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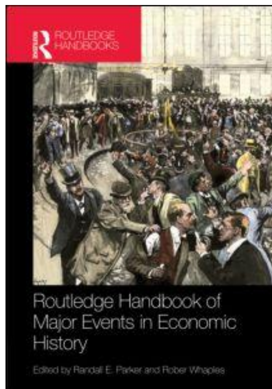

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The 1920S

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PART II

The interwar era and World War II

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10
THE 1920S

Martha L. Olney

The Roaring Twenties: for many, the visual images come from *The Great Gatsby* – a time of economic prosperity, extravagance, faster cars, shorter skirts, and jazz. Women could vote. Teenagers stayed in school. African-Americans migrated north. Electricity changed everything.

But against this apparent backdrop of economic prosperity and welcome social change were more ominous changes. The distributions of income and wealth became less equal. Farmers burdened by excessive debt lost their farms. Banks failed. Consumers financed their new cars and electrical appliances by taking on unprecedented levels of debt. Racial strife increased. Anti-immigrant fervor swept the nation. And of course, the 1920s served as prelude to the Great Depression which began as the decade concluded. It was, in short, a contradictory time.

A statistical look at the 1920s

The 1920s began with a sharp but short recession attributable to inventory adjustments in reaction to anticipated price swings (Romer 1993: Table 2). Two very mild contractions occurred in the middle of the decade: May 1923 to July 1924, and October 1926 to November 1927.[1] Neither was large enough to bring the annual real GDP growth rate (column (1) of Table 10.1) below zero. Generally, therefore, we think of the 1920s as a period of economic growth.

Unemployment in the 1920s (column (2) of Table 10.1) was quite low, rarely more than five percent after the economy recovered from the 1920–21 recession. The inflation rate (column (3) of Table 10.1), measured here as the annual rate of change of consumer prices, was also very moderate after 1922, never more than 3 percent and sometimes negative.

Figure 10.1 places the economic growth of the 1920s in a bit of historical context. The shaded section of Figure 10.1 is the 1920s. The economy grew more rapidly from 1923 to 1929 than it had in the years preceding World War I.

The unemployment rate in the 1920s, shown in Figure 10.2, is generally below the average rate for the decade preceding the United States' entry into World War I. Inflation for the same period is shown in Figure 10.3. The disruptions associated with World War I were followed by moderate inflation rates in the 1920s.

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Table 10.1 Macroeconomic indicators, 1920–1929 (in percent)

Year	*Real GDP Growth Rate (1)*	*Unemployment Rate (2)*	*Inflation Rate (3)*
1920	–0.9	5.2	15.9
1921	–2.3	11.3	–10.8
1922	5.6	8.6	–6.5
1923	13.2	4.3	2.0
1924	3.1	5.3	0.0
1925	2.3	4.7	2.9
1926	6.5	2.9	0.5
1927	1.0	3.9	–1.4
1928	1.1	4.7	–1.4
1929	6.1	2.9	0.0

Sources: Column (1): Carter et al. 2006: Series Ca191. Percent change computed by author. Column (2): Carter et al. 2006: Series Ba 475. Column (3): Carter et al. 2006: Series Cc2. Percent change computed by author

