Data Appendix

The data set used in this paper is an updated version of that used in Stock and Watson (2008) and the reader is referred to that paper for more details about the data. The raw data runs from 1959Q1 through 2008Q4. Variables which are originally at a monthly frequency are transformed to a quarterly by averaging over the three months in a quarter. Except for financial variables, variables are seasonally adjusted. All variables are transformed to stationarity as in Stock and Watson (2008). The following table provides a brief description of each variable along with a transformation code. This code is: 1 = no transformation, 2 = first difference, 3 = second difference, $4 = \log$, 5 = first difference of logged variables, 6 = second difference of logged variables.

Table B1: Three Main Variables used in All VARs				
Short Name	Short Name Mnemonic Code Description			
RGDP	GDP251	5	Real GDP, Quantity Index (2000=100)	
CPI	CPIAUCSL	6	CPI All Items	
FFR	FYFF	2	Interest rate: Federal funds (effective) (% per annum)	

Table B2: Remaining Variables used in VARs with 20 or more Variables				
Short Name	Mnemonic	Code	Description	
Com: spot price (real)	PSCCOMR	5	Real spot market price index: all commodities	
Reserves nonbor	FMRNBA	3	Depository inst reserves: nonborrowed (mil\$)	
Reserves tot	FMRRA	6	Depository inst reserves: total (mil\$)	
M2	FM2	6	Money stock: M2 (bil\$)	
Cons	GDP252	5	Real Personal Cons. Exp., Quantity Index	
IP: total	IPS10	5	Industrial production index: total	
Capacity Util	UTL11	1	Capacity utilization: manufacturing (SIC)	
U: all	LHUR	2	Unemp. rate: All workers, 16 and over (%)	
HStarts: Total	HSFR	4	Housing starts: Total (thousands)	
PPI: fin gds	PWFSA	6	Producer price index: finished goods	
PCED	GDP273	6	Personal Consumption Exp.: price index	
Real AHE: goods	CES275R	5	Real avg hrly earnings, non-farm prod. workers	
M1	FM1	6	Money stock: M1 (bil\$)	
S&P: indust	FSPIN	5	S&P's common stock price index: industrials	
10 yr T-bond	FYGT10	2	Interest rate: US treasury const. mat., 10-yr	
Ex rate: avg	EXRUS	5	US effective exchange rate: index number	
Emp: total	CES002	5	Employees, nonfarm: total private	

Table B3: Remaining Variables used in VARs with 40 or more Variables				
Short Name	Mnemonic	Code	Description	
SPREAD	SFYGT10	1	Spread btwn 10 year and 3 month T-bill rates	
Consumer expect	HHSNTN	2	Univ of Mich index of consumer expectations	
PMI	PMI	1	Purchasing managers' index	
NAPM vendor del	PMDEL	1	NAPM vendor deliveries index (%)	
NAPM com price	PMCP	1	NAPM commodity price index (%)	
GPDInv	GDP256	5	Real gross private domestic investment	
Labor Prod	LBOUT	5	Output per hr: all persons, business sec	
NAPM Invent	PMNV	1	NAPM inventories index (%)	
Exports	GDP263	5	Real exports	
Imports	GDP264	5	Real imports	
Gov	GDP265	5	Real govt cons expenditures & gross investment	
Emp. Hours	LBMNU	5	Hrs of all persons: nonfarm business sector	
NAPM new ordrs	PMNO	1	NAPM new orders index (%)	
Cons credit	CCINRV	6	Consumer credit outstanding: nonrevolving	
BUSLOANS	BUSLOANS	6	Comm. and industrial loans at all comm. banks	
NAPM prodn	PMP	1	NAPM production index (%)	
PCED-SERV-HOUS	GDP276_1	6	Housing price index	
SalestoDomPurc	GDP270	5	Real final sales to domestic purchasers	
Cons-Dur	GDP253	5	Real personal cons expenditures: Durable goods	
Help wanted indx	LHEL	2	Index of help-wanted ads in newspapers	

