—
Jul 1837	0	20	100.0	6,952.8	2,484.3	26.3
Jul–Dec 1836	11,448.9	14,995.5	56.7	0	0	—
Total	13,998.9	23,940.5	63.1	22,982.1	5,044.9	18.0

Notes: Transfers are recorded in the month during which each became effective. This delays until April the recording of $45,584 in transfers that were for accounting purposes officially associated with the first installment of the distribution, and delays until July $100,000 in transfers that were associated with the first and second installments.
Sources: Supplemental transfers are from *Senate Document* No. 29, 24th Congress, 2d Session (20 December 1836, pp. 8–20); details of Distribution of the Surplus from *House Executive Document* No. 30, 25th Congress, 1st Session (26 September 1837, pp. 10–20, 72–81).

at the end of 1836, as reported by Temin, movements such as those suggested by the interstate transfers in Table 1 would have represented a significant portion of the nation's specie.[21]

Granted that the supplemental transfers were large, it is appropriate to ask next if they diverted specie to the Western states. An analysis of the individual transfer orders, however, shows that they primarily directed funds from North to South and from West to East. Nevertheless, when viewed beside the balance sheet items of the deposit banks at a regional level, the timing and size of both the supplemental and official net transfers shed light on the paths through which specie may have moved about the country and on the strains that these transfers caused, especially in the Spring of 1837.

Table 2, which presents previously unorganized information from various congressional documents (see note to table), divides the deposit banks into five groups covering New York City, the Western states (Ohio, Indiana, Illinois, and Michigan), the Southwestern states (Alabama, Kentucky, Louisiana, Mississippi, and Tennessee), the Southeastern states (Georgia, North Carolina, South Carolina, and Virginia), the mid-Atlantic states (Delaware,

[21] Temin, *Jacksonian Economy*, p. 71.

TABLE 2
SELECTED BALANCE-SHEET ITEMS OF THE DEPOSIT BANKS AND NET INTERREGIONAL TRANSFERS ORDERED BY THE U.S. TREASURY, AUGUST 1836–AUGUST 1837
($ 000)

	No. Banks	Specie	Loans	Government Deposits	Circulation	Supplemental Transfers	Distribution of Surplus
				New York City			
Aug 1836	14	5,877.3	38,150.8	14,457.1	5,138.3	–1,932.0	0
Sep 1836	14	7,191.9	37,089.3	13,756.2	4,849.1	–1,843.5	0
Oct 1836	14	5,142.4	36,633.7	12,549.2	5,825.1	–1,845.0	0
Nov 1836	14	3,804.3	34,563.8	11,279.5	4,590.8	–430.0	0
Dec 1836	14	3,810.5	34,637.0	11,705.0	7,121.5	–1,455.0	–496.9
Mar 1837	14	2,780.5	32,537.3	9,153.7	5,008.7	–770.0	–577.9
May 1837	14	1,473.1	29,659.9	4,909.8	3,745.5	0	0
Jul 1837	14	1,768.4	26,307.1	3,870.1	3,665.1	0	–1,098.2
				Illinois, Indiana, Ohio, Michigan			
Aug 1836	10	2,468.9	12,955.3	10,374.5	5,957.9	–350.0	0
Sep 1836	11	2,394.7	13,689.0	10,079.4	5,805.7	–760.0	0
Oct1836	13	2,078.0	13,864.5	9,460.4	5,635.5	–950.0	0
Nov 1836	15	2,780.6	14,418.7	9,085.9	5,772.9	–930.0	0
Dec 1836	14	2,953.2	14,224.6	9,142.5	5,833.4	–2,910.0	0
Mar 1837	14	3,392.2	15,876.1	7,026.3	7,015.4	–400.0	–37.5
May 1837	14	3,418.4	9,770.4	5,747.1	6,767.6	–100.0	0
Jul 1837	13	2,980.9	9,616.8	4,523.0	5,681.7	0	–150.0
				Alabama, Kentucky, Louisiana, Mississippi, Tennessee			
Aug 1836	9	2,177.4	44,870.9	8,649.5	12,120.8	250.0	0
Sep 1836	13	2,559.2	48,971.8	9,171.1	13,055.2	300.5	0
Oct 1836	14	3,018.3	54,089.1	9,674.7	13,920.1	400.0	0
Nov 1836	14	2,983.0	54,871.8	10,183.7	13,509.1	530.0	0
Dec 1836	14	3,328.2	55,237.4	10,681.0	13,676.6	450.0	–45.6
Mar 1837	14	3,498.2	56,572.0	10,685.8	15,483.5	–950.0	–45.6
May 1837	14	2,934.6	27,419.6	8,613.9	12,957.2	–800.0	0
Jul 1837	14	2,373.4	32,470.7	7,170.9	10,490.4	0	–438.4
				Georgia, North Carolina, South Carolina, Virginia			
Aug 1836	5	1,955.1	17,546.1	2,031.9	8,392.4	800.0	0
Sep 1836	5	2,045.1	17,360.3	2,230.1	8,751.7	1,000.5	0
Oct 1836	7	2,982.1	19,615.6	2,731.2	10,489.4	1,350.0	0
Nov 1836	7	2,957.5	23,068.1	3,882.9	10,636.8	0	0
Dec 1836	8	2,971.5	24,736.2	3,681.4	11,312.6	1,610.0	0
Mar 1837	8	3,006.2	26,089.0	2,910.0	11,645.2	550.0	0
May 1837	9	2,730.0	16,532.6	1,679.6	9,022.4	0	0
Jul 1837	9	2,320.7	16,372.3	1,810.9	7,287.1	0	0
				Delaware, Maryland, New Jersey, Pennsylvania			
Aug 1836	8	1,136.5	16,656.4	4,001.2	2,660.1	352.0	0
Sep 1836	8	1,329.7	17,226.0	4,467.9	2,509.0	246.0	0
Oct 1836	9	1,324.6	17,370.0	4,853.9	2,801.2	55.0	0
Nov 1836	10	1,114.1	18,156.7	5,138.6	2,894.4	–515.0	0
Dec 1836	10	1,264.5	18,146.7	4,760.4	2,761.3	1,860.0	–84.9
Mar 1837	10	1,322.0	18,559.4	4,757.3	2,630.6	1,200.0	–84.9
May 1837	10	776.5	14,454.4	3,241.3	2,272.2	700.0	0
Jul 1837	9	680.6	13,559.4	1,720.9	1,951.7	0	–192.4

TABLE 2 — continued

	No. Banks	Specie	Loans	Government Deposits	Circulation	Supplemental Transfers	Distribution of Surplus
				New England			
Aug 1836	10	716.5	7,168.2	2,741.9	1,150.0	380.0	0
Sep 1836	17	823.1	10,075.5	3,183.6	1,714.4	757.5	0
Oct 1836	24	919.6	12,977.1	4,063.6	2,469.7	515.0	0
Nov 1836	24	953.8	13,419.0	4,671.0	2,462.9	100.0	0
Dec 1836	24	884.6	13,282.0	4,519.8	2,149.7	150.0	0
Mar 1837	25	988.3	13,203.6	3,863.2	2,043.3	150.0	0
May 1837	25	817.5	9,498.2	2,204.8	2,211.4	200.0	0
Jul 1837	24	604.0	8,665.3	783.4	1,754.3	0	0

Notes: Figures are for the first day of each month. "Interregional" transfers are defined as those made from within one of the geographic groupings outlined above to a state outside of the group. These flows are recorded from the date given in the left column to that in the next row. *Sources*: Balance sheet items on or around the 1st of March, May, and July of 1837, and details of the Distribution of the Surplus from *House Executive Document* No. 30, 25th Congress, 1st Session (26 September 1837, pp. 101–45). Items on or around the 1st of August through December of 1836 from *Senate Document* No. 21, 24th Congress, 2d Session (26 December 1836, pp. 2–27). Supplemental transfers from *Senate Document* No. 29, 24th Congress, 2d Session (20 December 1836, pp. 8–20).