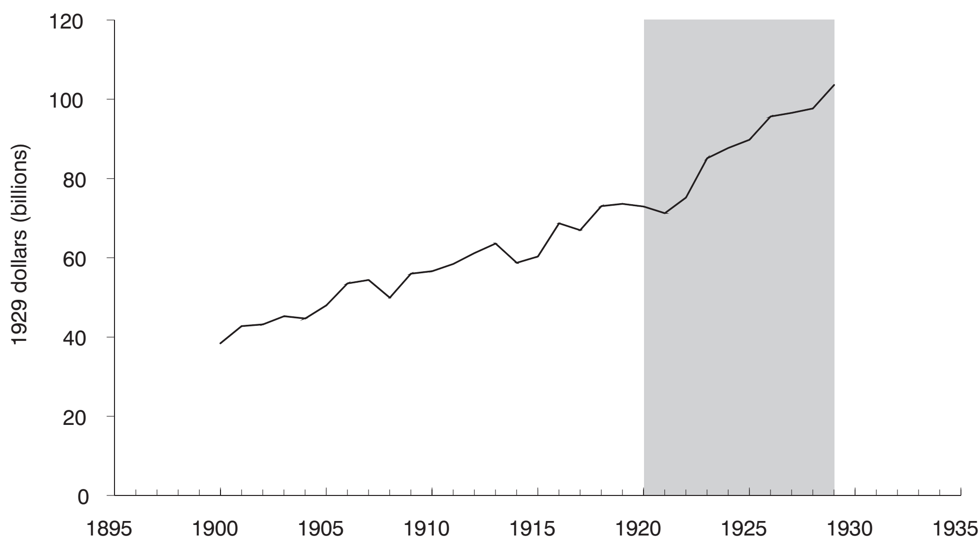

Figure 10.1 Real gross domestic product, 1900–1929

Source: Carter et al. 2006: Series Ca191

The population of the United States – 106 million in 1920 and 123 million in 1930 – grew about 1.5 percent annually during the 1920s. Ninety percent of the population was white. Immigration flows into the United States had been strong since the 1880s. In 1920 just over 13 percent of the U.S. population had been born abroad. The 1920 census marked the first time that more than half the U.S. population lived in urban areas (incorporated areas having 2,500 or more inhabitants): 51.3 percent of the population lived in urban areas in 1920 and 56.3 percent did so in 1930 (Carter et al. 2006: Series Aa23–Aa33). The farm

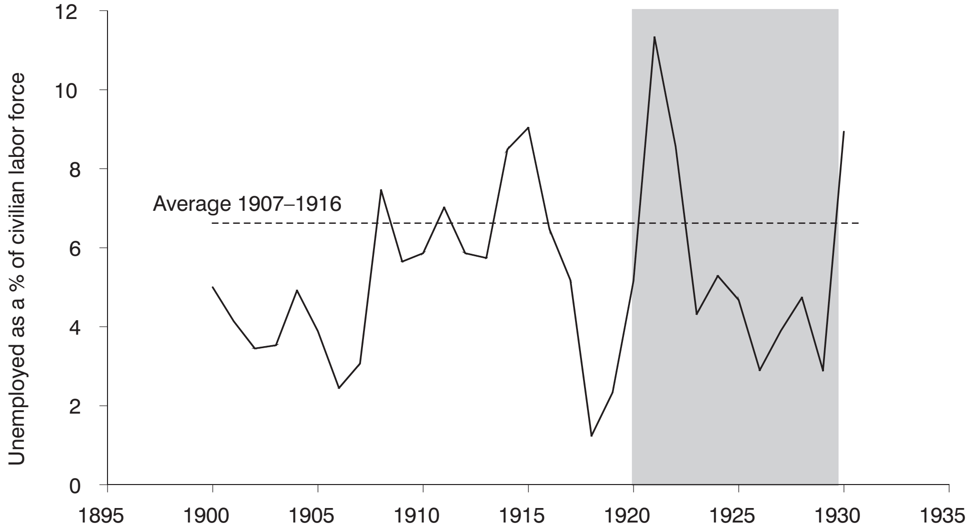

Figure 10.2 Unemployment rate, 1900–1930

Source: Carter et al. 2006: Series Ba475

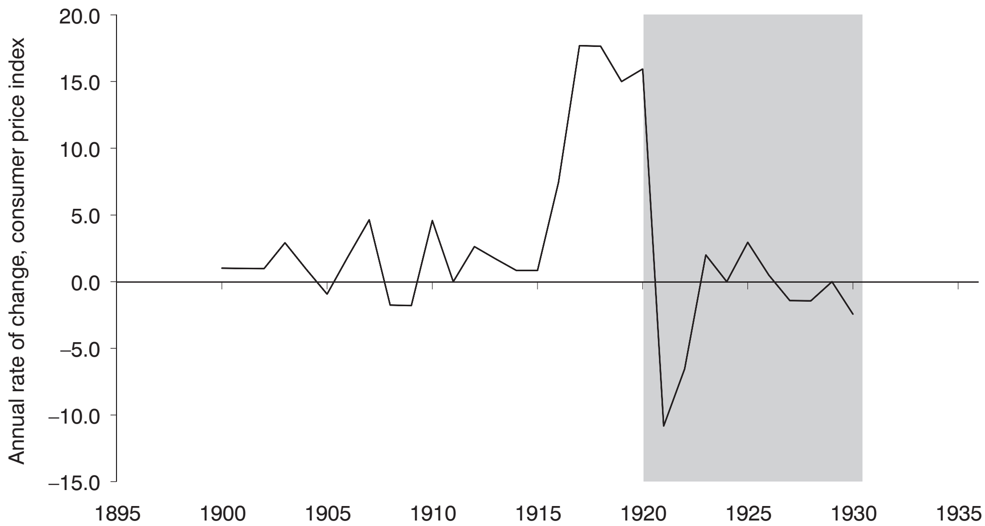

Figure 10.3 Consumer price inflation rate, 1900–1930

Source: Carter et al. 2006: Series Cc2

population declined in absolute and relative numbers over the decade, dropping from 32.0 million people (30 percent of the total population) in 1920 to 30.5 million (under 25 percent) by 1930 (Carter et al. 2006: Series Da1–Da2).