Table B4: Remaining Variables used only in VARs with 168 Variables				
Short Name	Mnemonic	Code	Description	
Cons-NonDur	GDP254	5	Real personal consumption exp: nondur goods	
Cons-Serv	GDP255	5	Real personal consumption exp: services	
FixedInv	GDP257	5	Real gross priv domestic inv: fixed inv	
NonResInv	GDP258	5	Real gross priv domestic inv: nonresidential	
NonResInv-Struct	GDP259	5	Real gross priv domestic inv: nonres structures	
NonResInv-Bequip	GDP260	5	Real gross priv domestic inv: nonres equip	
Res.Inv	GDP261	5	Real gross priv domestic inv: residential	
Gov Fed	GDP266	5	Real gov cons exp & gross inv: federal	
Gov State/Loc	GDP267	5	Real gov cons exp & gross inv: state and local	
FinalSales	GDP268	5	Real final sales of domestic product	
DomPurchases	GDP269	5	Real gross domestic purchases	
RGNP	GDP271	5	Real gross national product	
PGDP	GDP272	6	Gross domestic product, price index	
PCED-Dur	GDP274	6	Personal cons exp: durable goods, price index	
PCED-Ndur	GDP275	6	Personal cons exp: nondur goods, price index	
PCED-Serv	GDP276	6	Personal cons exp: services, price index	
PGPDI	GDP277	6	Gross private domestic investment, price index	
PFixedInv	GDP278	6	Gross priv dom inv: fixed inv, price index	
PNonResInv	GDP279	6	Gross priv dom inv: nonresidential, price index	
PNonResStruc	GDP280	6	Gross priv dom inv: nonres structures, price index	
PNonResEqu	GDP281	6	Gross priv dom inv: nonres equipment, price index	
PResInv	GDP282	6	Gross priv dom inv: residential, price index	
Pexp	GDP284	6	Exports, price index	
Pimp	GDP285	6	Imports, price index	
Pgov	GDP286	6	Government cons exp & gross inv, price index	
Pgov_Fed	GDP287	6	Gov cons exp & gross inv: federal, price index	
Pgov_stat/loc	GDP288	6	Gov cons exp & gross inv: state&local, price index	
P_FinSale	GDP289	6	Final sales of domestic product, price index	

Table B4 (continued): Remaining Variables used only in VARs with 168 Variables				
Short Name	Mnemonic	Code	Description	
P_Purch	GDP290	6	Gross domestic purchases, price index	
P_SalesPurc	GDP291	6	Final sales to domestic purchasers, price index	
PGNP	GDP292	6	Gross national product, price index	
Real Comp/Hour	LBPUR7	5	Real comp per hour: employees, nonfarm business	
Unit Labor Cost	LBLCPU	5	Unit labor cost: nonfarm business sector	
PCED-DUR-MOTORVEH	GDP274_1	6	Motor vehicles and parts, price index	
PCED-DUR-HHEQUIP	GDP274_2	6	Furniture and household equipment, price index	
PCED-DUR-OTH	GDP274_3	6	Other durables, price index	
PCED-NDUR-FOOD	GDP275_1	6	Food, price index	
PCED-NDUR-CLTH	GDP275_2	6	Clothing and shoes, price index	
PCED-NDUR-ENERGY	GDP275_3	6	Gas, fuel oil, and other energy goods, price index	
PCED-NDUR-OTH	GDP275_4	6	Other nondurables, price index	
PCED-SERV-HOUSOP	GDP276_2	6	Household operation, price index	
PCED-SERV-H0-ELGAS	GDP276_3	6	Electricity and gas, price index	
PCED-SERV-HO-OTH	GDP276_4	6	Other household operation, price index	
PCED-SERV-TRAN	GDP276_5	6	Transportation, price index	
PCED-SERV-MED	GDP276_6	6	Medical care, price index	
PCED-SERV-REC	GDP276_7	6	Recreation, price index	
PCED-SERV-OTH	GDP276_8	6	Other services, price index	
PEXP-GOODS	GDP284_1	6	Exports of goods, price index	
PEXP-SERV	GDP284_2	6	Exports of services, price index	
PIMP-GOODS	GDP285_1	6	Imports of goods, price index	
PIMP-SERV	GDP285_2	6	Imports of services, price index	
IP: products	IPS11	5	Industrial production index: products total	
IP: final prod	IPS299	5	Industrial production index: final products	
IP: cons gds	IPS12	5	Industrial production index: consumer goods	
IP: cons dble	IPS13	5	Industrial production index: consumer durable	
IP:cons nondble	IPS18	5	Industrial production index: consumer nondur	

Table B4 (continued): Remaining Variables used only in VARs with 168 Variables				
Short Name	Mnemonic	Code	Description	
IP: bus eqpt	IPS25	5	Industrial production index: business equipment	
IP: matls	IPS32	5	Industrial production index: materials	
IP: dble mats	IPS34	5	Industrial production index: dur goods materials	
IP:nondble mats	IPS38	5	Industrial production index: nondur goods materials	
IP: mfg	IPS43	5	Industrial production index: manufacturing	
IP: res util	IPS307	5	Industrial production index: residential utilities	
IP: fuels	IPS306	5	Industrial production index: fuels	
AHE: goods	CES275	6	Avg hrly earnings, prod wrkrs, nonfarm-goods prod	
AHE: const	CES277	6	Avg hrly earnings, prod wrkrs, nonfarm-construction	
AHE: mfg	CES278	6	Avg hrly earnings, prod wrkrs, nonfarm-manufacturing	
Real AHE: const	CES277R	5	Real avg hrly earnings, prod wrkrs, nonfarm-const	
Real AHE: mfg	CES278R	5	Real avg hrly earnings, prod wrkrs, nonfarm-manuf	
Emp: gds prod	CES003	5	Employees, nonfarm: goods-producing	
Emp: mining	CES006	5	Employees, nonfarm: mining	
Emp: const	CES011	5	Employees, nonfarm: construction	
Emp: mfg	CES015	5	Employees, nonfarm: manufacturing	
Emp: dble gds	CES017	5	Employees, nonfarm: durable goods	
Emp: nondbles	CES033	5	Employees, nonfarm: nondurable goods	
Emp: services	CES046	5	Employees, nonfarm: service providing	
Emp: TTU	CES048	5	Employees, nonfarm: trade, transport and utilities	
Emp: wholesale	CES049	5	Employees, nonfarm: wholesale trade	
Emp: retail	CES053	5	Employees, nonfarm: retail trade	
Emp: FIRE	CES088	5	Employees, nonfarm: financial activities	
Emp: Govt	CES140	5	Employees, nonfarm: government	
Help wanted/emp	LHELX	2	Ratio: Help-wanted ads to number unemployed	
Emp CPS total	LHEM	5	Civilian labor force employed, total	
Emp CPS nonag	LHHAG	5	Civilian labor force employed, nonagric ind.	
U: mean duration	LHU680	2	Average unemployment duration (weeks)	