Maryland, New Jersey, and Pennsylvania), and the six New England states. The upper panel shows the interregional transfers made by the deposit banks of New York City, which lost 37 percent ($5.3 million) of their government deposits between 1 August 1836 and 1 March 1837 in the course of completing more than $8 million in such Treasury-ordered transfers. A loss of 61 percent ($4.4 million) of their specie coincided with the transfers, yet loans fell by only 14.7 percent ($5.6 million). The New York City banks lost a good deal of specie and did not contract their loans commensurately.

The West was the only other region that was consistently called upon for large interregional transfers. The second panel of Table 2 shows that the deposit banks of Ohio, Indiana, Illinois, and Michigan transferred $5.9 million out of the Western region between 1 August and 1 March, yet their government deposits fell by only $3.3 million. One sensible explanation for the slower decline of reserves would be offsetting deposits by federal receivers in specie for public land purchases.

The Southwestern states were net recipients of the transfers through April, but the regional totals mask the pressure that came to bear upon New Orleans in the Spring. In particular, much of the transfers to the Southwest in the Fall of 1836 were drawn down by later orders, which had been delayed by Woodbury from 1 January 1837 until February, March, and April. For now, I simply observe that loans of Southwestern banks also rose by 15.5 percent ($7.6 million) between 1 September and 1 March, only to fall by 51.5 percent ($29.2 million) over the next two months. Southwestern banks contracted loans sharply as their government deposits dwindled and panic conditions intensified.

The remaining panels of Table 2 indicate that the Southeastern, mid-Atlantic, and New England states were net recipients of the interregional transfers. Only the Southeastern deposit banks, however, saw their specie reserves grow significantly between 1 September 1836 and 1 March 1837, and even then by only $1 million with most of the gain in September. Nevertheless, $1 million represents 23 percent of the total decline of $4.4 million in the specie holdings of the New York City deposit banks over this period. If, as discussed later, specie was being used to start banks in the Southeast, the specie balances of these new banks would not have appeared in the Treasury's reports. Loans by the Southeastern deposit banks rose by 51 percent ($8.7 million) from September to March.

Table 3 presents gross transfers on a monthly basis between July of 1836 and June of 1837 for those states whose government balances were drawn upon most heavily. These states include New York and those where deposits from public land sales were the largest, namely Michigan, Ohio, Mississippi, and Louisiana.[22] The table shows that the majority of New York's transfers in the Fall were directed to the Southeast, and by January more than $4.6 million had been sent there. There is direct evidence that at least some of these transfers were made in specie.[23] The table also provides details of the Treasury's attempts to return funds from the West to points of financial stress, and to Eastern cities in particular. Michigan sent nearly $0.9 million to Pennsylvania between October 1836 and April 1837, and $0.7 million each to New York and the New England states in the Fall of 1836. Ohio was called upon to replenish the Eastern and Southwestern money centers, with transfers of $0.7 million to Philadelphia and $0.8 million each to New Orleans and Louisville. Mississippi banks had transferred $0.75 million to Nashville by February, and $0.4 million to the mid-Atlantic states. Specie continued to accumulate in the Western banks (see Table 2) despite the Treasury's efforts to remove it.

The transfer orders followed a geographic pattern that exploited the existing transportation network to facilitate the movement of specie. The New York banks made transfers to cities along the coastal waterway because this route was convenient for shipping bulkier silver coins. The Cincinnati banks sent silver downstream along the Ohio and Mississippi rivers to states in the

[22] Most of the proceeds from the large public land sales in Missouri and Illinois eventually found their way to deposit banks in Ohio.

[23] For example, The *New York Herald* reported on 14 October 1836 that "in aggravation of this state of things (in the money market) the government is drawing on the banks for specie, in favor of the south and west. The Manhattan Bank was called upon for $150,000 on Tuesday." The bank that made this particular draw is not clear from the transfer records, but over $0.4 million came due from the Manhattan Bank to banks in Georgia, North Carolina, South Carolina and Virginia in this week alone. The *Herald* reported on 29 September that "it is surmised that heavy demands for specie have come upon the city from the west and south. It is also said that some cool feelings, and reciprocal too, exist between the Secretary of the Treasury and certain large deposit banks on Wall Street."

TABLE 3
INTERSTATE TRANSFER ORDERS DRAWN ON DEPOSIT BANKS OF SELECTED STATES, JULY 1836–JULY 1837

	Supplemental Transfers												Official Installments			
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	1st	2nd	3rd	Totals
From New York to																
New England	55	380	453	51			150						173	248		1,510
Delaware	30	140											46	46	37	299
Pennsylvania							100									100
New Jersey	44	222	206	50			50						130	110	90	902
Washington, DC	200	400	150	340	230	100		25	170	50						1,665
Georgia			200	300			350		200						150	1,200
North Carolina		100	400	100			50		200	50			163	163	163	1,389
South Carolina		300	200	100			280								100	980
Virginia		400	100	850			900	100	100					175	200	2,825
Mississippi				200												200
Tennessee														50		50
U.S. Mint		200			200											400
NY Totals	329	2,142	1,709	1,991	430	100	1,880	125	670	100	0	0	512	792	740	11,520
From Michigan to																
New York				400		270										670
New England			460	150	100											710
Pennsylvania				100	200	200	80	80	100	100						860
Washington, DC	20															20
Ohio				100	100	60	70	50								380
MI Totals	20	0	460	750	400	530	150	130	100	100	0	0	0	0	0	2,640
From Ohio to																
Pennsylvania		100				500	100								150	850
Arkansas													17	16		33
Kentucky		100	100				190	390								780
Louisiana				200	400	200										800
Tennessee							300				100			38		438
Illinois													80	80		160
OH Totals	0	200	100	200	400	700	590	390	0	0	100	0	97	134	150	3,061

TABLE 3 — continued

	Supplemental Transfers												Official Installments			
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	1st	2nd	3rd	Totals
From Mississippi to																
New York							100									100
Delaware									100	100						200
New Jersey									100	100						200
Arkansas															187	187
Tennessee					100	100	150	400					125			875
MS Totals	0	0	0	0	100	100	250	400	200	200	0	0	125	0	187	1562
From Louisiana to																
New York				100		100	200									400
Massachusetts									150			200				350
Maryland								300	100	150	150	200				900
Pennsylvania						100	100	300	200	150	150	200				1200
Arkansas															34[a]	34
LA Totals	0	0	0	100	0	200	300	600	450	300	300	600	0	0	34	2884