The shift from a rural to urban population mirrored the shift in what the U.S. economy was producing. Table 10.2 shows the top 5 manufacturing industries by value added for 1914 and 1929. During the 1920s, the machinery and iron and steel industries became much more prominent in American manufacturing, reflecting increased industrialization.

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Table 10.2 Top industries by value added in manufacturing (rank order)

1914	*1929*
Textiles	Machinery (excluding transportation)
Food products	Textiles
Chemicals	Food products
Machinery (excluding transportation)	Iron & steel
Forest products	Printing & publishing

Source: U.S. Bureau of Foreign and Domestic Commerce 1931: Table 813

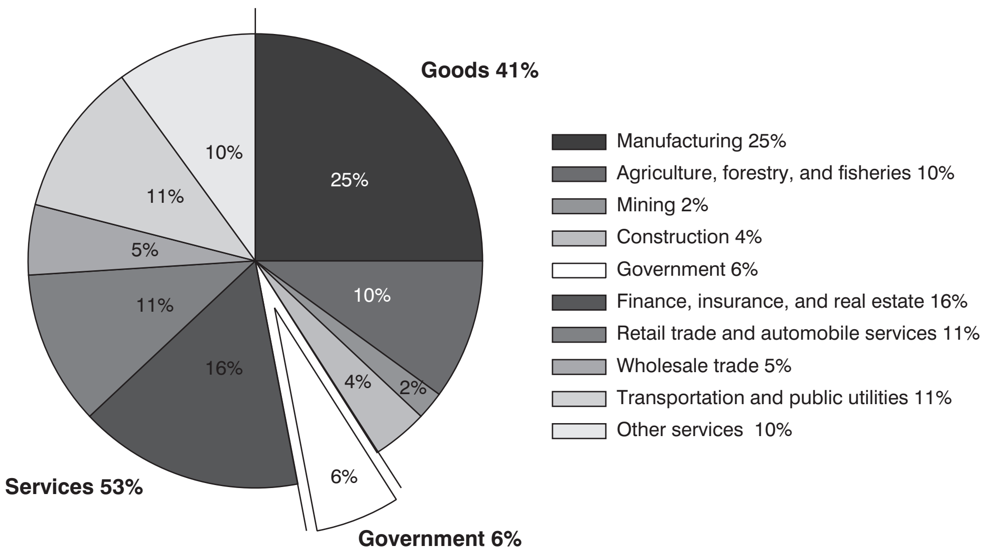

Figure 10.4 National income by industry group, 1929

Source: Carter et al. 2006: Series Ca35-52

At the end of the 1920s, manufacturing was the largest single sector of the economy (see Figure 10.4). The goods-producing sectors – manufacturing, agriculture, mining, construction – together accounted for 41 percent of national income. The service-producing sectors – finance, trade, transportation, and other services – were 53 percent and the government sector was just 6 percent of national income.

Average income per worker, measured as nominal GDP per labor force member, was just under $2,000 through most of the 1920s (Carter et al. 2006: Series Ca10 and Ba470). This average masks stark inequality. Average annual earnings for waged manufacturing workers were $1,200 to $1,400 (U.S. Bureau of Foreign and Domestic Commerce 1931: Table 365). A farmer in the 1920s had an average annual income between $800 and $900 (Carter et al. 2006: Series Da4 and Da1295). A salaried worker in manufacturing earned about $2,200 per year (Douglas 1930: 361). A loaf of bread cost 10 cents, a new Ford Model T cost under $300, a two-bedroom house typically cost around $3,000 (The People History n.d.).

Inequality of income was at its twentieth century peak in the 1920s. The Gini coefficient for income was 0.49 in 1929 (Carter et al. 2006: Series Be23); a value of 0 indicates perfect equality and a value of 1 indicates perfect inequality. The share of income going to the top 10

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percent of households increased sharply during the 1920s, rising from 38 percent in 1920 to over 46 percent in 1928 (Piketty and Saez 2003: Table II).