Table B4 (continued): Remaining Variables used only in VARs with 168 Variables				
Short Name	Mnemonic	Code	Description	
U < 5 wks	LHU5	5	Unemp by duration, persons unemp less than 5 wks	
U 5-14 wks	LHU14	5	Unemp by duration, persons unemp btwn 5 and 14 wks	
U 15+ wks	LHU15	5	Unemp by duration, persons unemp 15 wks or more	
U 15-26 wks	LHU26	5	Unemp by duration, persons unemp btwn 15 and 26 wks	
U 27+ wks	LHU27	5	Unemp by duration, persons unemp 27 wks or more	
Avg hrs	CES151	1	Avg wkly hours, prod wrks, nonfarm goods-producing	
Overtime: mfg	CES155	2	Avg weekly overtime hrs, prod wrkrs, nonfarm, manuf	
HAuth	HSBR	4	Housing authorized: total new private housing units	
HStarts: NE	HSNE	4	Housing starts: Northeast	
HStarts: MW	HSMW	4	Housing starts: Midwest	
HStarts: South	HSSOU	4	Housing starts: South	
HStarts: West	HSWST	4	Housing starts: West	
3 mo T-bill	FYGM3	2	Interest rate: US T-bills, sec mkt, 3-month	
6 mo T-bill	FYGM6	2	Interest rate: US T-bills, sec mkt, 6-month	
1 yr T-bond	FYGT1	2	Interest rate: US T-bills const maturities 1-yr	
5 yr T-bond	FYGT5	2	Interest rate: US T-bills const maturities 5-yr	
10 yr T-bond	FYGT10	2	Interest rate: US T-bills const maturities 10-yr	
Aaabond	FYAAAC	2	Bond yield: Moody's AAA corporate	
Baabond	FYBAAC	2	Bond yield: Moody's BAA corporate	
Spread6m3m	SFYGM6	1	Spread: 6 month minus 3 month T-bill	
Spread1y3m	SYGT1	1	Spread: 1 year minus 3 month T-bill	
Spreadaaa10y	SFYAAAC	1	Spread: AAA corporate minus 10 yr T-bill	
Spreadbaa10y	SFYBAAC	1	Spread: BAA corporate minus 10 yr T-bill	
MZM	MZMSL	6	MZM FRB St. Louis	
MB	FMFBA	6	Monetary base, adj for res requirement changes	
CPI-Core	CPILFESL	6	CPI less food and energy	
PCE-Core	PCEPILFE	6	PCE price index less food and energy	

Table B4 (continued): Remaining Variables used only in VARs with 168 Variables				
Short Name	Mnemonic	Code	Description	
PPI: cons gds	PWFCSA	6	Producer price index: finished consumer goods	
PPI: int mat'ls	PWIMSA	6	Producer price index: interm mat supplies & componer	
PPI: crude	PWCMSA	6	Producer price index: crude materials	
Real PPI: crude mat'ls	PWCMSAR	5	Real prod price index: crude mat (PWSMSA/PCEPIL	
Commod: spot price	PSCCOM	6	Spot market price index: all commodities	
PPI CrudeOil	PW561	6	Producer price index: crude petroleum	
OilPrice (Real)	PW561R	5	PPI crude (relative to core PCE) (PW561/PCEPILFE	
Ex rate: Switz	EXRSW	5	Swiss francs per US\$	
Ex rate: Japan	EXRJAN	5	Japanese yen per US\$	
Ex rate: UK	EXRUK	5	Cents per pound	
Ex rate: Can	EXRCAN	5	Canadian \$ per US\$	
S&P 500	FSPCOM	5	S&P's common stock price index: composite	
S&P div yield	FSDXP	2	S&P's composite common stock: dividend yield	
S&P PE ratio	FSPXE	2	S&P's composite common stock: price-earnings ratio	
DJIA	FSDJ	5	Dow Jones industrial average common stock price	
Orders (ConsGoods)	MOCMQ	5	New orders (net): consumer goods and materials	
Orders (NDCapGoods)	MSONDQ	5	New orders: nondefense capital goods	