Notes: Amounts are in thousands of dollars. The table shows the destination of all interstate transfers ordered for banks in New York, Michigan, Ohio, Mississippi, and Louisiana. *a* - this payment was recorded by the Treasury as a blending of the first and second installments for accounting purposes, but was not ordered until 7 June, which would chronologically place it with the third installment. *Sources*: Supplemental transfers from *Senate Document* No. 29, 24th Congress, 2d Session (20 December 1836, pp. 8–20); details on individual installments of the Distribution of the Surplus from *House Executive Document* No. 30, 25th Congress, 1st Session (26 September 1837, pp. 72–81, 101–45).

mid-South and New Orleans, and shipped a more limited amount by river, rail and canal to the nearest tidewater near Philadelphia. Mississippi and Louisiana were called upon for limited and more risky upstream transfers to the neighboring states of Tennessee and Arkansas, but most of their transfers involved the coastal route to points in the Northeast. Michigan presented a unique problem as gold from the Northeast began to accumulate. The Secretary recognized the relative isolation of this state from points South, and thus called upon Michigan to replenish the specie of the Northeastern states via the Erie Canal.

The transfers from New York to the Southern coast and from Ohio to the Southern interior were in preparation for the upcoming distribution, as the Southern states held government deposits that were far smaller than the funds to which they soon would become entitled. Transfers from Michigan and Indiana moved excess revenues to money centers in which they would be required (such as New England) or from which they would be redirected yet again (such as New York and Pennsylvania). If Woodbury had expected these interstate transfers to involve primarily bookkeeping or paper transactions among the deposit banks, adherence to paths of most convenient transport for a heavy and valuable item would have been less critical, and it is less likely that such a clear geographic pattern would have emerged.

Woodbury's report to the Senate on 20 December 1836 included a table that summarized the extent of the supplemental operations.[24] In light of the details from the same report that are organized in Table 2 and Table 3, it can only be described as misleading. In particular, the summary indicates that New York and Michigan were the only states to suffer net losses of government deposits in excess of $250,000 between 20 June and 19 December 1836, and that these losses were only $570,000 and $430,000 respectively. Temin, using these figures, reasons that the hardship must have been small because they represented only 5 percent of New York's government deposits in June.[25] The net changes in government deposits, however, ignore the $22 million in new revenues that accumulated between these dates, mostly in New York and the West. Seen in this light, the failure of government balances to fall more sharply in New York in the second half of 1836 is much less striking. Further, moving the start of the reporting period from 20 June to 1 August, which is closer to the effective date for the first supplemental transfers, shows government deposits in New York falling by $2.75 million, or nearly 19 percent, by 1 December as the pet banks completed more than $6 million in interstate transfers (see Table 3). The supplemental operations alone account for an additional $1.4 million in interstate transfers for New York between 1 December and 1 March as government deposits fell by an

[24] U.S. Congress, *Senate Document* No. 29, 24th Congress, 2d Session, Appendix C.
[25] Temin, *Jacksonian Economy*, pp. 135–36.

additional $2.6 million there. These losses are not reflected in the Treasury's table. The drain of funds from New York was larger and would come to be much larger than indicated by the summary.

Similarly, Michigan suffered a net loss of $1.7 million in government deposits between August and December. This is significant, not because Michigan banks were forced to contract loans, but because their specie reserves continued to rise despite the $1.8 million in funds that were transferred to the East (see Table 3). Rather than illustrate Michigan's insignificant role in the crisis, these figures support the belief that specie accumulated rapidly there as public land sales maintained a brisk pace.

The main difficulty in assigning a key role to the Specie Circular in bringing on the panic has always been a lack of convincing evidence that large amounts of specie left the Eastern money centers to points in the South and West. The previously presented evidence suggests that specie did indeed leave New York, and the transfer orders suggest that at least some of it moved South. The accumulations in Michigan and Indiana and the limitations imposed by the simple transportation network also point to New York as the source of the Western increases.[26] This story of internal specie movement is reinforced by the fact that net specie imports for the United States were small between August 1836 and May 1837.[27] The total specie holdings of the nation's deposit banks were also relatively steady over this period, rising from $14.6 million on 1 August to only $15.3 million on 1 March. Because neither the quantity of specie in the nation nor the amount held in the deposit banks changed dramatically, the clear decline in New York and increases in the West and South suggest that specie did indeed move actively about the country.

MORE EVIDENCE OF A WESTWARD SPECIE DRAIN

This section analyzes the timing, size, composition, and location of individual deposits made in the pet banks by federal receivers who operated in the West and Southwest from the date of the Specie Circular's enactment through September of 1837. Woodbury prepared these records to comply with a 30 September 1837 resolution by the House of Representatives, whose members hoped to analyze the causes of the May panic. The report provides a breakdown of deposits into gold, silver, bank note, and "unspeci-

[26] Scheiber's "Pet Banks" (p. 206), in an examination of some of the surviving correspondence between directors of Western banks and Woodbury, finds that the Bank of Michigan removed $0.5 million in specie from New York in October, 1836 to support land sales. The Commercial Bank at Cincinnati also brought $0.3 million in specie from the coast between June and October.

[27] Rutner (*Money*, p. 168) reports an increase of only $2.2 million in the nation's specie stock over this period.

fied" components.[28] It also includes a summary table with the total amount and composition of receipts by state as compiled by the Commissioner of the General Land Office. The records show that the Specie Circular created a sizeable demand for specie in the West and Southwest almost immediately after its enactment on 15 August 1836 and that demand intensified as exceptions for "actual settlers" expired in December.

Table 4 summarizes the breakdown of deposits, usually on a bimonthly basis. The frequency is necessary because many receivers made deposits in the pet banks only sporadically, with an individual receiver making on average about one deposit every seven weeks between 1 August 1836 and 15 May 1837. These delays produce an excessively lumpy month-to-month view of land office activity.

August 1836 appears separately because public land sales and deposits were large in this month, perhaps in anticipation of the enforcement of the Specie Circular. The data also offer the only available insights about the composition of funds used to purchase public lands prior to the circular's enactment. Among those August deposits for which the composition was specified (nearly 60 percent nationally), only 6 percent were in specie, and gold deposits were a mere 2 percent of the specie total. Since some deposits were made after 15 August and should have involved purchases for which specie was required, it is reasonable to presume that specie was seldom if ever used in public land purchases prior to the circular's enforcement. The rising use of specie that appears in the records for September and October suggests that circumvention of the specie requirement may have been more difficult than earlier accounts have assumed, especially in the Northwest. Because the more sparsely populated Michigan probably had fewer land purchases by "actual settlers" and state residents than the Southern states, its percentage of specified deposits in specie rose most dramatically to more than 55 percent. Silver was the metal of choice for public land purchases in the nation as a whole, but gold was used for a large proportion of purchases in Michigan. This is consistent with a drain of gold from the East, because the canal, lake and overland transport involved in moving specie to Michigan was costly, and gold was a less costly medium to move than was silver. Further, monthly data (not shown) indicate that deposits by Michigan's receivers, who were the most frequent depositors, fell from \$0.75 million in August to \$0.09 million in September and then rose to \$0.29 million in October. This pattern is not apparent in other states, and is consistent with a role for the specie requirement in slowing sales of Michigan lands in September until arrangements could be made to transport specie from the East.