The social and political context

The United States entered World War I in 1917. Federal government spending surged from $0.7 billion in 1916 to $18.5 billion in 1919 (Carter et al. 2006: Series Ea585). Some of the increased spending was paid for with increased tax revenue, but the bulk of it was borrowed: outstanding federal government debt increased from $1 billion at the end of 1916 to over $25 billion at the end of 1919 (Carter et al. 2006: Series Ea650). The federal government sold over $21 billion of war bonds to families, banks, and financial institutions (Kimble 2006: 16).

The November 1918 end of World War I in Europe ushered in an era in America characterized by Warren Harding's 1920 Presidential campaign slogan: "Return to Normalcy." Americans seemed to long for what they perceived as the simpler prewar days. They expressed this longing in perhaps ironic ways: isolationism, anti-immigrant fervor, and racism.

One expression of isolationism was the U.S. Senate's refusal to join the League of Nations despite then-President Woodrow Wilson's urging. Blaming southern and eastern Europeans for America's political and economic woes, the period of isolationism was further manifested in the passage of two acts severely limiting immigration into the United States.

The Immigration Restriction Act of 1921 (also known as the Emergency Quota Act of 1921) established numerical quotas by country of origin: in any year, immigrants from any country could be no more than three percent of the population from that country who were resident in the United States at the time of the 1910 Census. The number of immigrants into the United States from Europe declined by half between 1921 and 1922 (Carter et al. 2006: Series Ad91).

A second restrictive act tightened immigration further. The Immigration Act of 1924 shifted the census benchmark to 1890 before the waves of migration from eastern and southern Europe, and limited the annual number of immigrants from any country to just two percent of the 1890 U.S. population from that country. The effect was dramatic. Immigration from Europe averaged over 800,000 persons annually between 1901 and 1914, but just over 150,000 per year between 1925 and 1930. From eastern Europe alone, the number of immigrants fell from an annual average of nearly 195,000 between 1901 and 1914 to just over 5,000 in the second half of the 1920s (Carter et al. 2006: Series Ad91, Ad114 and Ad115).

Race relations worsened in the 1920s. The Ku Klux Klan (KKK), a white supremacist organization that had its early origins in the years immediately following the Civil War, experienced a resurgence beginning in 1915. Its membership soared in the 1920s, peaking in 1924. Lynchings and other violent events occurred primarily but not exclusively in the South, against blacks, Jews, and immigrants (Newton 2007: 13–17).

Perhaps in reaction, a wave of south-to-north black migration occurred between 1910 and 1930. Although smaller than the post-World War II wave, the internal migration of black Americans to northern and midwestern states was unprecedented. In the 1920s, 750,000 blacks – about 8 percent of the southern black population – migrated from the South, splitting themselves about evenly between northern and midwestern states (Carter et al. 2006: Series Ac362–Ac413).

There is much more to the social and political history of the 1920s – prohibition, a rise of religious fundamentalism, the Jazz Age, and women's suffrage, to name a few. Here we have touched on just those aspects that are particularly relevant to our discussion of the economic history of the 1920s.

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The macroeconomy: the demand side of the economy

Total spending in the macroeconomy is the sum of consumers' purchases, businesses' purchases of machinery and equipment plus construction spending, government agencies' purchases of goods and services, and net exports. In the 1920s, consumer spending was about 75 percent of total expenditure. Investment spending was about 15 percent, government purchases about 8 percent, and net exports were about 1 percent of total spending (Swanson and Williamson 1972: Table 1). We consider each of these sectors in turn.

Consumer spending

The 1920s witnessed what has come to be known as "The Consumer Durables Revolution" (Olney 1991). Consumer durables – cars, appliances, furniture, and other long-lasting items – were increasingly purchased by American families. The decade gave birth to the trend of American consumerism, a societal focus on the acquisition of material items and imbuing those items with the ability to determine the "goodness" of life.

The new items that families purchased had wide-ranging impacts on their lives. Automobiles were owned by just 26 percent of American families in 1920 but ownership surged to over 60 percent by 1930 (Lebergott 1993: 130). Automobiles allowed families to live further away from work, changing residential housing patterns. Car camping became a popular form of recreation in the 1920s (Costa 1999).

Proliferation of electricity was swift. In 1920, 35 percent of families had electric lighting, 8 percent owned a washing machine, and 9 percent owned a vacuum cleaner. Just a decade later – and before the New Deal electrification programs – 68 percent had electric lighting, 24 percent owned a washer, and 30 percent owned an electric vacuum cleaner (Lebergott 1993: 113).

Ironically, the time-saving nature of electrical appliances did not reduce the time that women spent working in the home. New theories of disease, of the science of sanitation, and of home economics were shared through popular literature and advertising. Together with a decline in the use of domestic servants, these new theories combined to create "more work for mother" in the homes of the 1920s (Cowan 1983; Mokyr 2000).

Why were families spending more on durable goods in the 1920s? Certainly increased income spurred families to spend more, as did decreases in the relative price of consumer durables. But the shift in demand was even greater due to the development of modern advertising and increased availability of consumer credit.

Advertising surged in the 1920s. During World War I, government-funded advertising campaigns had successfully encouraged purchase of war bonds (Kimble 2006: 15). Emboldened by this success, manufacturers turned increasingly to advertising. Money spent on advertising increased fourfold between 1915 and the 1920s (Olney 1991: 138). The number of magazine pages devoted to advertising and the size of the typical advertisement both increased (Olney 1991: Figures 5.1 and 5.3). Advertising copy began to focus on the consumers rather than on the products themselves, creating advertisements that emphasized "atmosphere" rather than the "reasons-why" someone should purchase a good (Marchand 1986: 206–34; Lears 1983: 157–59).

Increased credit availability also contributed to the boom in durable goods purchases. Consumer non-mortgage debt-to-income ratios more than doubled between 1920 and 1929 (Olney 1991: Table 4.1). Installment credit became in the 1920s the standard way to purchase consumer durable goods. An installment buyer provided a down payment and signed an agreement to make regular, monthly payments in exchange for immediate possession of the

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good. Down payments were substantial – as much as 30 percent for autos – and contract terms were relatively short, usually 12 to 24 months.

Three parties were involved in the installment sale: the buyer, the seller, and the sales finance company. The installment sale benefited all three parties. For the buyer, the entire purchase price need not be saved before the good was brought home. For the seller, the installment contract was immediately sold to a sales finance company, providing the seller with cash flow that enabled replenishment of inventory. For the sales finance company, installment sales contracts could be bundled and securitized allowing the sales finance company to obtain outside financing that funded yet more installment sales (Olney 1989).

The effective interest rate paid by many consumers on installment contracts was far in excess of any usury limit. But usury laws did not apply: the contract was not a loan per se but was a purchase-over-time. Consumers were largely unaware of the effective interest rate. Not only was the stated interest rate applied to the initial rather than the outstanding balance, but as much if not more of the financing costs were disguised as miscellaneous fees.

In contrast with informal credit from a merchant, an installment contract is secured by physical collateral: the good being purchased. Contracts allowed for repossession of the good if the contract was breached. So despite tense race relations in the 1920s, black Americans were able to obtain installment credit commensurate with their wealth and income (Olney 1998).

Retailing more generally was transformed in the 1920s. Chain stores such as the A&P increasingly eased out independent stores; indeed the "chain store problem" was a focus in 1929 as pundits worried – unnecessarily as it turned out – that chain stores would spell the death of the independent merchant (Lebhar 1932: xiii). The A&P had 4,224 stores and $195 million in sales in 1919. It reached its peak number of stores in 1930: 15,737 stores and $1,066 million in sales (Lebhar 1963: Table 7).

With the decline of independent grocers came as well a decline in personal relationships between grocer and customer. Those personal relationships had been key to an informal credit system that allowed many families to pay for their groceries some time after purchase. The new chain stores had lower prices than many independents but they were called "cash-and-carry" for a reason: their cash-only policies and lack of delivery distinguished them from the neighborhood grocer (Lebhar 1963: 31).

Chain stores were not limited to groceries. The major department, drug, and five-and-dime chain stores also witnessed spectacular growth in the 1920s. J.C. Penney had 197 stores and $29 million in sales in 1919, and 1,395 stores and $210 million in sales in 1929. Walgreen's had 23 stores and $2 million in sales in 1920, and 397 stores and $47 million in sales in 1929. Woolworth's grew from 1,081 stores and $119 million in sales in 1919 to 1,825 stores and $303 million in sales in 1929 (Lebhar 1963: Tables 5, 6, and 8).

Investment spending

Construction of structures and businesses purchases of machinery and equipment constitute what economists call "investment spending." Construction spending in the 1920s was about two-thirds of total investment. Purchases of machinery and equipment constituted the other third (Kuznets 1961: Table R-4).

Housing construction boomed in the first half of the 1920s. Housing starts peaked at 937,000 per year in 1925, having risen nearly fourfold since 1920 (Carter et al. 2006: Series Dc510). Why the boom? Fueled by earlier waves of immigration, household formation rates increased in the 1920s, increasing demand for houses. Speculation was common. Financing

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was relatively easy (Wheelock 2008: 135; White 2009). Banks typically wrote three-year mortgages with a balloon: the borrower's monthly payments would cover interest only, or interest plus a small amount of principal, and then the bulk of the principal – the balloon payment – would be due at the end of three years. When the balloon came due, banks refinanced the remaining loan principal. Savings and loans wrote longer-term mortgages, at an average of 11 years in the 1920s (Carter et al. 2006: Series Dc1198-Dc1200).