[28] U.S. Congress, *House Executive Document* No. 18, 25th Congress, 2d Session, December 11, 1837, pp. 11–31.

TABLE 4
Deposits by Land Office Receivers, August 1836–May 1837

	Deposits ($)	Specified (%)	Specie (%)	Gold (%)	Deposits ($)	Specified (%)	Specie (%)	Gold (%)	Deposits ($)	Specified (%)	Specie (%)	Gold (%)
	Aug 1836				Sep–Oct 1836				Nov–Dec 1836			
Indiana	712.3	36.0	16.3	2.6	488.8	100.0	39.7	10.5	637.7	41.4	48.3	13.9
Michigan	753.3	73.4	0.5	0	384.8	94.8	56.0	40.7	588.0	100.0	51.0	28.8
Ohio	504.4	75.4	10.3	1.7	1,150.5	72.2	38.3	5.0	849.7	92.1	41.5	12.4
Alabama	51.7	55.1	0	0	455.8	95.5	7.3	0.6	439.0	100.0	8.6	2.3
Louisiana	184.0	78.4	0	0	94.9	71.0	42.3	25.6	112.5	68.0	69.9	31.5
Mississippi	142.3	30.8	2.5	0	183.9	72.0	23.0	3.0	146.5	100.0	32.7	2.7
Kentucky	0	—	—	—	35.3	56.3	76.3	0	140.1	84.4	51.6	1.3
Tennessee	36.4	0	—	—	47.9	100.0	2.7	0	0	—	—	—
Total United States	2,384.4	59.1	6.0	2.0	2,841.9	84.0	34.5	15.5	2,913.5	82.9	39.4	17.3
	Jan–Feb 1837				Mar–Apr 1837				May 1837			
Indiana	309.0	73.8	92.3	9.5	343.6	80.8	100.0	19.4	166.0	100.0	100.0	23.0
Michigan	658.7	100.0	84.8	31.3	293.5	100.0	100.0	27.7	271.3	85.3	100.0	37.4
Ohio	413.7	80.6	53.6	17.6	741.2	97.4	95.6	7.1	186.3	99.3	100.0	5.2
Alabama	282.1	73.3	71.2	1.5	129.9	88.3	65.1	2.1	68.6	100.0	100.0	2.3
Louisiana	83.7	34.8	63.7	8.0	271.5	91.4	94.7	40.5	11.9	0	—	—
Mississippi	257.5	77.5	68.1	1.0	121.4	55.0	100.0	2.3	8.1	100.0	100.0	0
Kentucky	0	—	—	—	146.2	53.4	100.0	2.8	21.6	100.0	92.0	4.1
Tennessee	0	—	—	—	24.7	100.0	100.0	5.0	0	—	—	—
Total United States	2,004.7	82.6	75.5	18.5	2,072.0	88.1	95.3	16.4	733.8	92.8	99.7	20.2

Notes: The column labeled "Deposits" contains the dollar amount (in thousands) that was placed for the U.S. Treasury in the deposit banks of the state listed in the left column. The column labeled "Specified" includes the percentage of the deposited amount for which the type of money (gold, silver, or bank paper) was recorded. Among the specified deposits, the percentage made in specie is given in the third column, and among the specie deposits, the percentage made in gold is presented in the fourth column. Deposits fell sharply after May of 1837, with only $47,851 for the entire nation in June, $106,866 in July, $18,418 in August.
Source: Monthly returns from *House Executive Document* No. 18, 25th Congress, 2d Session (11 December 1837, pp. 11–31).

There are three alternatives to this interpretation. The first would require Michigan residents to have hoarded the gold used for land purchases in the Fall, the second would require the Michigan banks to have held large sums of gold in their vaults prior to the Circular's enactment, and the third would have required gold to reach Michigan from sources other than the Eastern cities. Because state residents could continue to use bank paper to purchase land until 15 December, it is unlikely that the gold used in October had been hoarded by them. As the specie reserves of all Michigan state banks rose from a mere \$137,510 in 1835 to \$554,292 in 1836, the gold also did not come from pent-up reserves.[29] Because the transport of silver, some of Mexican origin, upstream from Louisiana along the Mississippi and Ohio Rivers and then overland to points in Michigan was much more costly than its movement by the lake route, it would not have been attempted with any frequency. Given the alternatives, it is thus likely that the gold (and silver) used for land purchases in Michigan came from New York, the center of the international trade for which gold was the standard medium for settlements.

By March of 1837 nearly all specified deposits by public receivers were reportedly made in specie. Perhaps surprisingly, land sales, though never again reaching the levels of August 1836, also remained very strong. The Specie Circular reduced but could not eliminate the demand for public lands. Rather, speculation was so intense that it created an extraordinary and somewhat unexpected demand for specie in the West and Southwest. In fact, at least \$7.3 million in specie was used in U.S. land purchases between July of 1836 and September of 1837, with \$1.8 million used in Indiana, \$1.4 million in Michigan, and \$1.1 million in Illinois.[30] These figures do not even consider deposits of "unspecified" composition, which totaled \$1.9 million in Mississippi and smaller but considerable levels elsewhere. Using the data in Table 4 and the assumption that unspecified deposits had the same composition for each state as the specified ones, I estimate the amount of public land purchases in specie to be closer to \$8.4 million between July of 1836 and May of 1837.

Any turnover of specie in land purchases would have reduced the need for infusions from the East. Given the frequency of deposits by receivers, if specie turned over four times between 1 August 1836 and 15 May 1837, about \$2.1 million would still have been needed. There are several factors, however, which suggest that the velocity of specie for land purchases was lower. First, the demand for specie rose through time, with about \$1 million needed for September and October but \$2 million needed for March and April. This rising demand should have generated calls on Eastern banks. In addition, the \$2.6 million that Michigan alone returned to the East could

[29] Fenstermaker, *Development*, table B-15, p. 209.
[30] U.S. Congress, *House Executive Document* No. 18, 25th Congress, 2d Session, p. 8.

have been drawn in specie. Since Michigan transferred these funds mainly to Pennsylvania and New England, especially after October (see Table 3), the accelerating land purchases would have required even larger calls on New York in the Winter and early Spring, contributing further to the monetary strain in that city.

Viewed from this perspective, the Specie Circular was hardly an innocuous measure.