The boom ended after 1925. Housing starts fell by nearly 50 percent by 1929 to 509,000. Restrictive immigration rules enacted in 1921 and 1924 lowered the demand for houses. And a slowing of the rate of price increase made it more difficult for homeowners to refinance balloon payments, increasing defaults. Even before the Great Depression's start, the rate of foreclosure on houses doubled between 1926 and 1929 (Carter et al. 2006: Series Dc1257).

Capacity utilization fell at the end of the 1920s from its peak of over 90 percent in 1923 to 1926 to about 83 percent in 1929 (Baran and Sweezy 1966: 237). As factories were using less of their capacity, they added to their stock of equipment more slowly. Investment in equipment, which increased about 12 percent annually from 1922 to 1926, rose by only 4.5 percent per year to the end of the decade (Kuznets 1961: Table R-5).

Government

The federal government of the 1920s had few economic responsibilities. Social safety net programs were the province of state and local governments, not the federal government. The federal government provided $10 million in direct welfare aid in 1927 and another $1 million in transfers to state and local governments. By contrast $40 million in direct aid was provided by state governments in 1927 and $111 million was provided by local government agencies (Carter et al. 2006: Series Ea182, Ea224, Ea408, and Ea542).

The federal government took in more revenue than it spent throughout the 1920s and retired one-third of the bonds it had issued to finance World War I. The federal income tax had been established by the Sixteenth Amendment to the Constitution in 1913. In the late 1920s, corporate income taxes accounted for over 30 percent and individual income taxes accounted for nearly 25 percent of federal government revenue (Carter et al. 2006: Series Ea586-Ea588, Ea595, Ea596).

Individual income tax rates were reduced a number of times over the decade. Those earning below the median income level typically paid no income taxes. Taxpayers with taxable income of $20,000 – about ten times the median income – saw their average tax rate fall from 10 to 3 percent between 1920 and 1925. Those earning more than $1,000,000 annually paid an average tax rate of 66 percent in 1920 and only 24 percent just five years later (Carter et al. 2006: Series Ea761, Ea768, and Ea772).

Net exports

America's primary trading partners in the 1920s were the Americas and Europe. With World War I, U.S. exports and imports had both surged, rising in nominal terms from 15 to 20 percent annually between 1913 and 1920. Imports from Europe were down, but imports from the Americas and Asia rose. The U.S. trade surplus spiked as well (Carter et al. 2006: Series Ee 416–Ee417). The wartime surge in trade followed a dramatic drop in tariff rates in 1913 when Congress cut tariffs and introduced the federal income tax.

Once the war ended, exports declined. Agriculture was particularly hard hit. In response, Congress implemented the Emergency Tariff Act of 1921 and the Fordney–McCumber

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Tariff Act of 1922. Average tariff rates increased between 1920 and 1922 from 16 percent to 38 percent of dutiable imports (Carter et al. 2006: Series Ee430). Nevertheless American exports did not return to their World War I heights at any point in the 1920s.

Tariff rates were a primary tool for manipulating trade because exchange rates were fixed by the international gold standard. For instance, an ounce of gold was worth $20.67 in the United States and £3 17s 10½d in England, making the exchange rate $4.867 per pound. When there was a trade imbalance, it was settled through international exchange of gold. Short of a devaluation of the gold value of its currency, a country could not depreciate its currency to increase its exports.

The supply side of the economy

Any economy is characterized not just by the demand factors discussed above, but also by what is termed the "supply side" of the economy. Here we look at the structure of the economy and at institutions that contribute to – or detract from – economic activity.

Agriculture

The agricultural sector, long a strength of the United States economy, suffered in the 1920s. During and immediately after World War I, farmers took on unprecedented levels of debt. Prices of agricultural goods had risen sharply during the war, making the acquisition of debt appear affordable.

Agriculture's woes became apparent as postwar crop prices fell. A bushel of corn sold for $1.51 in 1919, but averaged 77¢ between 1920 and 1929. A pound of cotton sold for 35.3¢ in 1919 but only 19.5¢ on average in the 1920s. A bushel of wheat which sold for $2.16 in 1919 brought in only $1.18 on average in the 1920s (Carter et al. 2006: Series Da697, Da757, and Da719).