DOMESTIC TRIGGERS OF THE PANIC

Barely evading financial collapse in November of 1836, the U.S. economy entered 1837 with optimism that the marketing of the 1836 /37 cotton crop, which had proceeded as expected for the first half of the selling season, would provide the foreign credits needed to ease the monetary pressure. Nevertheless, when the next set of supplemental interstate transfers, many of which had been delayed from November and December, came due in January along with the first installment of the official distribution, the pressure immediately resumed. New York met its largest interstate orders in January—$2.3 million in total (see Table 3)—most of which were directed to the Southeast, and then braced to make the additional $1.7 million in interstate transfers ordered for February, March, and April.

The Treasury also abandoned its interest in retrieving specie from the West in early 1837. It instead called upon banks in Louisiana and Mississippi to restore primarily mid-Atlantic balances. For example, the New Orleans banks sent $1.65 million to the Northeast between January and April, whereas the Natchez banks sent $0.5 million to the Northeast and an additional $0.55 million to Nashville. Both Louisiana and Mississippi were states in which a high level of activity in land purchases continued through early 1837. Newspaper accounts suggest that the profitability of the cotton trade had driven sales of both public and private lands to unprecedented levels, which continued to divert specie from commercial channels.[31] It also appears that specie was accumulating in the land offices of Arkansas, where receivers delayed deposits in the Southwestern pet banks for an average of three months between October 1836 and May 1837. On 1 April, for example, about $130,000 was "locked up" there.[32]

[31] The cashier of the Agricultural Bank describes conditions in Natchez in a 5April letter to Woodbury, stating that "the demand (for specie) during the last two or three months so far exceeds all experience as to induce the banks to part with it very reluctantly upon any terms. Nearly every dollar received for produce is immediately demanded in coin; bank balances for collections made of our merchants have to be paid in specie, and the demand for it, for purchase of lands, still continues to a burdensome extent (*House Executive Document* No. 30, p. 58)." It is interesting that the letter, written only a month before the suspensions, makes no mention of cotton prices.

[32] I compiled this figure from deposit records in *House Executive Document* No. 18, 25th Congress, 2d Session (11 December 1837, pp. 30–31). The cashier of the Agricultural Bank of Natchez wrote to

As pressure mounted in the South, the New York newspapers offered increasing attention in February and March to the city's loss of specie. On 6 February Philadelphia called upon New York for $500,000 in specie to meet Southern calls associated with the supplemental operations.[33] The expansion of bank capital in the Southeast over the Winter also suggests that many of the January calls on New York from this region (see Table 3) were for specie.[34] Both the data and contemporary accounts agree that the specie reserves of the New York City banks had fallen to crisis levels.[35]

It was widely believed that repeal of the Specie Circular would return much of the diverted coin to the East, and by the end of February both Houses of Congress had passed a measure that would make the notes of specie-paying banks again acceptable for public land purchases.[36] President Jackson refused to act on the legislation during his final days in office, however, finally writing on 3 March that the Attorney General had found the language with respect to the use of bank notes so diffuse as to become "a subject of much perplexity and doubt."[37]

The next day, attention turned to the new President, whose earlier positions offered hope that he might reverse some of the more controversial monetary policies of his predecessor.[38] Van Buren's expected signing of the repeal may have even delayed the panic despite reports that Western land sales were slowing. To many observers, a repeal meant yet another expansion of circulation among interior banks, a resumption of active speculation

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Woodbury on 26 April that "the Treasurer of Arkansas informs me that large amounts of specie are now at the several land offices of that state, and if the receivers were directed to deposit the above amount, $100,000, with him, it would be a convenience to all parties. This bank would be greatly accommodated by such an arrangement" (*House Executive Document* No. 30, p. 60).

[33] *New York Herald*, 20 February 1837.

[34] The 3 March edition of the *Herald* reports that "During the expiring winter the southern and southwestern states have added to their bank capital probably *forty* millions of dollars: South Carolina 12 millions; Mississippi 15 millions; Missouri 5 millions; Georgia and the others the balance of 8 millions. To put this bank capital into action, specie is required. Accordingly, to set these banks in operation, drafts for specie are made on New York. Since the 1st of January, it is supposed that $500,000 in specie has gone south from this city, and probably as much from Philadelphia. A general and combined movement has been made in the south to carry the specie there."

[35] On 4 March the *New York Herald* reported that "our stock of specie now on hand is extremely low—probably not over $2,500,000 for the whole city. We anticipate much agitation in exchange and specie operations in a few weeks."

[36] The *Herald* reported on 2 February that "as soon as the Circular is withdrawn, and the public land system settled in some way, immense quantities of money will come along the lakes and down the canals to New York. Specie is not wanted there (i.e., in the Western states). This emporium is the great point for specie to circulate around." Even William M. Gouge, who was Jackson's most eloquent advocate of hard money, wrote to Van Buren on 18 March 1837 that "a repeal of the circular would relieve the pressure at particular points, particularly at New York and New Orleans, but this relief would be effected by drawing specie from the Western states" (*Martin Van Buren Papers*, Series I: January–March 1837).

[37] *Niles' Weekly Register*, 11 March 1837, p. 26.

[38] For example, it was believed that Van Buren had been originally opposed to the removal of the government deposits from the Second Bank of the United States in 1833.

in public lands, and the maintenance of high land values. By mid-March, however, it became clear that Van Buren was hesitant to sign. There are reports that land values fell.[39] No repeal of the Specie Circular meant that the monetary pressure in New York City would not soon be relieved by a flow of specie to the East.[40]

Van Buren's much-publicized inaction certainly had an impact on expectations at a critical stage of the heightening drama. The banking and merchant communities continued to call for repeal, and a group of New York merchants even traveled to Washington in late April in an ineffective attempt to "ruminate" with the President. Of course, it was already too late. The "shaving" of country bank notes by speculators in New York reduced the public's confidence in paper currency. The city's merchants would not accept bills issued by Southern and Western banks as the demand generated by land purchases limited the specie on hand to send as remittances. Internal balances were not paid, and merchants, farmers, and bankers alike all called upon each other for specie in settling debts.

In the midst of a shortage of specie in the money centers, news of a fall in the British price for U.S. cotton appeared in the New Orleans newspapers on 22 March. This confirmed earlier reports of reductions in foreign demand.[41] The 17 percent drop in price that ensued between then and the end of April, or from 13.8 cents to 11.5 cents per pound,[42] appears to have been a result of overproduction in the United States and heightened competition in the British market from India, whose cotton exports underwent a rapid expansion at precisely this time.[43] Southern merchants and bankers (as well

[39] For example, the *New York Herald* reported on 14 March that "the continued delay of the action of the government in relation to the Treasury Circular is another cause of the heaviness of the markets. The speculations in public lands, which that order was calculated to cut up, have been entirely suspended. Even the holders of these lands begin to find that they have more on hand than they know what to do with. Government lands in speculator's hands are now selling at nearly the original price, $1.50 to $2.00. Lands in Illinois and Indiana that were cracked up to $10 an acre last year, are now to be got at $3, and even less. The reaction has begun, and nothing can stop it."

[40] Van Buren appears to have decided against a repeal after formally asking his cabinet for advice on 24 March (*Martin Van Buren Papers* Series I, January–March 1837).