Many farmers found themselves unable to pay their debts and banks increasingly foreclosed on their property. Farm foreclosure rates, which averaged 3.2 per 1,000 farms in the decades before World War I, averaged 17 per 1,000 from 1926 to 1929 (Alston 1983: 888). Foreclosure rates were highest in states with high levels of farm mortgage debt, relatively low farm earnings, and "*ex post* excessive expansion during the World War I agricultural boom" (Alston 1983: 903).

Financial institutions

Bank failures are usually associated with the 1930s. But throughout the 1920s, banks failed. From a high of over 30,000 banks in 1921, the number of banks declined to 25,000 by 1929 (and fell much further, to just over 14,000 by 1933). Nationally-chartered banks shied away from real estate loans at this time, leaving that market to state-chartered banks. And it was primarily state-chartered banks that failed. Bank failures were more frequent in rural areas where hard-hit farmers were unable to repay debt, and in insured banks which took on greater risk than did uninsured banks (Wheelock 1992, Hooks and Robinson 2002).

Particularly in the 1920s, commercial banks, trust companies, and investment companies each reached into the others' spheres. Legislative and economic changes were responsible. With the Federal Reserve Act of 1913, national commercial banks were allowed to move into trust operations. And then in the 1920s, traditional loan business stagnated in commercial banks, encouraging a move into more lucrative activities. Success in marketing war bonds for

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the U.S. government laid the groundwork for commercial banks' movement into marketing securities (White 1984, Mahoney 2001). National banks that engaged in the securities business increased from 72 in 1922 to 235 in 1929 (Peach 1941: 83). The number of investment banks increased from 485 in 1920 to 690 in 1928 (Mahoney 2001: 10).

The Federal Reserve

The Federal Reserve Act of 1913 had created the nation's central bank. The Federal Reserve System of the 1920s – the Fed – was a collection of twelve regional Federal Reserve Banks from San Francisco to Boston and a weak Federal Reserve Board in Washington, DC. The Fed's central policy-making body, the Federal Open Market Committee (FOMC), did not exist until the 1930s. As a result there was not a uniform monetary policy; each bank was responsible for its own policy (Wheelock 1991: 72–74, Richardson and Troost 2009). To the extent there was any system-wide leadership, that role in the 1920s fell to the Federal Reserve Bank of New York, led by Benjamin Strong until his death in 1928.

Monetary policy in the 1920s was centered on two features: the real bills doctrine and the gold standard. The real bills doctrine stipulated that banks could present for re-discount at the Fed only "real bills" – "notes, drafts, and bills of exchange arising out of actual commercial transactions" (Friedman and Schwartz 1963: 191). The doctrine was designed to limit speculative expansion of the money supply by linking increases in the monetary base to "real" activity as opposed to financial or speculative activity.

Under the gold standard, money was backed by gold: you could trade money – paper currency or bank deposits – for gold at a government-set price. The convertibility of money into gold put a limit on the money supply. When a country's gold stock declined, its money supply would also need to decline. When the gold stock rose, the money supply would also rise.

The interest rate charged by the Federal Reserve banks – the "discount rate" – could be manipulated to alter gold flows between other countries and the United States. An increase of the discount rate decreased gold outflows and spurred gold inflows. A decrease of the discount rate had the opposite effect: gold outflows increased and gold inflows decreased.

The gold standard was one reason the Fed postponed raising interest rates in the 1920s. The Fed recognized the stock market bubble but international concerns guided its interest rate policy. Low interest rates in the mid-1920s encouraged gold outflows and American investment abroad, part of America's assistance to the devastated post-war European economy. The Fed began tightening early in 1927 but reversed course in July 1927 and lowered interest rates to support the British pound sterling, an act later criticized as fueling the already raging stock market boom. Subsequently, Benjamin Strong argued for moving away from international cooperation which supported the gold standard, allowing the United States to base its interest rate policy on domestic concerns. The Fed then implemented a series of discount rate increases in 1928 and 1929 in an attempt to cool stock market speculation, doing so in the face of a weak economy (Eichengreen 1992: 13–14, 212–21, Wheelock 1991: 76–9).

By the time the Fed began raising interest rates, the bull market was well underway. Stock prices had risen 150 percent between 1921 and 1928 (Carter et al. 2006: Series Cj804). The number of shares traded on the New York Stock Exchange soared from 173 million in 1921 to 920 million in 1928, an increase of over 400 percent (Carter et al. 2006: Series Cj857).