[41] *Chapman's Commercial Price Current* of 25 February reports cotton prices as "tending upward" at 11 3/4 to 13 1/4 cents per pound for middling Liverpool grade. It also reports that "business, especially for the last two or three days, has been animated, and transactions extensive, and sales have transpired to the amount of about 20,000 bales in the past week." By 4 March the price had advanced to 13 ½ –14 per pound. On March 8, *Chapman's* reports that "transactions have been rather limited in consequence of a slight decline in demand for foreign markets and the current unfavorable weather." It is not until 22 March that *Chapman's* first reports a fall of ½ to 1 ½ cents per pound.

[42] Lewis C. Gray, *History of Agriculture*, p. 1027.

[43] The 1836/37 U.S. cotton crop of 1.128 million bales (Gray, *History of Agriculture*, p. 1026) had been the largest to date. *Niles' Weekly Register*, however, reported on 1 April 1837 that "the same inducement which has operated in stimulating the production of cotton in America has been actively at work in other countries. In the East Indies especially, we know that the increase has been great. This must have a very marked effect on the demand for American cotton, and will add greatly to the excess of supply over demand." A report on the British cotton trade for 1834–1836 which appears in the 3 January 1837 edition of *The London Times* indicates that imports of East Indian cotton had risen from

as their Northeastern correspondents) had grown accustomed to making time bargains on cotton crops, and the fall in price raised doubts about the ability of cotton factors to meet their current obligations.

The stoppage of payments by one New Orleans cotton factor in particular, Herman, Briggs, and Co., generated considerable excitement in early March. Because the house of J. L. & S. Joseph of New York was under acceptances from Herman-Briggs for several million, the pressure reached that city as well. It appears, however, that the suspension of the Josephs on 21 March, more than six weeks before the bank runs, may have been due as much to the declining value of their other assets, which included Eastern real estate and large share holdings in the Lafayette Bank, as to cotton prices.[44]

Though the fall in the price of cotton contributed to the existing financial strain in the Spring of 1837, it was not the fundamental cause of the May panic. Most telling is that the decline came at the end of the annual selling cycle, lowering the total value of real cotton exports in 1836/37 by only $8 million from the $71 million that had been received from a 1835/36 crop of roughly the same size.[45] It is possible that the fall in price changed expectations of the future profitability of the cotton trade, but the historical course of cotton prices in the antebellum United States (Figure 3) indicates that declines of this magnitude were hardly uncommon. Although it is not possible to determine the extent to which cotton prices affected the value of Southern lands, speculators in the public lands usually did not intend to cultivate in the near future and contemporary observers had little reason to believe that the decline in cotton was anything other than temporary. Unless Southwestern farmers and speculators maintained implausibly deep time discounts, the fall in cotton prices could not have caused the suspensions.

The domestic tensions in the U.S. economy did raise concern in England, however, that the American propensity to import would combine with the decline in cotton prices to leave the value of U.S. exports insufficient for settling foreign balances. News of the drain of specie to the West also led to suspicions in England that U.S. merchants might be hard-pressed to settle their accounts in specie and lowered confidence in the quality of American bills of exchange. When the prospect of a specie call became clear in early April, several New York City bankers, with specie reserves in the deposit banks of that city already less than $2 million, traveled to Philadelphia to

88,000 bales in 1834 to 118,000 bales in 1835, and 219,000 bales in 1836. These figures respectively represent 9.6 percent, 10.8 percent, and 18.3 percent of British cotton imports in these years. Imports of U.S. cotton remained steady at about 750,000 bales in all three calendar years.

[44] *Niles' Weekly Register*, 25 March 1837, and *New York Herald*, 22–23 March 1837.

[45] The nominal comparison is reasonable since consumer prices rose by only 2.7 percent (David and Solar, "Cost of Living," p. 16) between 1836 and 1837, whereas wholesale prices rose by only 0.8 percent (Warren and Pearson, *Wholesale Prices*, pp. 8–9).

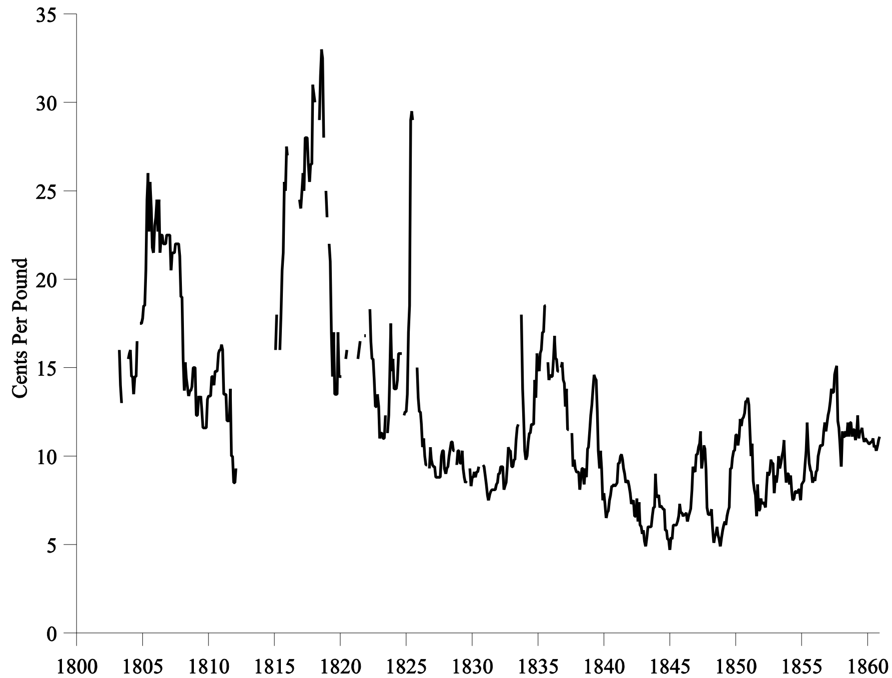

FIGURE 3
MONTHLY PRICES OF SHORT STAPLE COTTON AT NEW ORLEANS, 1803–1860

Source: Gray, *History of Agriculture*, p. 1027.

confer with Nicholas Biddle, President of the by then state-chartered Pennsylvania Second Bank of the United States. Biddle's bank had removed more than $1 million in specie from the New York banks in March,[46] yet the delegation knew that Biddle was one of few U.S. bankers in whom the British had confidence.

Niles' Weekly Register, in a preliminary report of the meeting, which appeared in the 1 April edition, indicated that Biddle's solution would involve the export of $2 million in specie—$1 million each from the Second Bank and the New York City banks. Temin interprets the ability of New York banks to contemplate this shipment as key evidence that they were not short of specie.[47] The next issue of *Niles' Weekly Register* (8 April), however, which details the plan more precisely, does not even mention a specie export from New York. In fact, even the specie export from Biddle's bank was in the end abandoned in favor of issuing paper payable in London with a face value of $5 million. The *New York Herald*, in documenting these events on a daily basis, also never mentions a specie shipment from New York. The reason is clear. With their reserves in free-fall, the New York

[46] *New York Herald*, 1 April 1837.
[47] Temin, *Jacksonian Economy*, p. 133.

banks *could not* seriously plan a $1 million dollar shipment of specie to England in April. Rather, the banks were in a position to accept Biddle's bond proposal readily.

The turning point in the crisis occurred in New York on 4 May 1837. That morning, and amidst suspicions of mismanagement at the Mechanics' Bank, the death of the bank's president by cardiac arrest triggered a well-publicized run by note holders and smaller depositors. Though the Mechanics' Bank was able to meet all requests in specie, the run represented an ominous loss of public confidence in banks. Runs on the Dry Dock Bank on 8 and 9 May reduced its specie reserves to a mere $15,000. In total, more than $600,000 in specie was removed from the city's banks on 8 May, and an additional $700,000 on 9 May.[48] Because the city's pet banks held only $1.5 million in specie on 1 May (as is shown in Table 2), the system could not withstand another day of runs. Most of the city's banks suspended on the evening of 9 May, and the remainder on the morning of 10 May.

The New Orleans banks suspended specie payments on the morning of 13 May after a Friday night meeting of the city's bank directors. News of the New York suspensions had not yet arrived, but news of the 4 May run on the Mechanics' bank had arrived on 12 May and probably prompted the evening meeting.[49] The nature of the Mechanics' run, which symbolized the transmission of the panic to the working classes, when combined with the large transfers made by the city's banks in the Spring, motivated the wavering New Orleans bankers to act. Thus, the suspensions in New York and New Orleans were *not* the independent events that earlier accounts suggest. Like other major money centers, the banks of New Orleans suspended payments with knowledge of the growing panic in New York.[50]

[48] Martin, *Seventy-Three Years*, p. 30.

[49] It generally took seven days for the express mail from New York to reach New Orleans by steamship, arriving daily around noon (the 10 May 1837 edition of the *New Orleans Daily Picayune*, among others, contains the mail arrangement). The 13 May edition of the *Picayune*, a morning paper, discussed the Mechanics' run based upon an article in the 5 May edition of the *New York Herald*. This means that news of the run reached New Orleans around noon on 12 May. The *Picayune* had already reported the death of the Mechanics' president, which occurred early on the morning of the 4th, in its 12 May issue, so the earliest news of the May 4 run may have even reached New Orleans on 11 May.

[50] The chronology of the first bank suspensions by city as reported in regional newspapers is as follows: Natchez, 4 May; New York City, 10 May; Philadelphia, Baltimore, and the principal cities of Connecticut, New Jersey and Rhode Island, 11 May; Boston and Washington, 12 May; New Orleans and Norfolk, 13 May; Cincinnati, 17 May; Charleston, 18 May. All but New Orleans and Natchez explicitly cite arrival of news from New York as the reason for suspension.

In reference to suspension by the Agricultural Bank of Natchez, the *New Orleans Picayune* reports on 13 May that "the bankers say that the best interests not only of themselves, but the community, absolutely require suspension, notwithstanding that they have perhaps half of their circulation in their vaults. Surmises are afloat that they have resorted to this measure in anticipation of heavy drafts shortly expected from the land offices in the pine woods in the back part of the state. Some say that many of the securities of this bank consist in lands in the vicinity which have risen within the last few years to an unreal value. This land has now fallen by 50 percent and the bank, by the failure of many of its debtors, who have mortgaged this property to the institution, is a principal sufferer."

Once individuals withdrew specie from the banks, they held it for several months. As noted previously, the public already held more than 40 percent of the nation's specie stock in August of 1836, and Table 2 shows the deposit banks sustaining a net loss of $2.5 million in specie between 1 August 1836 and 1 July 1837. Thus, if every person living in the United States at the time added 16 cents to their specie holdings in anticipation of the crisis, this could account completely for the decline in reserves. Rutner's estimates of specie in the hands of individuals are consistent with this, showing an increase of $5.9 million between January and June of 1837. Because the nation had net specie imports of only $1.2 million between December of 1836 and September of 1837,[51] it is unlikely that a significant amount of the missing specie made a brief round-trip journey to England.

INTERNATIONAL ASPECTS OF THE PANIC

Disturbances from across the Atlantic in April of 1837 aggravated the monetary pressure in the Eastern cities and hastened the coming of the panic. Most serious was a renewed series of commercial bill rejections in England, though on this occasion the Bank of England took action to support many houses involved in the American trade. News of the intervention reached New York in the first days of May and eased some of the tension in that city by making merchants and bankers more confident that specie exports would not become immediately necessary.[52] By this time, however, the increasingly apparent effects of domestic monetary policies had already sown the seeds of panic, and a crisis could no longer be averted. International events played a contributing but secondary role in the panic.

In contrast to my emphasis on domestic factors, Temin emphasizes two increases in the Bank of England's discount rate in the Summer of 1836 and the accompanying restrictions imposed upon merchant houses involved in the Anglo-American trade in late August as responsible for the rising monetary pressure in the United States. The evidence, however, summarized by the timeline in Figure 4, suggests that the strength of such a channel is overstated.

Contemporary accounts indicate that the Bank's first increase in its rate of commercial discount in fifteen years from 4 to 4.5 percent on 21 July 1836 was expected (the Bank had raised the rate on temporary loans from

[51] Rutner, *Money*, pp. 151, 207.

[52] For example, the 6 May 1837 edition of *Niles' Weekly Register*, in recounting the events of the previous week, reports that "on the all absorbing question of the money market and the great houses connected with the American trade, the news is favorable and decisive.—There is no longer any doubt we think that those houses will be sustained at all events. It also appears that the credit opened by the Bank of England to the United States Bank would not require, as has been said and repeated here, any present or immediate export of specie from this side."

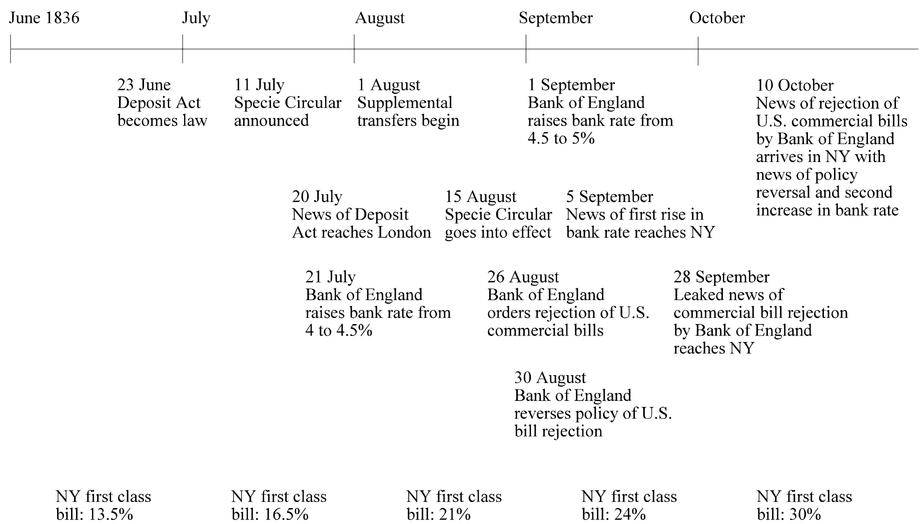

FIGURE 4
EVENTS SURROUNDING THE MONETARY PRESSURE IN 1836

Note: See the text.