Estimates of the extent of stock ownership in the 1920s vary from a range of 3 percent before World War I to 25 percent in 1929 (Ott 2009: 45) to point estimates such as 8 percent

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of the American population (Green 1971: 198). That small share of the public enjoyed tremendous gains. The market's meteoric rise had pushed stock prices in the Dow Jones Industrial Average up over 500 percent in eight years, from a low of 62.57 in mid-August 1921 to a high of 381.17 in early September 1929.

Business and labor

A wave of mergers – the "greatest revival of merger activity since the turn of the [twentieth] century" (Nelson 1959: 122) – occurred in the 1920s, aided in part by lax enforcement of antitrust laws (Borg et al. 1989: 130). Horizontal integration dominated as mergers were seen especially in primary metals, petroleum products, food products, chemicals, and transportation equipment (Eis 1969). From 1905 to 1919, there had been an average of just over 100 mergers and acquisitions annually, reflecting capital of $270 million. But from 1925 to 1929, mergers averaged nearly one per day with total capital of over $1,200 million annually (Carter et al. 2006: Series Ch416–Ch417). The mergers were not particularly profitable; shareholders typically suffered losses in the years immediately following a merger (Borg et al. 1989: 130).

Alongside the soaring demand for ownership shares was a desire to separate ownership from management. As a result, more and more businesses embraced the corporate form of governance (Wells 2010). The number of incorporations per year nearly doubled between the pre-war decade and the late 1920s (Carter et al. 2006: Series Ch293-Ch318).

Countering a potential backlash against big business may have been one reason for the 1920s surge in "welfare capitalism": provision of a variety of social services by an employer to its workers (Brandes 1976, Brody 1980: 49). Company picnics, organized sporting events, lunch rooms, encouragement to purchase property, health care … the list of services that employers provided in the 1920s went on and on. Providing services to employees was not simply a matter of doing the right thing: employers argued that protecting the wellbeing of their employees increased labor productivity (Fones-Wolf 1986: 234, Brody 1980: 57).

Welfare capitalism was also a means of lowering the incentive to unionize, substituting employer-provided benefits for those provided by the union (Brody 1980: 23, 57–59, Edwards 1979: 91–97). Combined with employer hostility toward unions and the postwar Red Scare, the 1920s witnessed a sharp decline in labor's membership and strength. Labor union membership doubled in the late 1910s, peaking in 1920 at about 5 million members. But by the mid-1920s, membership had declined to about 3.5 million (Carter et al. 2006: Series Ba4783, 4785, 4790). Work stoppages were common, averaging over 3,500 annually between 1916 and 1920 but only 600 per year by 1928 (Carter et al. 2006: Series Ba4954).

Education

The "high school movement" took place in the 1920s. No longer was an eighth-grade education the norm. Increasingly, the end degree for American youth was a high school diploma. In 1910, just 9 percent of 18-year-olds graduated from high school. By 1930, 30 percent did so. The rise of high schools was not uniform across the United States. High school graduation rates were highest in the Pacific and prairie states, and lowest in the industrial north and the South (Goldin and Katz 2008: 194–207).

Teenagers were more likely to stay in school if work opportunities were limited. In states with a strong manufacturing base, "good" jobs were available to men without a high school diploma, and high school graduation rates were lower. Graduation rates were also lower

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in states with weak support for public colleges and universities, lower income and wealth, a more diverse population, and a lower share of the population over 65 (Goldin and Katz 2008: 217).

Productivity

All of these forces combined in the 1920s to generate tremendous gains in productivity. Total factor productivity (TFP) grew faster in the 1920s than in any time period after World War II "driven by floor space savings and improved materials flow associated with newly laid out factories" (Field 2006: 227). Why was the factory layout new? Electricity. The move to electrical power allowed factories to move to a more efficient single-story layout. Moreover, electricity was so cheap by comparison with previous sources of power that manufacturers changed to labor-saving and capital-using production techniques, further increasing productivity (Woolf 1984: 185). The gains in productivity allowed for increased wages: the roar of the 1920s.

Conclusion

Few decades have attracted as much attention as the 1920s. It is a decade of conflicting messages. For economists: a booming economy obscured the seeds of the Great Depression that were sown in this decade. For social historians: consumerism, materialism, modernism … amid isolationism, racism, and xenophobia. For those who lived through it: the decade was a time of rapid social and economic change.

Note

1 Business cycle dates are determined by the Business Cycle Dating Committee of the National Bureau of Economic Research. See "U.S. Business Cycle Expansions and Contractions" (http://www.nber.org/cycles/cyclesmain.html, accessed November 1, 2011).

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