3 ½ to 4 percent only a few months earlier) and raised little concern in the British money market.[53] Merchant bankers even came to accept the higher rate, often exceeding their credit limits with the Bank in mid- to late August in anticipation of yet another increase.[54] Reactions in the U.S. press to this increase in the Bank rate or to a second advance to 5 percent for all accommodations on 1 September are scarce. *Niles' Weekly Register* does not mention either increase. The *New York Herald* reports on 6 September—one day after the packet ship with information of the first increase entered port—that "the advance created some pressure across the water that may reach this country through the exchanges."[55] It does not mention this change again. More important, the timing (see Figure 4) suggests that actions by the Bank of England could not have caused the monetary pressure that had existed in New York for months.

On 26 August 1836 the Bank of England (BOE) ordered a rejection of bills submitted for discounts by several first-rate Anglo-American mercantile houses at both its London office and Liverpool branches. Ralph W. Hidy views these rejections as part of a heightened offensive against the U.S.

[53] *London Times*, 25 July 1836.
[54] *London Times*, 26 August 1836.
[55] A list of departure and arrival dates for all packet ships on the London line between Portsmouth and New York for the year ending in October 1836 appears in the 7 January 1837 edition of the *London Times*.

trade.[56] The historical record, however, describes a brief incident with limited long-term impact. In fact, the BOE had imposed such restrictions once before in late 1834 with no effect on the course of trade or the condition of the U.S. money market. Further, criticism of the policy in the *London Times* by merchant bankers and the financial community was universal and intense.[57] When it became known to directors of the Bank of Liverpool that a campaign had been launched by the BOE, they sent a deputation to meet with the BOE's directors in London on 30 August and question their motives.[58] Recognizing their blunder, and under increasing pressure in the press, the BOE directors agreed to reverse their policy.[59]

The rejections of commercial bills of the American houses in August of 1836 may have generated brief uncertainty in the U.S. money market in early October, but only because a director of the BOE secretly warned one of the affected houses (Wiggins & Co.) of the intended policy in early August—three weeks in advance of the rejections. The leak finally reached the United States and appeared in the *New York Herald* on 28 September. It took until 10 October for a packet ship with news of the actual rejections and the subsequent policy reversal to arrive. News of the second increase in the BOE rate arrived at the same time. Surprisingly little concern was raised in New York by the events. Indeed, the rise in the BOE rate was dismissed as a signal of England's own excesses in stock and land speculations. The lack of concern is understandable. The troubles of the U.S. money market in late 1836 were due primarily to distortions of *domestic* origin, and *not* actions by the directors of the Bank of England that had commenced in the Summer.

[56] Hidy, *House of Baring*.

[57] See, for example, *London Times*, 10 September 1836.

[58] "The fact is, that they (the deputation) had received an impression that the Bank Directors intended to place under an absolute stigma, as to credit, seven of the most eminent houses in London, no possible motive for which could at the same time present itself to their minds. It arose in this way:—The Bank Directors, on the day when they created such general consternation in the commercial world by throwing out the bills of the houses in question, naturally reflected that they had branches in Liverpool and in Manchester, where the same bills might be presented, and if they were, that they would certainly be discounted. Letters were, therefore, dispatched to the managers of those branches, with instructions not to discount any bills on which the names of any of those firms appeared which they had already placed under an interdict in London. How the secret oozed out it is difficult to say." (*London Times*, 5 September 1836).

[59] "With regard to the Liverpool and Manchester bills, founded on the export trade to the United States, which were so recklessly thrown out last week, to the astonishment of the whole trading interest, who knew the perfect solidity of them, a sort of compromise appears to have been come to. After a full discussion (with the Bank Directors) of all the points at issue, they (the members of the deputation) were given to understand that no obstacle would be thrown in the way of discounting American bills arising out of fair business transactions, though a wish was expressed on the part of the Bank to check such foreign stock transactions as would have a tendency to drain the country of specie. Between these and the legitimate transactions of commerce the Bank Directors, if they understood their business, should always be able to distinguish; and such a declaration was therefore quite superfluous" (*London Times*, 2 September 1836).

CONCLUSION

The Panic of 1837 was the culmination of a series of policy shifts and unanticipated disturbances that shook the young U.S. economy at the core of its financial structure—the banks of New York City. Over the nine months leading up to the crisis, the specie reserves of these banks came under increasing strain as they reacted to legislation designed to achieve a "political" distribution of the surplus balances among the states and an executive order allegedly aimed at ending speculation in the public lands. With much of the nation's specie diverted from its commercial center, the prospects of shifts in specie demand both domestically and from abroad combined to render the panic inevitable.

This description reaffirms one important aspect of the traditional view, namely that the Specie Circular was pivotal. Had the circular not been enacted, the original set of transfers ordered by the Treasury, both official and supplemental, could have been executed as planned. And though this account argues that the orders were far more disruptive than earlier explanations of the panic have presumed, the New York banks had time to prepare for them. It was the Specie Circular that exacerbated the drain of specie from New York to fuel the continued sales of public lands, and even forced a frantic attempt by the Treasury to alter the orders to redirect specie from West to East late in the Fall of 1836. When the noose tightened around the New York money market just as the huge transfers scheduled for early 1837 came due, the only remedy that remained in the eyes of the public was a repeal of the Specie Circular. President Van Buren's refusal to reverse his predecessor's policy upon inauguration in March of 1837, despite the passage of legislation by both Houses of Congress, hastened the shift in expectations. International factors added pressure to an already volatile situation by late April and early May, but any demands for specie from abroad would have been absorbed by a New York money market that had not been subjected to such a severe internal drain.

The panic differs from several later U.S. financial crises in that a drain of reserves from New York was central as opposed to a drain from the interior to the commercial centers. In particular, the event illustrates that the nation has always been vulnerable to shifts in the geographical distribution of the reserve base, regardless of their source. In 1836/37, a monetary policy reinforced the permanence of such unfavorable and unexpected shifts from New York and heightened the public's liquidity preference. Suspensions in the interior were largely precautionary.

The crisis highlights several key weaknesses of the antebellum banking system. First, if a branch banking system had been in place, much of the movement of balances associated with the distribution would not have required specie. Second, even if specie had moved South and West, a mechanism for bringing it back to New York would have been in place for use during times of financial stress. Finally, the demise of the Second Bank of the United States at the hands of the Jackson administration left the nation without a lender of last resort to sustain New York's reserves as the public began to lose confidence.

The most interesting lessons, however, concern the conduct of monetary policy. In particular, today's decision makers are faced with a limited menu of tools for achieving monetary objectives, just as were President Jackson and Secretary Woodbury. These men used the tools at their disposal to end a speculative boom in public lands, yet the Specie Circular had the unanticipated effect of drawing the nation's specie away from its commercial center. It is the possibility of such unexpected general equilibrium effects in today's complex policy environment that make a flexible approach to monetary fine-tuning critical for averting the types of crises that can arrest economic growth.

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